LECTURE SCHEDULE 1

Introduction to Computers, Anatomy of Computers, Input and Output Devices

In human affairs we have reached a point where the problems that we must solve are no longer solvable without the aid of computers. I fear not computers but the lack of them.

ISAAC ASIMOV

Introduction to Computers

A computer can be defined as an electronic device capable of processing the data and producing the information.

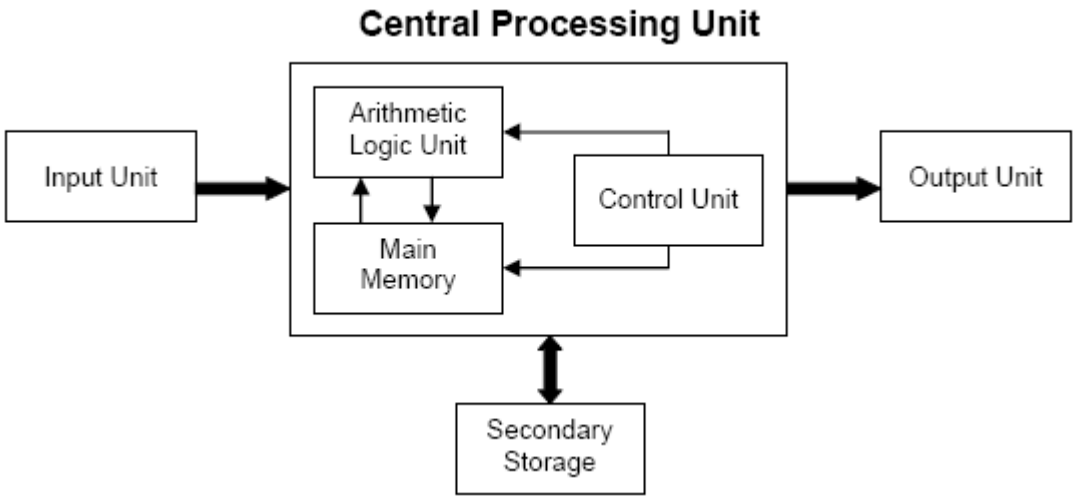
The computer system essentially comprises three important parts –

1. input device,
2. central processing unit (CPU) and
3. output device.

The CPU itself is made of three components namely,

1. arithmetic logic unit (ALU),
2. memory unit, and
3. control unit.

Components of a computer system



On broad basis, a computer performs the following tasks:

Input: Sending the data and command to the computer is known as input.

Processing: Work done by the computer with the help of processing hardware and software to produce results is known as processing.

Output: The result displayed by the computer is known as output.

Storage: A place to save result inside or outside the computer is known as storage.

Anatomy of Computers

The following are the parts of a desktop computer.

Power Supply

When you plug your power cable into your computer, you are actually plugging into a socket in the power supply unit that has been fitted inside your case. This component is responsible for converting the 240 volt AC mains power to low voltage DC power needed by computer components. The power supply generates +3.3V, +5V, +12V, -5V. These voltages must be constant, right up to the maximum current your system will draw under load.

Monitor- Commonly known as a "screen," the monitor gives you a visual display of what your computer is up to. Monitor displays are divided into pixels. The higher the pixel count, the higher the "resolution." Resolutions are measured in Rows x Columns. Common resolution settings are 640 x 480, 800 x 600, 1024 x 768, 1280 x 1024, etc.

Mother board

The mainboard I which is sometimes called a motherboard. This is usually the largest circuit-board in the computer, and every other component in the computer connects to it.

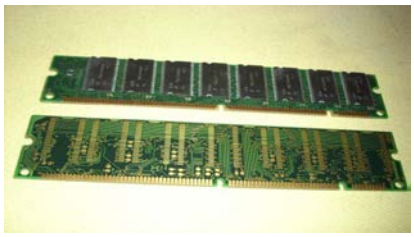
Central Processing Unit

An Intel CPU

The Central Processing Unit (CPU)is usually called either a CPU or just a Processor. The CPU is the brain of the system. It executes all the program code from the operating system and the applications the user runs and processing of data. It sends CPU commands to direct the actions of all the other components in the computer.

Main Memory or Random Access Memory (RAM)

RAM Chips



RAM, which stands for Random Access Memory, is the short term memory that the computer uses to keep track of what it's doing. If the computer loses power, anything stored in RAM is lost.

Storage Device

Computer storage device is any type of hardware that stores data. The most common type of storage device, which nearly all computers have, is a hard drive.

A Hard Drive

INPUT AND OUTPUT DEVICES

Input Devices

Input device is a hardware device that sends information to the computer.

Mouse

Mouse is a pointer device.The mouse allows an individual to control a pointer in a graphical user interface (GUI). Utilizing a mouse a user has the ability to perform various functions such as opening a program or file and does not require the user to memorize commands.

Digital camera

A type of camera that stores the pictures or video it takes in electronic format instead of to film.

Web Cam

A camera connected to a computer that allows anyone connected to the Internet to view still pictures or motion video of a user.

Joystick

A computer joystick allows an individual to easily navigate an object in a game such as navigating a plane in a flight simulator.

Keyboard

One of the main input devices used on a computer, a computer keyboard looks very similar to the keyboards of electric typewriters, with some additional keys.

Microphone

Sometimes abbreviated as mic, a microphone is a hardware peripheral that allows computer users to input audio into their computers.

Scanner

Input device that allows a user to take an image and/or text and convert it into a digital file, allowing the computer to read and/or display the scanned object

Output Device

Any peripheral that receives and/or displays output from a computer. Below are some examples of different types of output devices commonly found on a computer.

Monitor

A monitor is a video display screen. Monitor is also called as Visual Display Unit (VDU) or Video Display Terminal (VDT).

CRT (Cathode Ray Tube) Monitors are built very similarly to older (tube) television sets. They are heavy, bulky, take up a lot of desk space, and emit radiation.

LCD (Liquid Crystal Display) Monitors are thin and flat. They are light, compact, take up very little desk space emit no known radiation.

Printer

A printer is an output device responsible for taking computer data and generating a hard copy of that data.

Projector

Speakers

LECTURE SCHEDULE 2

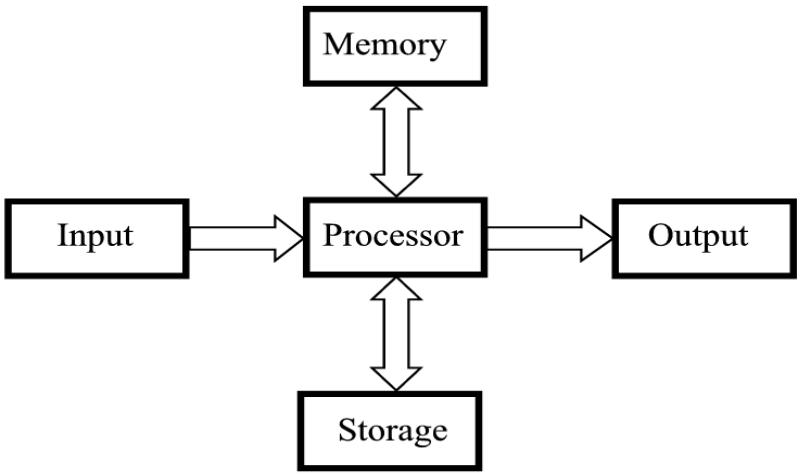
Units of Memory, Hardware, Software and Classification of Computers

Units of Memory

The memory unit is the principal storage of the computer. All the data and instructions that the computer needs at a moment are stored here. All storage devices are characterized with the following features:

1. Speed
2. Volatility
3. Access method
4. Portability
5. Cost and capacity

Linking Memory with the other units



Basic Units of Measurement

The components of the computer can recognize only two states that is presence or absence of an electrical signal. Two symbols used to represent these two states are 0 and 1, and are known as BITS (an abbreviation for BInary DigiTS). 0 represents the absence of a signal, 1 represents the presence of a signal. A BIT is, therefore, the smallest unit of data in a computer and can either store a 0 or 1.

Since a single bit can store only one of the two values, there can possibly be only four unique combinations:

00 01 10 11

Bits are, therefore, combined together into larger units in order to hold greater range of values. BYTES are typically a sequence of eight bits put together to create a single computer alphabetical or numerical character. More often referred to in larger multiples, bytes may appear as Kilobytes (1,024 bytes), Megabytes (1,048,576 bytes), GigaBytes (1,073,741,824), TeraBytes (approx. 1,099,511,000,000 bytes), or PetaBytes (approx. 1,125,899,900,000,000 bytes).

Bytes are used to quantify the amount of data digitally stored (on disks, tapes) or transmitted (over the internet), and are also used to measure the memory and document size.

Types of memory

Computers use several different types of memory. They are:

1. Main Memory / Primary Memory units
   - – Two most important are
     - RAM (Random Access Memory)
     - ROM (Read-only Memory)
   - – They work in different ways and perform distinct functions
   - – CPU Registers
   - – Cache Memory
2. Secondary Memory/Auxiliary Memory

   Also termed as ‘auxiliary’ or ‘backup’ storage, it is typically used as a supplement to main storage. It is much cheaper than the main storage and stores large amount of data and instructions permanently. Hardware devices like magnetic tapes, Floppy Disk, Hard Disk, Optical disks, Compact Disk (CD), Digital Versatile Disk (DVD) and Blu-ray Disc (BD) fall under this category.

Computer’s memory can be classified into two types – RAM and ROM.

RAM or Random Access Memory is the central storage unit in a computer system. It is the place in a computer where the operating system, application programs and the data in current

use are kept temporarily so that they can be accessed by the computer's processor. The more RAM a computer has, the more data a computer can manipulate.

Random access memory, also called the Read/Write memory, is the temporary memory of a computer. It is said to be 'volatile' since its contents are accessible only as long as the computer is on. The contents of RAM are cleared once the computer is turned off.

ROM or Read Only Memory is a special type of memory which can only be read and contents of which are not lost even when the computer is switched off. It typically contains manufacturer's instructions. Among other things, ROM also stores an initial program called the 'bootstrap loader' whose function is to start the computer software operating, once the power is turned on.

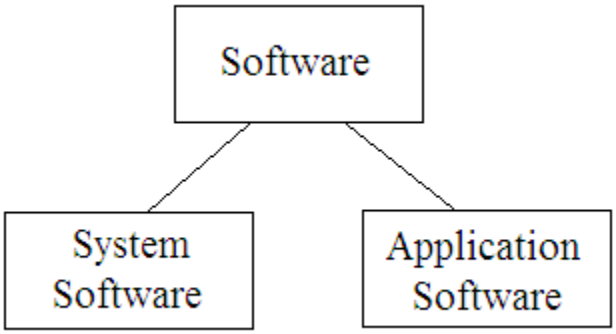
Hardware

Hardware, in the computer world, refers to the physical components that make up a computer system. There are many, many different kinds of hardware that can be installed inside and connected to the outside of a computer. However, there are several standard pieces of hardware that can be found as part of nearly every computer:

- Input Devices - Key board, Mouse..
- CPU - (Brain) Named on model: 80286, 80386, 80486, Pentium, P-II, Core 2 Duo..
- Output Devices - VDU/Screen, Printer
- Memory - RAM - Active, temporary ROM - Permanent.
- Ancillary Storage devices: Floppy, Hard Disk, CD ROM, Tapes etc.
- Scanner, Modem, Digital Camera, Video adopter, Computer Projector, Slide maker, etc.

Software

Software is a general term for the various kinds of programs used to operate computers and related devices. Software is classified as follows:



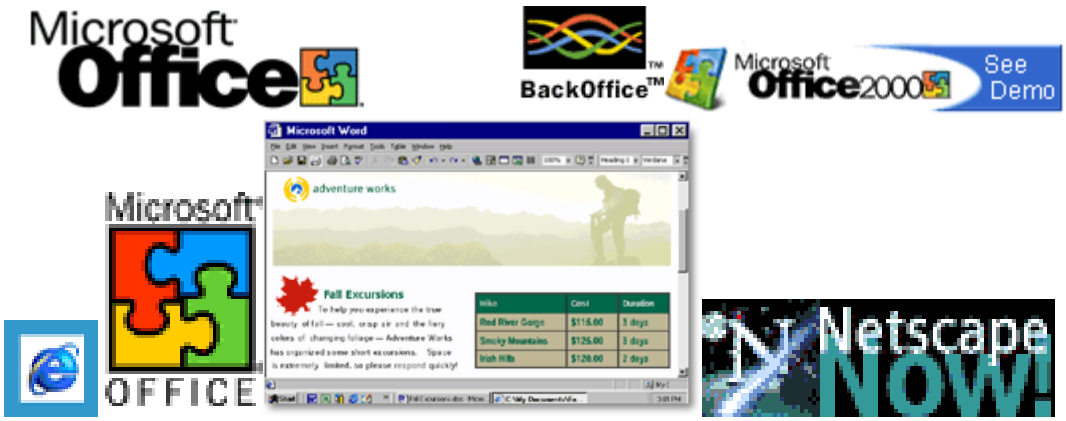
System software

System software refers to the operating system and all utility programs that manage computer resources at a low level. Operating system controls and manages the computing resources. Examples of operating system: Windows, Unix, MSDOS, Linux, Mac.

Systems software includes compilers, loaders, linkers, and debuggers.

Applications software comprises programs designed for an end user, such as word processors, database systems, and spreadsheet programs. Application software makes computer popular and easy to use. Common application software:

- Microsoft Word, WordPerfect
- PowerPoint
- Netscape, Internet Explorer
- PhotoShop, Photo-Paint
- Quick Time
- Dreamweave



Classification of Computers

Computers are available in different shapes, sizes and weights, due to these different shapes and sizes they perform different sorts of jobs from one another. They can also be classified in different ways. All the computers are designed by the qualified computer architectures that design these machines as their requirements.

A computer that is used in a home differs in size and shape from the computer being used in a hospital. Computers act as a server in large buildings, while the computer also differs in size and shape performing its job as a weather forecaster.

A student carrying a laptop with him to his college is different in shape and size from all the computers mentioned above. Computers are classified as follows:

Super computer

The biggest in size, the most expensive in price than any other is classified and known as super computer. It can process trillions of instructions in seconds. Governments specially use this type of computer for their different calculations and heavy jobs. Different industries also use this huge computer for designing their products. In most of the Hollywood's movies it is used for animation purposes. This kind of computer is also helpful for forecasting weather reports worldwide.

Mainframes

Another giant in computers after the super computer is Mainframe, which can also process millions of instruction per second and capable of accessing billions of data. This computer is commonly used in big hospitals, air line reservations companies, and many other huge companies prefer mainframe because of its capability of retrieving data on a huge basis.

Minicomputer

This computer is next in the line but less offers less than mainframe in work and performance. These are the computers, which are mostly preferred by the small type of business personals, colleges, etc.

Personal computers

Personal computer is the computer mostly preferred by the home users. These computers are lesser in cost than the computers given above and also, small in size; they are also called PCs in short for Personal computers. This computer is small in size. Today this is thought to be the most popular computer in all.

Notebook computers

Having a small size and low weight the notebook is easy to carry to anywhere. A student can take it with him/her to his/her school in his/her bag with his/her book. This is easy to carry around and preferred by students and business people to meet their assignments and other necessary tasks. The approach of this computer is also the same as the Personal computer. It can store the same amount of data and having a memory of the same size as that of a personal computer.

LECTURE SCHEDULE 3

Personal Computers, Types of Processors, Booting of Computer- warm and cold booting

Personal Computer

A personal computer (PC) is any general-purpose computer whose size, capabilities, and original sales price make it useful for individuals, and which is intended to be operated directly by an end user, with no intervening computer operator.

This is in contrast to the batch processing or time-sharing models which allowed large expensive mainframe systems to be used by many people, usually at the same time, or large data processing systems which required a full-time staff to operate efficiently.

A personal computer may be a desktop computer, a laptop, tablet PC or a handheld PC (also called palmtop). Software applications for personal computers include word processing, spreadsheets, databases, Web browsers and e-mail clients, games, and myriad personal productivity and special-purpose software. Modern personal computers often have high-speed or dial-up connections to the Internet, allowing access to the World Wide Web and a wide range of other resources.

A PC may be used at home, or may be found in an office. Personal computers can be connected to a local area network (LAN) either by a cable or wirelessly.

While early PC owners usually had to write their own programs to do anything useful with the machines, today's users have access to a wide range of commercial and non-commercial software which is provided in ready-to-run form. Since the 1980s, Microsoft and Intel have dominated much of the personal computer market with the Wintel platform.

The capabilities of the personal computer have changed greatly since the introduction of electronic computers. By the early 1970s, people in academic or research institutions had the opportunity for single-person use of a computer system in interactive mode for extended durations, although these systems would still have been too expensive to be owned by a single person. The introduction of the microprocessor, a single chip with all the circuitry that formerly occupied large cabinets, led to the proliferation of personal computers after 1975.

Types of Processors

The Central Processing Unit (CPU) or the processor is the portion of a computer system that carries out the instructions of a computer program, and is the primary element carrying out the computer's functions.

Basically there are two types of processors which are manufactured by two companies and they are Intel and AMD. Now there are a number of varieties available in both Intel and AMD.

Intel offers Pentium Pro, Pentium II, Celeron, Pentium II Xeon, Pentium III, Pentium II and III Xeon, Celeron with Pentium III Based, Pentium 4, Pentium M, Intel Core, Dual Core Xeon LV, Intel Pentium Dual Core, Intel Core 2, Pentium Duo, Pentium Dual Core, Core 2 Quad, Intel Pentium 2 Dual Core Processor.

AMD processors include AMD Athlon, AMD Athlon 64, AMD Athlon X2, AMD Athlon Xp, AMD Duron, AMD Sempron, AMD Turion, MD Opteron and AMD Phenom 1.

Moreover, there are various processors offered by various companies like Macintosh processor. In other words different processors are used for different types of technology.

Booting of Computer – Warm and Cold Booting

Booting of computer is the process of powering it on and starting the operating system. Booting loads the first piece of software that starts a computer. Because the operating system is

essential for running all other programs, it is usually the first piece of software loaded during the boot process.

Cold boot is the process of starting a computer from a powered-down, or off state. Cold boot is also called as hard boot.

Warm boot refers to restarting a computer that is already turned on via the operating system. Restarting it returns the computer to its initial state. A warm boot is sometimes necessary when a program encounters an error from which it cannot recover. On PCs, you can perform a warm boot by pressing the Control, Alt, and Delete keys simultaneously. On Macs, you can perform a warm boot by pressing the Restart button.

LECTURE SCHEDULE 4

Computer Viruses, Worms and Vaccines

Computer Viruses

Computer virus is a small software program that is designed to spread from one computer to another and to interfere with computer operation. A true virus is capable of self replication on a machine. Virus may spread between files or disks.

- There are estimated 30,000 computer viruses in existence.
- Over 300 new ones are created each month.
- First virus was created to show loopholes in software.
- Today almost 87% of all viruses are spread through the internet.

Symptoms of Virus Attack

- Computer runs slower than usual
- Computer no longer boots up
- Screen sometimes flicker
- Speaker beeps periodically
- System crashes for no reason
- Files/directories sometimes disappear
- Denial of Service (DoS)

Types Computer Viruses

- **Trojan Horse**
  - Requires Windows to work
  - Once infected, runs in the background
- **Worm**
  - Spread over network connection
  - Worms replicate
- **Macro**
  - Specific to certain applications
  - Comprise a high percentage of the viruses
- **E-mail viruses**

- An e-mail virus travels as an attachment to e-mail messages, and usually replicates itself by automatically mailing itself to dozens of people in the victim's e-mail address book.
- Some e-mail viruses don't even require a double-click -- they launch when you view the infected message in the preview pane of your e-mail software.

Worms

A worm is a small piece of software that uses computer networks and security holes to replicate itself. A copy of the worm scans the network for another machine that has a specific security hole. It copies itself to the new machine using the security hole, and then starts replicating from there, as well.
Worms use computer time and network bandwidth when they replicate. A worm called Code Red made huge headlines in 2001. Experts predicted that this worm could clog the Internet so effectively that things would completely grind to a halt.

A worm usually exploits some sort of security hole in a piece of software or the operating system. For example, the Slammer worm (which caused mayhem in January 2003) exploited a hole in Microsoft's SQL server.

Worms normally move around and infect other machines through computer networks. Using a network, a worm can expand from a single copy incredibly quickly. The Code Red worm replicated itself more than 250,000 times in approximately nine hours on July 19, 2001.

Protect computer against viruses:

- Gain knowledge about viruses
- Proper configurations
- Run only necessary programs
- Install Anti-virus software and update

Vaccines

Vaccines or Antivirus software is a computer program that detects, prevents, and takes action to disarm or remove malicious software programs, such as viruses and worms. New viruses, worms, and other threats are created by cyber terrorists and discovered every day. So updating

antivirus software is periodically mandatory. List of some top Anti Virus Programs which are very useful to users:

Norton AntiVirus – Norton AntiVirus is the most popular and secure virus scanner for checking boot sector records at startup. The live update feature automatically installs new updates for regular protection against viruses.

AVG Free Edition – AVG Resident Shield provides real-time protection executions of files and programs. It features a smart e-mail scanner, virus updates and virus vault for secure handling of the files which are infected by viruses. The base version for windows is Free for private and non-commercial use.

McAfee VirusScan for Windows: This antivirus package detects all virus types, including Word and Excel macros; boot-sector infections; and file, multipartite, stealth, polymorphic, and encrypted viruses.

Kaspersky Anti-Virus Personal Pro – It is a commonly used virus protection solution offering full protection against macro-viruses and unknown viruses.

ESET NOD32 Antivirus – ESET NOD32 Anti-virus is available as an anti-virus for small businesses, individuals and for large networks.

avast! Home Edition – A free antivirus solution for scanning disk, CDs, and E-mail.

Panda Antivirus Platinum – It is a complete virus protection package for home and business users. It comes with an easy installation and automatic protection from latest viruses.

Avira - Windows and Linux anti virus, firewall, anti spam, recovery solutions against malware infection

LECTURE SCHEDULE 5

Operating System – Some Fundamental DOS Commands,Rules for naming files in DOS and Types of files

Operating System

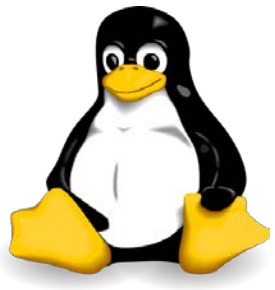
Operating system is a set of software that controls and manages hardware and basic system operations for a computer. The operating system loads programs into the computer's memory, runs these programs, and manages peripherals like disks and printers.

Example:

Disk Operating System (DOS)

Windows

LINUX



Mac

UNIX

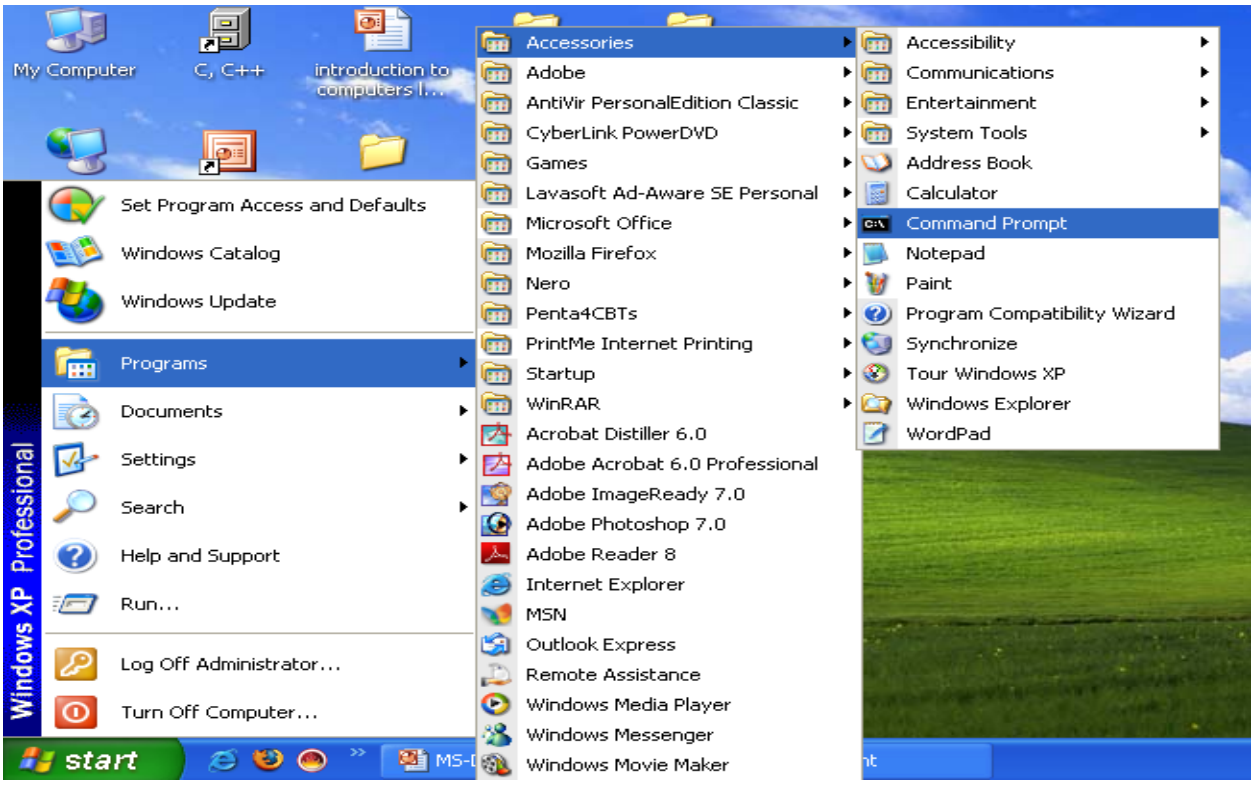
UNIX™

Disk Operating System (DOS)

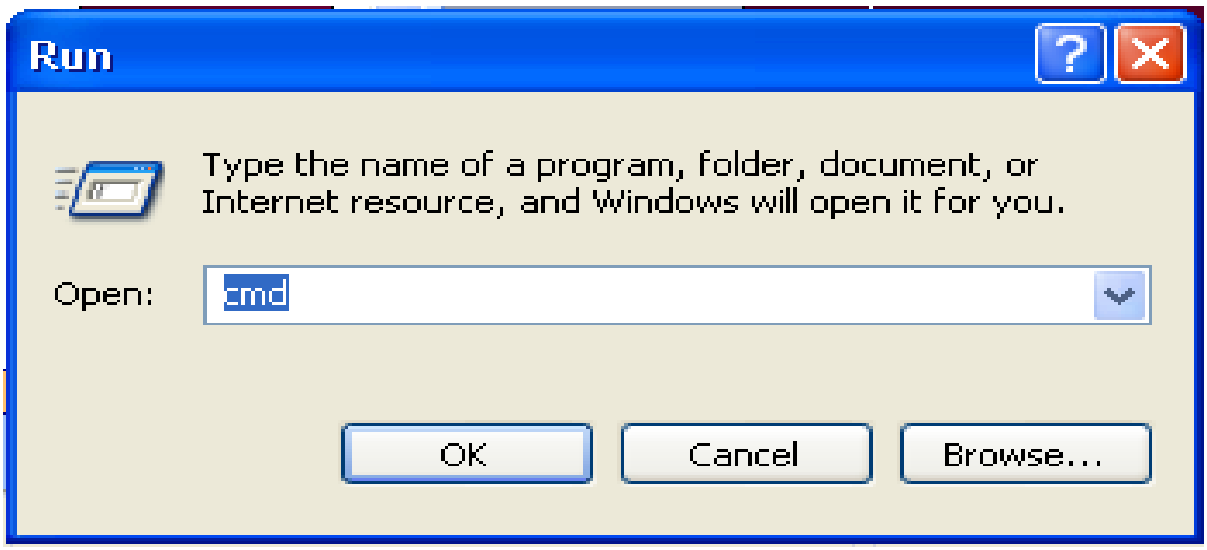
- In the 1980s or early 1990s, the operating system that shipped with most PCs was a version of the Disk Operating System (DOS) created by Microsoft: MS-DOS.
- MS-DOS is a disk-based, single-user, single-task and character based user interface (CUI) operating system.

Goto MSDOS from Windows Operating System:

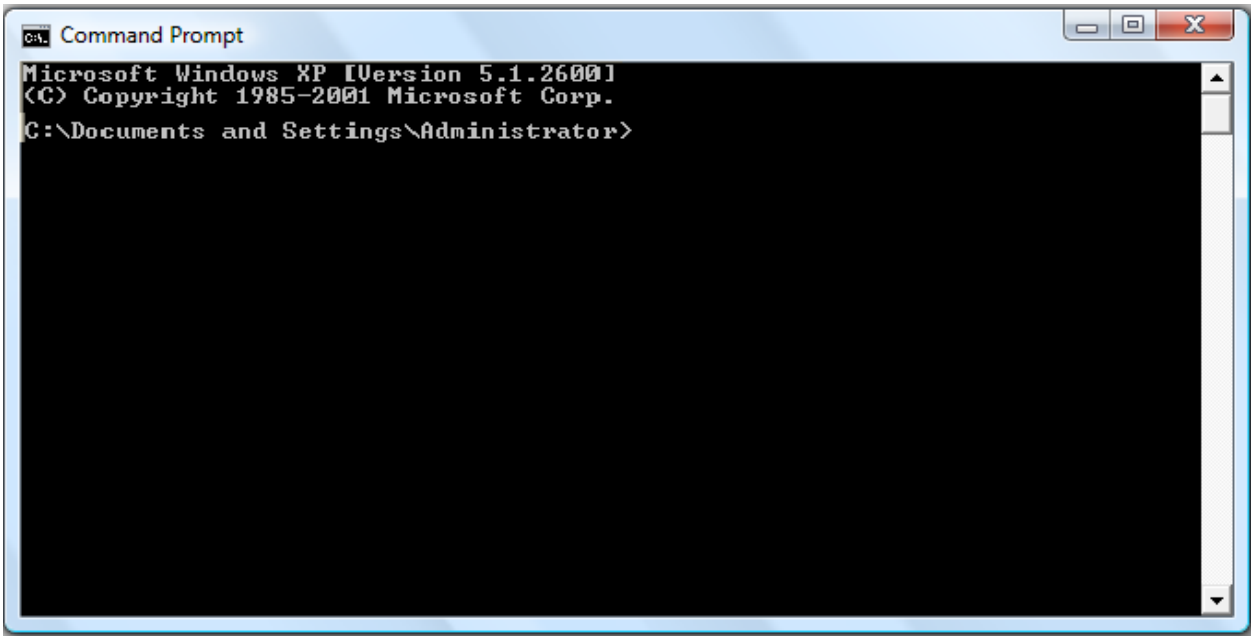
Click Start Button → Choose Program → Choose Accessories → Click Command Prompt as shown below:



Or Click Start Button → Choose Run → Type cmd in the Open tab as shown below:



Command Prompt will get displayed as shown:



The DOS commands can be entered in the command prompt and executed.

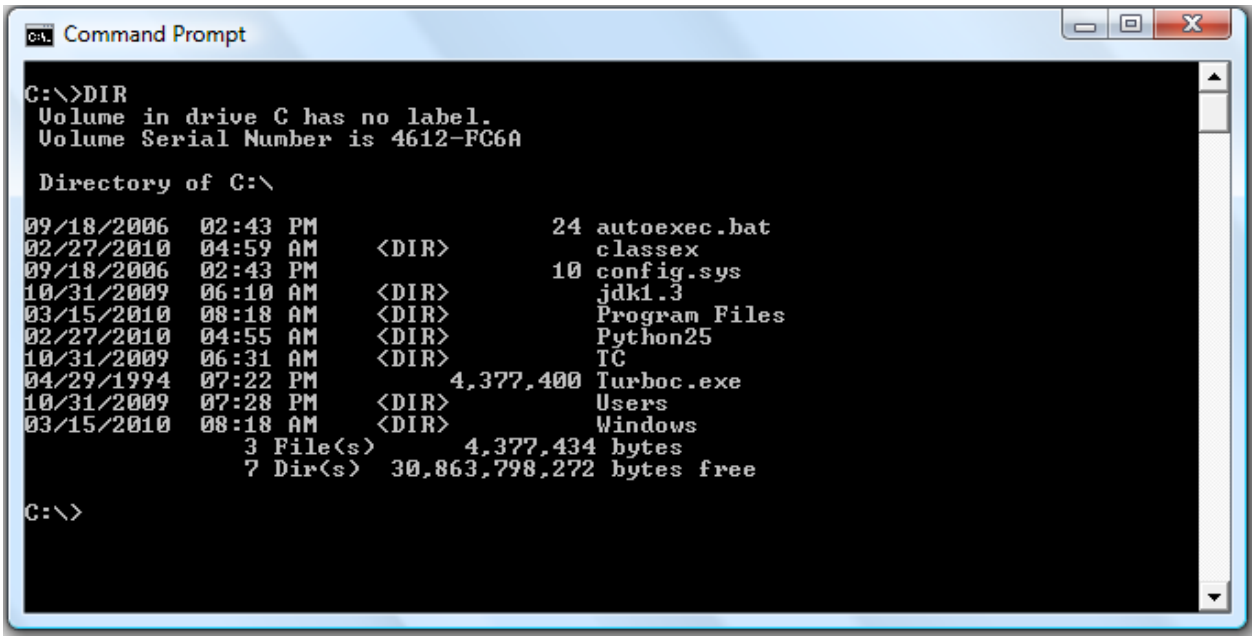
Some Examples of DOS commands

DIR Command

The dir command allows you to see the available files in the current and/or parent directories. Examples:

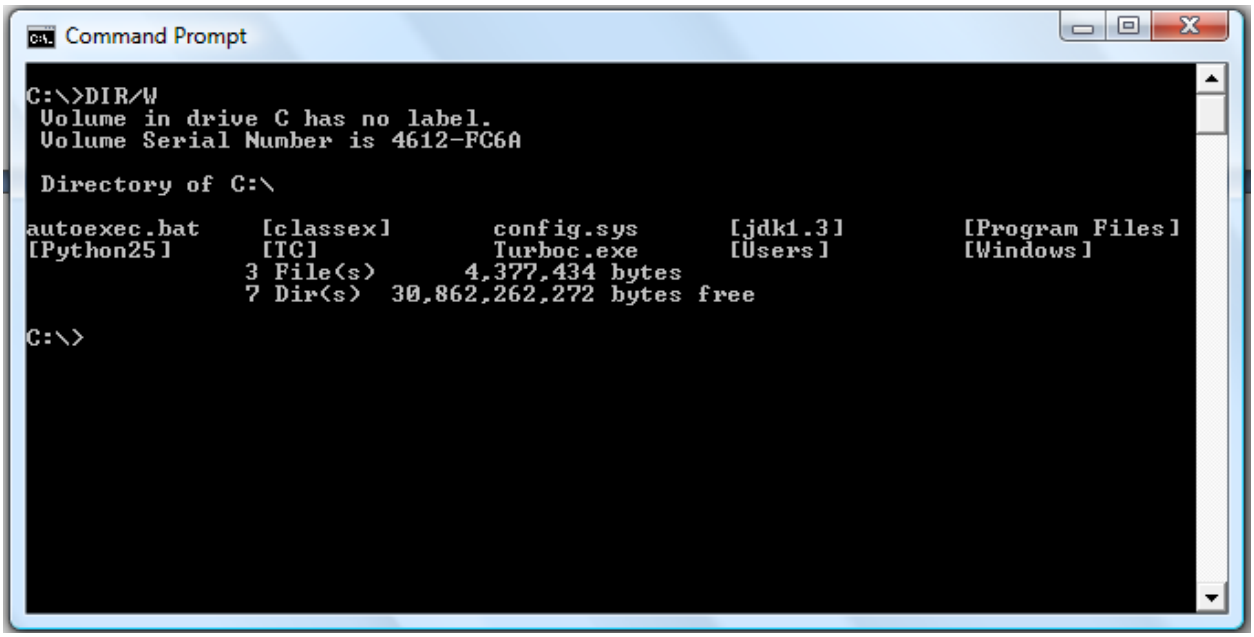
1. **DIR**

   Lists all files and directories in the directory that you are currently in.



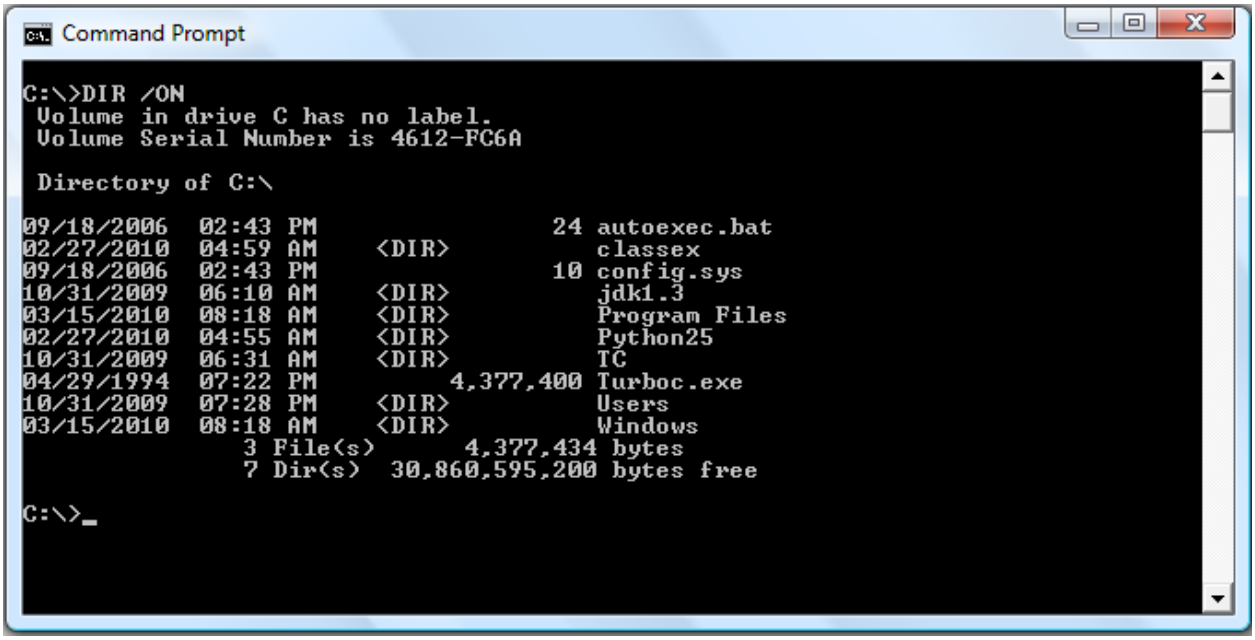
2. **dir /w**

   If information on the date / time and other information on the files are not needed, then this command can be used to list just the files and directories going horizontally, taking as little as space needed.



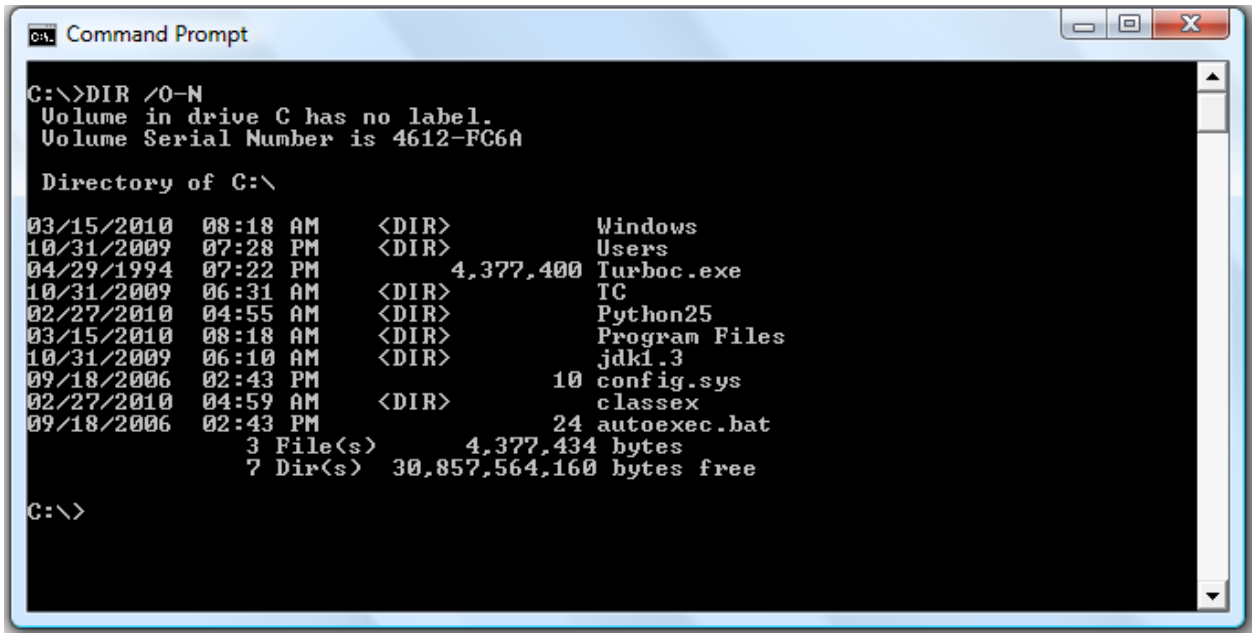
3. dir /on

List the files in alphabetical order by the names of the files.



4. dir /o-n

List the files in reverse alphabetical order by the names of the files.



FORMAT Command

FORMAT command is used to erase all information of a diskette or fixed drive.

1. format a:

   Would erase all the contents off a disk. Commonly used on a diskette that has not been formatted or on a diskette you wish to erase.

2. format a: /q

   Quickly erases all the contents of a floppy diskette. Commonly used to quickly erase all information on the diskette.

3. format c:

   This would erase all the contents of C: hard disk drive. In other words, unless you wish to erase all your computer's information, this command should not be done unless you're planning to start over.

COPY Command

COPY command allows to copy one or more files to an alternate location.

Examples:

1. copy *.* a:

   Copy all files in the current directory to the a disk drive.

2. copy file1.txt file2.txt

   Copy the contents of file1.txt to file2.txt

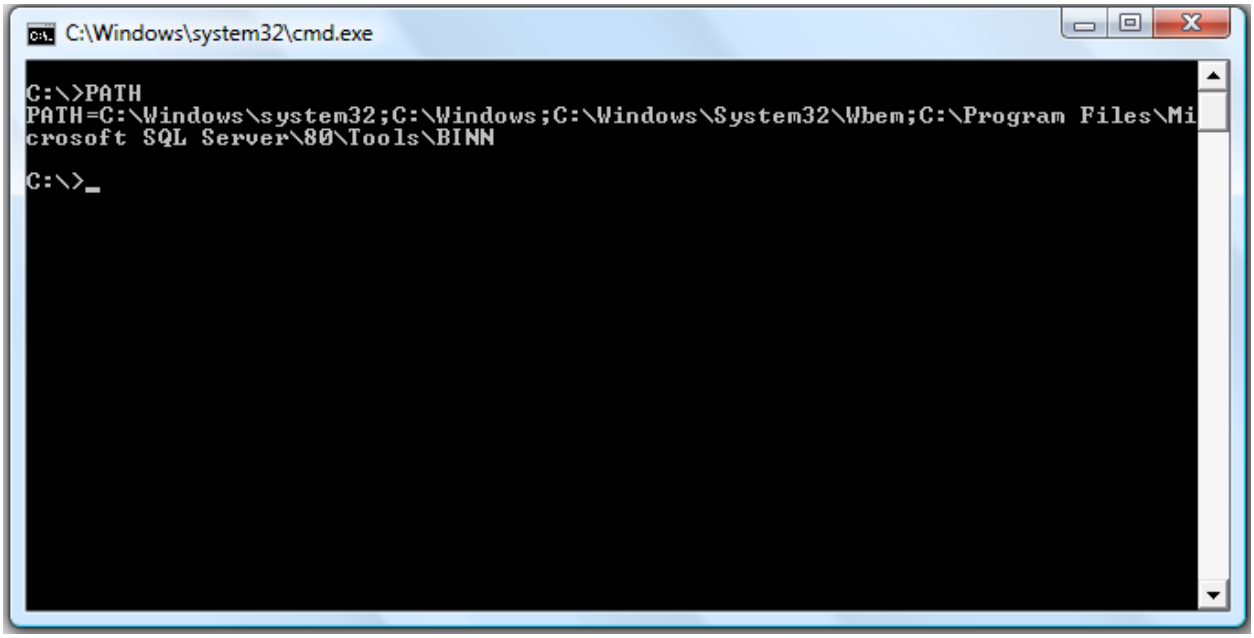
3. copy myfile1.txt+myfile2.txt

   Copy the contents in myfile2.txt and combines it with the contents in myfile1.txt.

PATH Command

Path is used to specify the location where MS-DOS looks when using a command. For example, when using the command "format", if the path is not specified to where the command is you will receive bad command or file name.

Example:



LABEL Command

Label is used to view or change the label of the computer disk drives.

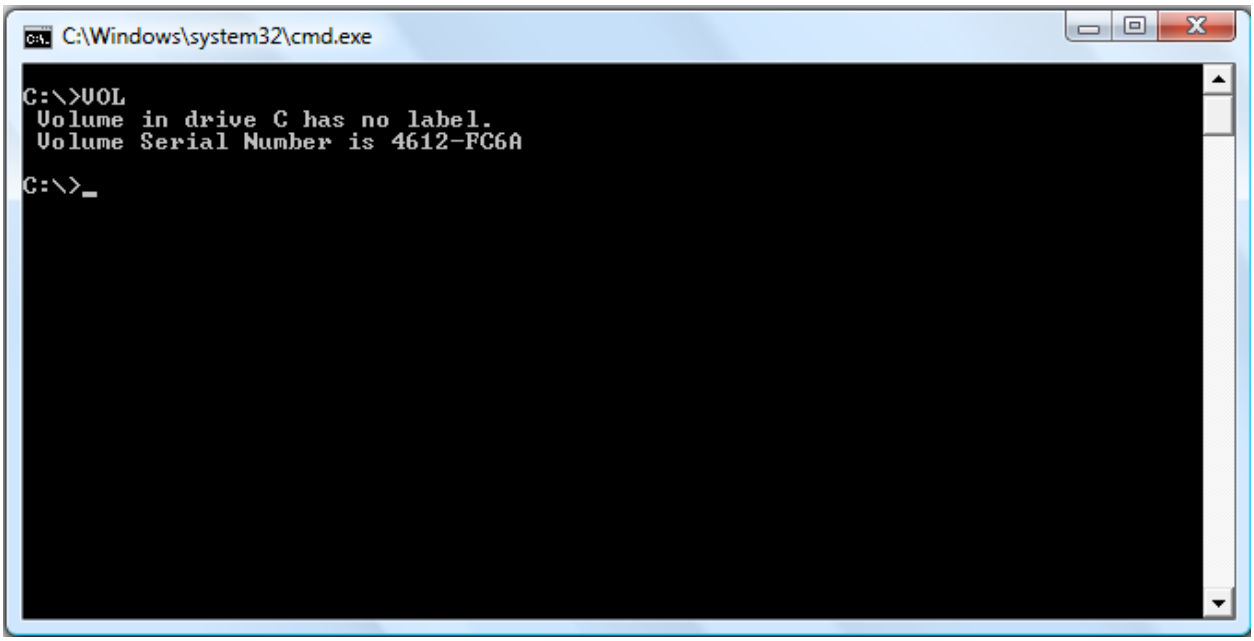
Example:

label a: mydisk

This would label the disk currently in the drive to "mydisk", but will not label if your disk is write protected.

VOL Command

VOL command displays the volume information about the designated drive.



MD (Make Directory) Command

MD command allows to create directories in MS-DOS.

Examples:

1. md test

   Creates the "test" directory in the directory in the currently directory.
2. md c:\test

   Creates the "test" directory in the c:\ directory.

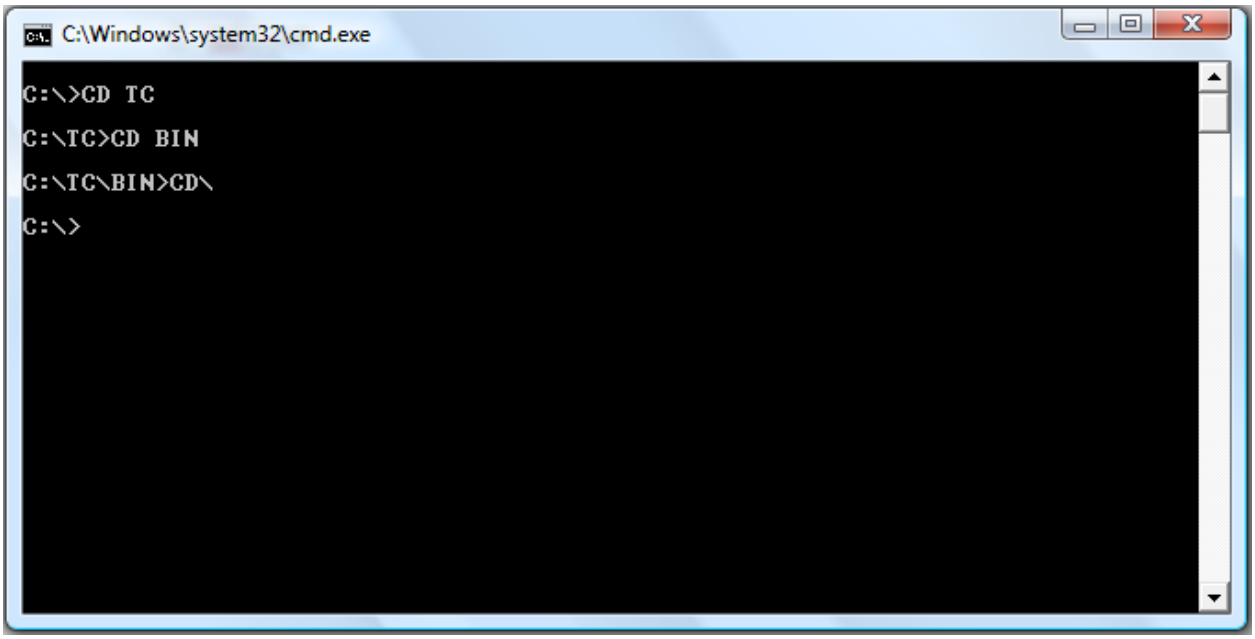
CD (Change Directory) Command

CD (Change Directory) is a command used to switch directories in MS-DOS.

Examples:

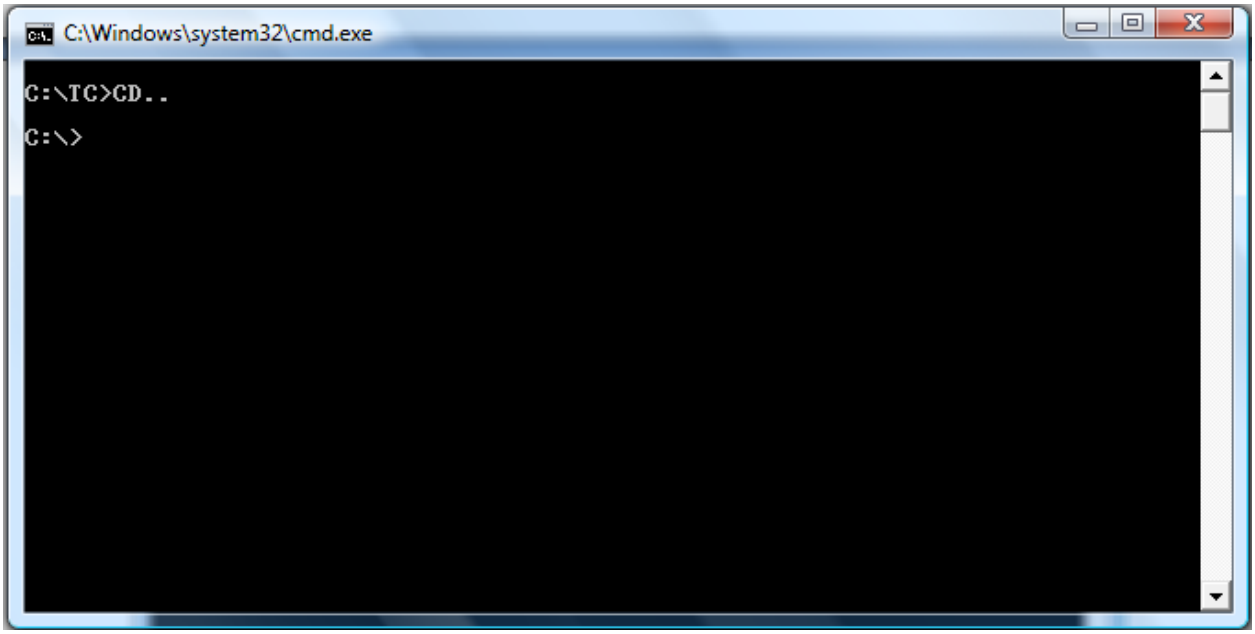
1. **cd**

   Goes to the highest level, the root of the drive.



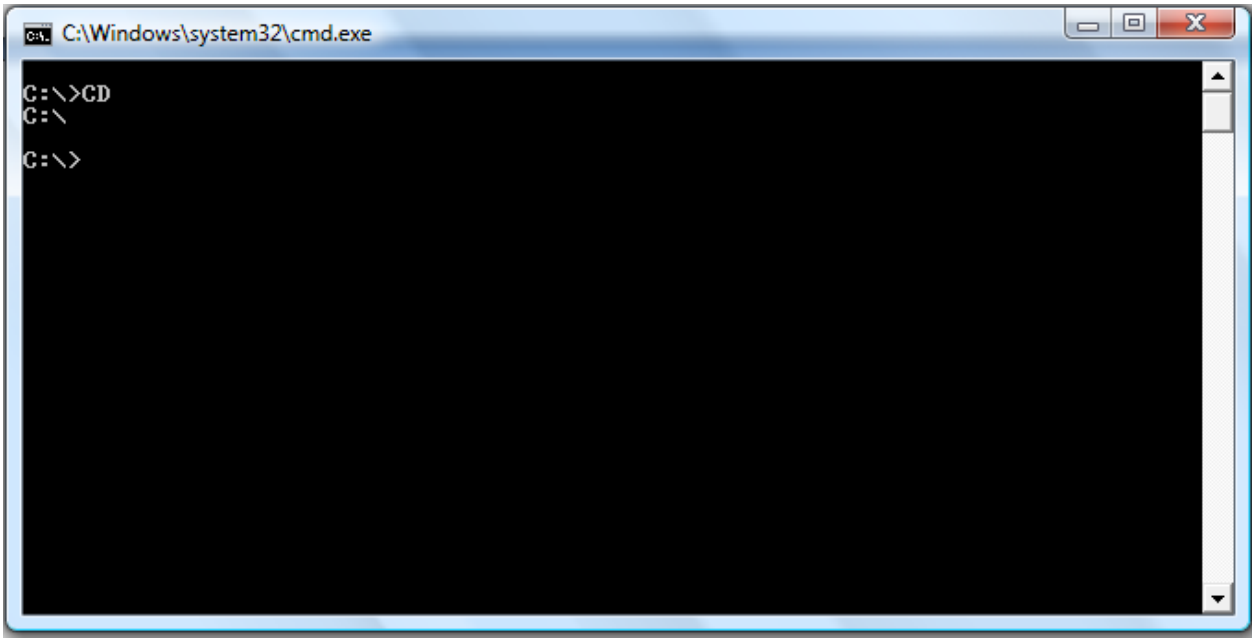
2. **cd..**

   Goes back one directory.



3. **cd**

   Typing cd alone will print the working directory.



DEL Command

DEL command is used to delete files from the computer. Deleting files from MS-DOS does not send files to the recycle bin.

Examples:

1. del test.tmp

   Deletes the test.tmp in the directory that you currently are in, if the file exists.

2. del c:\windows\test.tmp

   Delete the c:\windows\test.tmp in the windows directory if it exists.

Rules for naming files in DOS

1. The combination of the following characters can be used for writing names of directories and files:

Alphabets A to Z (both capital and small).

Digits 0 to 9.

Special characters like spaces ' ! A 0 $o & # @ % '-{}[]+-=-- .

2. Some special characters which cannot be used are? / \ : 1< > II *.
3. There are some words specifically reserved for special files and are not allowed if used singly. They are CON, COM1, COM2, COM3. COM4, AVX, LPT1, LPT2, LPT3, PRN, NUL. These words can be used in combination such as ASCon, deltacom1, Panamavx. etc.
4. Files with extension names like .EXE, .COM and .BAT are called executable files and are given a special status by DOS.
5. Dot (.) is allowed only once.

Types of files in DOS

DOS supports a wide variety of files. The type of the file can be identified with the extension of the file in the filename. The three letters following the name of the file is called as the extension of the file.

Examples:

.bak

Used by programs and users to make a copy of an existing file for safety and/or archive purposes.

.bas

A basic computer-language program file.

.bat

This is used for a batch file. Such a file is a series of commands in mostly plain english which perform an operation in DOS automatically. They come with some programs and may also be written by a user to make shortcuts or perform operations like sorting or backups.

.bin

A binary file.

.c

A file of programming language in the C format.

.dat

Used to hold information about a particular aspect of a program or about a particular operation. The latter may update a .dat file to reflect recent changes. Other operations in the program may then view this file and other .dat files while determining a course of action.

.db or .dbf

These are used by data base programs to hold the users' data information. Other programs may use them to hold information used by the application itself for such things as printer specifications regarding printer selection by the user.

.dir

Used to house a directory list, especially for communications programs.

.exe

An executable file.

References

1. http://www.chebucto.ns.ca/~ak621/DOS/DOS-Ext.html
2. http://www.computerhope.com/msdos.htm

LECTURE SCHEDULE 6

WINDOWS: GUI, Desktop and its elements, Windows Explorer, Working with files and folders, Setting time and date, Starting and Shutting down Windows

WINDOWS

- An operating system with a graphical user interface (GUI).
- Graphical User Interface (GUI) is a user interface based on graphics (icons and pictures and menus) instead of text; uses a mouse as well as a keyboard as an input device)

Versions

- Windows 98
- Windows Me
- Windows NT
- Windows 2000
- Windows XP
- Windows Server 2003
- Windows Vista
- Windows 7

Desktop and its elements

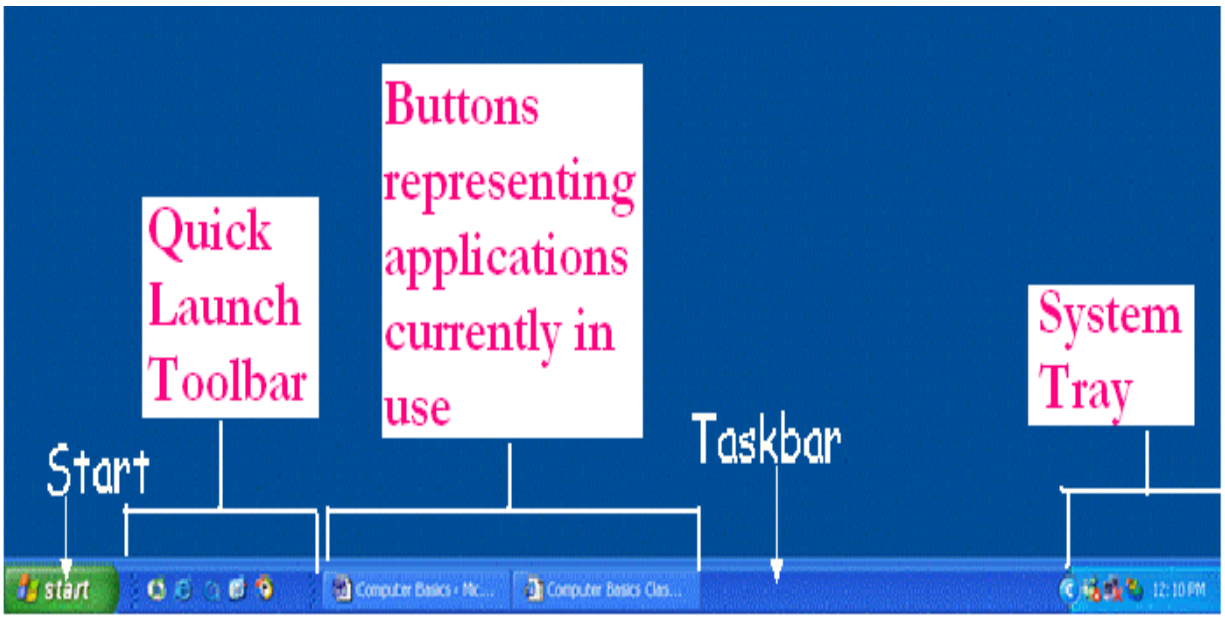
- In Windows operating system the basic working platform is the desktop.
- It is also the opening screen of the Windows operating system.

- The desktop contains:
  - Taskbar
  - Icons

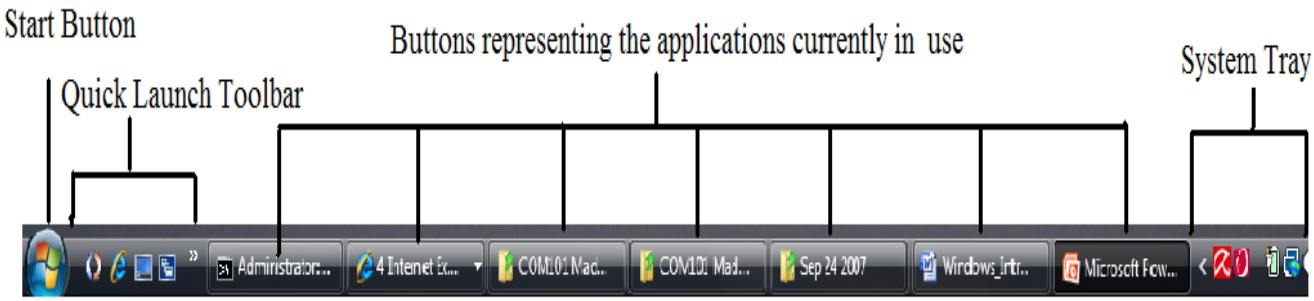
Taskbar

- Taskbar is usually a narrow strip present at the bottom of the screen.

WINDOWS Xp Taskbar



Windows Vista Taskbar



Icons

- Icons are small pictures/images representing applications.
- Each icon has a label telling the name of the application it represents.

Example:

Computer

- lists the contents of floppy disk, hard disk, CD-ROM drive, and mapped network drives

Network

- locates shared resources on the entire network to which the computer is connected.

Recycle Bin

- stores deleted files, folders, graphics, and Web pages until you empty the bin.

Internet Explorer

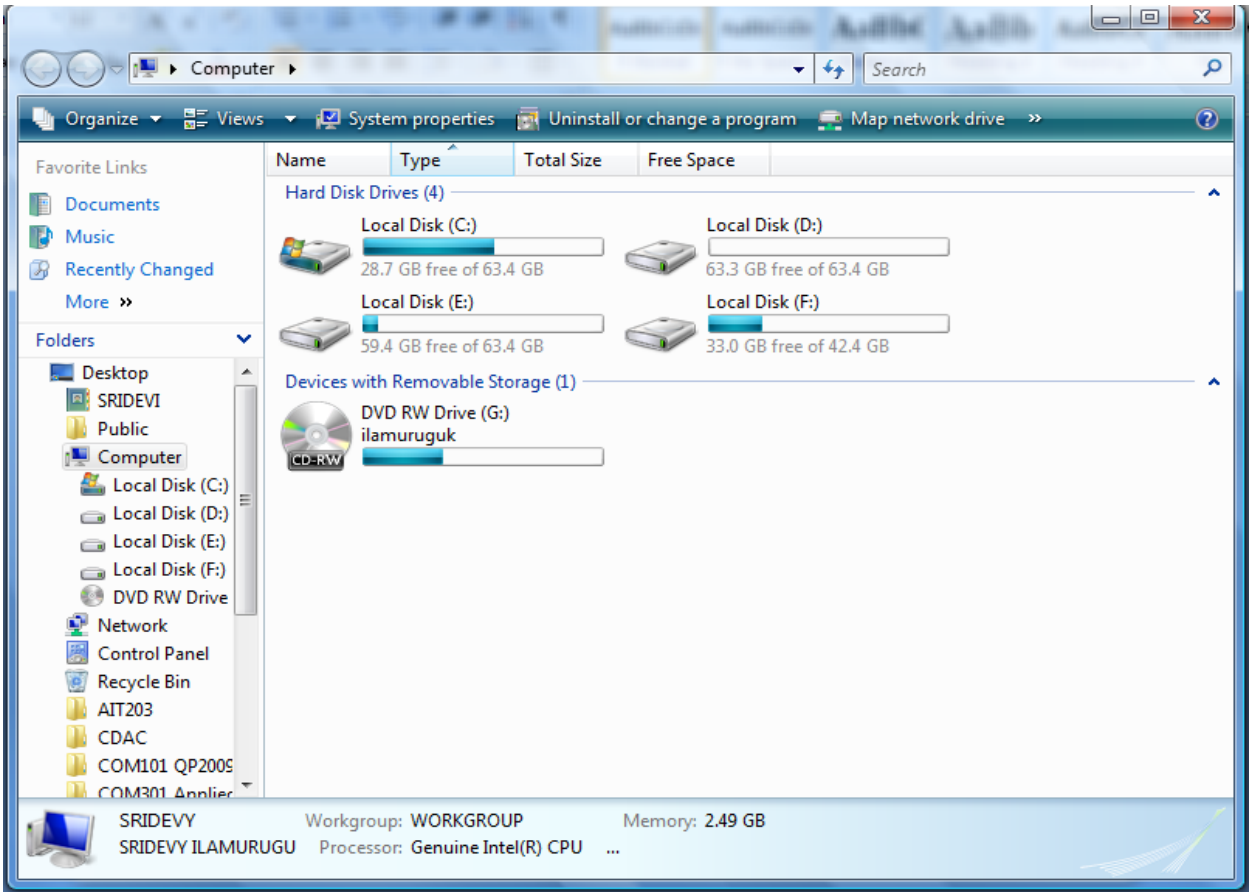
- opens the browser internet explorer.

Windows Explorer

Windows Explorer is a file manager application used to view and manage drives, folders, and files. Windows Explorer can be opened by clicking on

Start > My Computer or using the short cut key Windows + E while in Windows Xp

Start > Computer or using the short cut key Windows + E while in Windows Vista.

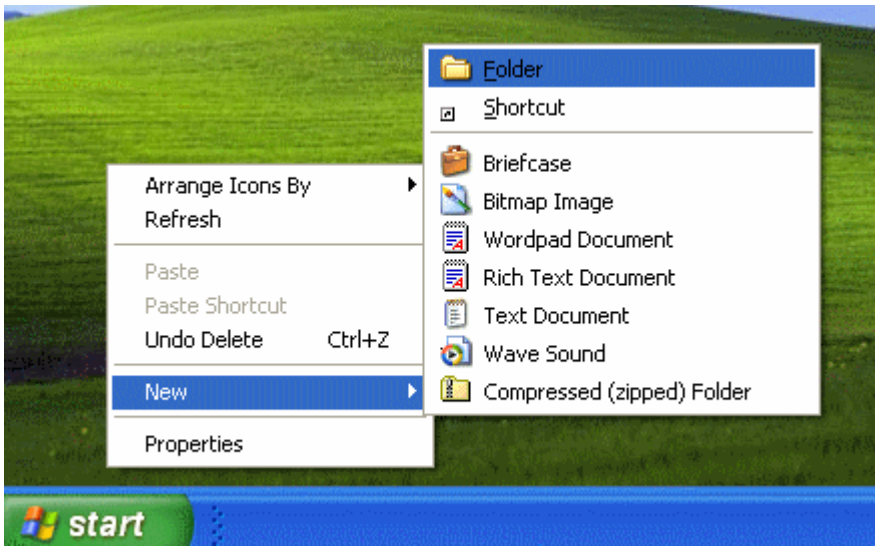


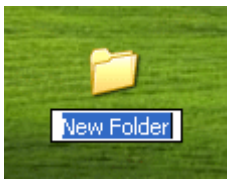
Working with files and folders

Folders are the basic organizational building blocks of any computer system. Without folders it would be virtually impossible to keep track of all the files that are found on even the smallest system. New folders can be created just about anywhere, but three methods are shown below.

To create a folder

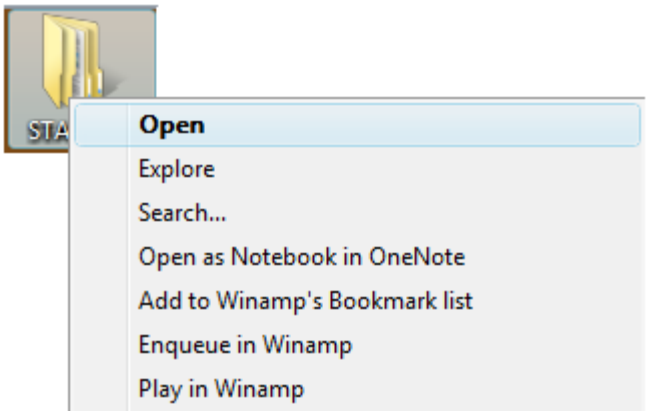
New Folder On Desktop - Right click anywhere on an open area of the desktop. Select New and then click Folder. A new folder with the default name New Folder will be created on the desktop. Either accept the default name New Folder (bad idea) by hitting the enter key or type a new name for the folder (good idea) and then hit enter on the keyboard.





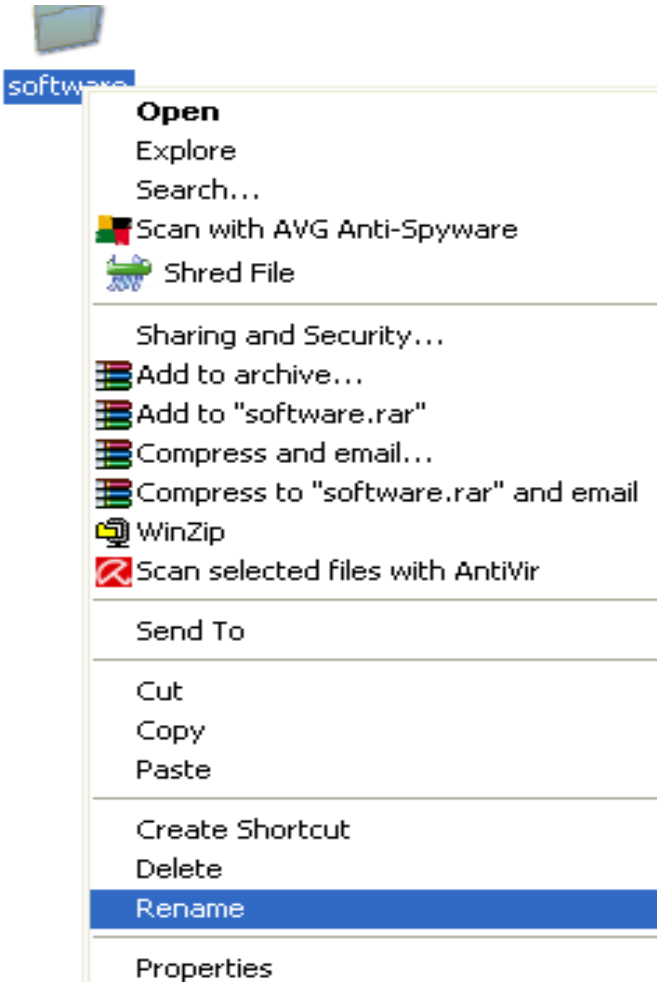
To open a folder

- double click the folder with mouse or
- right click the folder and click open tab from the right context menu.



To Rename a folder

- Locate and select the folder to be renamed.
- Right click the folder
- Select rename from the popup menu

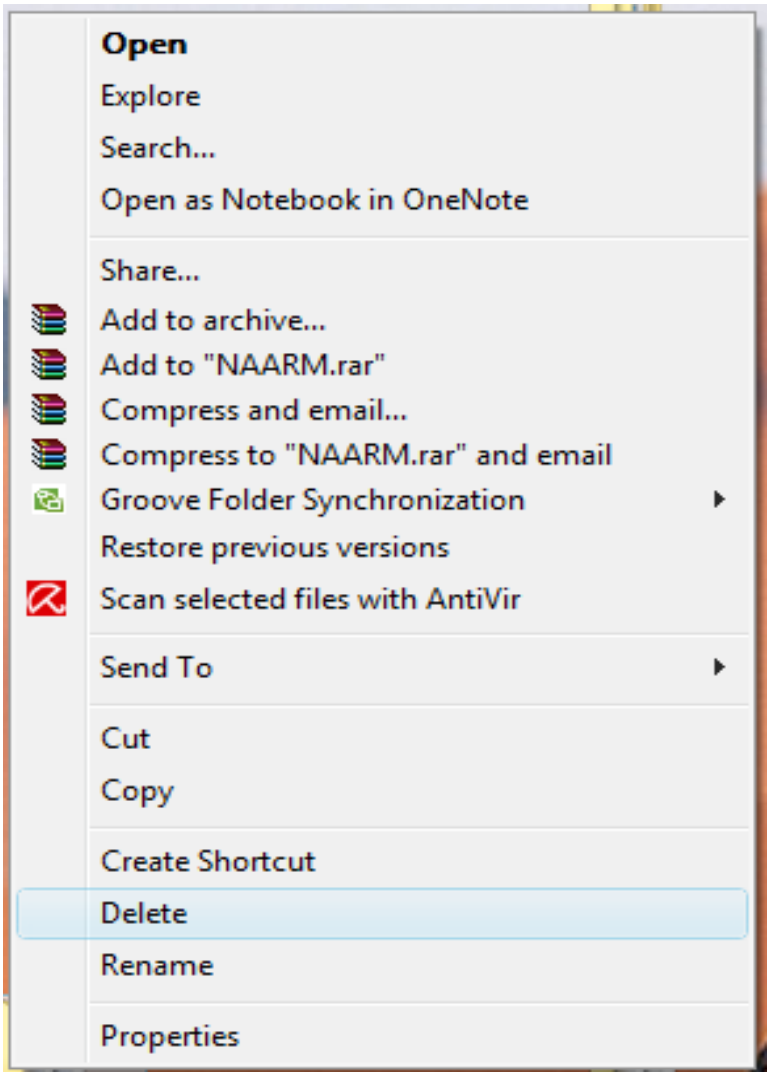


To Copy and Paste a folder

- Locate and select the folder you want to copy.
- Choose copy
- Choose the Destination location to copy the folder
- Choose paste

To delete a folder

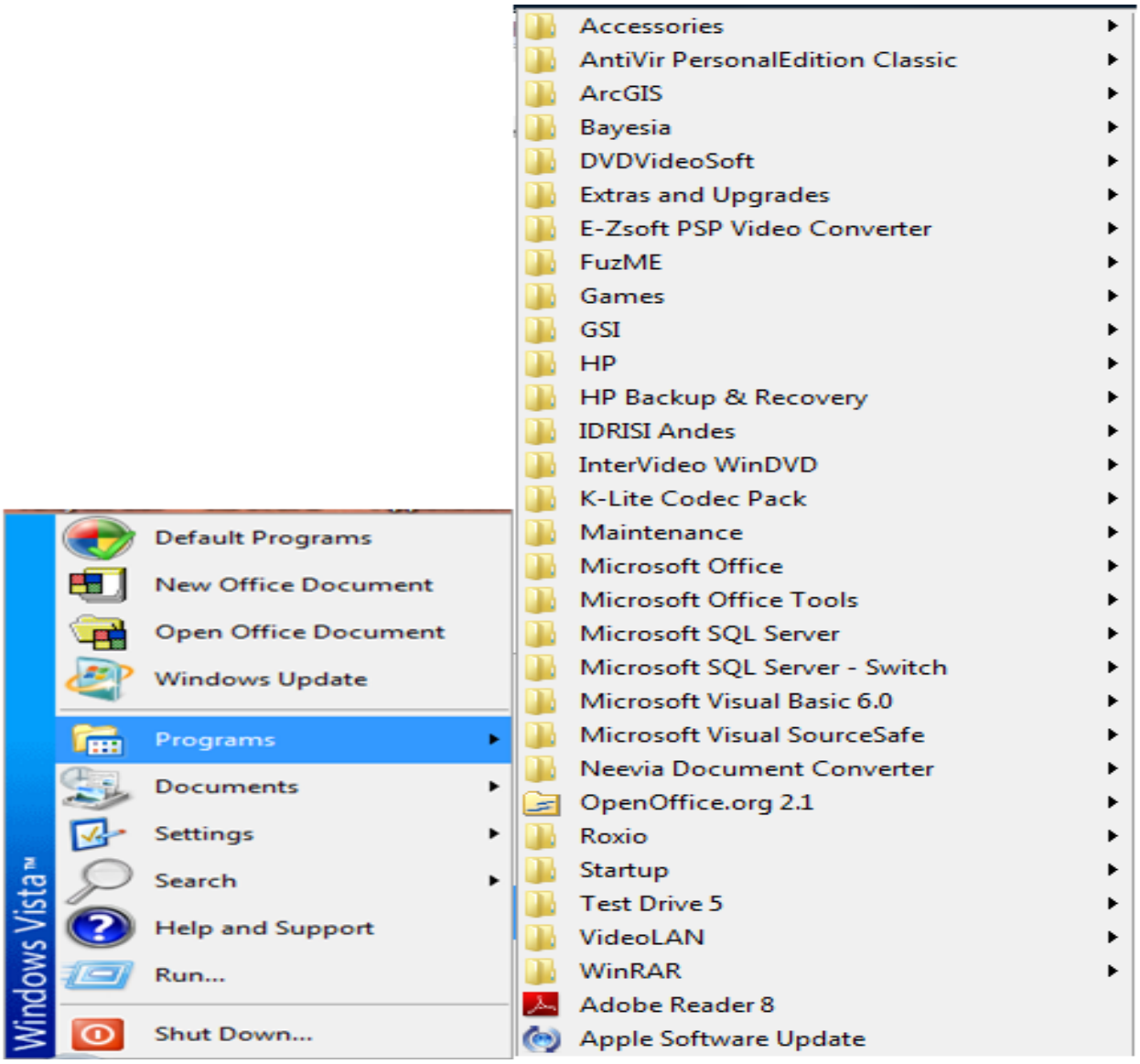
- Locate and select the folder you want to delete.
- Choose delete.



- The deleted file is moved to the Recycle bin.
- If you want the deleted file back you can open the recycle bin folder and restore the deleted file.
- If you want file to be completely deleted without getting stored in the Recycle Bin then choose the file and Press Shift + Del keys in the keyboard. This will erase the file even without storing the file in the Recycle Bin.
- Once you delete the file with Shift + Del combination keys it is not possible for us to restore the file again.

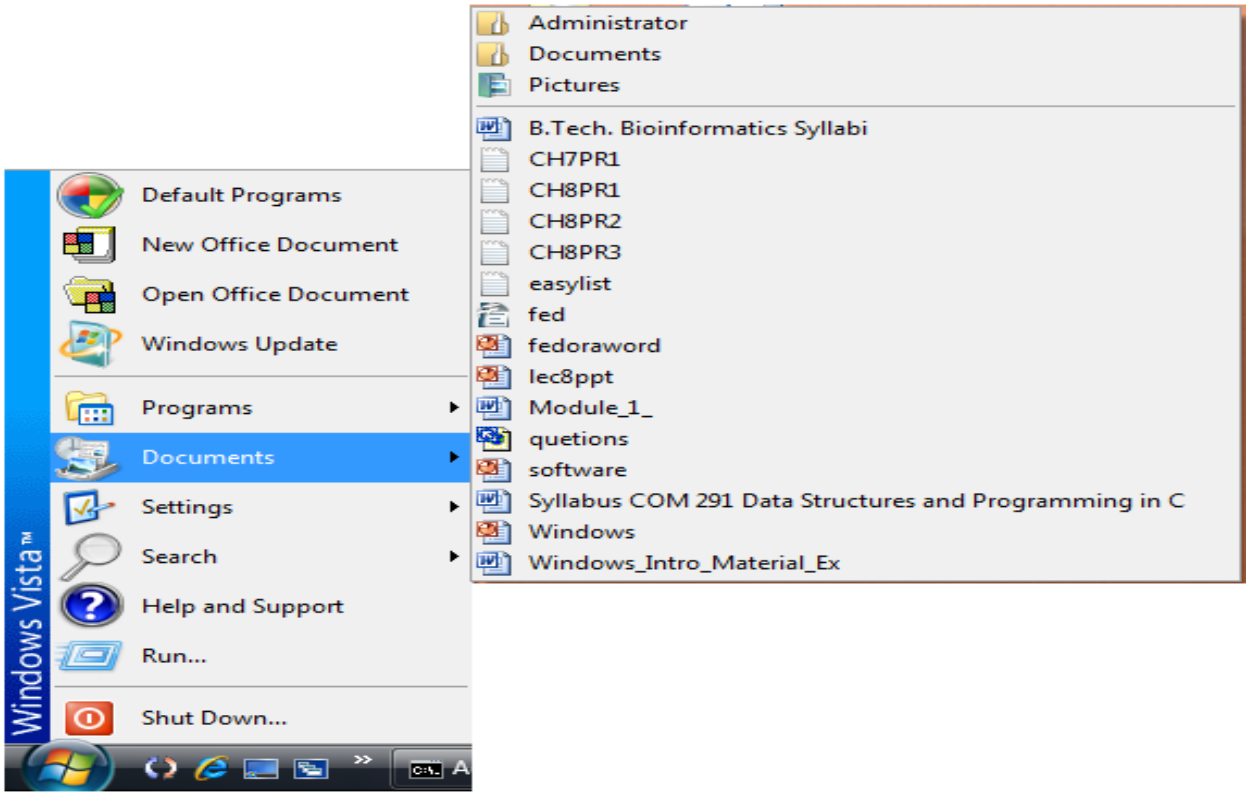
Opening a program file

Click Start→Programs→Select the program and double click


Windows Vista™
Default Programs
New Office Document
Open Office Document
Windows Update
Programs
Documents
Settings
Search
Help and Support
Run...
Shut Down...
Accessories
AntiVir PersonalEdition Classic
ArcGIS
Bayesia
DVDVideoSoft
Extras and Upgrades
E-Zsoft PSP Video Converter
FuzME
Games
GSI
HP
HP Backup & Recovery
IDRISI Andes
InterVideo WinDVD
K-Lite Codec Pack
Maintenance
Microsoft Office
Microsoft Office Tools
Microsoft SQL Server
Microsoft SQL Server - Switch
Microsoft Visual Basic 6.0
Microsoft Visual SourceSafe
Neevia Document Converter
OpenOffice.org 2.1
Roxio
Startup
Test Drive 5
VideoLAN
WinRAR
Adobe Reader 8
Apple Software Update

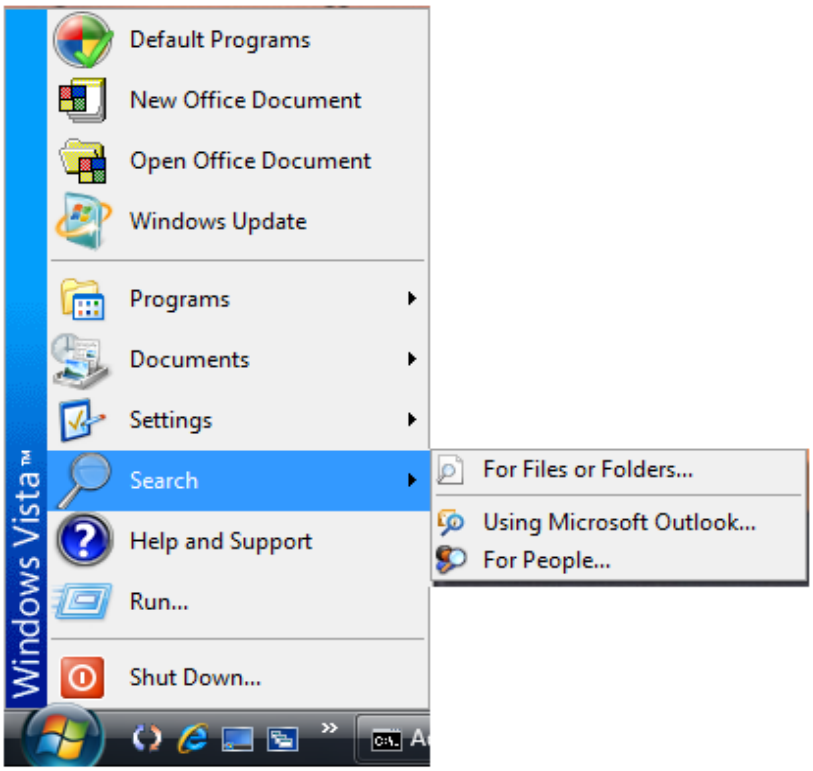
Locating Most Recent Files

Click Start→Documents



Finding Files

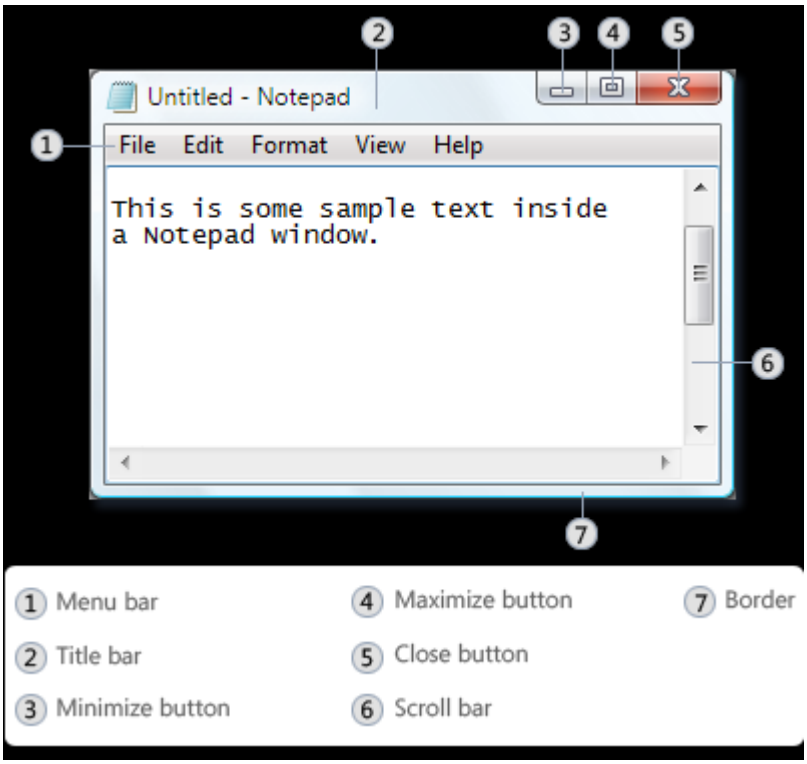
Click Start→ Search



Anatomy of a Window

- A rectangular area on the desktop that is used by an application is called a Window.

Although the contents of every window are different, all windows share some things in common. For one thing, windows always appear on the desktop—the main work area of your screen. In addition, most windows have the same basic parts:

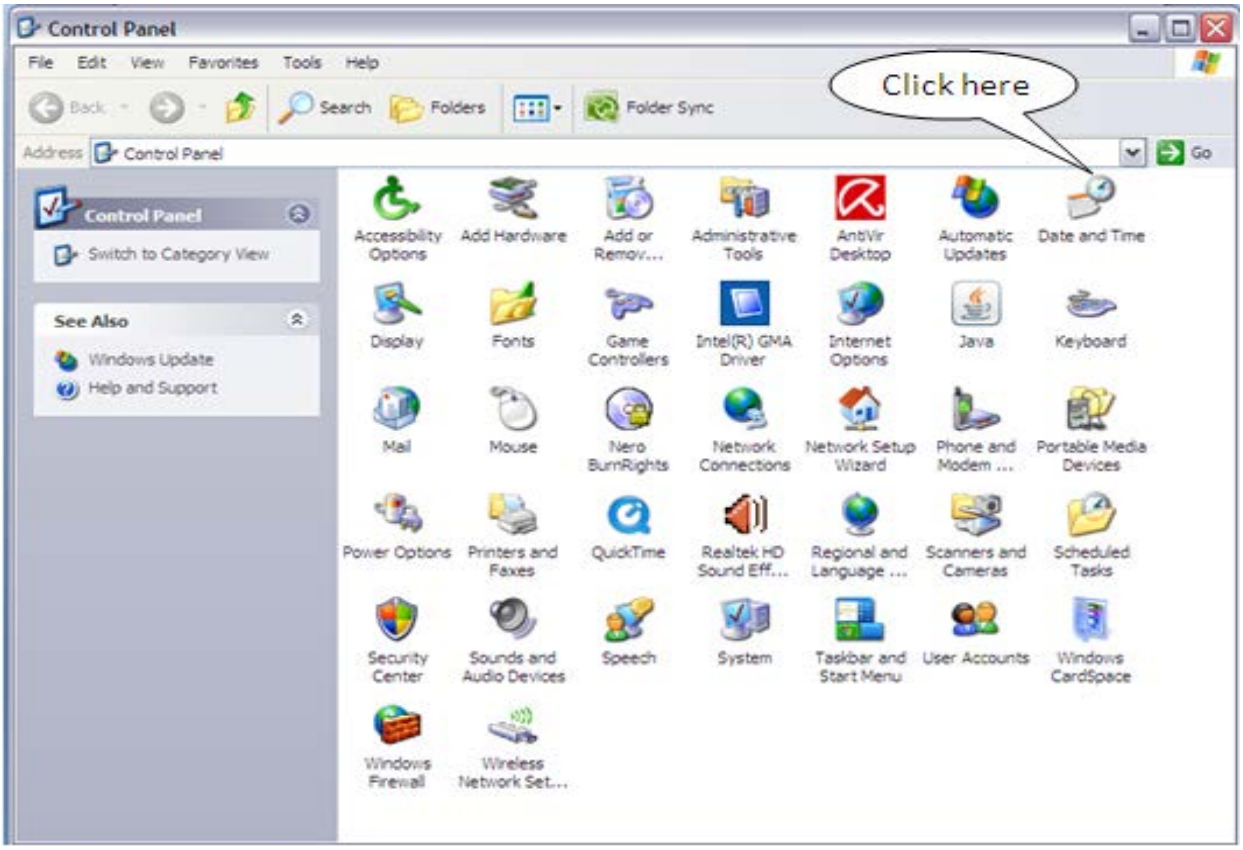


- Title bar. Displays the name of the document and program (or the folder name if you're working in a folder).
- Minimize, Maximize, and Close buttons. These buttons hide the window, enlarge it to fill the whole screen, and close it, respectively (more details on these shortly).
- Menu bar. Contains items that you can click to make choices in a program.
- Scroll bar. Lets you scroll the contents of the window to see information that is currently out of view.
- Borders and corners. You can drag these with your mouse pointer to change the size of the window.

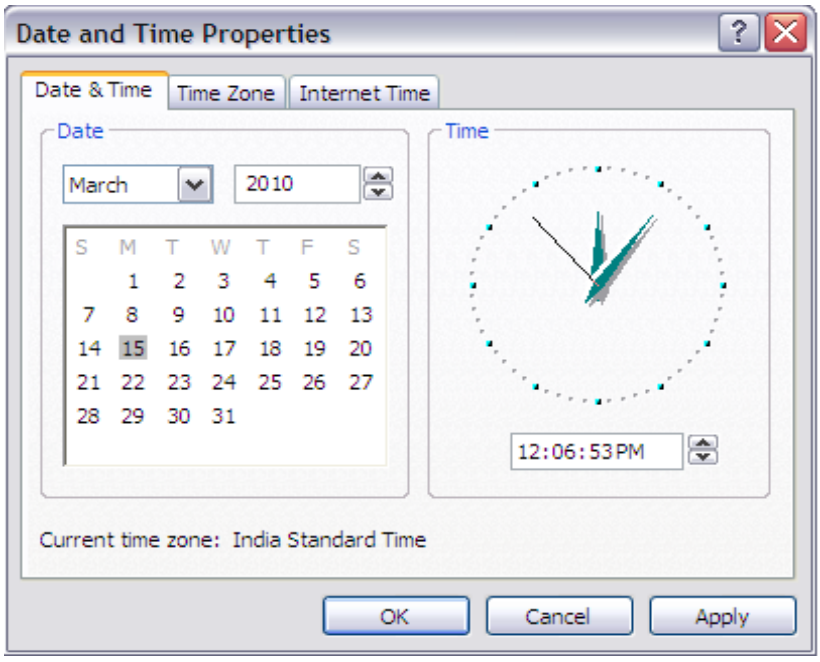
Setting Time and Date

1. Click Start, and then click Control Panel.

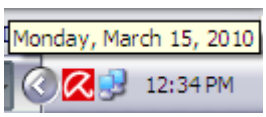
2. Click Date and Time icon in the Control Panel Window.



3. Set the current time and date with the help of the Date and Time properties window as shown below. Then click Apply in the bottom right corner of the Date and Time properties window.



4. Check the date and time that is set in the system tray as shown

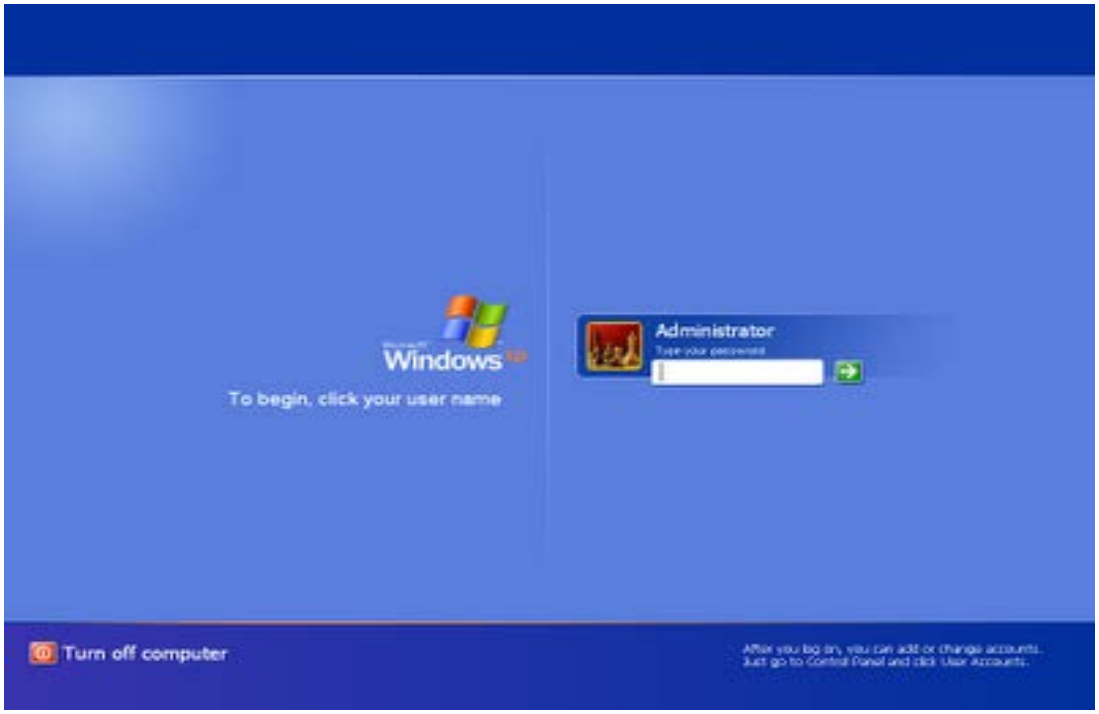


below

Starting Windows

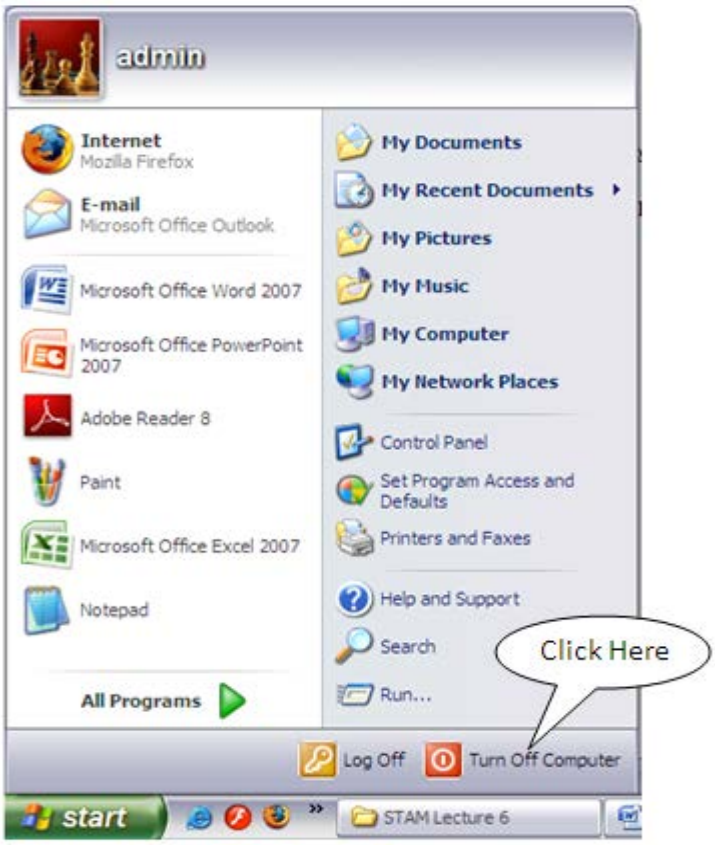
1. Switch on the power supply.
2. Switch on the CPU and Monitor.
3. Windows XP splash screen will be displayed as shown below:

4. Enter the password to load your personal setting in the tab shown below:

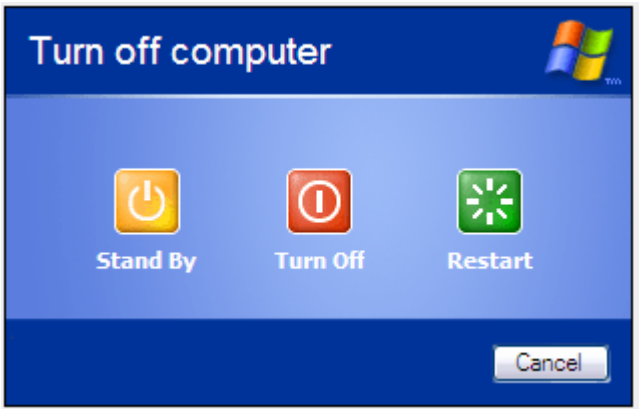


Shutting Down

- Click Start Button → Choose Turn Off Computer option



- Click the Turn Off option in the Shut Down Dialog Box.



LECTURE SCHEDULE 7

MSWORD: Word-processing and units of document, features of word-processing packages. Creating, Editing, Formatting and Saving a document in MSWORD

Word-processing

- Word-processing the process of using computer to create, edit and print documents.
- Word processing is creating documents with
    - Various font face, font styles, font sizes, font colors (eg: one, ***two***, three)
    - Different text effects (MS Word is a product of Microsoft Corporation)
    - Different alignments as shown below:

Office of the Dean Engineering
Tamil Nadu Agricultural University
Coimbatore- 641 003

No.Dean/AEC&RI/Edn/Examiners/Practical Exam/COM

This is to demonstrate the various alignments available in the word processing software. Using this facility the users can left, right and centre the text in their documents.

- facility to automatically correct misspelled words and grammatical mistakes

- The ability to see how the document will look

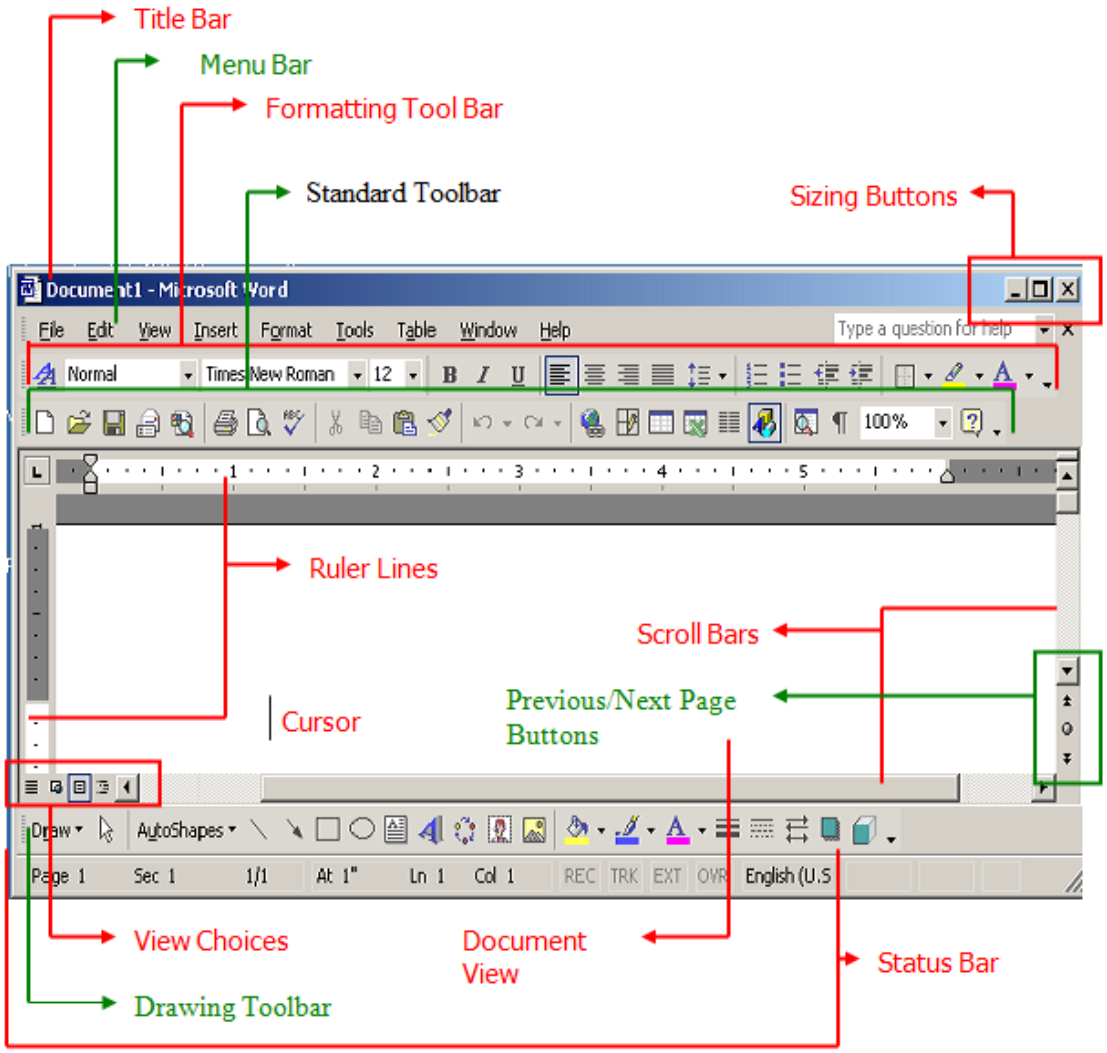
- To perform word processing, a special program called a word processor is in need.
- A word processor enables you to create a document, store it electronically on a disk, display it on a screen, modify it by entering commands and characters from the keyboard, and print it on a printer.
- Examples of Word processors
    - Wordstar
    - Writer
    - Leap
    - WordPerfect
    - MS Word

MSWORD

- MSWORD is a word processor from Microsoft.
- A computer program that enable us to create a document, edit, format, print and also save it for future use.

Microsoft Word

Word Screen



Features of word processing

Word processors vary considerably, but all word processors support the following basic features:

Insert text: Allows you to insert text anywhere in the document.

Delete text: Allows you to erase characters, words, lines, or pages as easily as you can cross them out on paper.

Cut and paste: Allows you to remove (cut) a section of text from one place in a document and insert (paste) it somewhere else.

Copy: Allows you to duplicate a section of text.

Page size and margins: Allows you to define various page sizes and margins, and the word processor will automatically readjust the text so that it fits.

Search and replace: Allows you to direct the word processor to search for a particular word or phrase. You can also direct the word processor to replace one group of characters with another everywhere that the first group appears.

Word wrap: The word processor automatically moves to the next line when you have filled one line with text, and it will readjust text if you change the margins.

Print: Allows you to send a document to a printer to get hardcopy.

Word processors that support only these features (and maybe a few others) are called text editors. Most word processors, however, support additional features that enable you to manipulate and format documents in more sophisticated ways. These more advanced word processors are sometimes called full-featured word processors. Full-featured word processors usually support the following features:

File management: Many word processors contain file management capabilities that allow you to create, delete, move, and search for files.

Font specifications: Allows you to change fonts within a document. For example, you can specify bold, italics, and underlining. Most word processors also let you change the font size and even the typeface.

Footnotes and cross-references: Automates the numbering and placement of footnotes and enables you to easily cross-reference other sections of the document.

Graphics: Allows you to embed illustrations and graphs into a document. Some word processors let you create the illustrations within the word processor; others let you insert an illustration produced by a different program.

Headers, footers, and page numbering: Allows you to specify customized headers and footers that the word processor will put at the top and bottom of every page. The word processor automatically keeps track of page numbers so that the correct number appears on each page.

Layout: Allows you to specify different margins within a single document and to specify various methods for indenting paragraphs.

Macros: A *macro* is a character or word that represents a series of keystrokes. The keystrokes can represent text or commands. The ability to define macros allows you to save yourself a lot of time by replacing common combinations of keystrokes.

Merges: Allows you to merge text from one file into another file. This is particularly useful for generating many files that have the same format but different data. Generating mailing labels is the classic example of using merges.

Spell checker: A utility that allows you to check the spelling of words. It will highlight any words that it does not recognize.

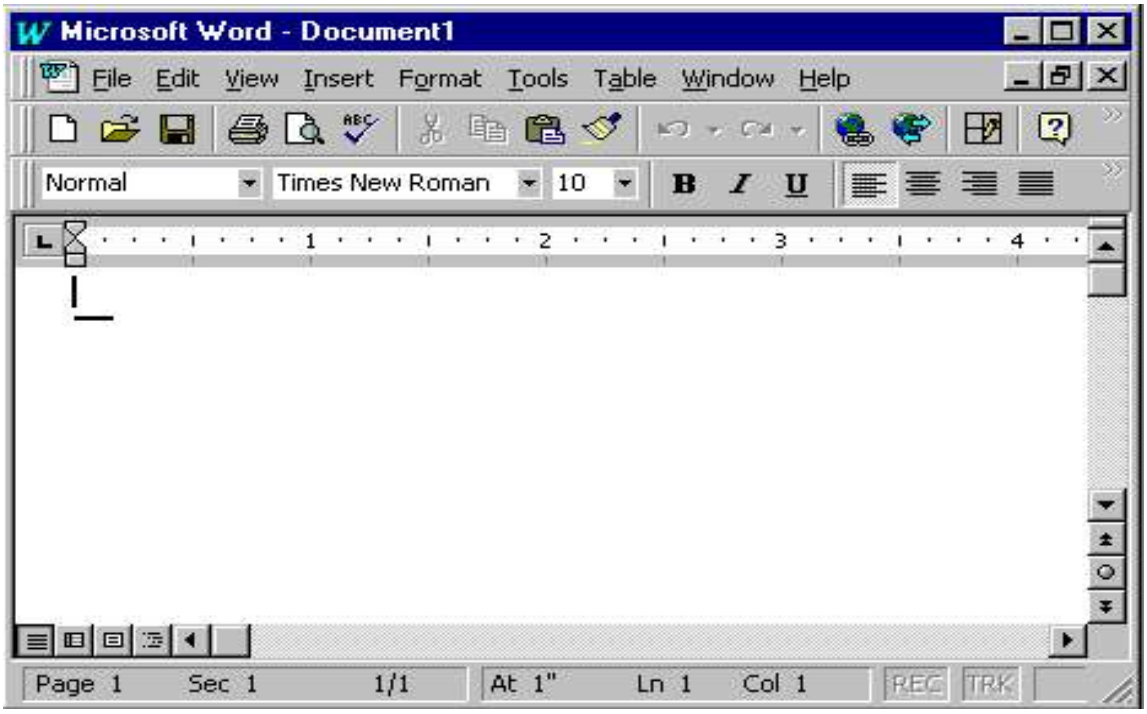
Tables of contents and indexes: Allows you to automatically create a table of contents and index based on special codes that you insert in the document.

Thesaurus: A built-in thesaurus that allows you to search for synonyms without leaving the word processor.

Creating a New Document

- Switch on the computer
- Windows displays a desktop screen with many icons on it.
- Search for Microsoft Word icon, point it with the help of the mouse and double click to select the application.
- If MSWord icon is not on the desktop screen then Click Start→All Programs →Microsoft Word as shown below:

- The opening word screen will get displayed as shown below. The opening screen of word will automatically open a new document and the default name of that document will be Document1.



- If you've already started Word, you create a new document by clicking New on the File menu. In the New Document task pane that opens, click Blank document.
- In the upper-left corner of the document, or page, is the insertion point, a blinking vertical line. Typed content will appear there.
- Keep typing continuously even if the end of the line encountered. With the help of the word wrap property the lines will be automatically displayed in the next consecutive lines.
- Press ENTER to start another paragraph.

Navigating Through Document

- Movement around the created document is achieved with the help of the following operations:

To perform this action...	Press...
To move one character to the left	LEFT ARROW
To move one character to the right	RIGHT ARROW
To move up one line	UP ARROW
To move down one line	DOWN ARROW
To move to the end of a line	END
To move to the beginning of a line	HOME
To move up one screen (scrolling)	PAGE UP
To move down one screen (scrolling)	PAGE DOWN
To move to the end of a document	CTRL+END
To move to the beginning of a document	CTRL+HOME

Selecting the text in the document

- To select the document in the text the following operations can be performed:

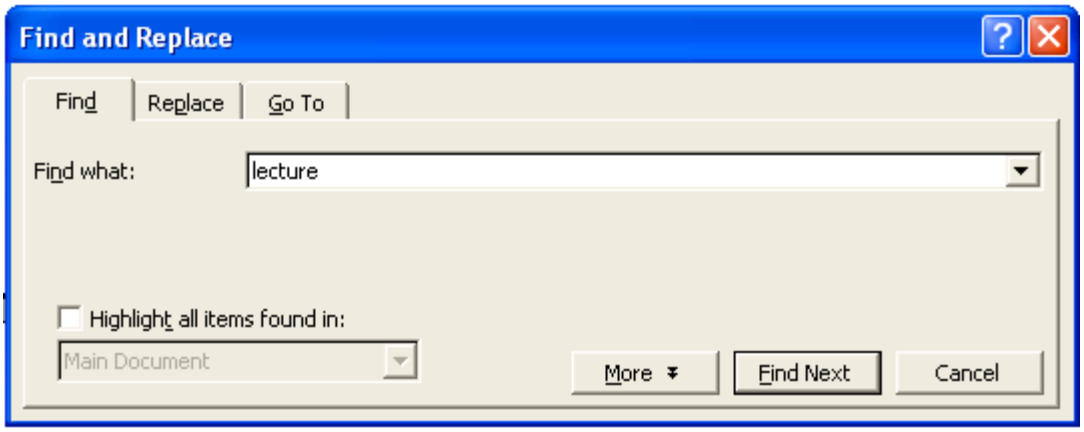
To perform this action...	Press...
To select one character to the right	SHIFT+RIGHT ARROW
To select one character to the left	SHIFT+LEFT ARROW
To select to the beginning of a word	CTRL+SHIFT+LEFT ARROW
To select to the end of a line	SHIFT+END
To select to the beginning of a line	SHIFT+HOME
To select the entire document	CTRL+A

Editing the document

- **Cut**
  - Cut operation removes the selection from the active document and places it on the clipboard.
  - Select the text to be cut in the document.

- Go to Edit menu and select Cut option or click the cut icon ( ) in the toolbar or make use of the shortcut key combination Ctrl+X to cut the text.

- **Copy**
  - Copies the selection to the clipboard
  - Select the text to be copied in the document.
  - Go to Edit menu and select Copy option or click the copy icon ( ) in the toolbar or make use of the shortcut key combination Ctrl+C to copy the selected text.
- **Paste**
  - Paste inserts the contents of the clipboard at the insertion point (cursor) or whatever is selected.
  - First go to the place where you want to display the cut text.
  - From the Edit menu select Paste option or click paste icon ( ) in the toolbar or press the short cut key Ctrl+V
- **Find and Replace**
  - Find searches for specified text in the active document
  - To find a specified text in the document go to Edit menu choose find option or click the find icon ( ) on the toolbar or make use of the shortcut key combination Ctrl+F.
  - The Find and Replace dialog box will get displayed.



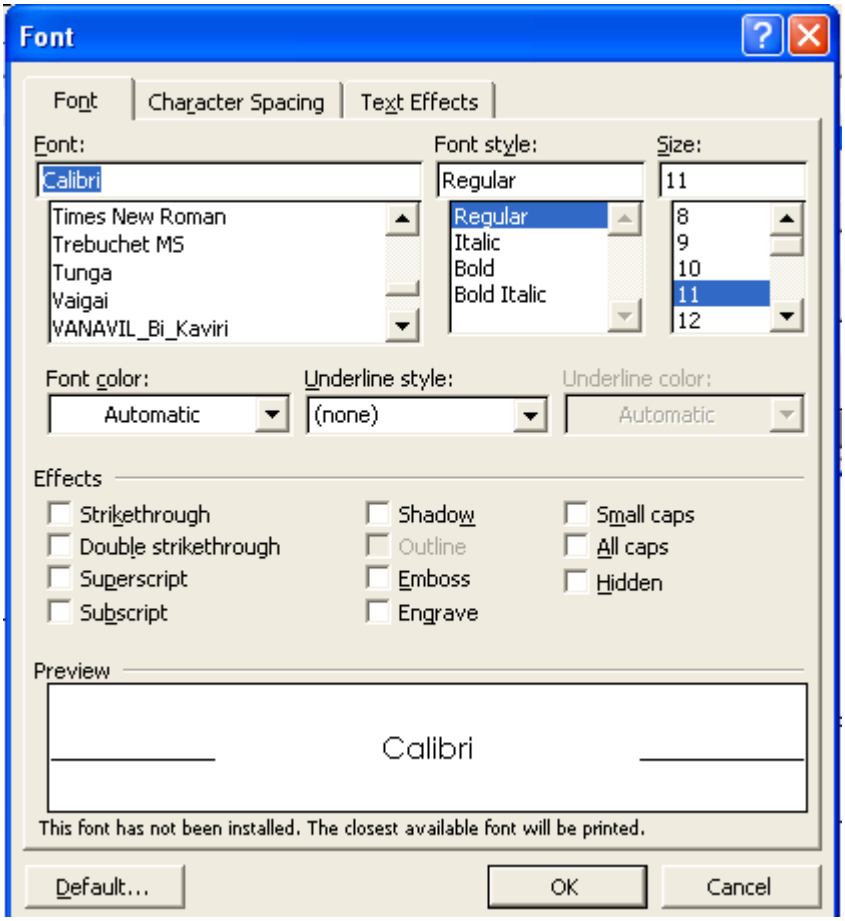
- Enter the text to be searched in the Find what tab.
- Clicking the Find Next button the specified text will be located in the document.
- Replace **s**earches for and replaces specified text.
- To replace go to edit menu and select Replace option or click the replace icon in the toolbar or make use of the shortcut key combination Ctrl+H.
- Find and Replace dialog will get displayed.

- Clicking Find Next and Replace buttons the specified text will be replaced.
- To replace all the instance of the text lecture with the text lecture schedule click Replace All button in the Find and Replace window.

- Then every instance of the text lecture in the document will get replaced with the text lecture schedule.

Formatting the Document

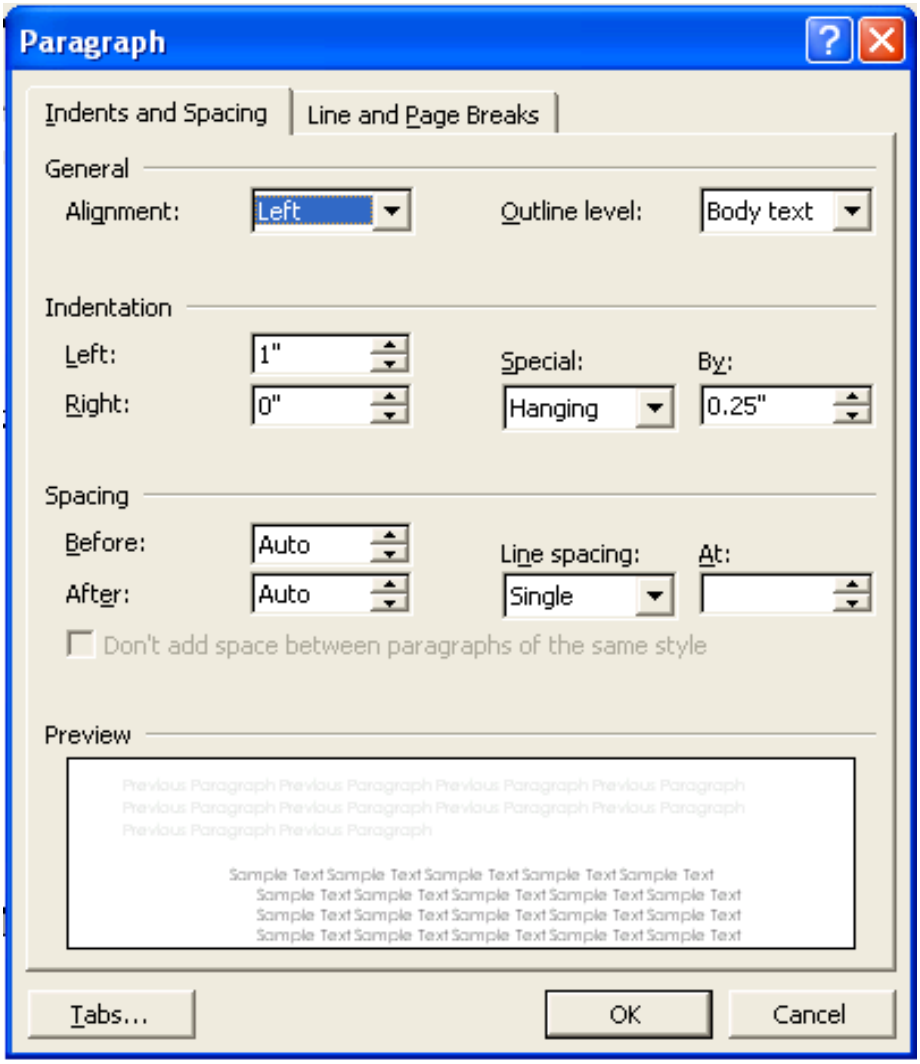
- **Font**
  - Font change font style, size, color and a large number of other features.
  - To change the font style, size of a selected text go to format menu and select Font option or click the font icon ( ) in the format toolbar.
  - The Font dialog box will get displayed.



  - In the Font dialog box choose font face, font style, font size, font color etc.
  - Click OK button then the applied font effects will get reflected in the document.

- **Bold, Italic and Underline**
  - Bold, Italic, Underline **-** Format selected text: **Bold**, *Italic*, or Underlined
  - To bold the text press Ctrl + B or click the bold icon ( ) on the toolbar
  - To underline the text press Ctrl + U or click the underline icon ( ) on the toolbar
  - To italics the text press Ctrl + I or click the italic icon ( ) on the toolbar

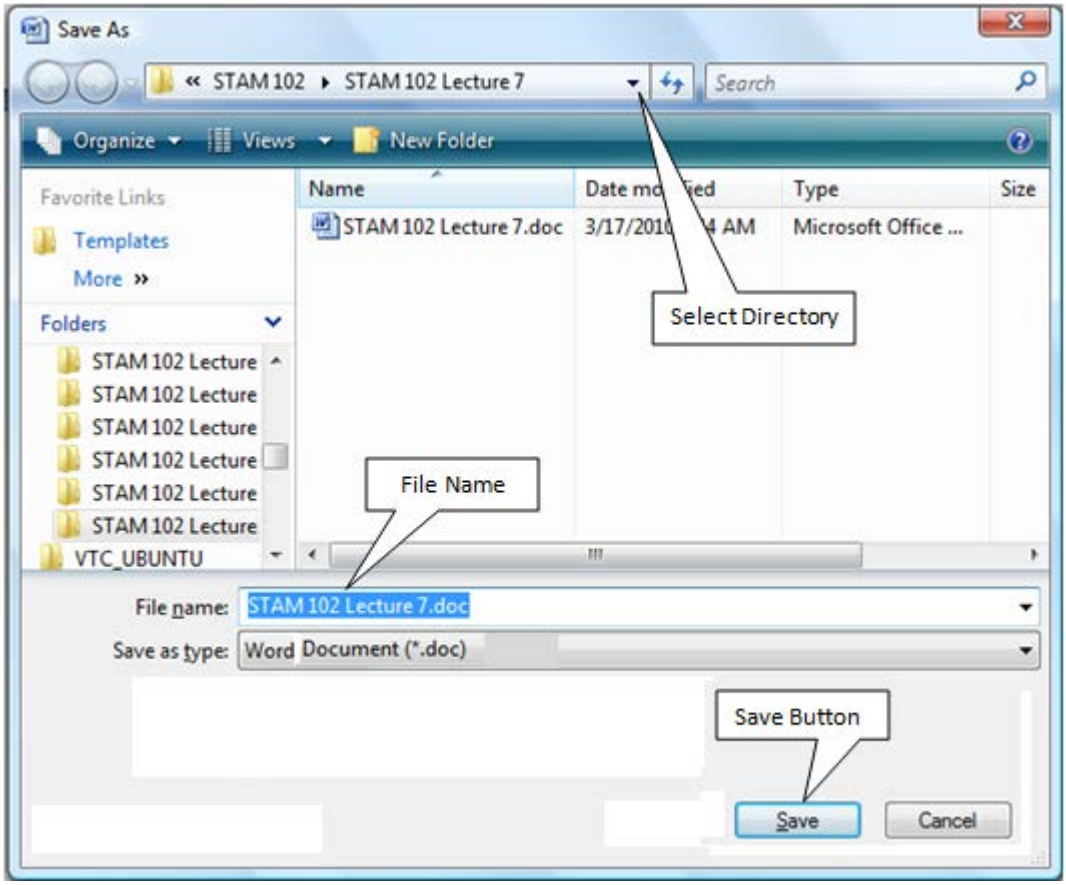
- **Paragraph**
  - Paragraph under format menu indents a paragraph using either margin or place some chosen amount of space before or after the paragraph.
  - Select the paragraph if already entered or simply go Format menu and choose Paragraph option or click the paragraph icon ( ) in the toolbar.
  - Paragraph dialog box will get displayed.



- In the paragraph window we can set Alignment, Indentation and Spacing for paragraphs.
- Click OK will reflect the changes in the document accordingly.

Saving the document

- To save the document for the first time click File Menu→Choose Save As
- Save As dialog Box will get displayed.
- Select the directory where you want to save or create a new folder by clicking New Folder icon.
- Enter the file name in the File name box.



- Click Save. The file is saved under the new name.
- To save subsequently click on Save from File Menu.
- Or hold the Ctrl. Key and press S from keyboard.
- Or click Save button ( ) in the standard toolbar.

LECTURE SCHEDULE 8

MSEXCEL: Electronic Spreadsheets – concepts, packages. Creating, Editing and Saving a spreadsheet with MSEXCEL

Electronic Spreadsheet

- An electronic spreadsheet is the computer equivalent of a paper ledger sheet. It consists of a grid made from columns and rows.

	paper ledger		
	car loan		$12,000
	interest		9.6%
	# of payments		60
	monthly payment		$252.61

	A	B	C
1		computer ledger	
2			
3		car loan	$12,000.00
4		interest	9.60%
5		# of payments	60
6			
7		Monthly Pmt.	$252.61

- Spreadsheet program allows us to create professional spreadsheets and charts.
- It performs numerous functions and formulas to assist us in our projects.

Electronic Spreadsheet Packages

- Examples of spreadsheet programs are:
  - Lotus 1-2-3
  - Corel's QuattroPro
  - MS Excel

- Excel is a spreadsheet program from Microsoft, a component of Microsoft Office for business applications.

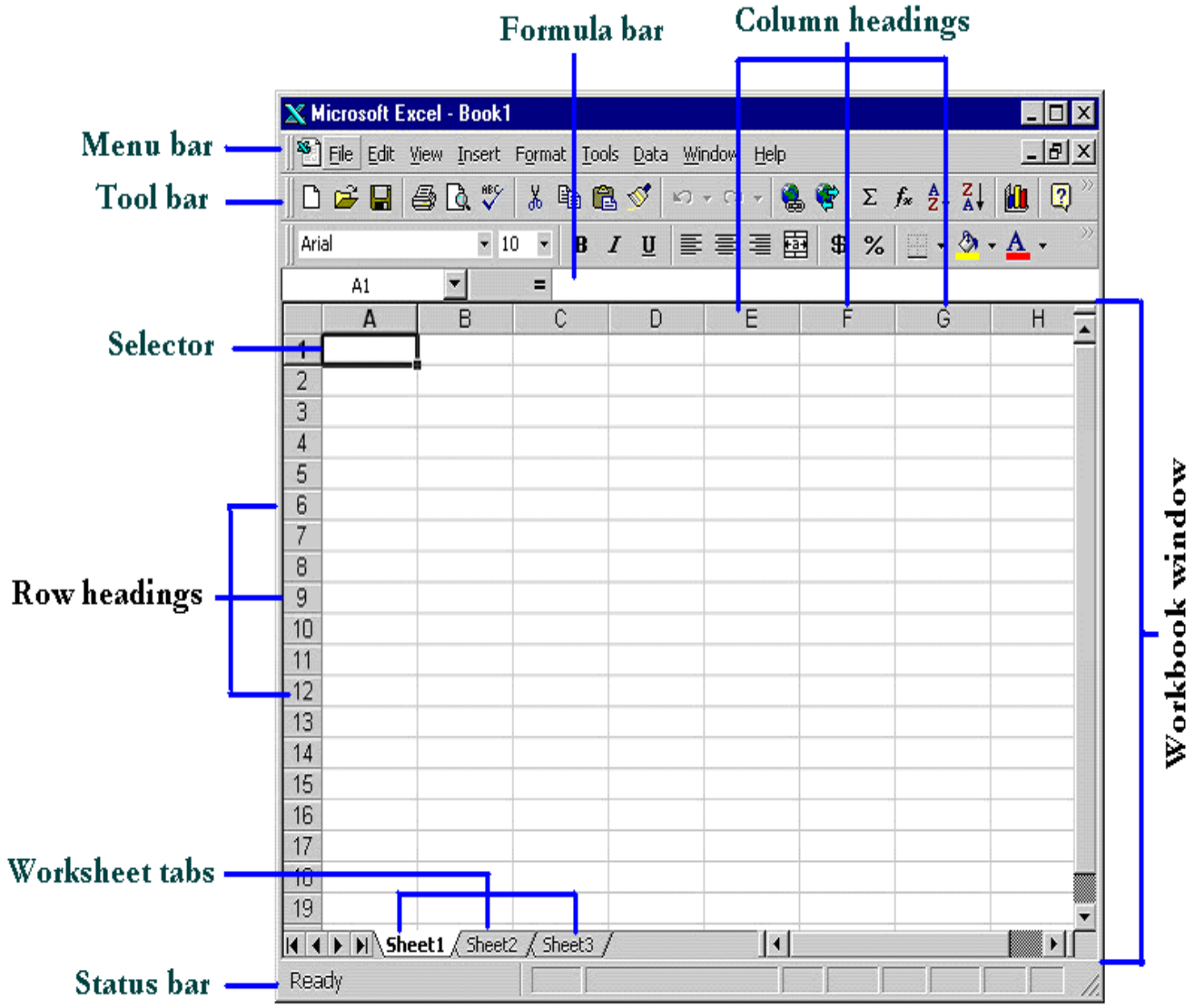
Starting Microsoft Excel

- Double click on the Microsoft Excel icon on the desktop.
- Click on Start --> Programs --> Microsoft Excel

Concepts

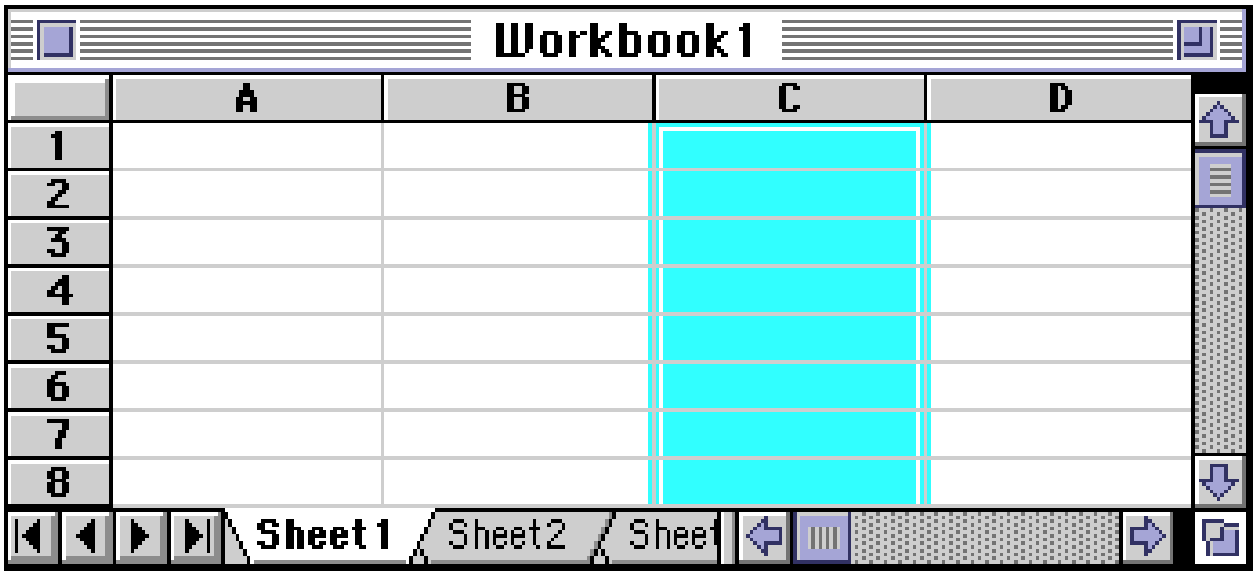
- Spreadsheets are commonly referred to as workbook in Excel.
- Workbooks are made up of
  - columns
  - rows
  - and their intersections are called cells
- A workbook may contain one or more worksheets.

Elements of an Excel Window



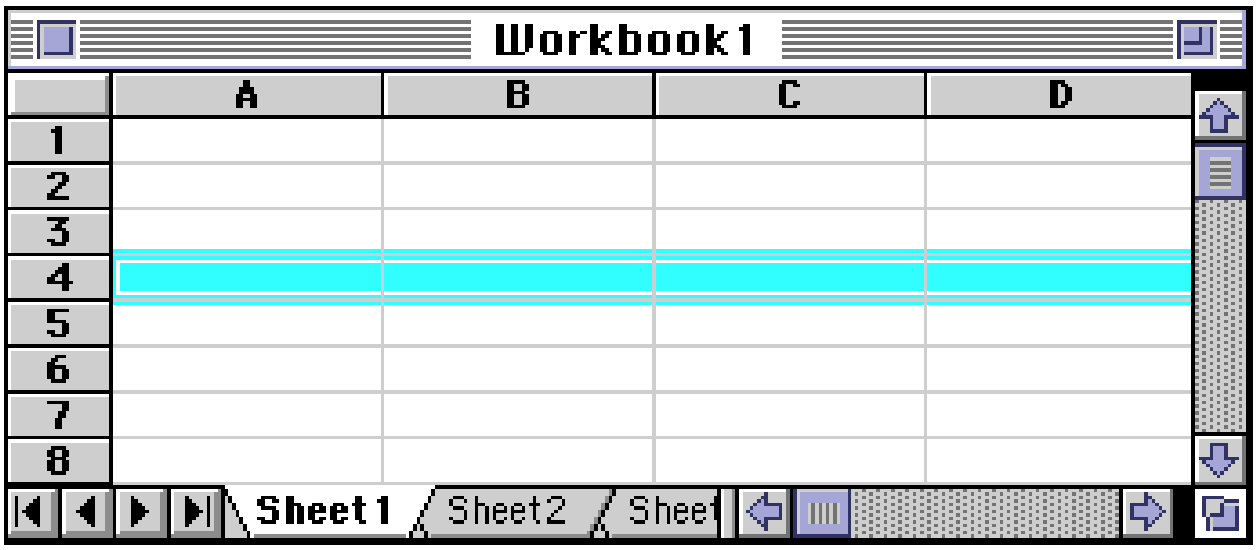
Definition of column in the worksheet

- The column is defined as the vertical space that is going up and down the window. Letters are used to designate each column's location.



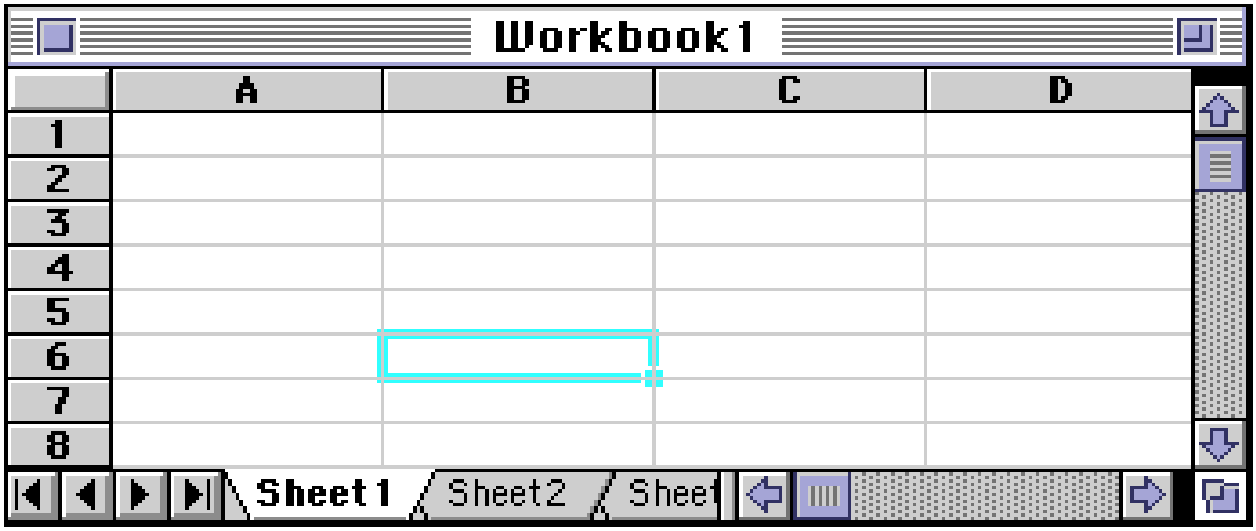
Definition of column in the worksheet

- The row is defined as the horizontal space that is going across the window. Numbers are used to designate each row's location.



Definition of cell in the worksheet

- The cell is defined as the space where a specified row and column intersect.
- Each cell is assigned a name according to its column letter and row number.



- The selected cell is highlighted.
- The address or the name of the cell selected above is B6.

What a cell can contain?

- A cell may contain any one of the following types of data
  - text (labels)
  - number data (constants)
  - formulas (mathematical equations that do all the work)

Data types	Examples	Descriptions
LABEL	Name or ID or Days	anything that is just text
CONSTANT	5 or 3.75 or -7.4	any number
FORMULA	=5+3 or = 8*5+3	mathematics equation

Navigating Through Cells

Movement	Key stroke
One cell up	up arrow key
One cell down	down arrow key or enter
One cell left	left arrow key
One cell right	right arrow key or tab
Top of the worksheet (cell A1)	Ctrl+Home
End of the worksheet (last cell with data)	Ctrl+End
End of the row	Ctrl+right arrow key
End of the column	CTRL+down arrow key

Selecting Cells

Cells to select	Mouse action
One cell	Click once in the cell
Entire row	click the row label
Entire column	click the column label
Entire worksheet	click Ctrl + A sheet button
Cluster of cells	drag mouse over the cells or hold down the SHIFT key while using the arrow keys

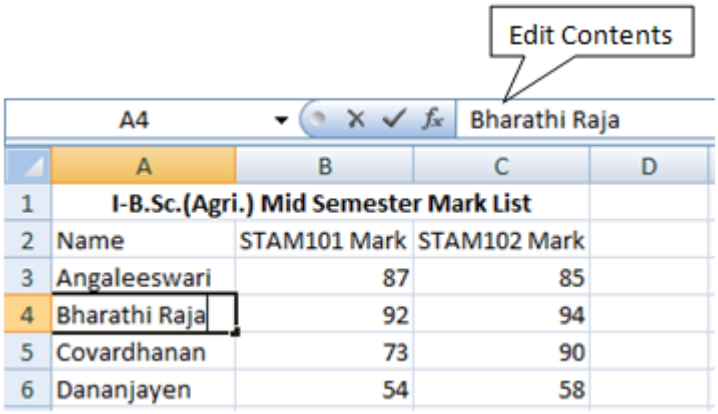
Creating Spreadsheet

- Move to the cell where you want to enter data and enter words or numbers.
- If data is already in the cell it will be replaced without you having to cut or delete the previous data.

	A	B	C
1	**I-B.Sc.(Agri.) Mid Semester Mark List**		
2	Name	STAM101 Mark	STAM102 Mark
3	Angaleeswari	87	85
4	Bharathi	92	94
5	Covardhanan	73	90
6	Dananjayen	54	58

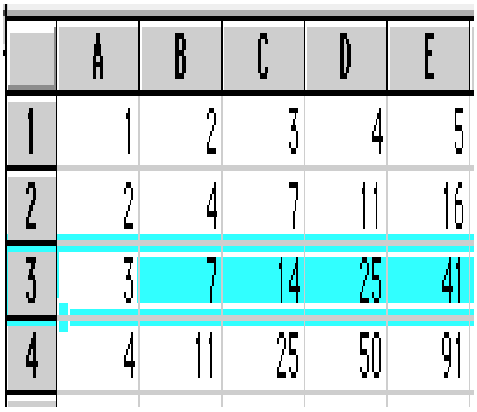
Editing Spreadsheet

- To edit the contents of a cell
  - Select the cell, type the new contents and press enter. The new entry will be replacing the existing contents
  - Or select the cell to be edited, click on the Formula bar or double click the cell then edit the contents and press enter.

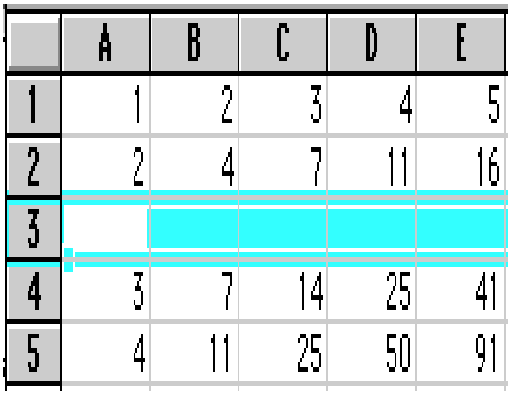


	A	B	C	D
1	**I-B.Sc.(Agri.) Mid Semester Mark List**			
2	Name	STAM101 Mark	STAM102 Mark	
3	Angaleeswari	87	85	
4	Bharathi Raja	92	94	
5	Covardhanan	73	90	
6	Dananjayen	54	58	

- **To insert a row in the spreadsheet**
  - First click on the row number and choose Rows from the Insert menu. This will insert a row before the selected row.

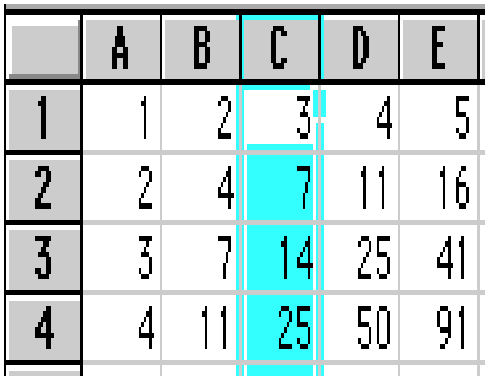


	A	B	C	D	E
1	1	2	3	4	5
2	2	4	7	11	16
3	3	7	14	25	41
4	4	11	25	50	91

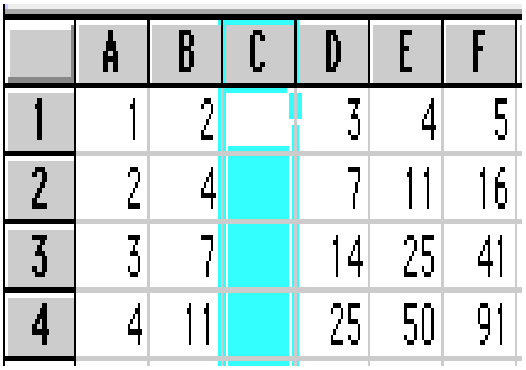


	A	B	C	D	E
1	1	2	3	4	5
2	2	4	7	11	16
3					
4	3	7	14	25	41
5	4	11	25	50	91

- **To insert a column in the spreadsheet**
  - First click on the column label (letter) and choose Columns from the Insert menu. This will insert a column immediately left of the selected column.



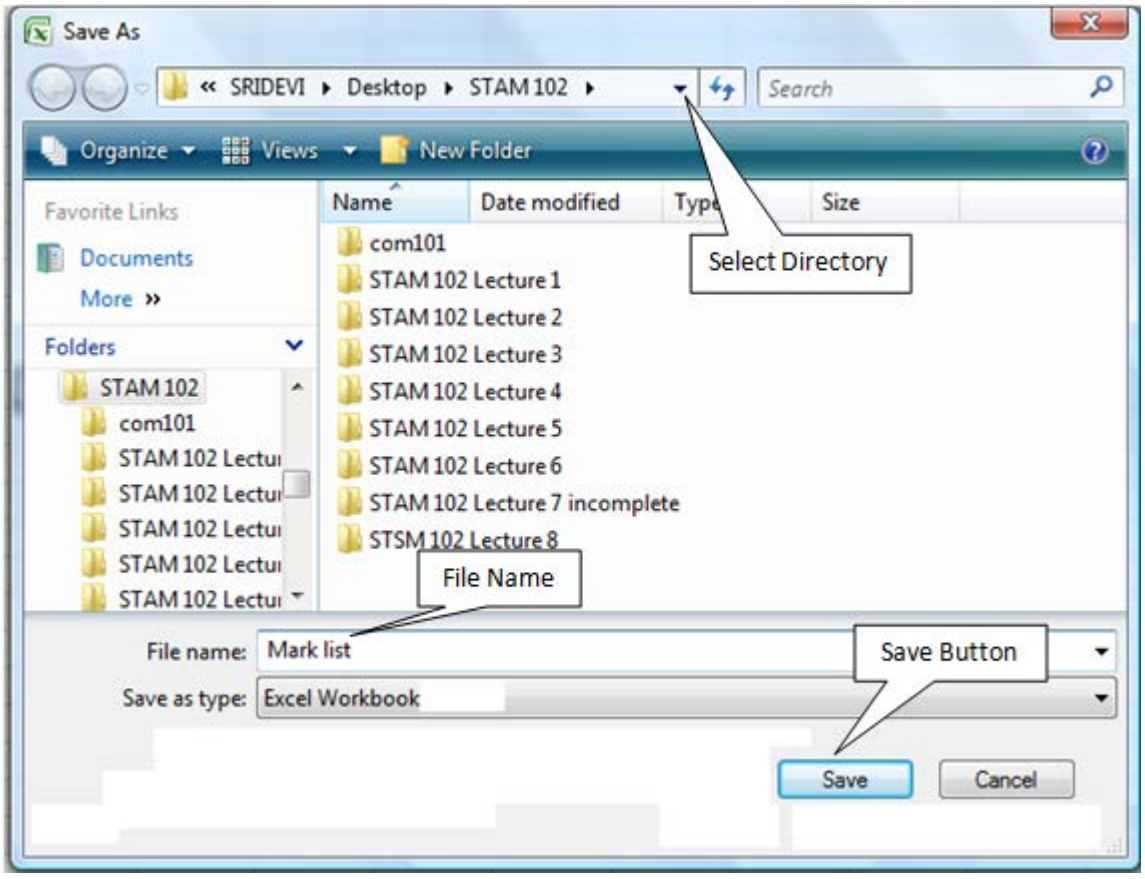
	A	B	C	D	E
1	1	2	3	4	5
2	2	4	7	11	16
3	3	7	14	25	41
4	4	11	25	50	91



	A	B	C	D	E	F
1	1	2		3	4	5
2	2	4		7	11	16
3	3	7		14	25	41
4	4	11		25	50	91

Saving Spreadsheet

- Click on Save As from File menu.
- In the Save As dialog box
  - Select the directory
  - Enter the file name
  - Click on Save button



- To save subsequently Click on Save from File menu
- Or hold the Ctrl. Key and press Enter key
- Or press Save button ( ) in the Tool Bar.

LECTURE SCHEDULE 9

Use of in-built functions and writing expressions

In-built Functions

- A function is an in-built program, which is used to do a particular task.
- Functions take the input the input and will give the result as the output.
- Based on the input and output data the functions are categorized as
    - String functions
    - Arithmetic functions
    - Date functions
    - Logical functions
    - Group functions

Use of in-built function SUM()

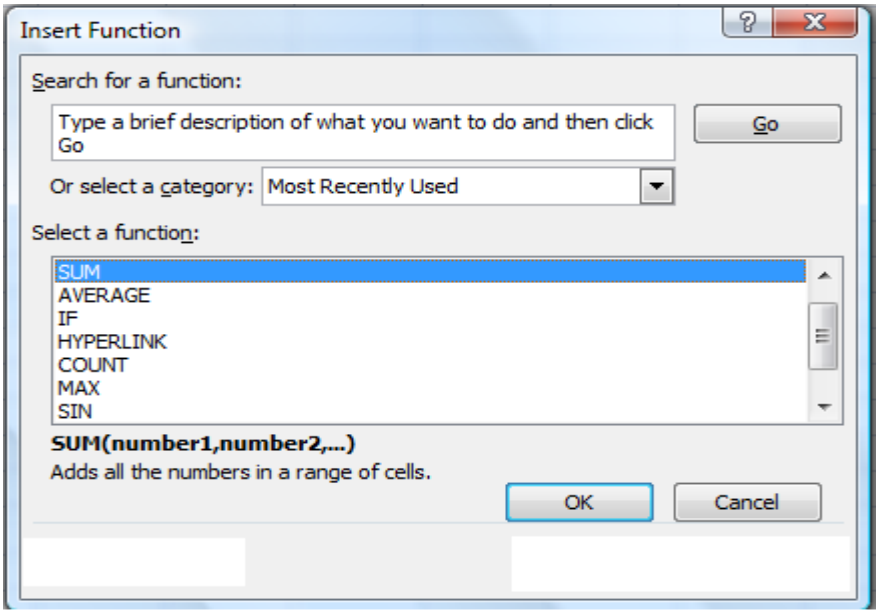
To use in-built functions enter the data to prepare mark list of the I- B.Sc.(Agriculture) students in the spreadsheet.

	A	B	C	D	E
1	I-B.Sc.(Agri.) Mid Semester Mark List				
2	Name	STAM101 Mark	STAM102 Mark	AGR101 Mark	PBG101 Mark
3	Angaleeswari	87	85	86	84
4	Bharathi Raja	92	94	96	97
5	Covardhanan	73	90	64	58
6	Dananjayen	54	58	60	63
7	Elevanthan	78	76	77	75
8	Gayathri	66	56	57	86
9	Hariprasad	61	65	66	64

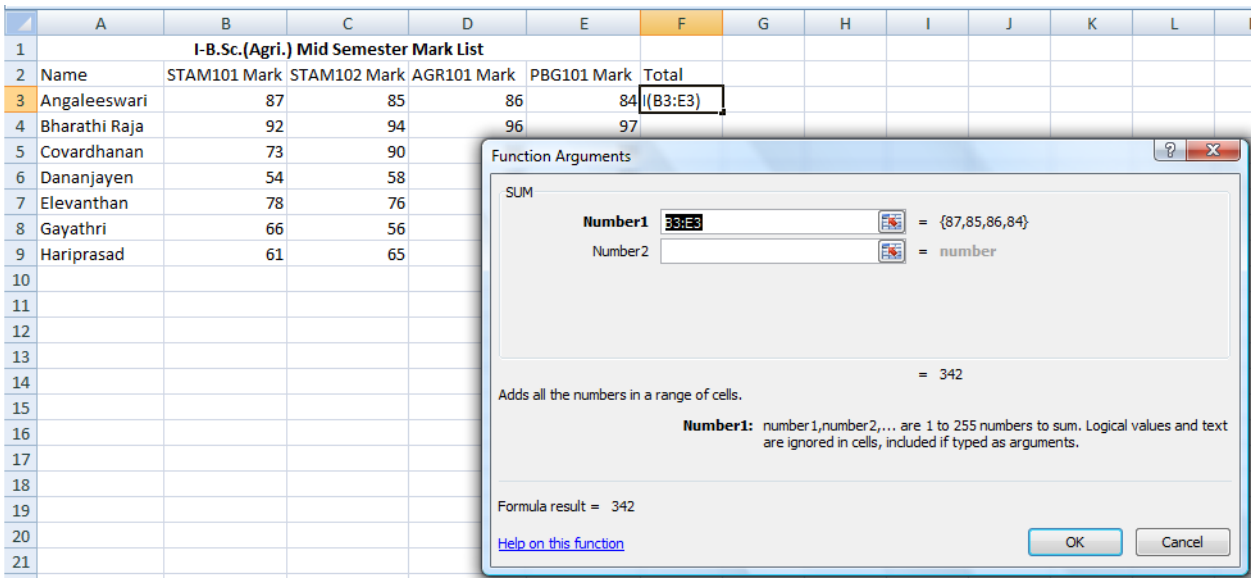
- Using the in-built function SUM() we can calculate the total scored by each and every student in I-B. Sc. (Agri.).
- Add Total column in the spreadsheet as shown below:

	A	B	C	D	E	F
1	I-B.Sc.(Agri.) Mid Semester Mark List					
2	Name	STAM101 Mark	STAM102 Mark	AGR101 Mark	PBG101 Mark	Total
3	Angaleeswari	87	85	86	84	
4	Bharathi Raja	92	94	96	97	
5	Covardhanan	73	90	64	58	
6	Dananjayen	54	58	60	63	
7	Elevanthan	78	76	77	75	
8	Gayathri	66	56	57	86	
9	Hariprasad	61	65	66	64	

- Place the mouse pointer in the cell with the address F3
- The F3 cell is the one which should display the total mark scored by the student namely Angaleeswari in the above example.
- Click on Insert Menu → Function
- or Select f_x in the Formula bar
- Insert Function dialog box will get displayed as shown below:



- Select SUM function and click OK button in the Insert Function dialog box.
- The function Argument dialog box will be displayed with the automatically assumed range of cells to be added(B3 to E3)



- Click OK. The result is displayed as shown. We can even choose the range of cells added manually.

	A	B	C	D	E	F
1	I-B.Sc.(Agri.) Mid Semester Mark List					
2	Name	STAM101 Mark	STAM102 Mark	AGR101 Mark	PBG101 Mark	Total
3	Angaleeswari	87	85	86	84	342
4	Bharathi Raja	92	94	96	97	
5	Covardhanan	73	90	64	58	
6	Dananjayen	54	58	60	63	
7	Elevanthan	78	76	77	75	
8	Gayathri	66	56	57	86	
9	Hariprasad	61	65	66	64	

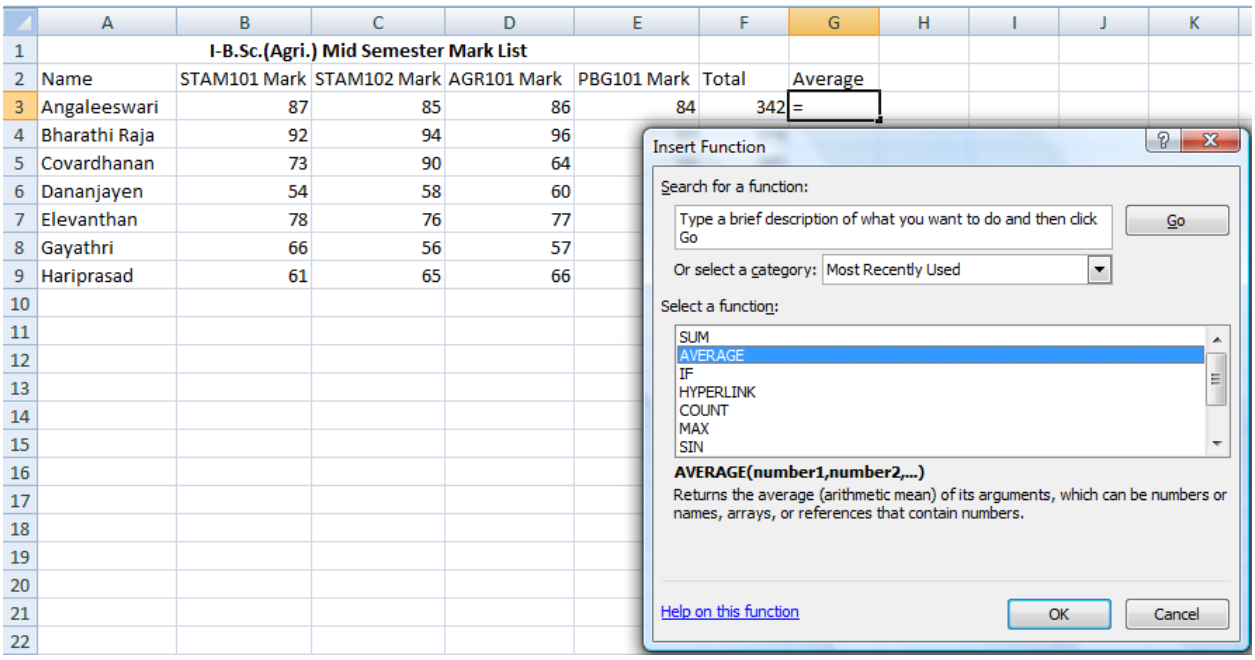
- The total marks scored by the other students have to added in the same way by making use of the SUM() function.
- Instead entering the same function for all the students in the example we can copy the formula to the cells in the total column to add B4:E4, B5:E5, B6:E6 and so on.
- When we copy the SUM() function formula from the cell F3 to F4 the SUM function will automatically taking the input range of numbers to be added is B4:E4.
- The same is applicable to the rest of the cells in the total column.
- To copy down the formula place the mouse pointer at the bottom right corner of the cell F3.

- The mouse pointer now automatically changes into + symbol.
- Now drag + symbol down the cells in the Total column.
- We can see the total marks of all the students in the example as shown below.

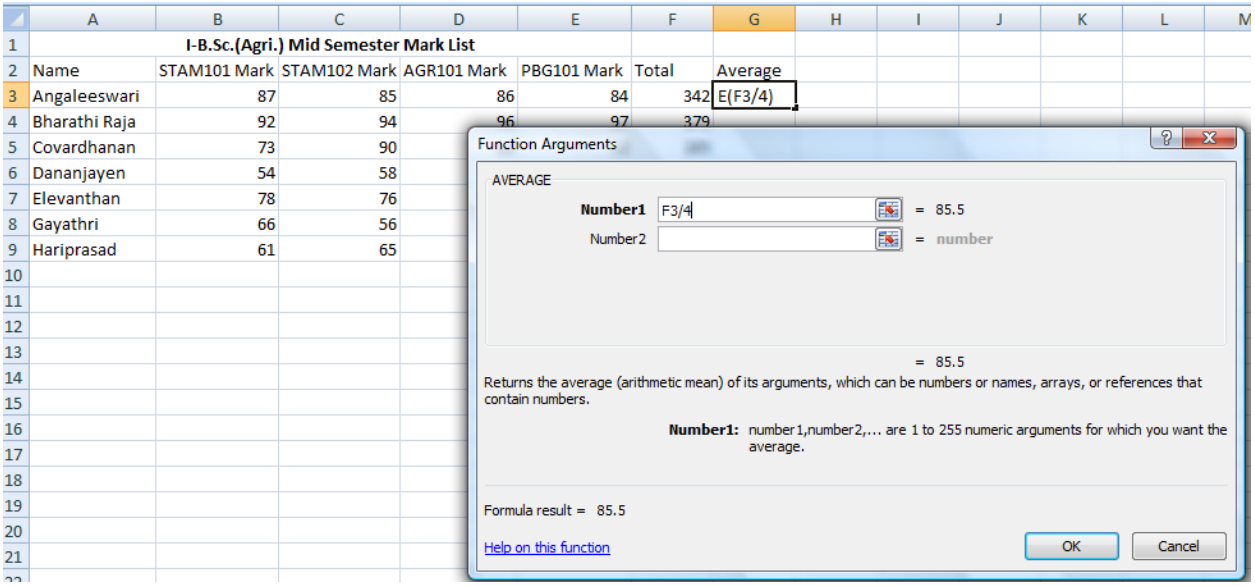
	A	B	C	D	E	F
1	I-B.Sc.(Agri.) Mid Semester Mark List					
2	Name	STAM101 Mark	STAM102 Mark	AGR101 Mark	PBG101 Mark	Total
3	Angaleeswari	87	85	86	84	342
4	Bharathi Raja	92	94	96	97	379
5	Covardhanan	73	90	64	58	285
6	Dananjayen	54	58	60	63	235
7	Elevanthan	78	76	77	75	306
8	Gayathri	66	56	57	86	265
9	Hariprasad	61	65	66	64	256

Use of in-built function AVERAGE()

- To calculate the average marks scored by the students in the example we can make use of average function AVERAGE().
- Enter Average column in the spreadsheet.
- Place the mouse pointer in the cell with the address G3
- The F3 cell is the one which should display the total mark scored by the student namely Angaleeswari in the above example.
- Click on Insert Menu → Function
- or Select f_x in the Formula bar
- Insert Function dialog box will get displayed as shown below. Choose AVERAGE() function and click OK.



- Click OK button in the Insert Function dialog box.
- In the Function Argument dialog box enter F3/4 then click OK button. The average scored is displayed.



- Copy the AVERAGE formula as we copied the SUM().

	A	B	C	D	E	F	G
1	I-B.Sc.(Agri.) Mid Semester Mark List						
2	Name	STAM101 Mark	STAM102 Mark	AGR101 Mark	PBG101 Mark	Total	Average
3	Angaleeswari	87	85	86	84	342	85.5
4	Bharathi Raja	92	94	96	97	379	94.75
5	Covardhanan	73	90	64	58	285	71.25
6	Dananjayen	54	58	60	63	235	58.75
7	Elevanthan	78	76	77	75	306	76.5
8	Gayathri	66	56	57	86	265	66.25
9	Hariprasad	61	65	66	64	256	64

Writing Expressions

- The total marks can be calculated by writing expressions.
- Place the cursor the cell F3.
- To enter expression, enter the equal sign first.

AVERAGE ✕ ✓ f_x =

	A	B	C	D	E	F	G
1	I-B.Sc.(Agri.) Mid Semester Mark List						
2	Name	STAM101 Mark	STAM102 Mark	AGR101 Mark	PBG101 Mark	Total	Average
3	Angaleeswari	87	85	86	84	=	
4	Bharathi Raja	92	94	96	97		
5	Covardhanan	73	90	64	58		
6	Dananjayen	54	58	60	63		
7	Elevanthan	78	76	77	75		
8	Gayathri	66	56	57	86		
9	Hariprasad	61	65	66	64		

- Choose the cells with the cursor as sown

	A	B	C	D	E	F	G
1	I-B.Sc.(Agri.) Mid Semester Mark List						
2	Name	STAM101 Mark	STAM102 Mark	AGR101 Mark	PBG101 Mark	Total	Average
3	Angaleeswari	87	85	86	84	=B3+C3+D3+E3	
4	Bharathi Raja	92	94	96	97		
5	Covardhanan	73	90	64	58		
6	Dananjayen	54	58	60	63		
7	Elevanthan	78	76	77	75		
8	Gayathri	66	56	57	86		
9	Hariprasad	61	65	66	64		

- Press enter. The result will be displayed in F3. Copy the expression down the Total column to find the total mark scored by all the students in the example.
- To calculate the averages place the G3.
- Enter the equal sign first in the cell G3.
- Enter F3/4 which is the average to be calculated.

	A	B	C	D	E	F	G
1	**I-B.Sc.(Agri.) Mid Semester Mark List**						
2	Name	STAM101 Mark	STAM102 Mark	AGR101 Mark	PBG101 Mark	Total	Average
3	Angaleeswari	87	85	86	84	342	=F3/4
4	Bharathi Raja	92	94	96	97	379	
5	Covardhanan	73	90	64	58	285	
6	Dananjayen	54	58	60	63	235	
7	Elevanthan	78	76	77	75	306	
8	Gayathri	66	56	57	86	265	
9	Hariprasad	61	65	66	64	256	

- Press enter. The average will be displayed. Copy the expression down the cells in the Average column to calculate the rest of the averages.

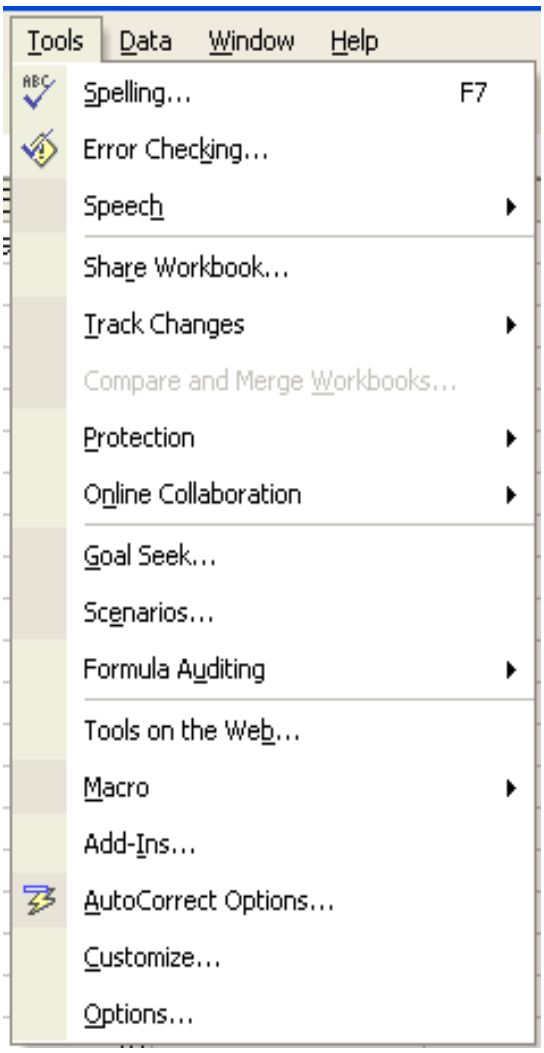
	A	B	C	D	E	F	G
1	**I-B.Sc.(Agri.) Mid Semester Mark List**						
2	Name	STAM101 Mark	STAM102 Mark	AGR101 Mark	PBG101 Mark	Total	Average
3	Angaleeswari	87	85	86	84	342	85.5
4	Bharathi Raja	92	94	96	97	379	94.75
5	Covardhanan	73	90	64	58	285	71.25
6	Dananjayen	54	58	60	63	235	58.75
7	Elevanthan	78	76	77	75	306	76.5
8	Gayathri	66	56	57	86	265	66.25
9	Hariprasad	61	65	66	64	256	64

LECTURE SCHEDULE 10

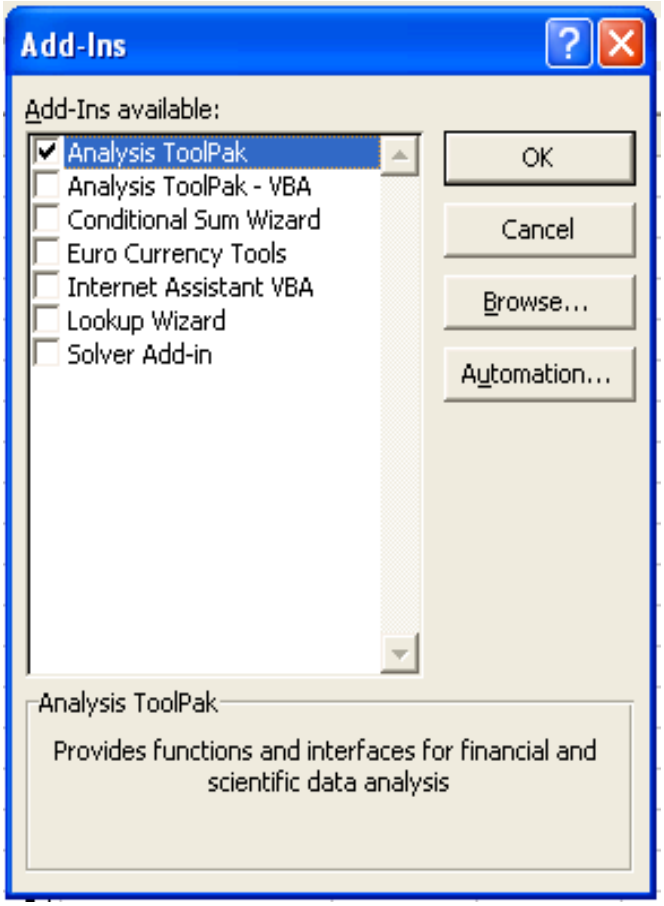
Data Analysis Tools- Correlation and Regression, t-test for two samples and ANOVA with One-way classification

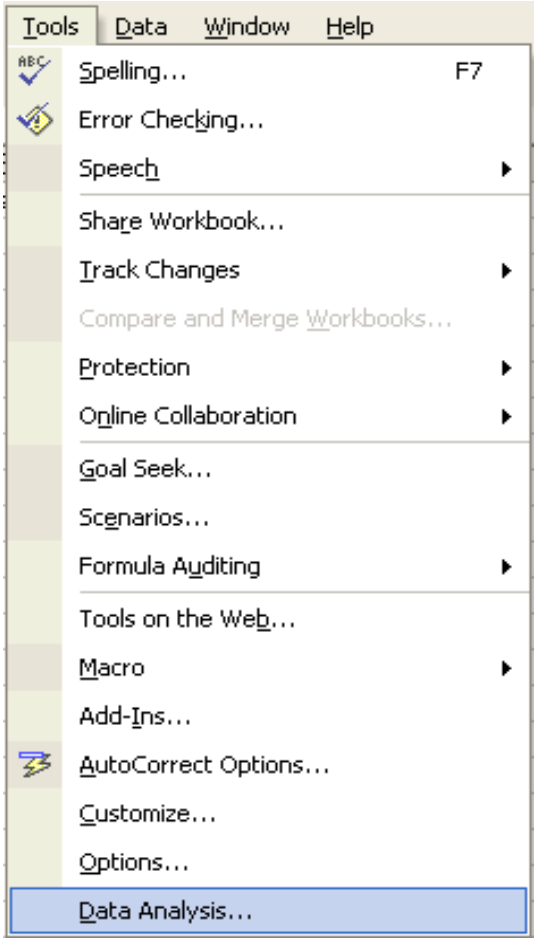
Data Analysis Tools

- Most of Excel's statistical procedures are part of the Data Analysis ToolPak. This option is available in TOOLS menu.
- The analysis that can be done are:
    - descriptive statistics,
    - t tests,
    - correlations,
    - one or two way analysis of variance,
    - regression,
    - moving average,
    - Fourier analysis etc.
- To start the data analysis click Tools menu. Search for the Data Analysis tab in the Tools menu.

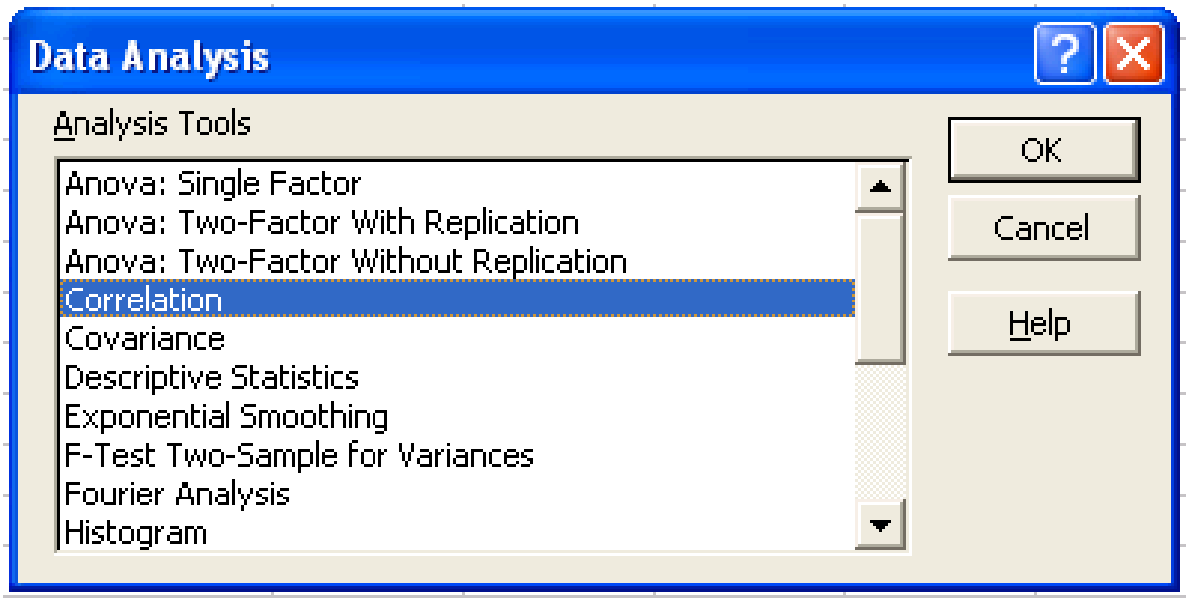


- If Data Analysis is not found in the menu then click Add-Ins…
- In the Add_Ins dialog box check Analysis ToolPak. Then Click OK.
- Now choose the Tools menu. You can find the Data Analysis there.





- Click Data Analysis option in the Tools now.
- Data Analysis dialog box will get displayed as shown:

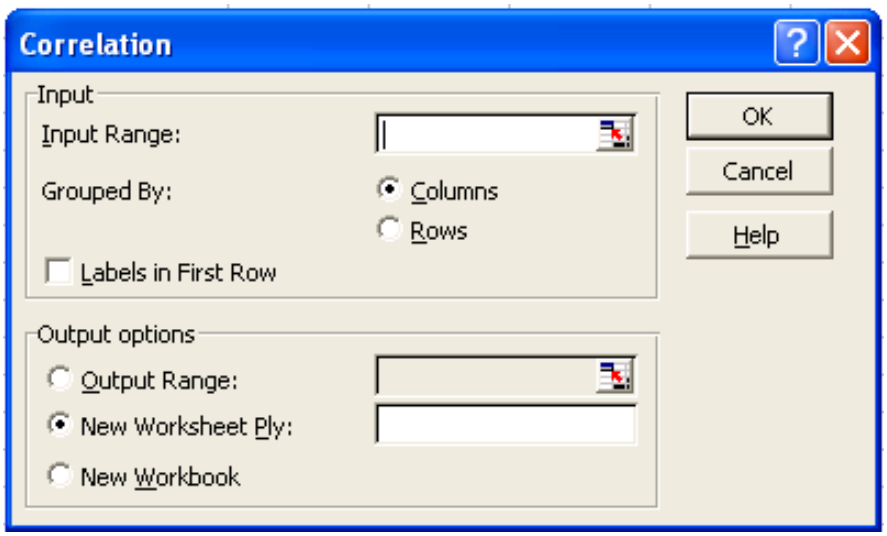


Correlation

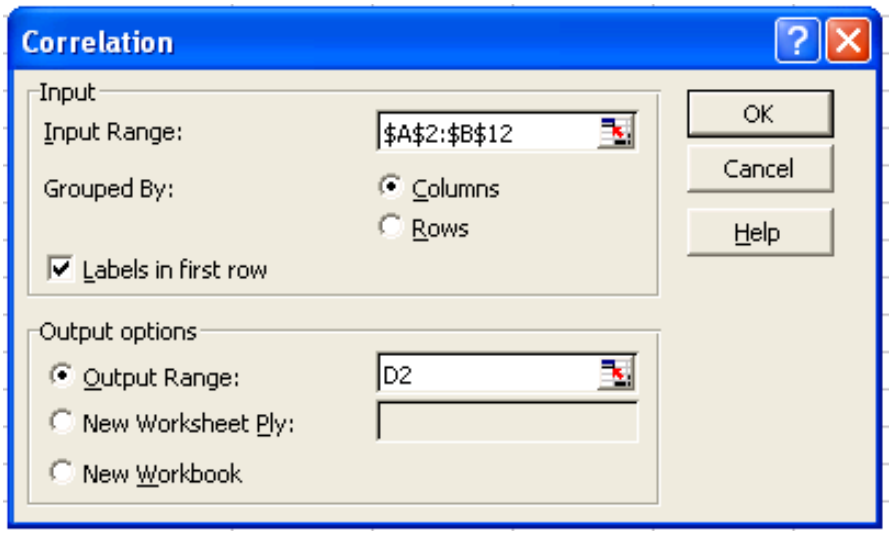
- To do the correlation we consider a problem of finding correlation coefficient of data which relates to the Yield in grams (Y) and the Matured Pods (X) of 10 groundnut plants.
- The data is entered in the Excel sheet as follows:

	A	B	C	D	E	F
1	The followingf data relates to the Yield (in gms)and Matured Pods in numbers of 10 groundnut plants					
2	Yield(Gms)	Matured Pod(in numbers)				
3	14	16				
4	34	40				
5	20	21				
6	16	18				
7	11	14				
8	11	13				
9	20	20				
10	17	35				
11	22	17				
12	17	27				

- Choose Correlation from the Data Analysis window then click OK button.
- Correlation window will get displayed as follows:



- Enter the input range if you know the input range of data or else make use of the address icon to mark the input range in the Excel sheet. In this example the input range is A2:B12.
- Since the data are grouped by column in this example, choose Grouped By Columns option.
- We can add the labels as the first row in the data range. So check the Labels in First Row.
- In the output options choose where you want to display the output. In this example the output range is given as D2.



- Click OK button in the Correlation window.

- The result will be displayed from D2 as shown below:

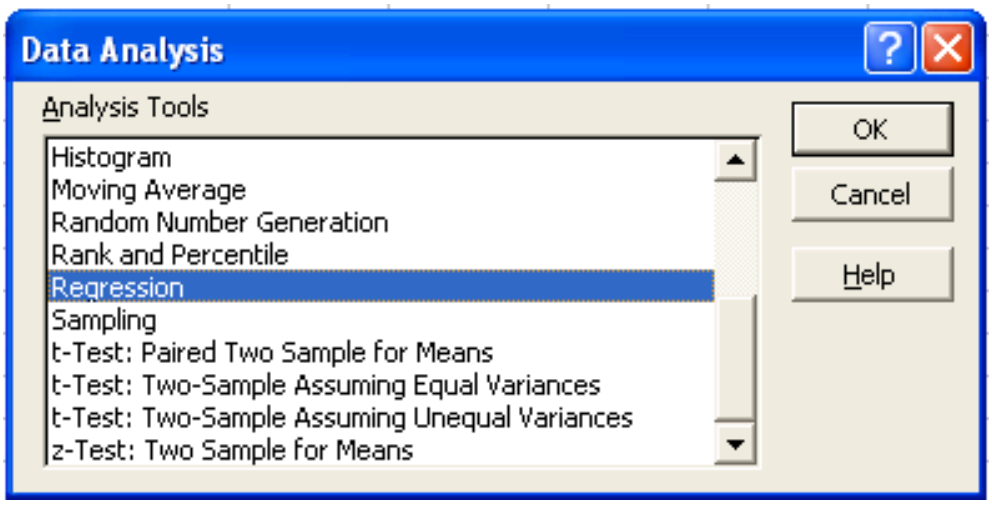
	B	C	D	E	F
1	tes to the Yield (in gms)and Matured Pods in numbers of 10 groundnut plants				
2	Matured Pod(in numbers)			*Yield(Gms)*	*Matured Pod(in numbers)*
3	16		Yield(Gms)	1	
4	40		Matured Pod(in numbers)	0.72362809	1
5	21				
6	18				
7	14				
8	13				
9	20				
10	35				
11	17				
12	27				

Regression

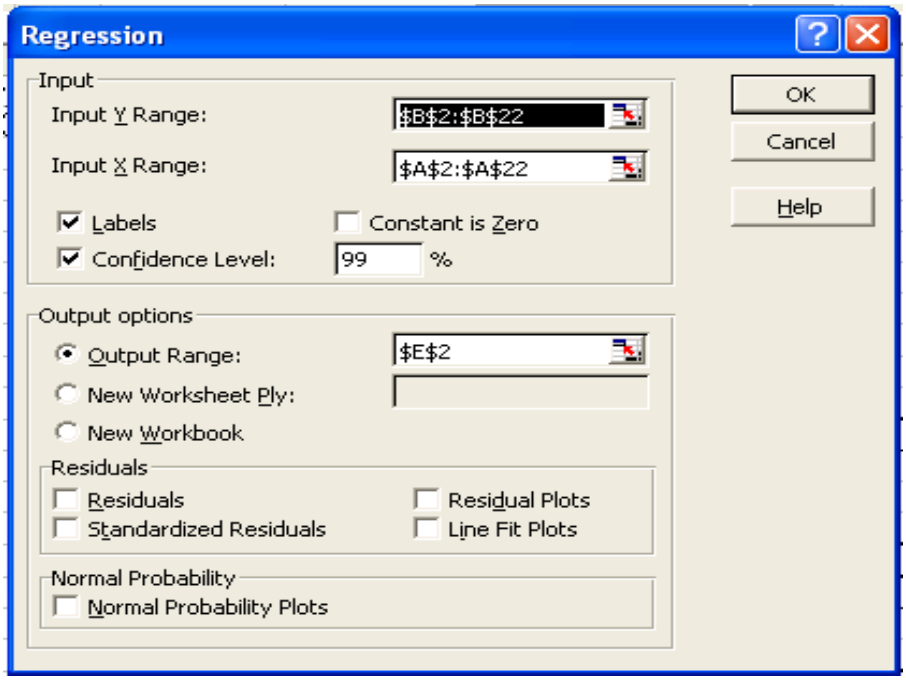
- To do the regression analysis we consider an example with paddy yield in Kg as dependent variable and ear length in cm as the independent variable.
- The data are entered in the Excel sheet as follows:

	A	B	C	D
1	The followingf data refers to the paddy yield (in Kg)and ear length in(cm)			
2	Paddy Yield(Kg)	Ear Length (cm)		
3	3.5	15		
4	4.15	17		
5	3.8	14		
6	4.2	18		
7	3.95	17		
8	4.17	19		
9	4.35	20		
10	4.32	22		
11	5.01	17		
12	4.87	16		
13	4.05	17		
14	4.28	20		
15	4.6	22		
16	4.1	20		
17	4.72	24		
18	4.25	18		
19	4.1	17		
20	4.65	19		
21	4.89	20		
22	4.99	18		

- The Regression procedure in the Data Analysis tools lets you choose one column as the dependent variable, and a set of contiguous columns for the independents
- It does not tolerate any empty cells anywhere in the input ranges.
- Therefore, if there is any empty cells in the input range, delete the rows contain empty cells.
- Choose Regression from Data Analysis and click OK.



- In the Regression window enter the Y and X ranges if you know the address values or else the click the colored icon in the Y and X range tabs to fill the addresses.
- If the first row of the data entered includes labels then check the Labels box in the Regression window.
- Let the confidence level be set to 99%.
- In the output options choose where you want to display the output of regression analysis. In this example the Output Range is set to E2.



- Click OK. The result will be displayed fro E2 as shown below:

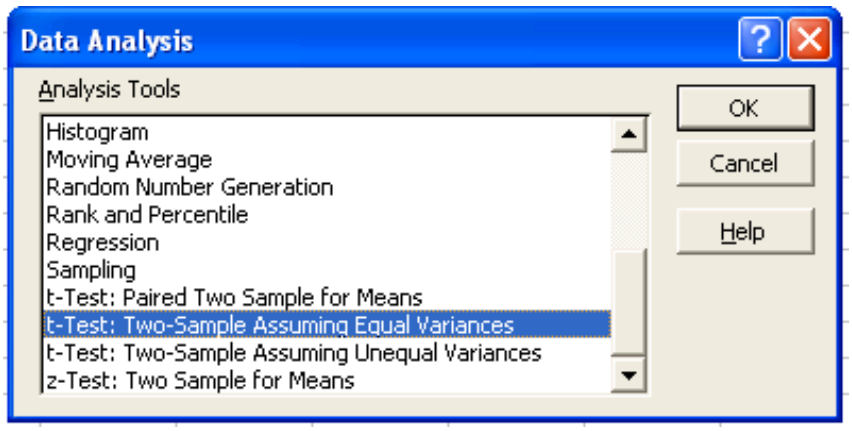
	D	E	F	G	H	I	J	K	L	M
1	in(cm)									
2		SUMMARY OUTPUT								
3										
4		*Regression Statistics*								
5		Multiple R	0.410574							
6		R Square	0.168571							
7		Adjusted F	0.122381							
8		Standard E	2.304758							
9		Observatio	20							
10										
11		ANOVA								
12			*df*	*SS*	*MS*	*F*	*ignificance F*			
13		Regressior	1	19.38567	19.38567	3.649474	0.072151			
14		Residual	18	95.61433	5.311907					
15		Total	19	115						
16										
17			*Coefficients*	*tandard Err*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 99.0%*	*pper 99.0%*
18		Intercept	7.811454	5.618729	1.390253	0.181405	-3.99307	19.61597	-8.36173	23.98464
19		Paddy Yie	2.45855	1.286957	1.91036	0.072151	-0.24525	5.162348	-1.24588	6.16298

t-test for two samples

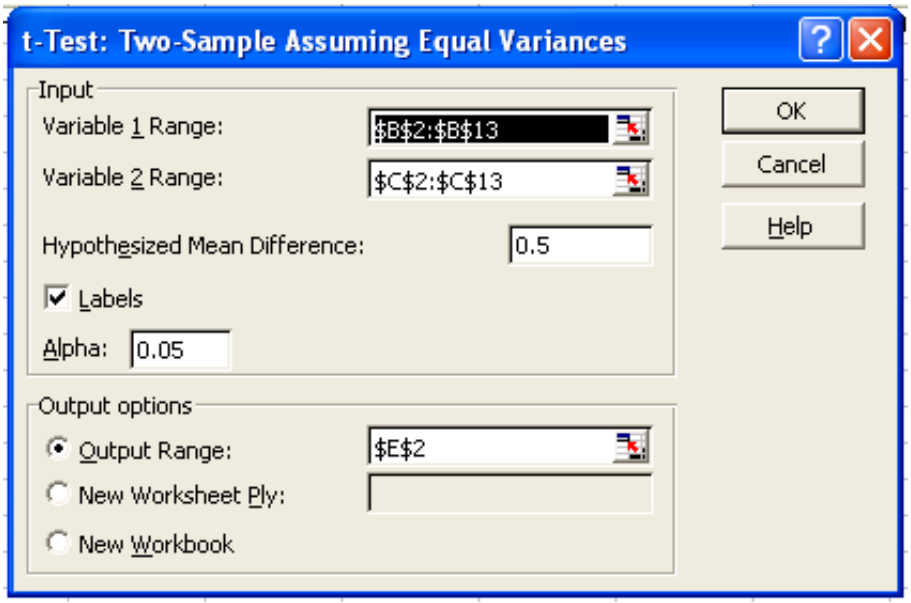
- t-test for two samples assuming Perform t-test for two samples assuming equal variances: yield of food in kg/ha in Kharif and Rabi season from 1996-97 to 2006-07.
- The data is entered in Excel sheet as shown below:

	A	B	C	D	E	F	G	H	I	J	K
1	Perform t-test for two samples assuming equal varinces: yield of food in kg/ha in Kharif and Rabi season from 1996-97 to 20										
2	Year	Kharif	Rabi								
3	96-97	89	104								
4	97-98	94	109								
5	98-99	94	116								
6	99-2000	78	105								
7	2000-01	93	120								
8	2001-2002	95	119								
9	2002-2003	92	130								
10	2003-2004	106	131								
11	2004-2005	104	134								
12	2005-2006	105	142								
13	2006-2007	110	145								

- Choose t-Test: Two-Samples assuming Equal Variances in the Data Analysis window:



- In the t-Test: Two-Samples assuming Equal Variances window enter the Variable 1 Range and Variable 2 Range.
- Check the Labels option
- Hypothesized mean difference be 0.5
- Let Alpha value be 0.05
- Set output range as E2.



- The result will be displayed from E2 as shown below:

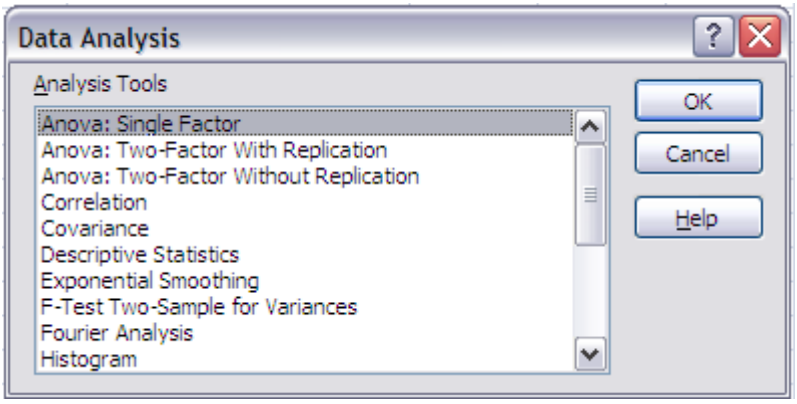
	A	B	C	D	E	F	G	H	I	J	K
1	Perform t-test for two samples assuming equal varinces: yield of food in kg/ha in Kharif and Rabi season from 1996-97 to 2C										
2	Year	Kharif	Rabi		t-Test: Two-Sample Assuming Equal Variances						
3	96-97	89	104								
4	97-98	94	109			*Kharif*	*Rabi*				
5	98-99	94	116		Mean	96.36364	123.1818				
6	99-2000	78	105		Variance	84.65455	203.3636				
7	2000-01	93	120		Observatio	11	11				
8	2001-2002	95	119		Pooled Va	144.0091					
9	2002-2003	92	130		Hypothesi	0.5					
10	2003-2004	106	131		df	20					
11	2004-2005	104	134		t Stat	-5.33873					
12	2005-2006	105	142		P(T<=t) on	1.59E-05					
13	2006-2007	110	145		t Critical o	1.724718					
14					P(T<=t) tw	3.17E-05					
15					t Critical tv	2.085962					
16											

ANOVA with One-way Classification

- Perform ANOVA One Way Classification for yield of food in kg/ha in three seasons from 1996-97 to 2006-07
- The data is entered in Excel sheet as follows:

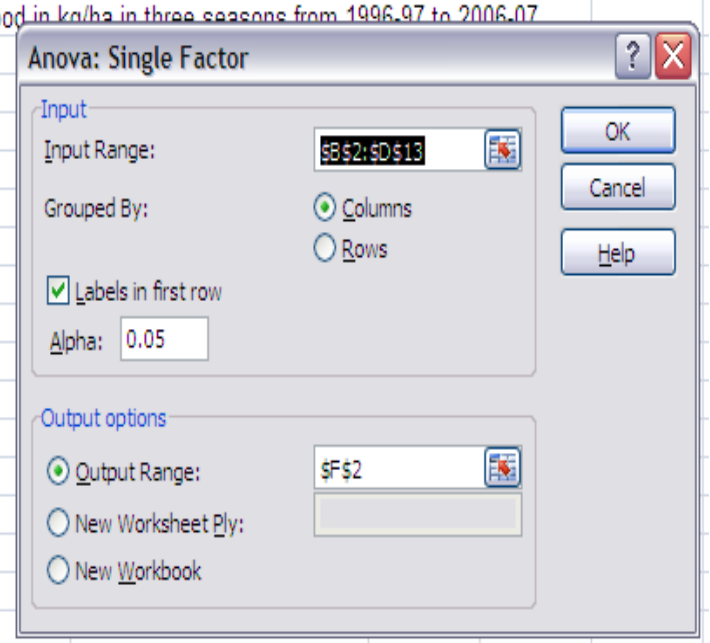
	A	B	C	D	E	F	G	H
1	Perform ANOVA One Way Classification for yield of food in kg/ha in three seasons from 1996-97 to 2006-07							
2	Year	SEASON1	SEASON2	SEASON3				
3	96-97	89	104	130				
4	97-98	94	109	134				
5	98-99	94	116	135				
6	99-2000	78	105	135				
7	2000-01	93	120	142				
8	2001-2002	95	119	143				
9	2002-2003	92	130	144				
10	2003-2004	106	131	150				
11	2004-2005	104	134	152				
12	2005-2006	105	142	154				
13	2006-2007	110	145	160				

- Choose ANOVA: Single Factor from Data Analysis window.



- In the ANOVA: Single Factor window enter the input range. The input range in the example is B2:D13
- Choose Group by Columns
- Check Labels in the first row
- Output range is set to F2 as follows:

	A	B	C	D
1	Perform ANOVA One Way Classification for yield of food in kg/ha in three seasons from 1996-97 to 2006-07			
2	Year	SEASON1	SEASON2	SEASON3
3	96-97	89	104	130
4	97-98	94	109	134
5	98-99	94	116	135
6	99-2000	78	105	135
7	2000-01	93	120	142
8	2001-2002	95	119	143
9	2002-2003	92	130	144
10	2003-2004	106	131	150
11	2004-2005	104	134	152
12	2005-2006	105	142	154
13	2006-2007	110	145	160



- The result of the ANOVA with One-way classification is displayed from F2 as shown below:

	A	B	C	D	E	F	G	H	I	J	K	L
1	Perform ANOVA One Way Classification for yield of food in kg/ha in three seasons from 1996-97 to 2006-07											
2	Year	SEASON1	SEASON2	SEASON3		Anova: Single Factor						
3	96-97	89	104	130								
4	97-98	94	109	134		SUMMARY						
5	98-99	94	116	135		*Groups*	*Count*	*Sum*	*Average*	*Variance*		
6	99-2000	78	105	135		SEASON1	11	1060	96.36364	84.65455		
7	2000-01	93	120	142		SEASON2	11	1355	123.1818	203.3636		
8	2001-2002	95	119	143		SEASON3	11	1579	143.5455	91.67273		
9	2002-2003	92	130	144								
10	2003-2004	106	131	150								
11	2004-2005	104	134	152		ANOVA						
12	2005-2006	105	142	154		*Source of Variation*	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
13	2006-2007	110	145	160		Between Groups	12320.06	2	6160.03	48.67141	3.82E-10	3.31583
14						Within Groups	3796.909	30	126.5636			
15												
16						Total	16116.97	32				

LECTURE SCHEDULE 11

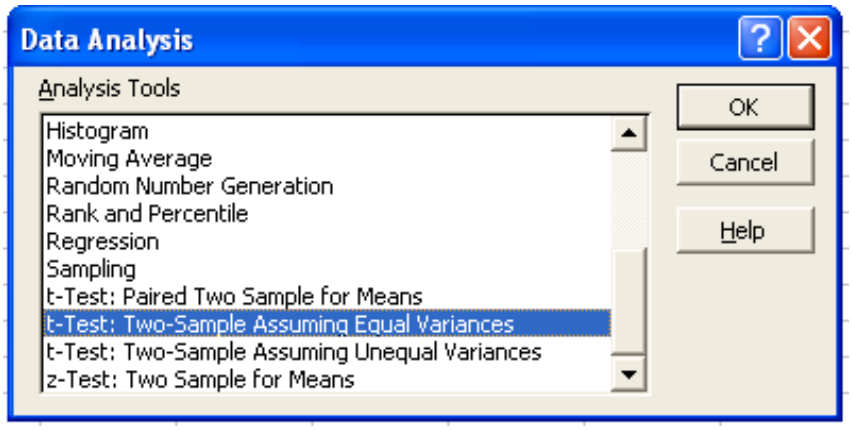
t-test for two samples and ANOVA with One-way classification

t-test for two samples

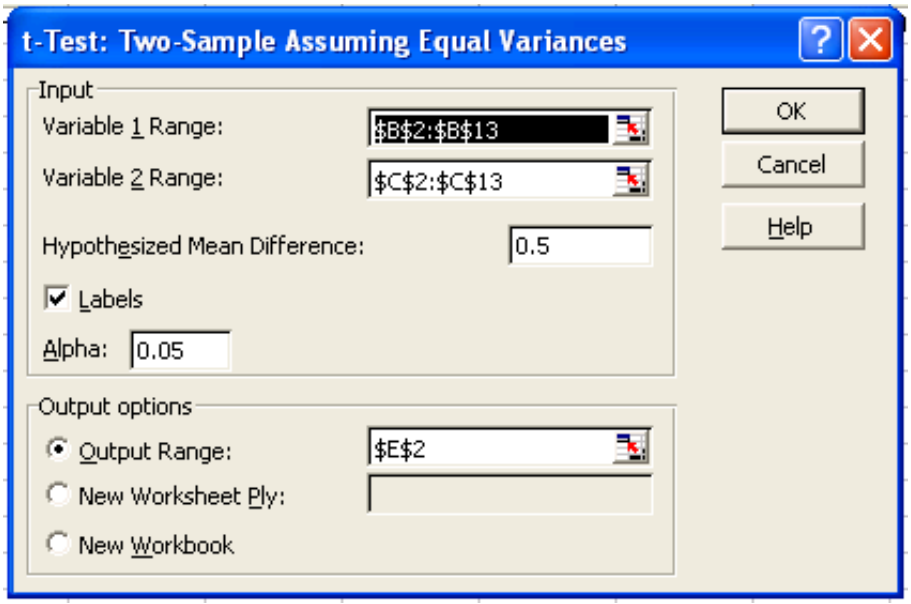
- **t-test for two samples assuming equal variances:**
- Example: Perform t-test for two samples assuming equal variances for yield of food in kg/ha in Kharif and Rabi season from 1996-97 to 2006-07.
- The data is entered in Excel sheet as shown below:

	A	B	C	D	E	F	G	H	I	J	K
1	Perform t-test for two samples assuming equal varinces: yield of food in kg/ha in Kharif and Rabi season from 1996-97 to 20										
2	Year	Kharif	Rabi								
3	96-97	89	104								
4	97-98	94	109								
5	98-99	94	116								
6	99-2000	78	105								
7	2000-01	93	120								
8	2001-2002	95	119								
9	2002-2003	92	130								
10	2003-2004	106	131								
11	2004-2005	104	134								
12	2005-2006	105	142								
13	2006-2007	110	145								

- Choose t-Test: Two-Samples assuming Equal Variances in the Data Analysis window:



- In the t-Test: Two-Samples assuming Equal Variances window enter the Variable 1 Range and Variable 2 Range.
- Check the Labels option
- Hypothesized mean difference be 0.5
- Let Alpha value be 0.05
- Set output range as E2.



- The result will be displayed from E2 as shown below:

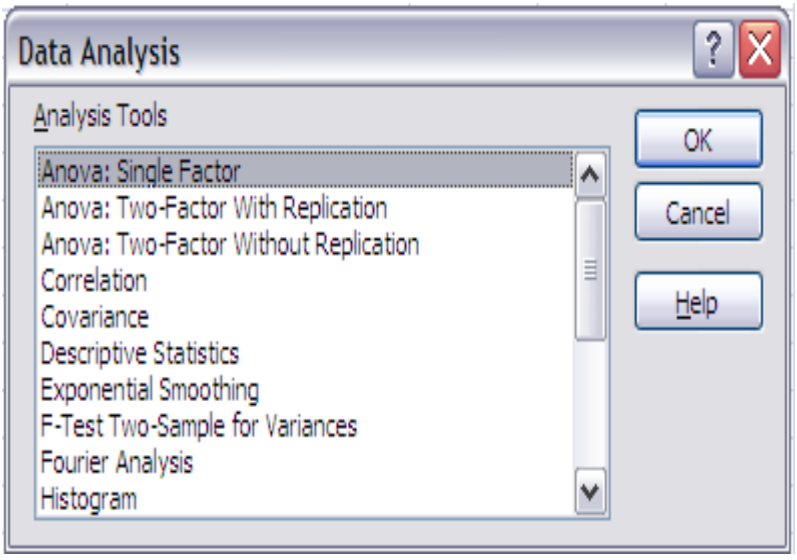
	A	B	C	D	E	F	G	H	I	J	K
1	Perform t-test for two samples assuming equal varinces: yield of food in kg/ha in Kharif and Rabi season from 1996-97 to 2C										
2	Year	Kharif	Rabi		t-Test: Two-Sample Assuming Equal Variances						
3	96-97	89	104								
4	97-98	94	109			*Kharif*	*Rabi*				
5	98-99	94	116		Mean	96.36364	123.1818				
6	99-2000	78	105		Variance	84.65455	203.3636				
7	2000-01	93	120		Observatio	11	11				
8	2001-2002	95	119		Pooled Va	144.0091					
9	2002-2003	92	130		Hypothesi	0.5					
10	2003-2004	106	131		df	20					
11	2004-2005	104	134		t Stat	-5.33873					
12	2005-2006	105	142		P(T<=t) on	1.59E-05					
13	2006-2007	110	145		t Critical o	1.724718					
14					P(T<=t) tw	3.17E-05					
15					t Critical tv	2.085962					
16											

ANOVA(Analysis od Variances) with One-way Classification

- Example: Perform ANOVA One Way Classification for yield of food in kg/ha in three seasons from 1996-97 to 2006-07
- The data is entered in Excel sheet as follows:

	A	B	C	D	E	F	G	H
1	Perform ANOVA One Way Classification for yield of food in kg/ha in three seasons from 1996-97 to 2006-07							
2	Year	SEASON1	SEASON2	SEASON3				
3	96-97	89	104	130				
4	97-98	94	109	134				
5	98-99	94	116	135				
6	99-2000	78	105	135				
7	2000-01	93	120	142				
8	2001-2002	95	119	143				
9	2002-2003	92	130	144				
10	2003-2004	106	131	150				
11	2004-2005	104	134	152				
12	2005-2006	105	142	154				
13	2006-2007	110	145	160				

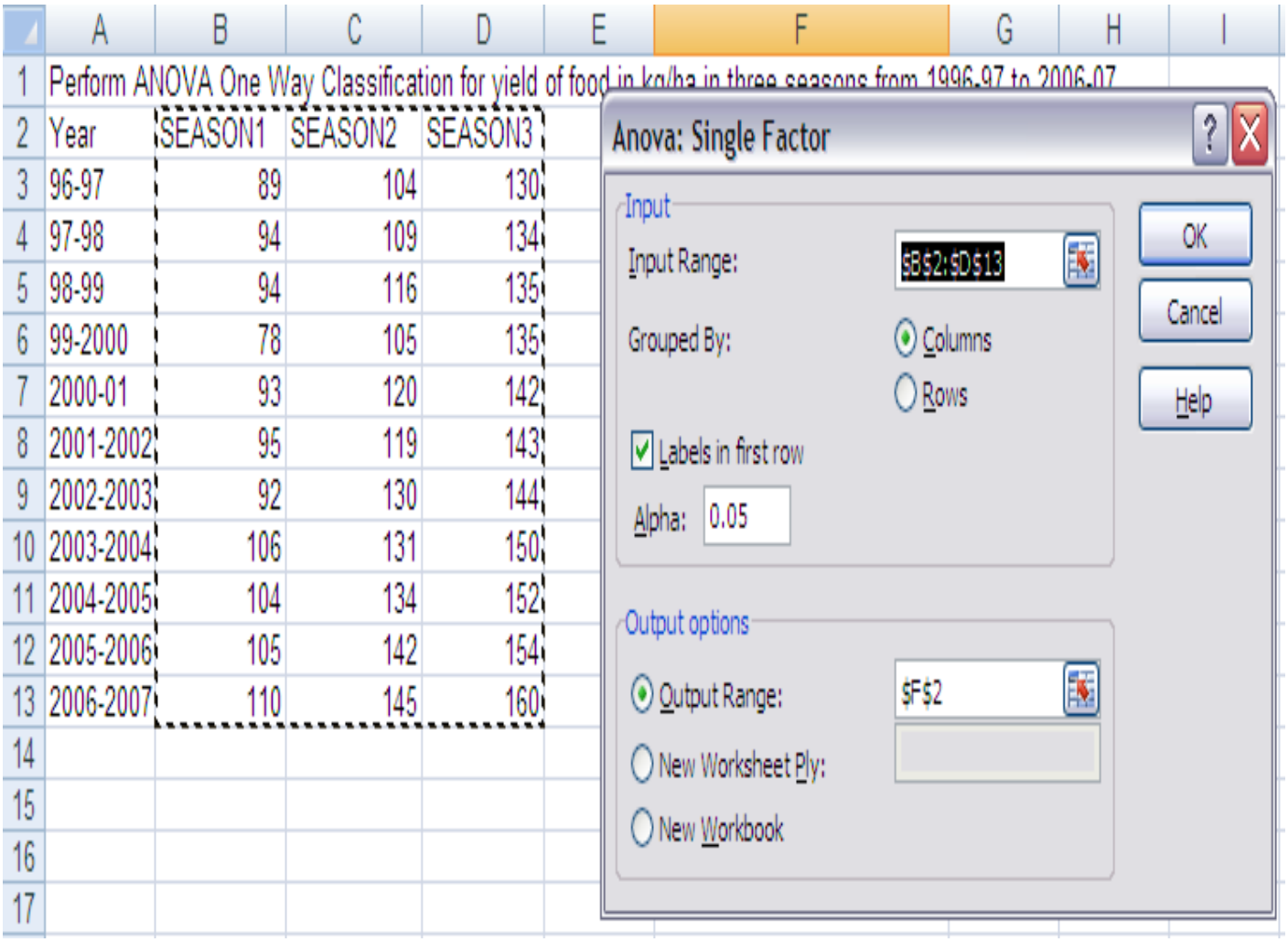
- Choose ANOVA: Single Factor from Data Analysis window.



- In the ANOVA: Single Factor window enter the input range. The input range in the example is B2:D13

- Choose Group by Columns

- Check Labels in the first row
- Output range is set to F2 as follows:



- The result of the ANOVA with One-way classification is displayed from F2 as shown below:

	A	B	C	D	E	F	G	H	I	J	K	L
1	Perform ANOVA One Way Classification for yield of food in kg/ha in three seasons from 1996-97 to 2006-07											
2	Year	SEASON1	SEASON2	SEASON3		Anova: Single Factor						
3	96-97	89	104	130								
4	97-98	94	109	134		SUMMARY						
5	98-99	94	116	135		*Groups*	*Count*	*Sum*	*Average*	*Variance*		
6	99-2000	78	105	135		SEASON1	11	1060	96.36364	84.65455		
7	2000-01	93	120	142		SEASON2	11	1355	123.1818	203.3636		
8	2001-2002	95	119	143		SEASON3	11	1579	143.5455	91.67273		
9	2002-2003	92	130	144								
10	2003-2004	106	131	150								
11	2004-2005	104	134	152		ANOVA						
12	2005-2006	105	142	154		*Source of Variation*	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
13	2006-2007	110	145	160		Between Groups	12320.06	2	6160.03	48.67141	3.82E-10	3.31583
14						Within Groups	3796.909	30	126.5636			
15												
16						Total	16116.97	32				

LECTURE SCHEDULE 12

CREATING GRAPHS

Graphs or Charts

- The graphical representation of data is called graph or chart.
- The data entered in the excel sheet can be represented by a graph or a chart.
- MSEXCEL supports a wide variety of graphs.
- Example of graphs:
    - Column, Line, Bar, Pie, Area, Doughnut, Radar, Surface, Bubble, Stock etc.

Column Graph

- It shows data change over a period of time or illustrates comparisons among items.
- Categories are organized horizontally and values vertically.
- It is an idel chart for showing the variation in the value of an item over period of time.

Bar Graph

- Bar graph illustrates comparison among individual items.
- Categories are vertically organized and values horizontally.

Line Graph

- A line graph shows trends in data at equal intervals.
- It is very useful to show the change in the value over a period of time.
- It will show very clearly whether a value is ascending or descending.

Pie Chart

- Pie chart is used to plot data for a single data series.
- Each data point is represented by one piece of the circular pie chart.
- The size of each piece is proportional to the value it represents, so all the data points taken together will form circle.

Area Graph

- Area chart is similar to line chart.
- But plots series one above the other with different colors and shades.
- It emphasizes the magnitude of change over a period of time.

XY (Scatter) Graph

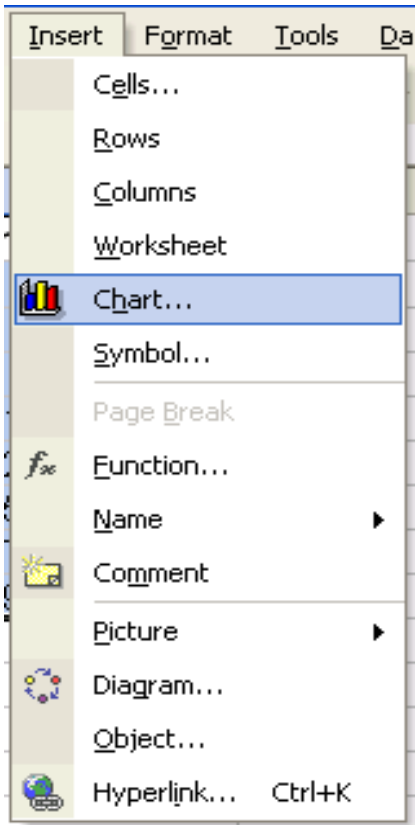
- It plots each point with a mark of two groups of numbers as one series of XY coordinates.
- It shows uneven intervals of data and it is commonly used for scientific data.

CREATING GRAPHS

- Create a spreadsheet with data rice yield in tones from the year 1998 to 2004 as shown below:

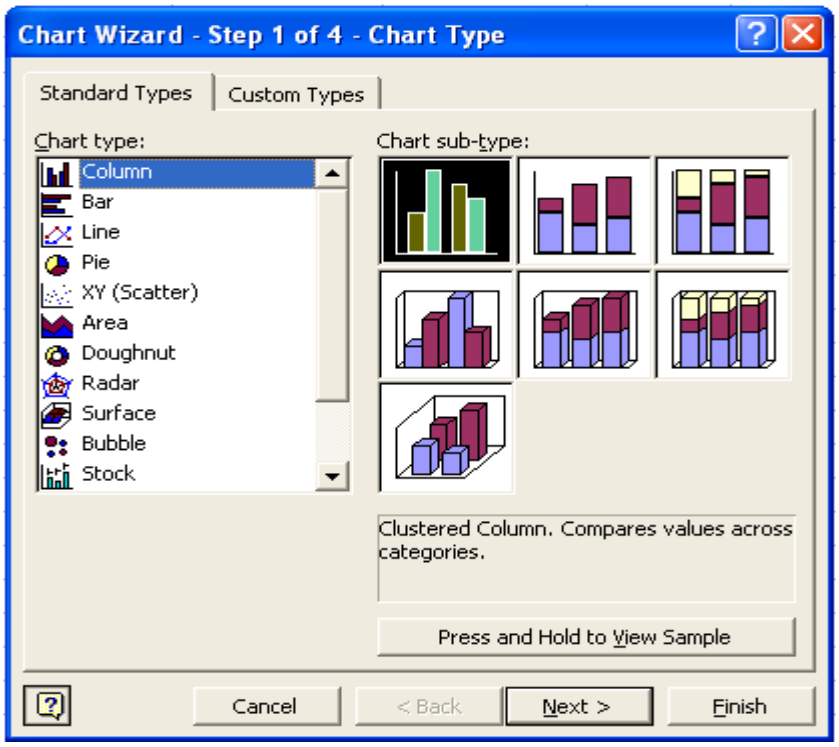
	A	B
1	**Rice Yield Analysis**	
2	**Year**	**Rice Yield (tones)**
3	1998	546,858.95
4	1999	895,745.77
5	2000	1,025,892.62
6	2001	2,548,955.55
7	2002	5,895,458.25
8	2003	7,102,584.65
9	2004	9,883,529.25

- Go to Insert Menu select Chart and click.



First Step

- A dialog box of chart wizard will appear, select the required type of chart from the chart type.

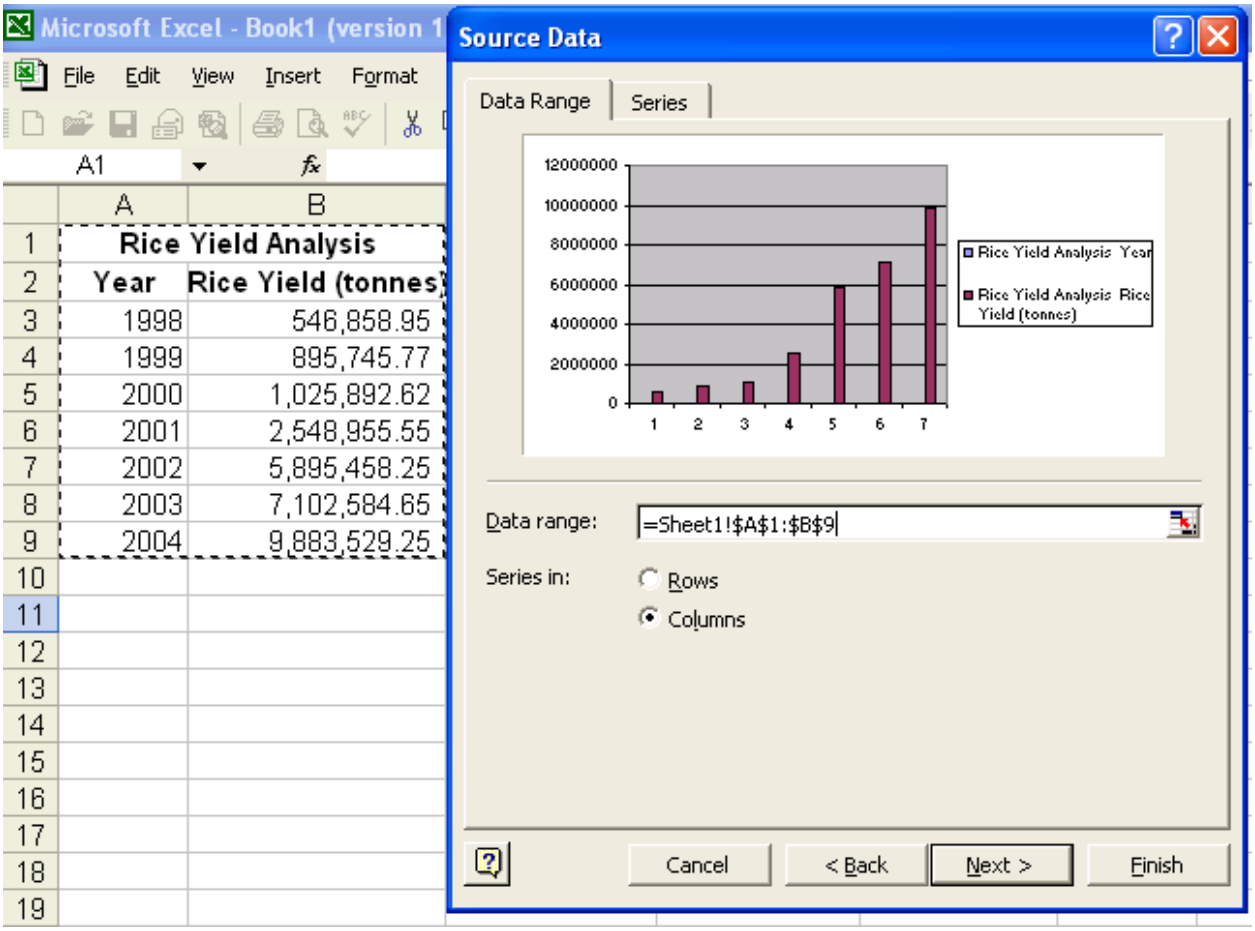


- Then select the chart sub type according to your requirement.

Second Step

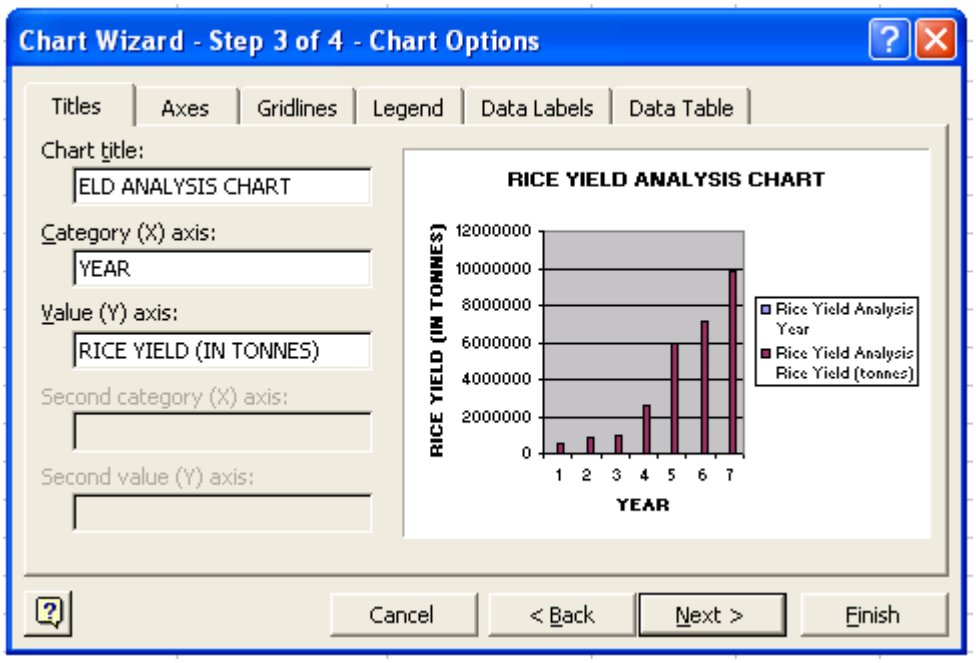
- Select the data range in this step.
- To give enter data range move the cursor on excel sheet and
    - by clicking select the data area you want or
    - type cells position if you know exactly which area you want.
- Click on the Next button.
- the data range selected in our example is **Sheet1!$A$1:$B$9**
- Sheet1 we are in sheet1 in MS Excel.
- $ Sign is used to represent the absolute position of the data in MS Excel.

- The range is to conform that the chart is being prepared of the proper sheet of the file.
- On confirming click on Next button.



Third Step

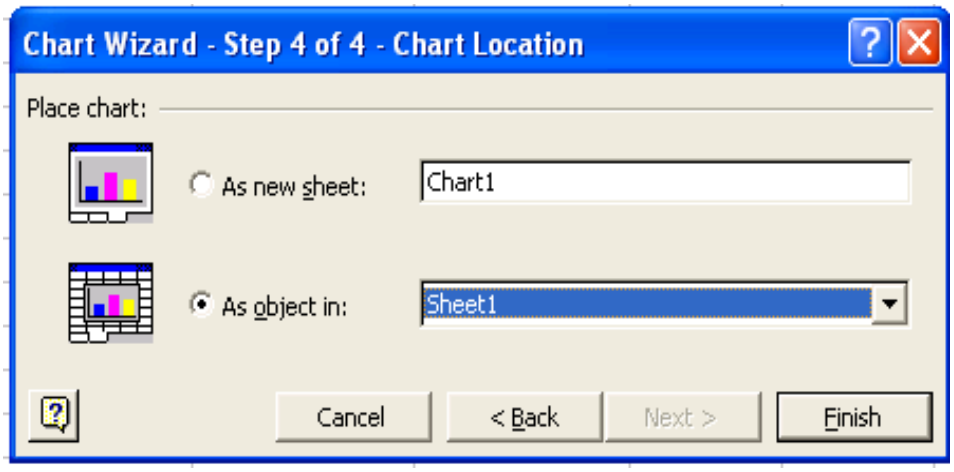
- Here the Chart title, Category and Value information are entered, which will be displayed when the chart is viewed.



- Click Next button.

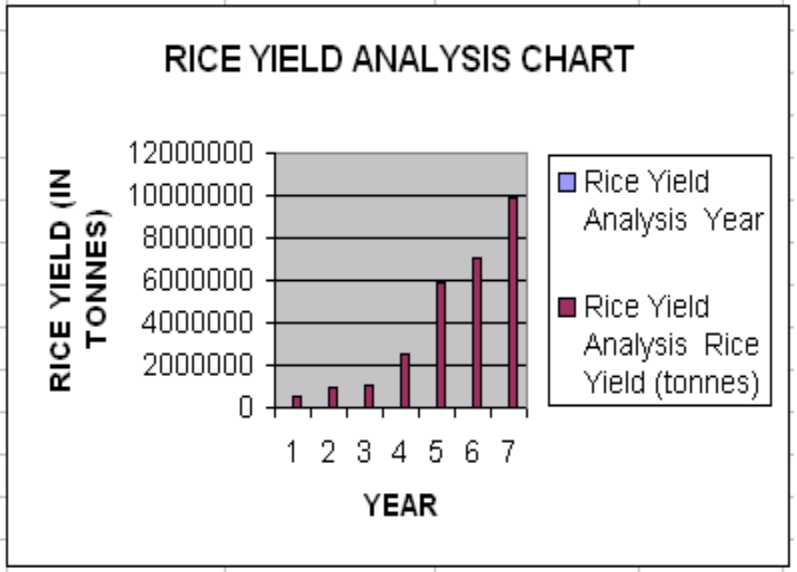
Fourth Step

- This step will provide in the way you want to place the chart.
- Select the appropriate option available in the chart wizaerd.



- Click the Finish button.
- The chart will be as shown below:

	A	B	C	D	E	F
1	Rice Yield Analysis					
2	Year	Rice Yield (tonnes)				
3	1998	546,858.95				
4	1999	895,745.77				
5	2000	1,025,892.62				
6	2001	2,548,955.55				
7	2002	5,895,458.25				
8	2003	7,102,584.65				
9	2004	9,883,529.25				
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						



Moving Chart

- If the chart needs to be placed in different position, then we can move the chart wherever we want.
- To move the chart select the chart by clicking on it without leving the mouse button, drag in the direction you want.
- The chart will move and then release it where you want.

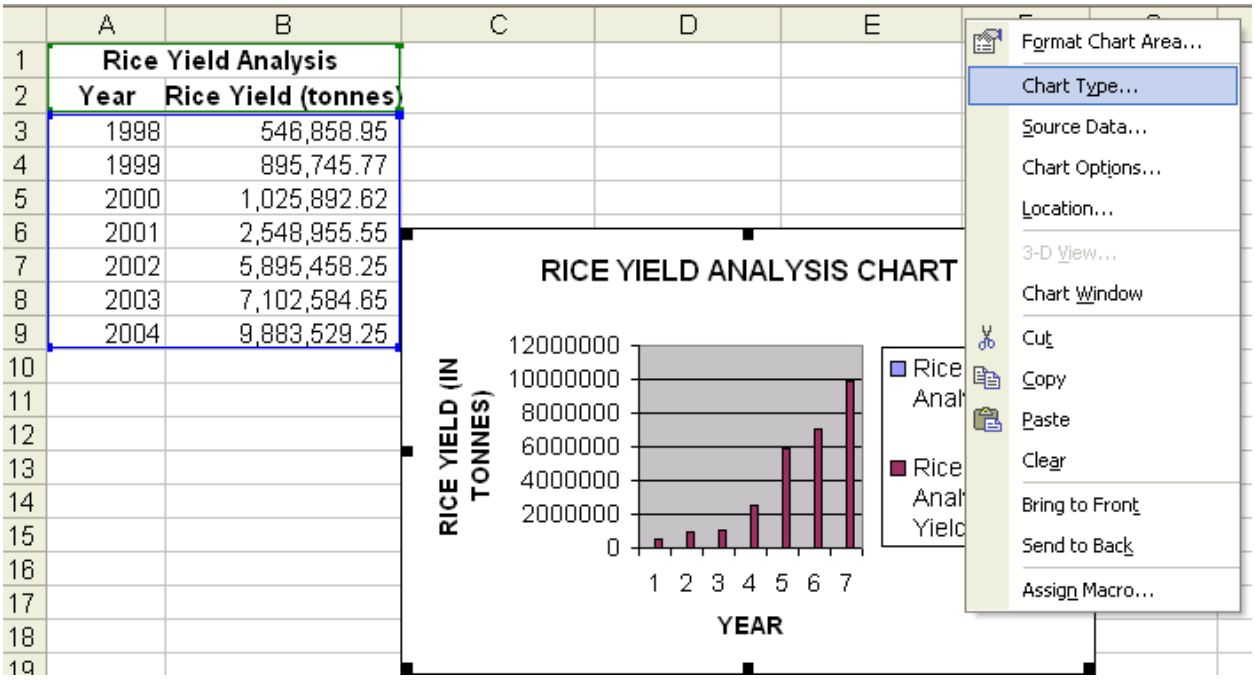
Changing the Chart Size

- To change the chart size, select the chart by clicking on it.
- You will get eight small rectangular boxes around the chart.
- Now move the cursor to the border of the chart and the mouse pointer changes to double headed arrow cursor.

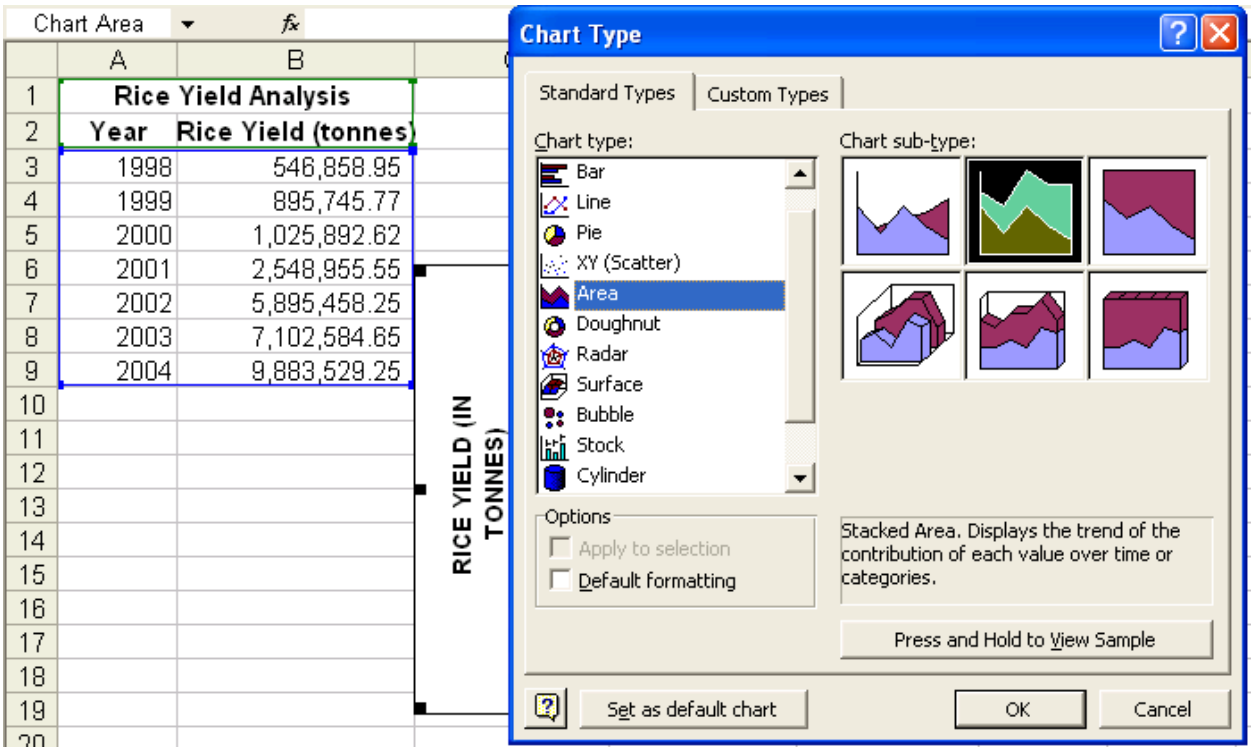
- Then press the left mouse button and drag.
- If you want to reduce the size, drag towards the centre of the chart, else in opposite direction to increase the size of the chart.

Changing the Chart Type

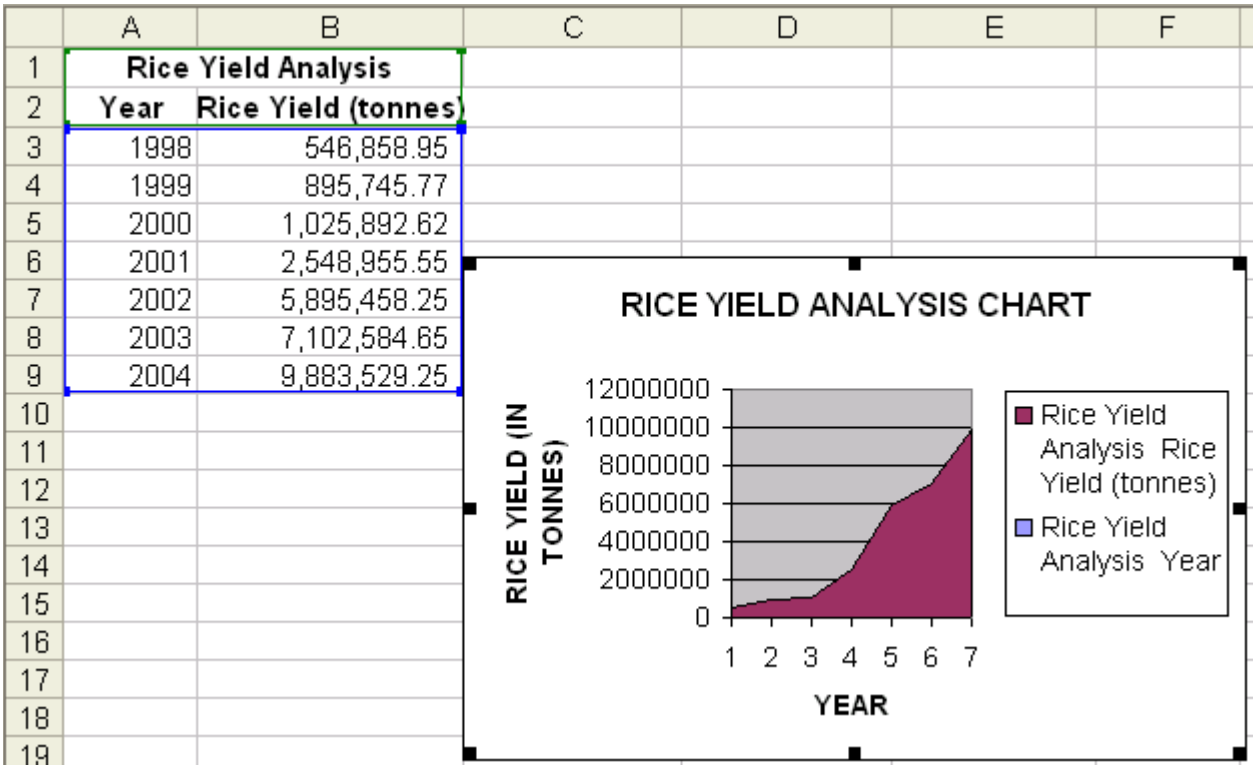
- Select the chart
- Click the right mouse button
- From the right context menu select Chat type



- Select the required chart type from the chart type window.



- Click OK.
- If the selected chart type is Area type then the chart will be as shown below:



LECTURE SCHEDULE 13

MSACCESS: Concept of Database- Units of database, creating database

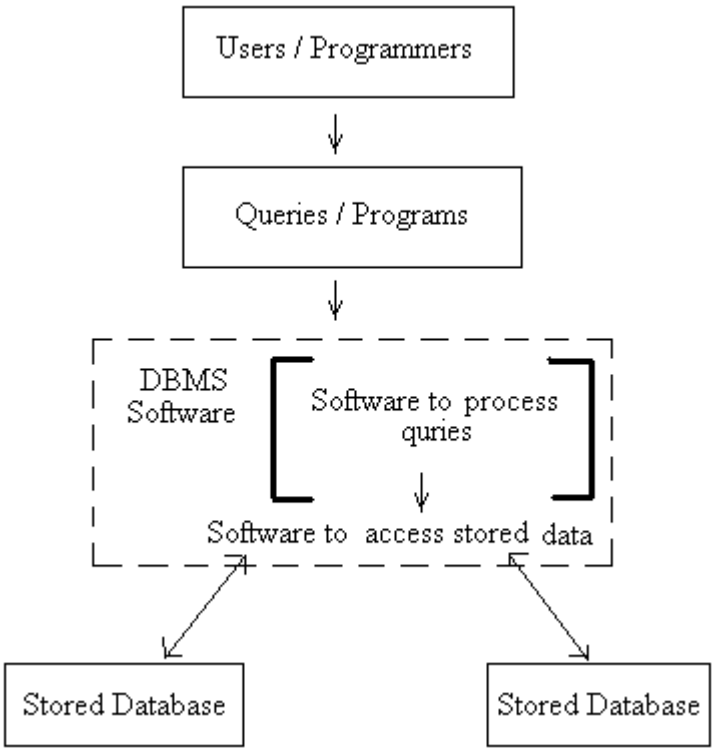
Database

- A database is a collection of interrelated data that is organized so that it can easily be accessed, managed and updated.
- A database-management system (DBMS) is a collection of interrelated data and a set of programs to access those data.

Characteristics of Database

- Self-describing- a database gives description about itself.
- Multiple users can access the same data.
- Data exists permanently
- Data security protects the data from unauthorized access with the help of the passwords.
- Many software are used as Database Management Systems. Example: MS-Access, ORACLE etc.

Structure of Database Management System



Tables

- Tables contain data
- The main components of tables are:
    - Field
    - Record
- A field is the smallest data item stored in one particular format.
- A record is one complete set of related field.
- Example: Following is Student table in an University database

Student Name	ID	STAM Mark	AGR Mark	PBG Mark
Adithi	BSA-10-001	98	99	95
Bhargavi	BSA-10-002	56	75	67
Natarajan	BSA-10-003	86	70	75
Madhavan	BSA-10-004	78	79	76

- The columns in the table are fields or attributes. Fields store the smallest unit of data.
- The rows in the table are called tuple or record. The record is one complete set of relation.

Database concepts

- Data is a known fact.
- Data may be name of a student or mark scored by a student or age of a student or dat of birth of a student. Thus the type of the data varies, that if it is a name then it will contain only any combination of the alphabets, if it a mark then it will be only a number, if it date of birth then it will only be a date.
- The data types supported by the DBMS are :
    - Numeric - numbers
    - Alphanumeric - letters and digits
    - Date/Time - dates
    - Logical - logical data
    - Auto number - unique value

Numeric

- Numbers only (no letters) includes numbers with decimal points.
- Numeric field can contain:
    - Only the numeric characters of 0 to 9
    - The decimal point

Alphanumeric

- Alphabets (letter), symbols and numbers
- Alphanumeric data can be made up of the following characters:
    - Numbers 0 to 9
    - Alphabets A to Z, a to z
    - Special characters #, /, $, * etc.

Data/Time

- Used to specify the field contains date

Logical

- Logical data type used to store Yes or No and True or False

Auto number

- A unique value generated for each record.

Components of database

- Tables - contains data
- Queries - selected information is displayed on the screen
- Reports - formatted printed information
- Forms - screen created to add, modify, and delete records

Primary Key

- The primary key is a field in the table which uniquely identifies that particular record in the table.
- The primary key cannot have a duplicate value in the table.
- Every table should have a primary key associated with it.

Tasks associated with the tables

- Creating a table
    - Specifying field names, data types, field sizes
- Adding records to the table
- Modifying data in the table
- Deleting records from the table
- Creating relationship between tables

Tasks associated with the queries

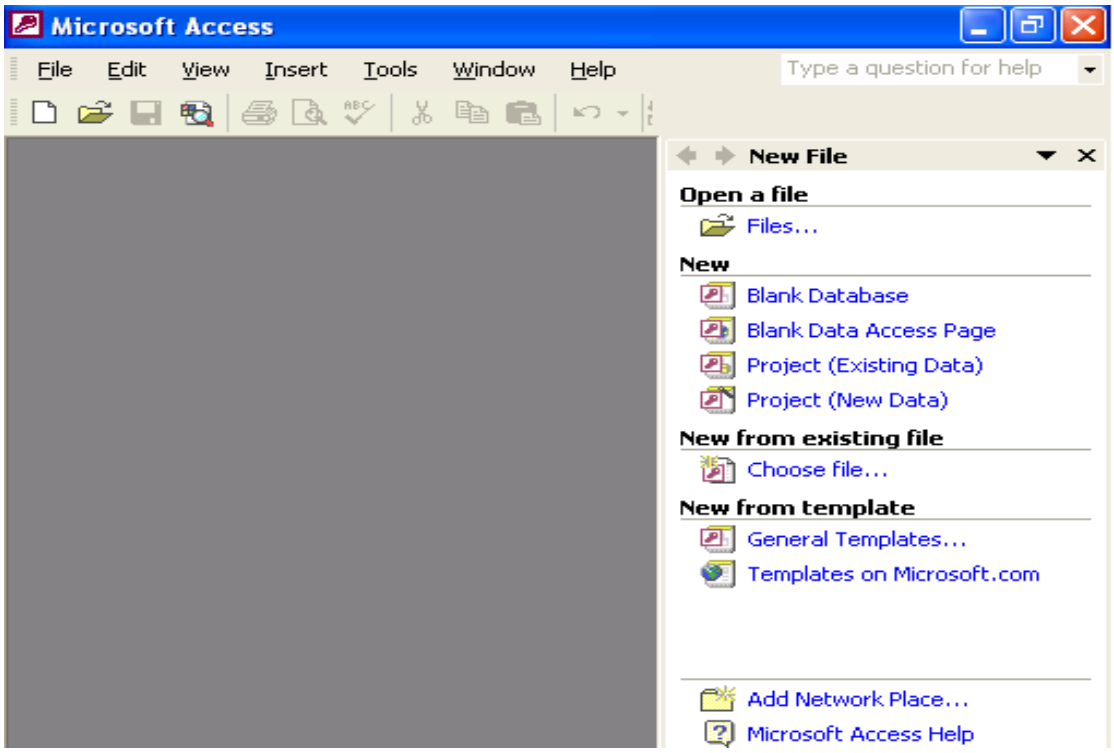
- Creating queries to obtain information
- Creating queries to update data
- Creating queries to update data

MS-Access

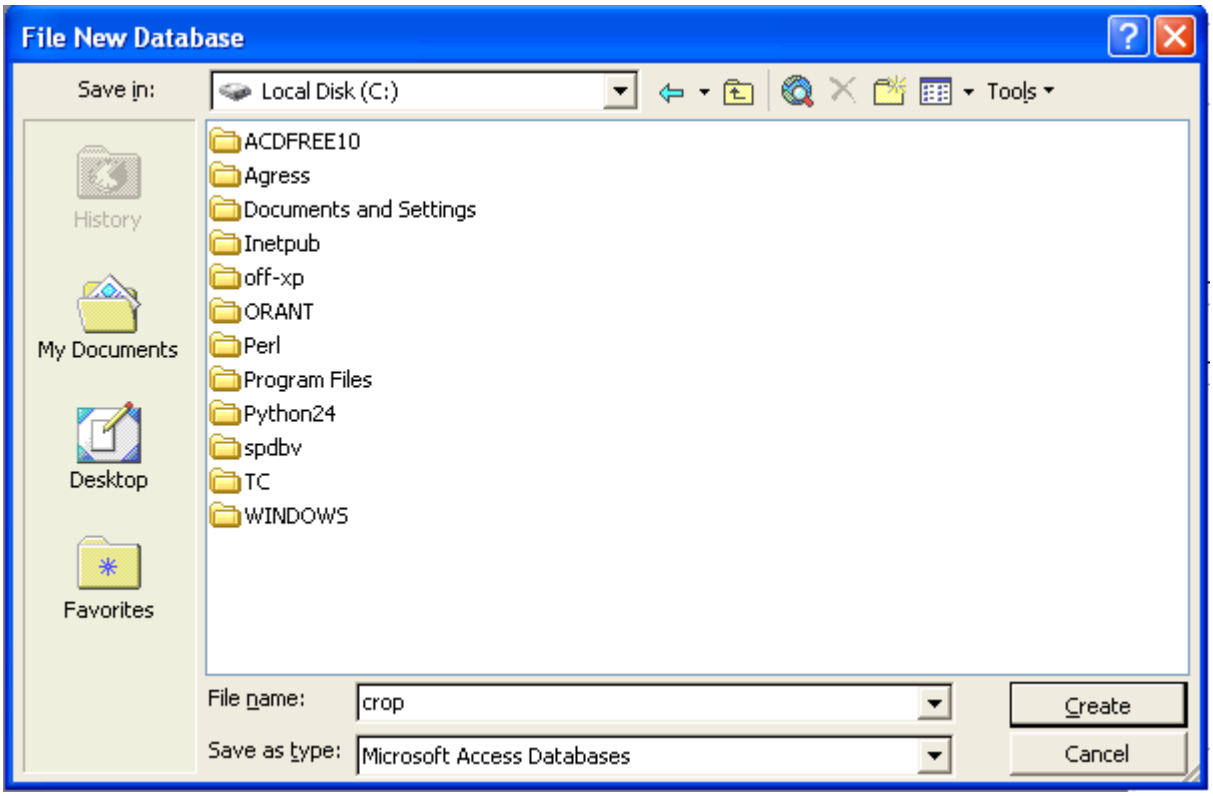
- MS-Access is a Relational Database Management System (RDBMS) developed by Microsoft Corporation.
- It provides the software tools to organize the data in a flexible manner.
- It provides facilities to add, modify or delete data from the database, ask questions or queries about the data stored in the database and produce reports summarizing selected contents.

Creating Database

- Click on Start button → Select All Programs → Click Microsoft Access
- The opening screen of the MS-Access will get displayed

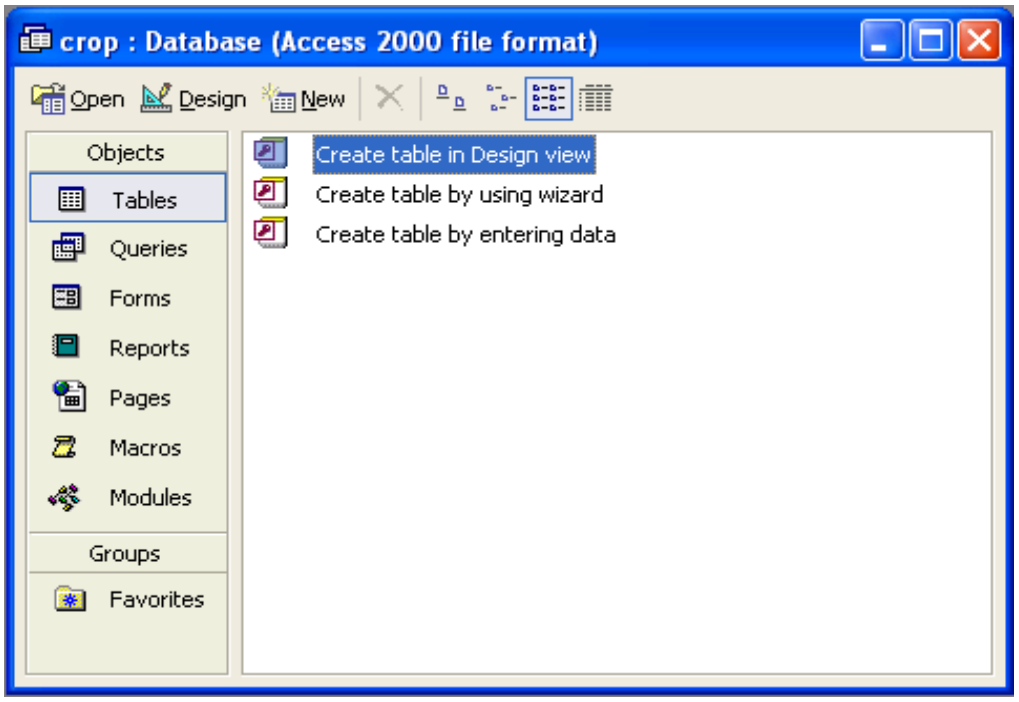


- As we are going to create a new database, in the New File window click blank database.
- File New Database dialog box will get displayed asking us to choose the location of the database and the name of the database. Enter the name of the database as crop.



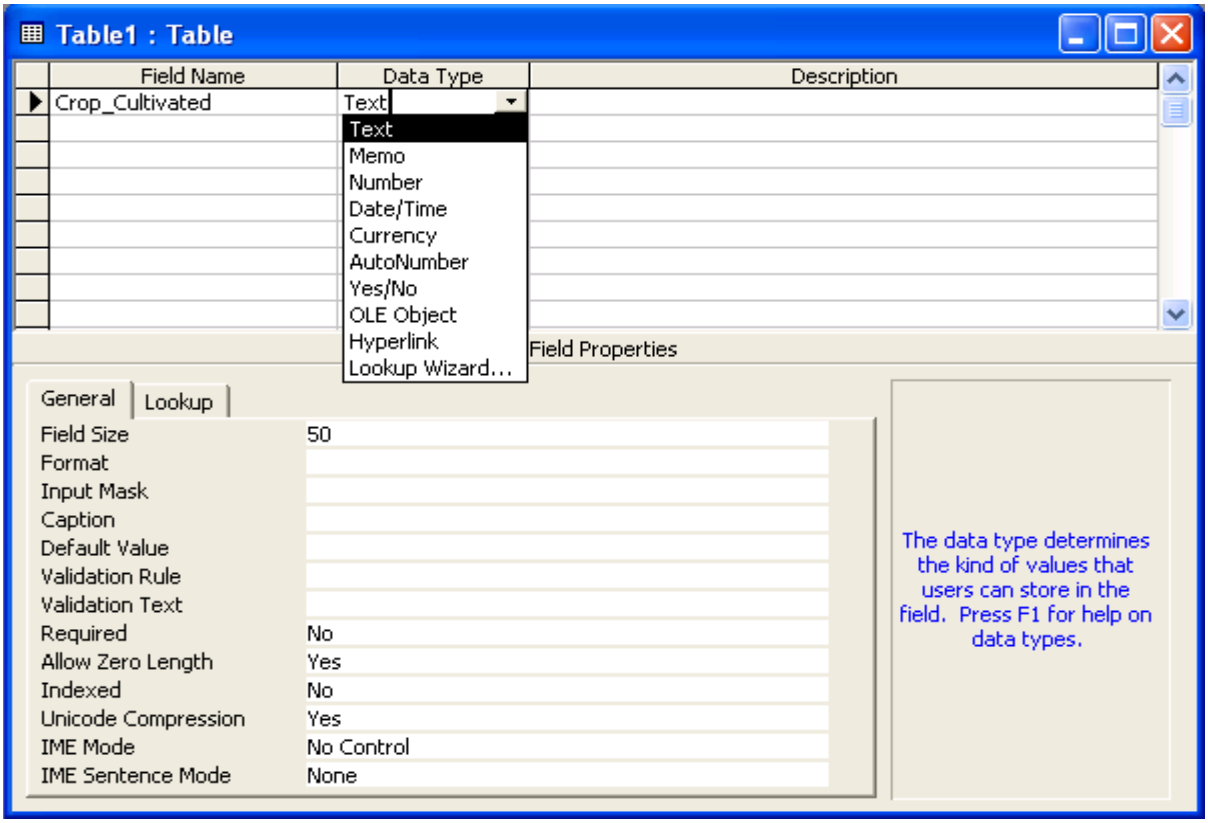
- Click Create button.

- Crop database is created and crop database window will get displayed as shown below:

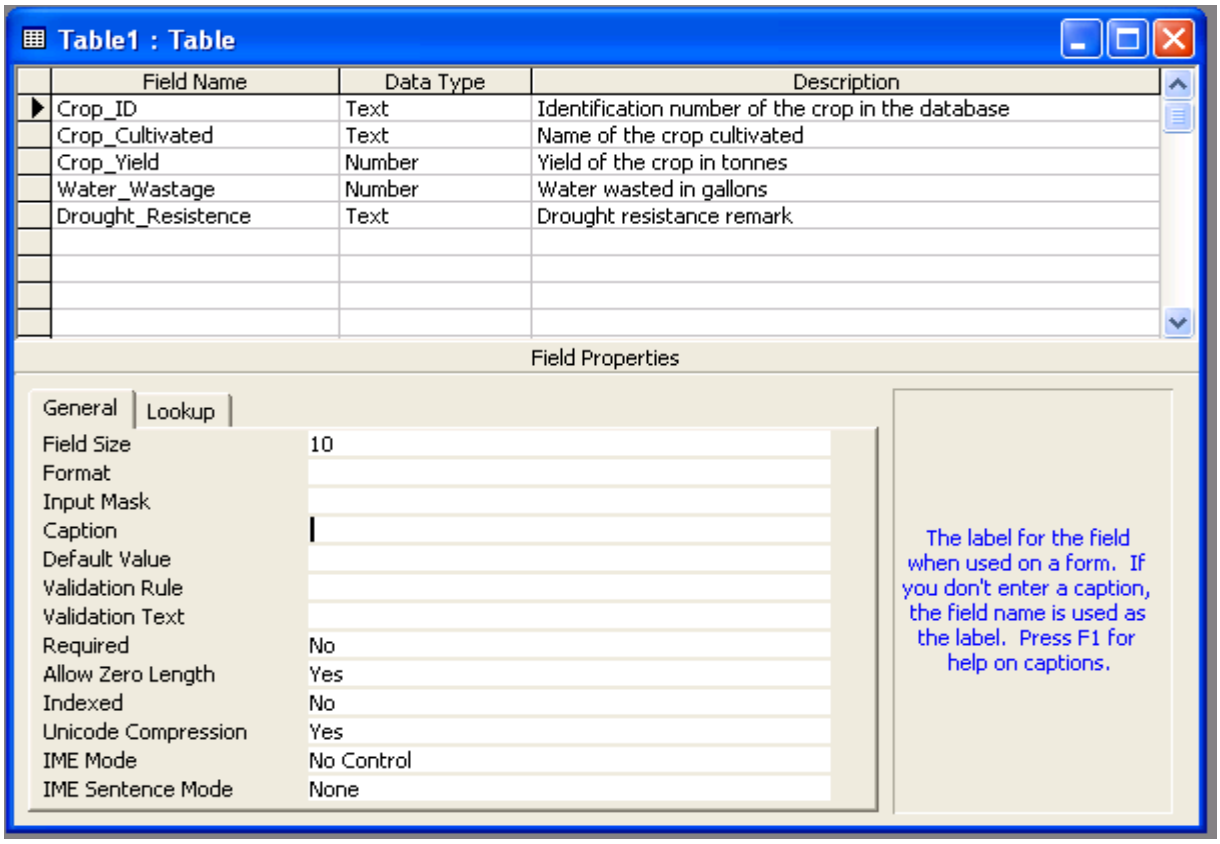


- Choose create in Design view option.

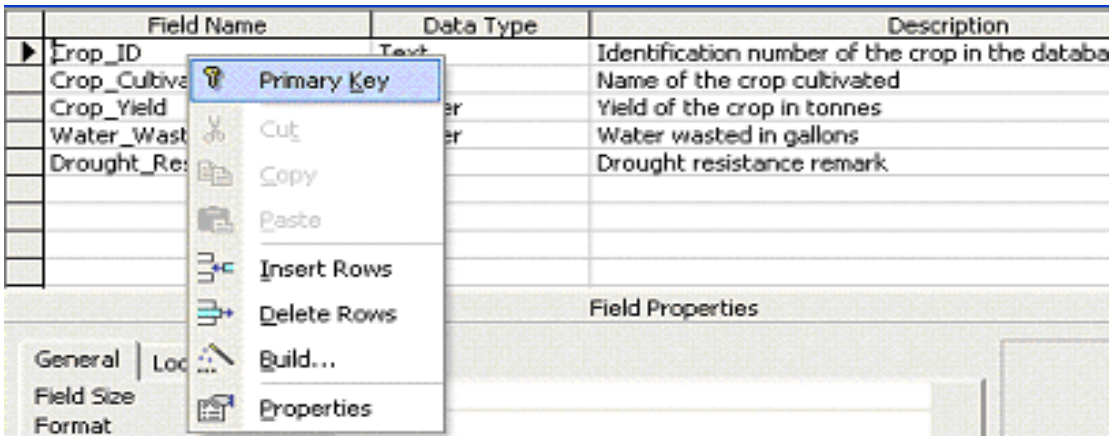
- Default name of the table is Table1 will get displayed in the title bar of the Table window.
- Enter the field name under Field Name column.
- Data type can be selected with by clicking the down arrow key in the Data Type column as shown below.



- After choosing the data type of the field set the required field size in the field size tab.
- Enter the description of the field in the Description column.
- Following the above said instructions enter the other fields in the table.



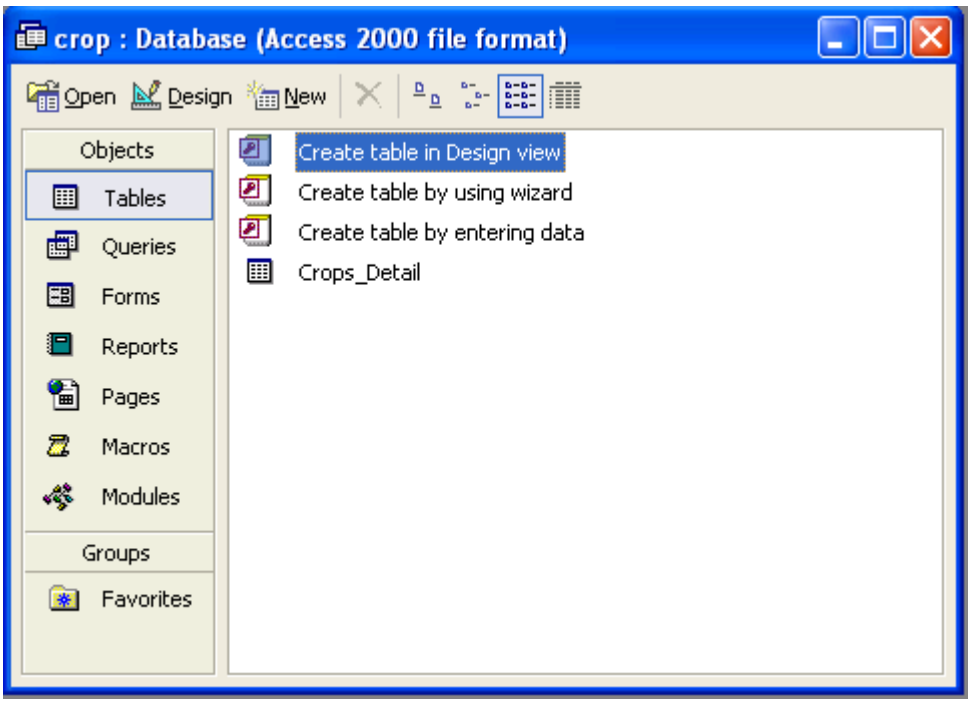
- To set Crop_ID as the primary key of the table right click the field Crop_ID.
- From the right context menu choose Primary Key option.



- A small picture of a key appears next to Crop_ID.

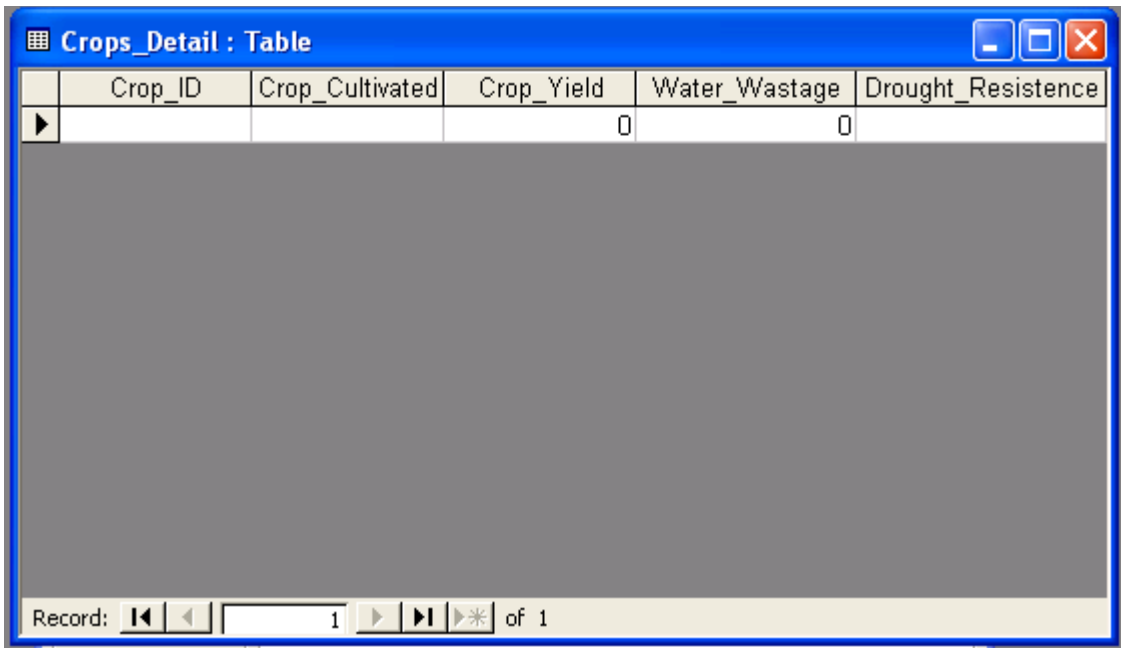
- Now the definition of the table structure is complete.
- To save the table click the File menu and Save.
- In the Save As dialog box specify the name of the table.

- Close the table by clicking on File menu and Close option.
- The Crop_detail table is displayed in the 'Tables' tab as shown below:

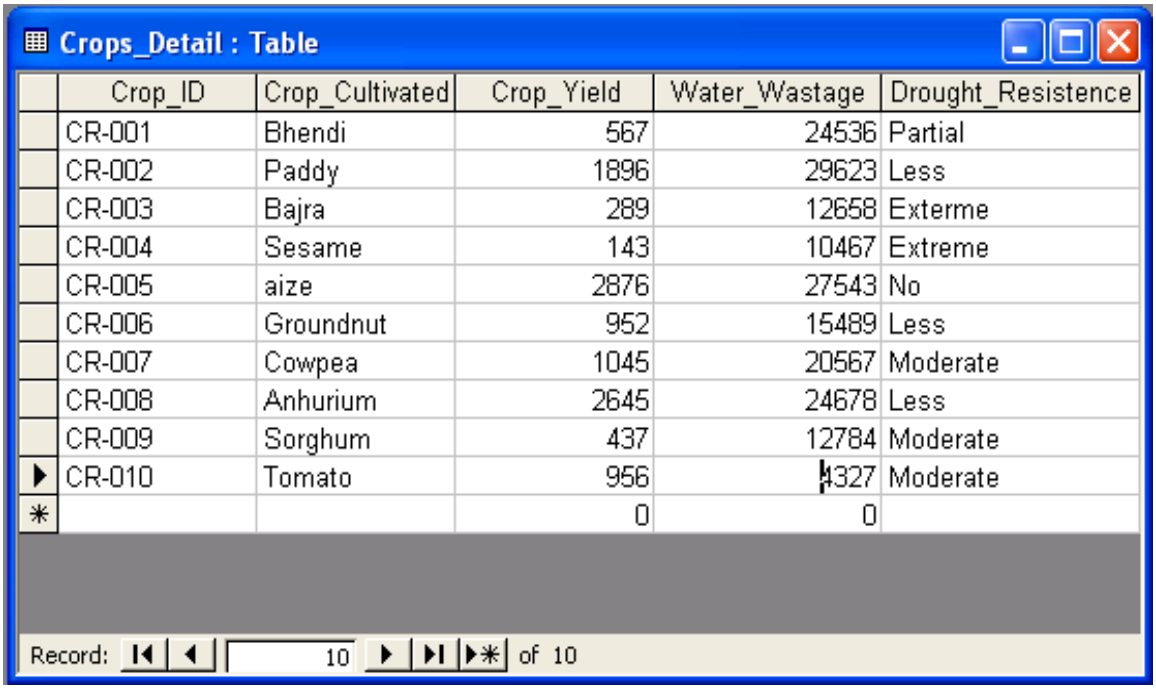


Adding Records to the Table

- In the design view under the Crop database we have created the table Crop_Detail and assigned Crop_ID as the primary key.
- To add the records right click the table Crop_Detail and select Open option.
- The datasheet view of the Crop_Detail table will get opened.

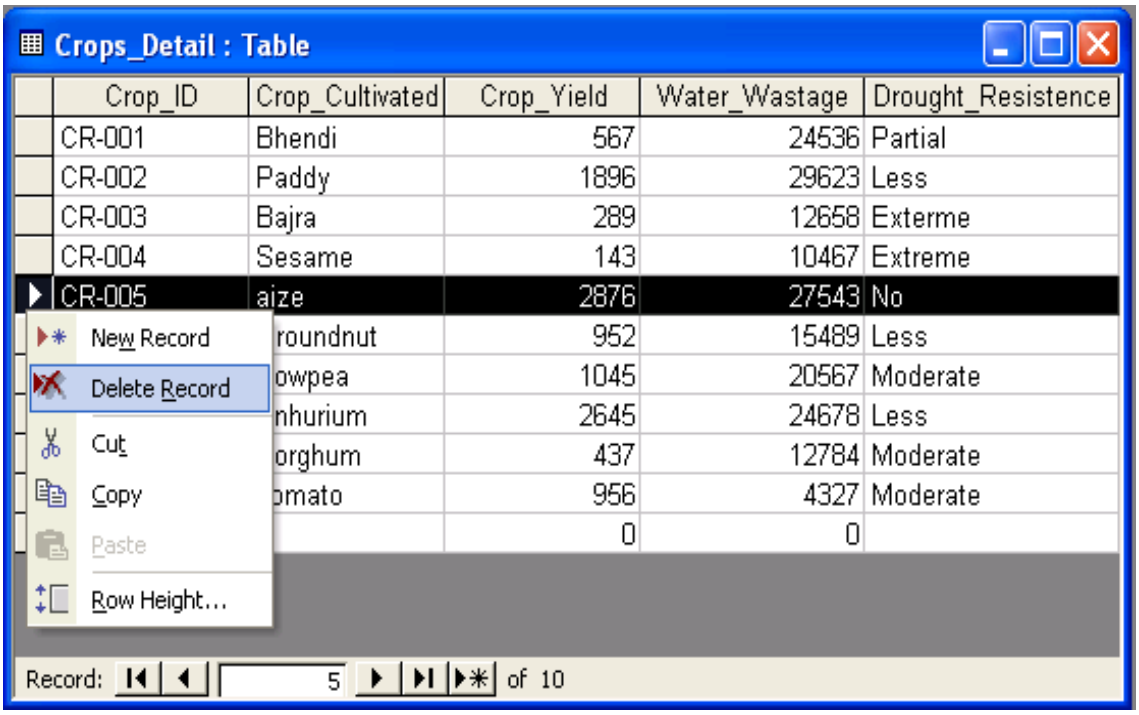


- The field names are displayed as headings and a blank row is provided to enter data.
- Enter the data in the corresponding fields. When all the records are added the screen will be as shown below:

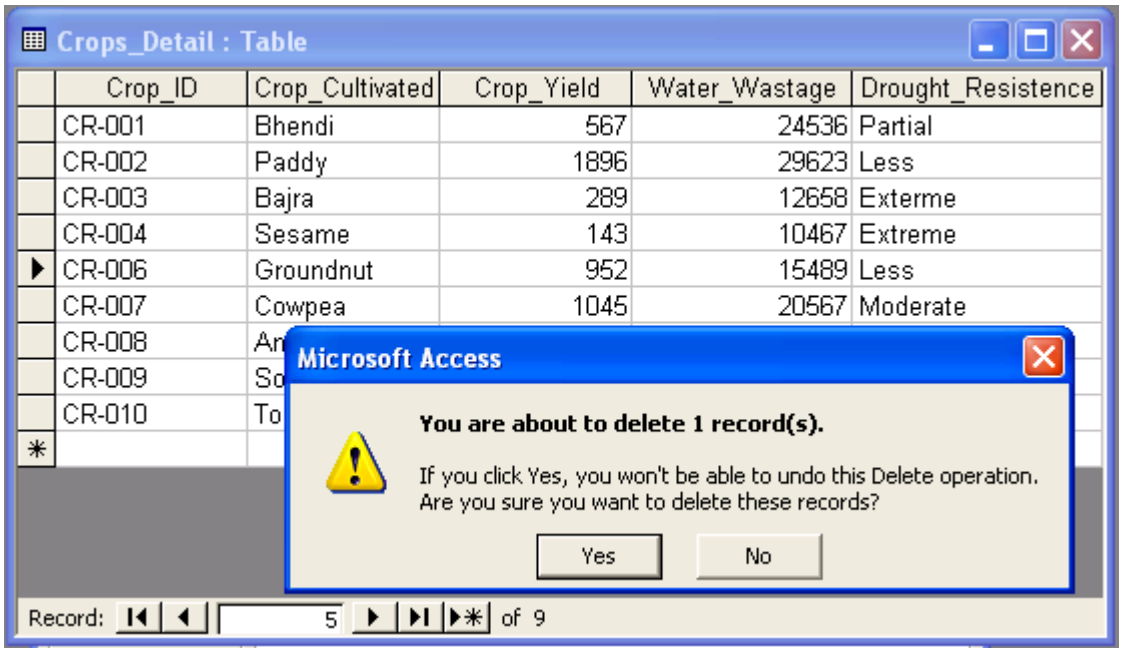


To Delete a Record from the table

- To remove the 5th record with Crop_ID CR-005 and Crop_name as aize right click on the arrow ( ) tabin front of the record and choose Dekete option as shown below:



- Access prompts the user for the final confirmation because the record once deleted cannot be recalled back.
- Click on ‘Yes’ if you are sure to delete it.


Crops_Detail : Table
Crop_ID
Crop_Cultivated
Crop_Yield
Water_Wastage
Drought_Resistence
CR-001 Bhendi 567 24536 Partial
CR-002 Paddy 1896 29623 Less
CR-003 Bajra 289 12658 Exterme
CR-004 Sesame 143 10467 Extreme
CR-006 Groundnut 952 15489 Less
CR-007 Cowpea 1045 20567 Moderate
CR-008
CR-009
CR-010
Microsoft Access
You are about to delete 1 record(s).
If you click Yes, you won't be able to undo this Delete operation.
Are you sure you want to delete these records?
Yes
No
Record: 5 of 9

LECTURE SCHEDULE 14

Principles of Programming: Flow charts, illustrations through examples

Principles of Programming

- The program or set of programs in a computer that helps in processing the information is called SOFTWARE.
- Software is a detailed writing of stepwise instructions for the computer to carry out the particular task efficiently and properly.
- The art of writing software is called programming.
- Software is an essential part of a computer. Without the software the computer will neither accept information nor give the desired result.

Algorithm

- A step-by-step procedure to solve the given problem is known as Algorithm.
- The essential properties of Algorithm are:
    - It should be simple
    - It should be clear with no ambiguity
    - It should lead to a unique solution of the problem.
    - It should involve a finite number of steps to arrive at a solution.
    - It should have the capability to handle some-unexpected situations.
- For example if a student wants to purchase a pen, he has to follow the following steps.

Step	Action
1.	He has to get money from parents.
2.	Come out of the House to cross the road
3.	Check the vehicle movement for safe crossing.
4.	When it is safe to cross the road, he crosses the road.
5.	He gets into the shop.
6.	Asks for a pen.
7.	Selects a pen from the lot shown to him by the shopkeeper.
8.	Pays money to the shopkeeper.

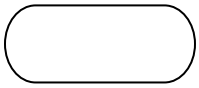
- These numbered steps are known as Algorithm.

Flow Chart

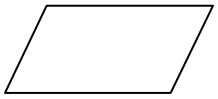
- The graphical or visual representation of algorithm is called as flow chart.
- The flow charts are easier to understand the flow of the solution.
- Flow charts are drawn with the standard symbols accepted worldwide.
- Each standard flow chart symbol represents on action to be performed such as Start or Stop, input operations Read or Write, decision making etc.

Standard Flow Chart Symbols

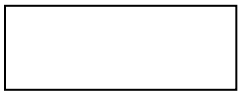
1. Terminal (Start or Stop Symbol)



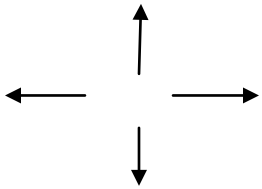
2. Input / Output



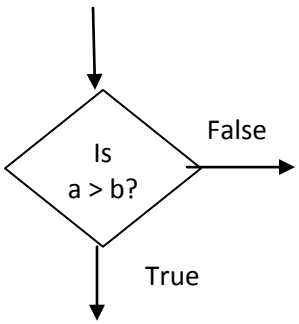
3. Processing



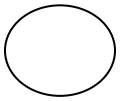
4. Flow Lines: These are arrow mark symbols used to connect two boxes and to indicate the direction of data or processing flow.



5. Decision Box: This is a diamond shaped box, which is used to indicate logical checking and gives decision after comparing between two or more objects (Eg. Yes or No; True or False, =, >, <, etc.)



6. Connector: This is a Circular-shaped symbol used to connect different parts of flowchart. When the flow chart is lengthy, it is split into different pages. Then these connectors are used to connect between these pages at the beginning and at the end of each page.



Illustrations through examples

1. Algorithm and flow chart to read the name and print the name.

Algorithm

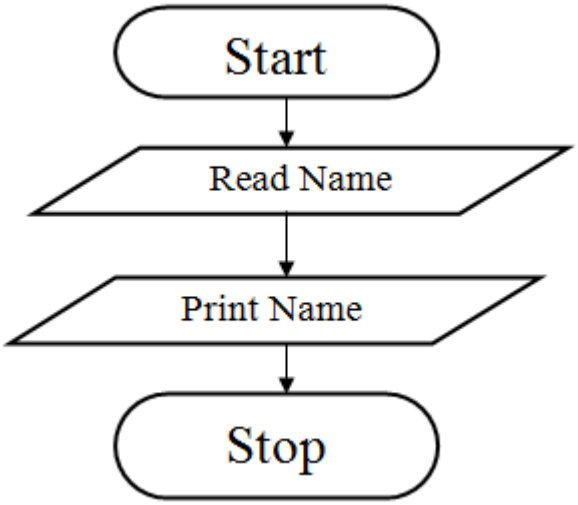
Step 1 : Start

Step 2 : Read input name

Step 3 : Print name

Step 4 : Stop

Flow Chart



2. Algorithm and flow chart to add two numbers.

Algorithm

Step 1 : Start

Step 2 : Input first number A

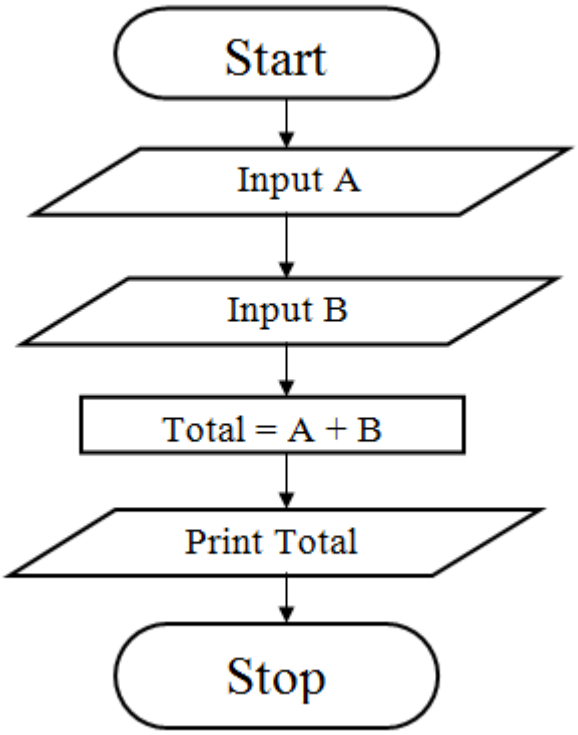
Step 3 : Input second number B

Step 4 : Add the two numbers and store it in total

Step 5 : Print Total

Step 6 : Stop

Flow Chart



3. Algorithm and a flow chart to calculate area of square.

Algorithm

Flow Chart

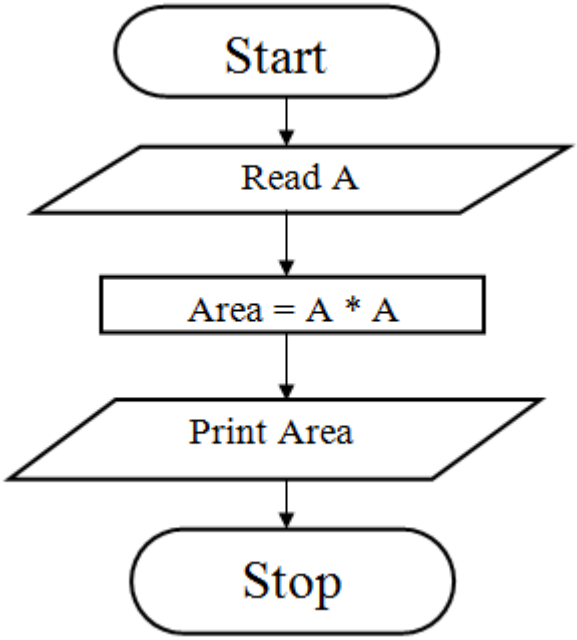
Step 1 : Start

Step 2 : Read value for a (side)

Step 3 : [Compute] Area = A * A

Step 4 : Output Area

Step 5 : Stop



4. Algorithm and flow chart to find the average of three numbers.

Algorithm

Step1 : Start

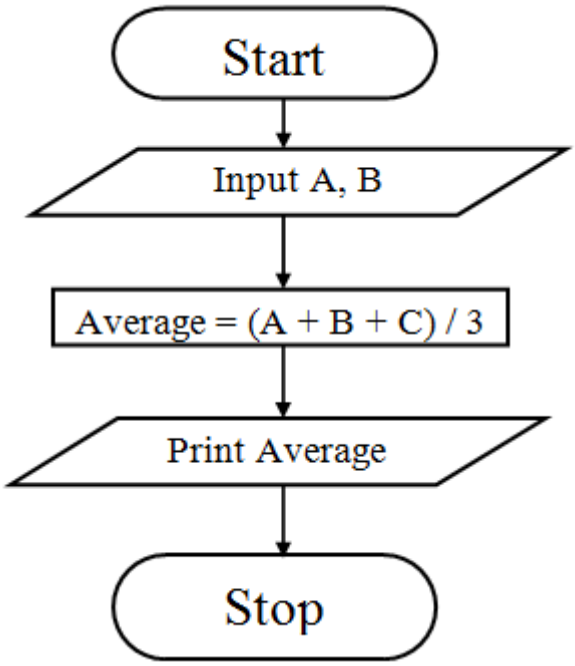
Step 2 : Enter Three Numbers A, Band C

Step 3 : Compute Average = (A+B+C)/3

Step 4 : Print Average

Step 5 : Stop

Flow Chart



5. Algorithm and flow chart to find the largest of two numbers.

Algorithm

Step1: Start

Step 2: Enter two numbers A and B

Step 3: Check if A is greater than B if yes go to Step 4 else go to Step 5

Step 4: Print A is greater than B

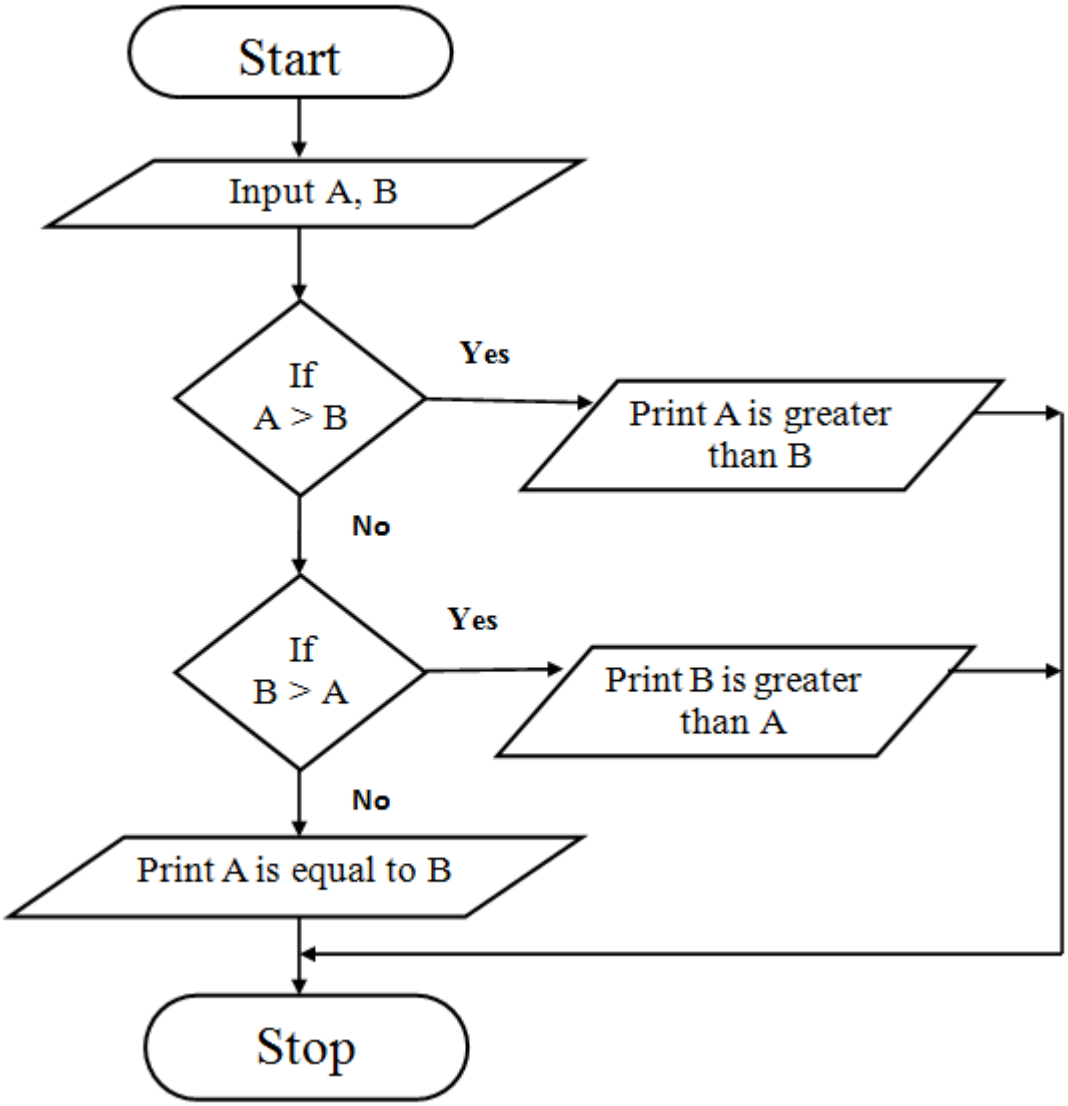
Step 5: Check if B is greater than A if yes go to Step 6 else go to Step 7

Step 6: Print B is greater than A

Step 7: Print A is equal to B

Step 8: Stop

Flow Chart



6. Algorithm and a flow chart to find the factorial of a number.

Algorithm

Step 1: Start

Step 2: Read N

Step 3: [Initialize all counters] Set FACT= 1, i = 1

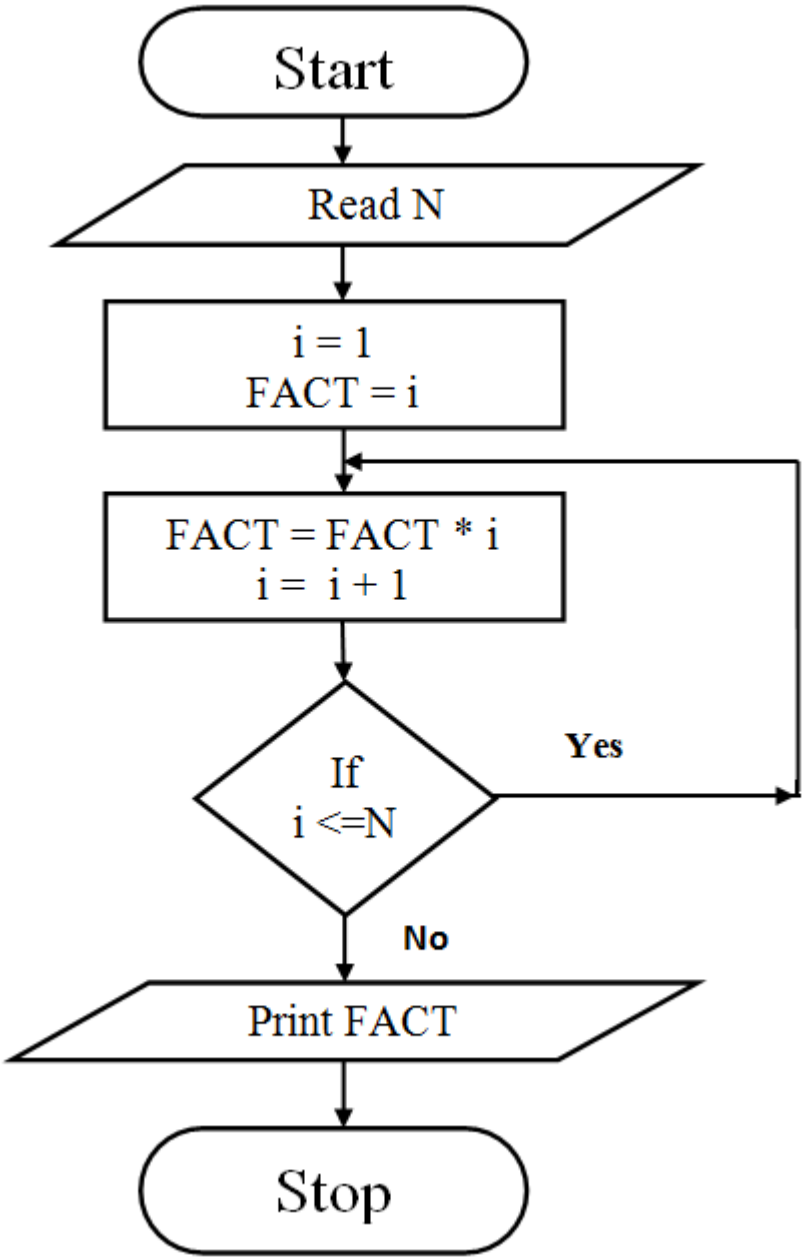
Step 4: Compute Fact = Fact * I Increment i

Step 5: Check if i < = N if true repeat step 4 if false go to step 6

Step 6: Print fact

Step 7: Stop

Flow Chart



Advantages of Flowchart

1. **Conveys Better meaning**

   Since a flowchart is a pictorial representation of a program, it is easier for a programmer to understand and explain the logic of the program to other programmers.

2. **Analyses the problem effectively**

Flow chart helps the programmers to analyze the problem in detail by breaking the flow chart into detailed parts.

3. **Effective Coding**

It is very easy for the programmers to write the program, because flow chart will give a clear idea of the steps involved.

4. **Systematic Debugging**

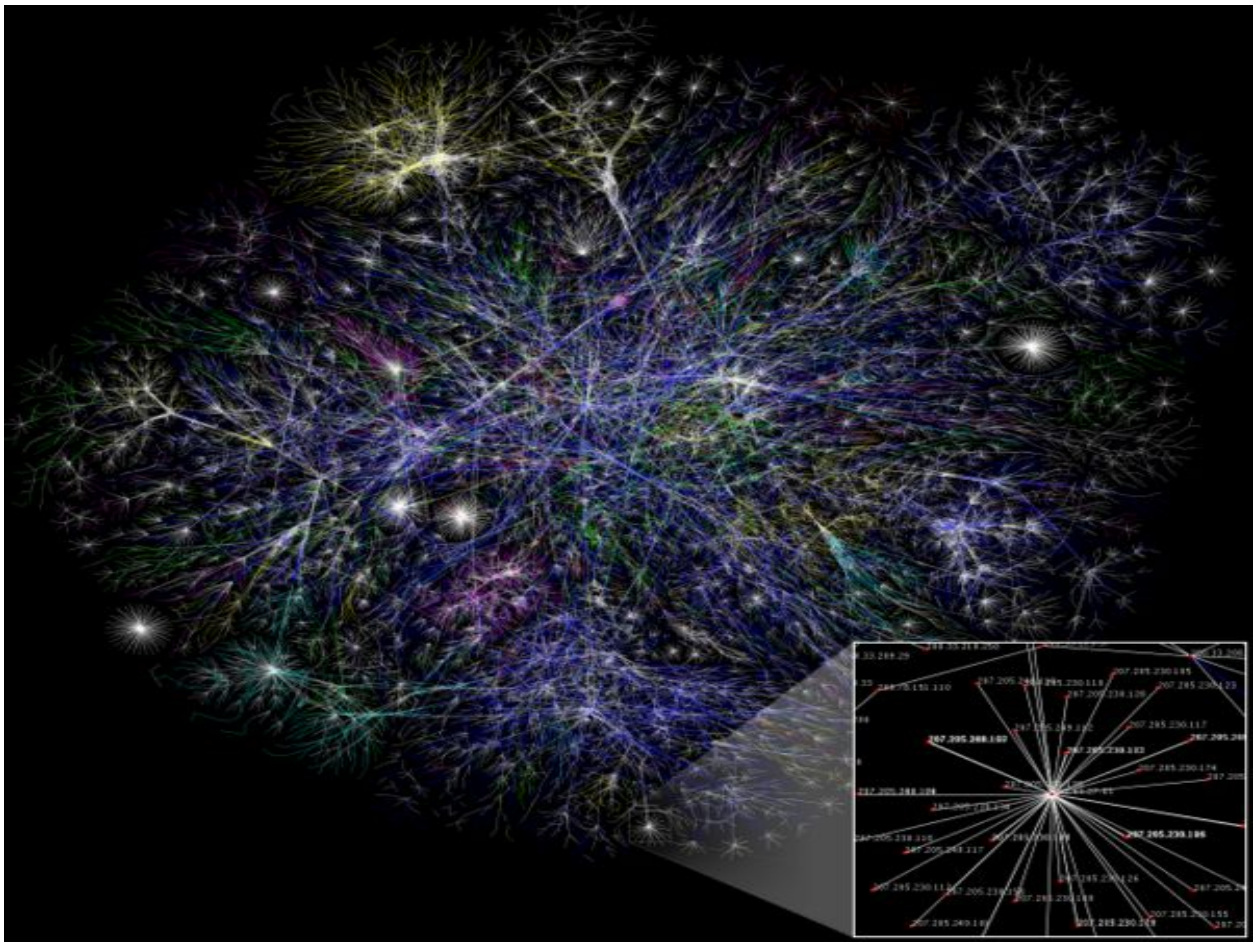
Even after taking the full care in program design, some errors may remain in the program because the programmer might have never thought of a particular case. Using a flow chart can reduce this type of errors. It also enables easy detection of errors.

LECTURE SCHEDULE 14

Internet: World Wide Web (WWW), Concepts

Internet

- Network of interconnected computers around the world.
- A network of computer networks which operates world-wide using a common set of communications protocols.
- a computer network consisting of a worldwide network of computer networks that use the TCP/IP network protocols to facilitate data transmission and exchange.
- Visualization of the various routes through a portion of the Internet:



What do we need to get connected to internet?

- Getting on the Internet requires:
  - Computer
  - Modem
  - Telephone Line
  - Internet Service Provider (ISP)
  - Communication Software

Modem and Telephone Line

- Modem is a communications device that allows us to communicate with another computer through telephone lines.
- Modem is abbreviation of modulator/demodulator.
- Telephone services, such as
  - ISDN,
  - 56K leased lines, and
  - T-1 connections
- offer connections to the Internet at considerably faster connection speeds.

Internet Service Provider (ISP)

- An Internet Service Provider (ISP) is a company that allow you to use their internet connection for a price.
- When you register with an ISP the followings are given:
  - Username

        - A unique name that identifies you.
    - Password
        - A secret code that prevents other people from using your account.

Some Popular Internet Service Providers

- AT&T WorldNet
- Microsoft Network
- America Online
- In India:
    - VSNL (Videsh Sanchar Nigam Limited
    - MTNL (Mahanagar Telecom Nigam Limited)
    - BSNL (Bharat Sanchar Nigam Limited)
    - Satyam Onlile

Communication Software

- Computer needs communicate
- on software to allow you to get connected to, and interact with, the Internet.
- Communication software is of two types:
    - Software that Helps Establish Basic Internet Connectivity
    - Software that helps to browse, access e-mail etc.

World Wide Web

"The World Wide Web is the universe of network-accessible information, an embodiment of human knowledge."

- Tim Berners-Lee, a scientist at CERN (The European Organization for Nuclear Research (French: Organisation Européenne pour la Recherche Nucléaire), invented the World Wide Web (WWW) in 1989.
- The Web was originally conceived and developed to meet the demand for automatic information sharing between scientists working in different universities and institutes all over the world.

- The basic idea of the WWW was to merge the technologies of personal computers, computer networking and hypertext into a powerful and easy to use global information system.
- The World Wide Web, abbreviated as WWW and commonly known as The Web, is a system of interlinked hypertext documents contained on the Internet.
- With a web browser, one can view web pages that may contain text, images, videos, and other multimedia and navigate between them by using hyperlinks.

Hypertext

- Hypertext is text displayed on a computer or other electronic device with references (hyperlinks) to other text that the reader can immediately access, usually by a mouse click or keypress sequence.
- Apart from running text, hypertext may contain tables, images and other presentational devices. Hypertext is the underlying concept defining the structure of the World Wide Web, making it an easy-to-use and flexible format to share information over the Internet.

Web Browser

- A web browser is a software application for retrieving, presenting, and traversing information resources on the World Wide Web. An information resource is identified by a Uniform Resource Locator (URL) and may be a web page, image, video, or other piece of content.
- Example of Web Browser:
    - Mosaic
    - Internet Explorer
    - Netscape Navigator

- Mozilla Firefox

Web Page and Websites

- W3 contains several millions of pages of information. Each of these pages is called a Web Page.
- A webpage or web page is a document or resource of information that is suitable for the World Wide Web and can be accessed through a web browser and displayed on a computer screen.
- A web page can contain text, pictures, sound, animation and video.
- A group of related web pages that are linked together form a Web Site.
- The first page of a web site is called the Home Page.
- The Home Page shown below is the Home Page of the official website of Tail Nadu Agriculture University.

Tnau Home - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address http://www.tnau.ac.in/ Go

Tamilnadu Agricultural University

transforming the lives of farmers ...

Tnau Home | Academics | Admissions | Student Resources | Technologies | Outreach | News & Events

Tnau++

TNAU AGRITECH PORTAL

Universal Resource Locator

- Each web page has a unique address called Universal Resource Locator (URL).
- Contains unique information about the server and the path on the server to find and retrieve the information

Example: http://www.usd.edu/trio/tut/start/url.html	
http://	protocol – rules through which transmission takes place over the internet.
www.usd.edu/	server name - computer domain name
trio/tut/start/	pathname to the directory you are requesting
url.html	filename you are requesting

Search Engine

- A web search engine is designed to search for information on the World Wide Web. The search results are usually presented in a list of results and are commonly called hits.
- Few examples of web search engines are:

  Google.com

  Ask.com

Yahoo.com

Bing.com

TripleMe.com

Shopzilla.com

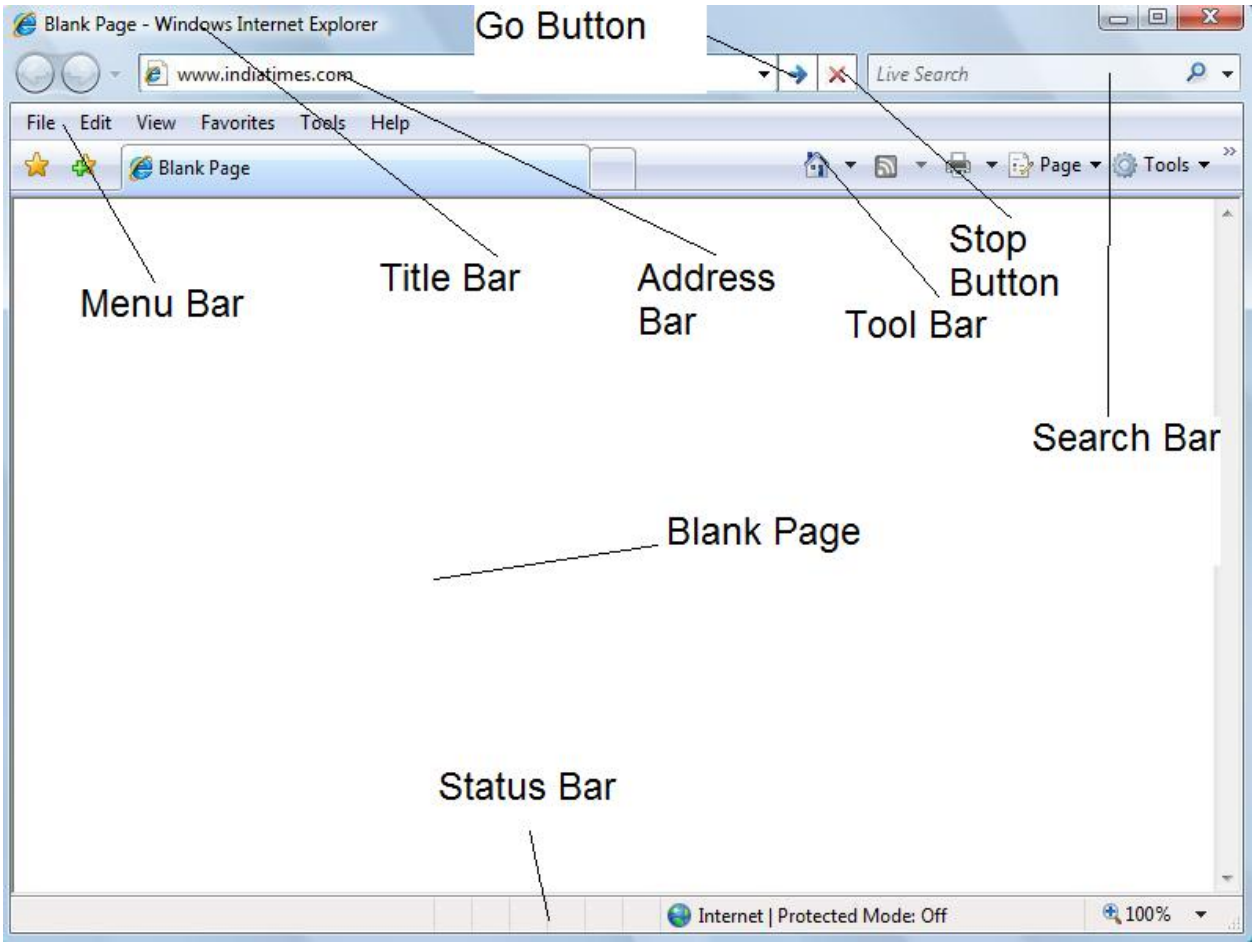
LECTURE SCHEDULE 16

Web Browsing and Electronic Mail

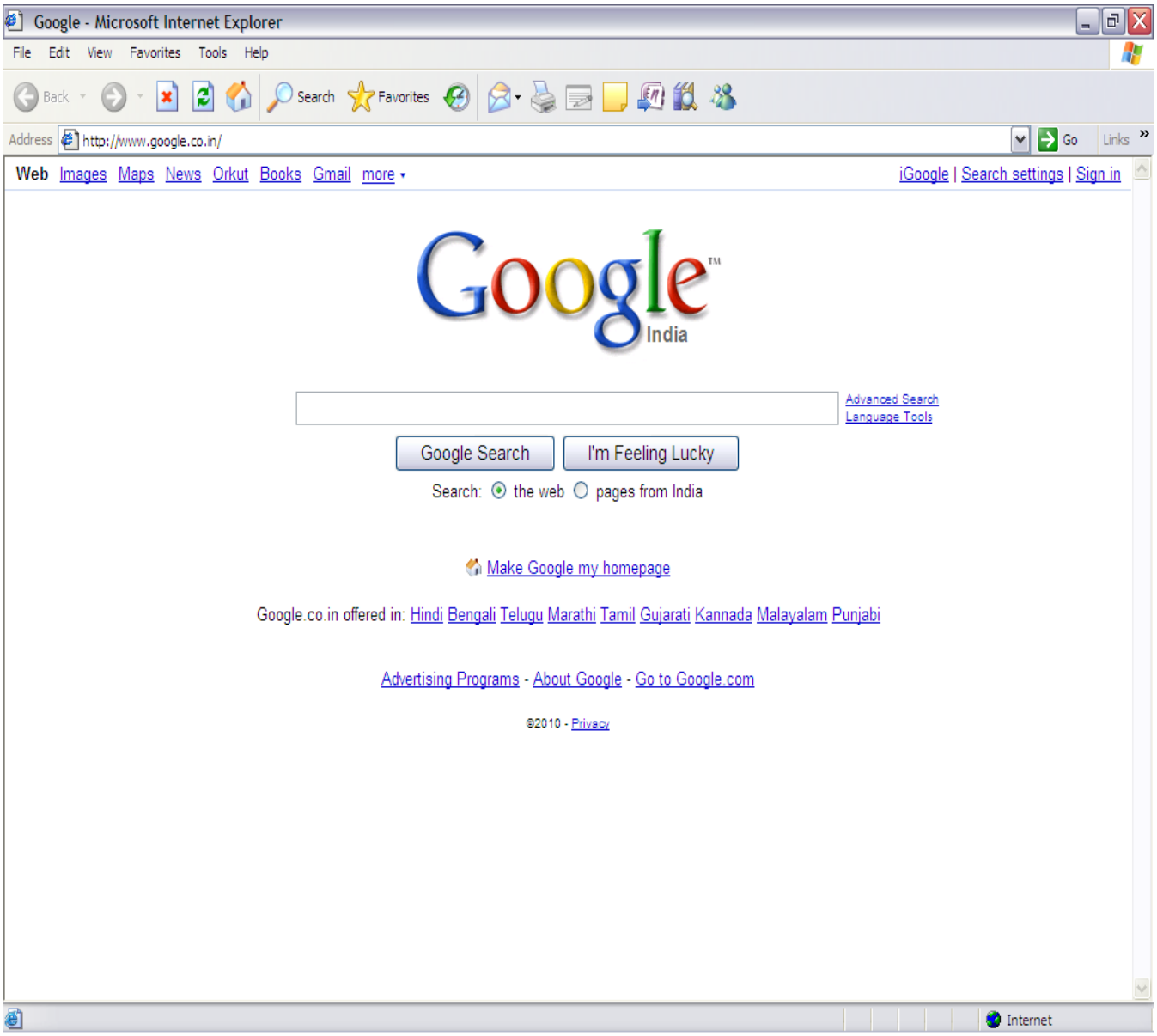
Web browsing

- Browse means reading superficially or at random.
- Reading information contained in the WebPages on the Internet using browsers is called web browsing.
- A web browser is a software application for retrieving, presenting, and traversing information resources on the World Wide Web.

Understand the browsers

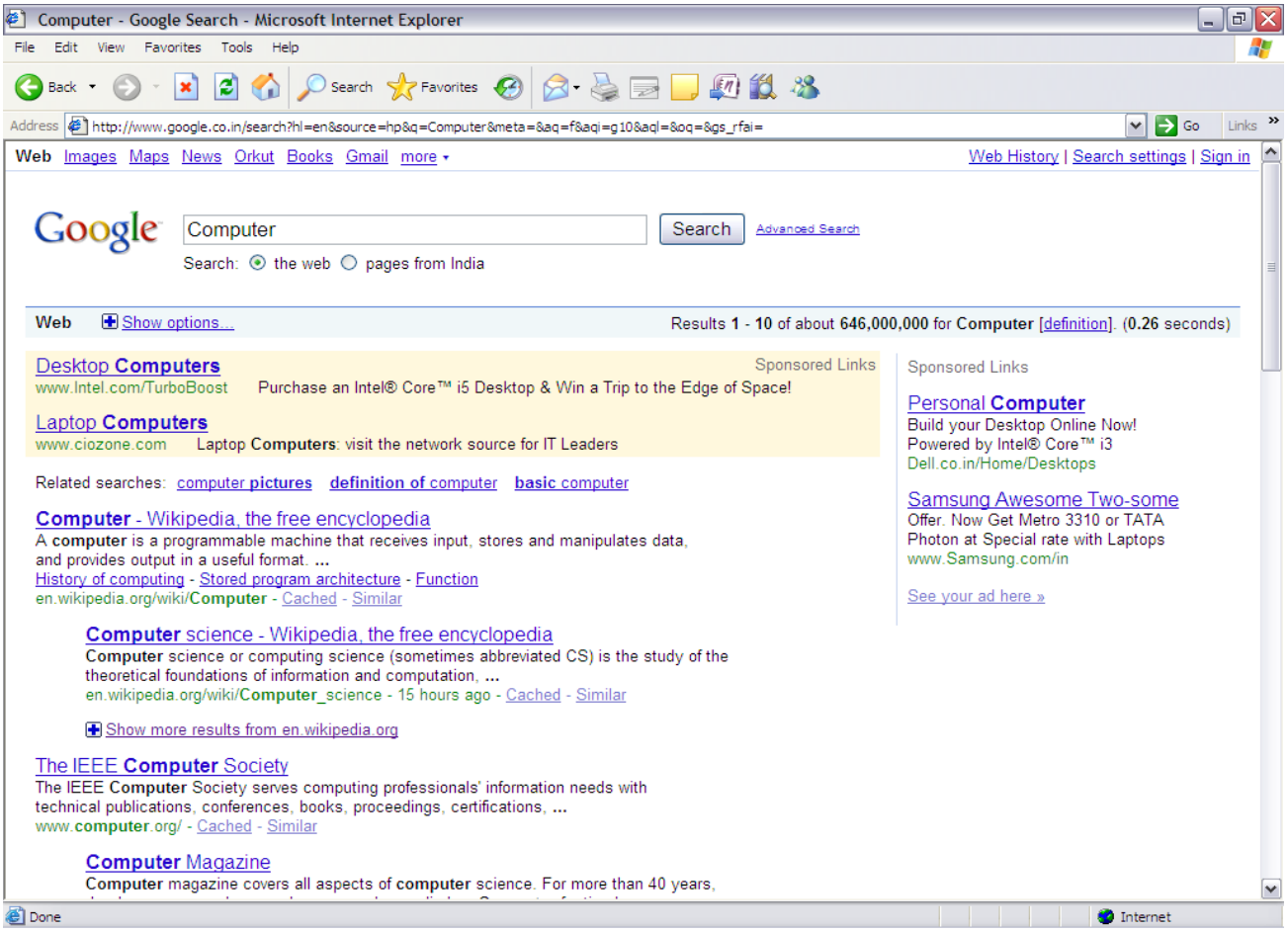


- In the address bar of the browser enter the address of the website or enter the address of the any search engine.
- If the address entered is a website then the corresponding webpage will get displayed.
- If the address entered is of a search engine (For example Google) then the webpage of the corresponding search engine will get displayed as shown below:



- In the search tab enter the information about your search. For example if you want to browse about computers enter the computers in the search tab.
- Then click Search tab.

- A set of pages with the links to the webpages which contain information about computer as shown below:



- Clicking the links desired by you will be taking you to those webpages.

Return to a Web Page That You Just Visited

- To return to the last page you visited, click the **Back** button on the browser toolbar.
- Click the **Forward** button to retrace your steps and return to pages you visited before you clicked the **Back** button.
- To see one of the last nine pages you visited in this session, click the tiny black arrow to the right of the **Back** or **Forward** button, and then click the page you want from the list.

Forward button on the Internet Explorer 6 toolbar

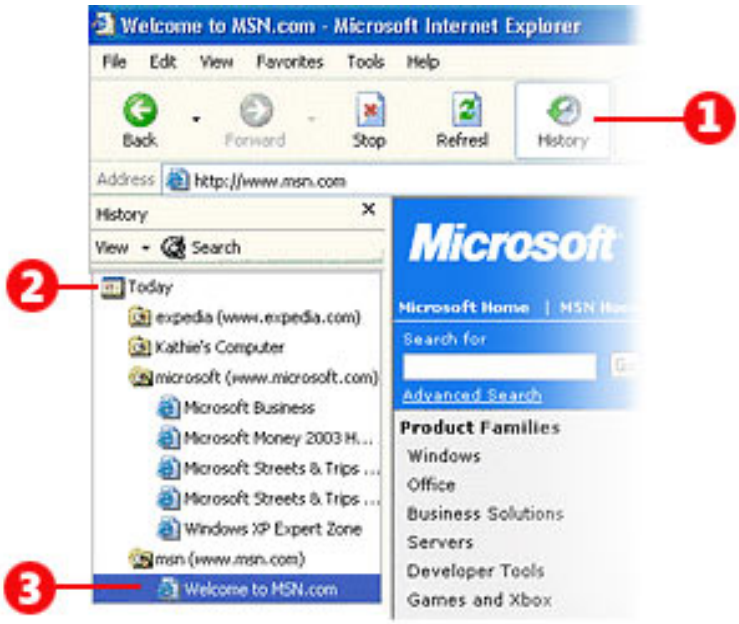
Find a Web Page That You Visited Today or a Few Weeks Ago

The browsers automatically records Web pages you've visited both today and in the past. It organizes them in folders on the History bar by the day you visited. Within each day, it organizes the Web sites alphabetically in folders, putting each page visited on that site in that folder. Here's how to find pages in the History list:

1. On the Internet Explorer 6 toolbar, click the **History** button.
   Internet Explorer 6 opens the History bar on the left side of the screen.

   History button on the Internet Explorer 6 toolbar
2. In the History bar, click the time period you want to search. For example, you may want to see all the sites you visited today. (Marked (2) as in the figure shown in Step 4.)
3. Click the Web site folder to open the list of pages, and then click the link to the page to

display the Web page itself. (Marked (3) as in the figure shown in Step 4.)

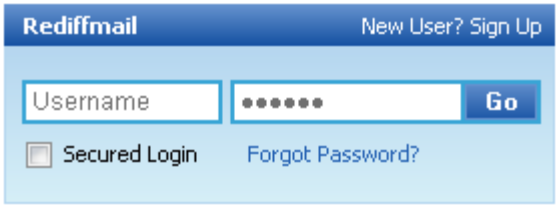
4. 

History bar showing Web pages sorted by time period

5. When you've finished using the History bar, click the Close button.

Electronic Mail

- Electronic mail, most commonly abbreviated email or e-mail, is a method of exchanging digital messages.
- E-mail systems are based on a store-and-forward model in which e-mail server computer systems accept, forward, deliver and store messages on behalf of users, who only need to connect to the e-mail infrastructure, typically an e-mail server.



Creating Email

The users can have email account in any one of the email services such as gmail, yahoomail, rediffmail etc.

To create an email account in any one these email services the user need to enter the address of the service in the browser first.

The service will prompt the user to know whether a new user or not.

If you are a new user then the service will guide step by step to create your own email id.

Email Addresses

Email addresses are made up of at least two parts. One part is the name of a mail domain that will ultimately translate to either the recipient's host or some host that accepts mail on behalf of the recipient. The other part is some form of unique user identification. Most e-mail addresses are set up like this: it is your username, then an @ ('at') symbol, and then a domain name (something .com, .net, or .org in most cases).

Using Email

Using e-mail is rather straightforward. Once you have an account set up, select the option that says something like "new e-mail message" or "create a new message". The service will prompt with three boxes (called fields):

- To:
- Subject:
- Body
- Attachment

To field: In the To field type the complete e-mail address of the person who will receive the e-mail.

Subject and Body fields: Type anything you want in the subject and body fields, but remember the length of the subject is limited.

Attachments: Click the Attach a file or Attachment link to add files to the message.

Sending the message

Once filling all the required fields and attaching files to the message click Send button to send the message.

You can forward (make a copy) of a message you receive from someone (if you have their permission if necessary) and mail it to someone else with the forward option.

CC and BCC

CC stands for carbon copy. If you want to send a message to multiple people, add the extra people in the CC: field (usually you separate their e-mail addresses by commas).

BCC stands for blind carbon copy. BCC works just like a carbon copy, except the e-mail addresses you type in BCC do not show up to the other recipients. (Example: You send a message To: Mary and BCC: Joey. Joey will see Mary's e-mail address, but Mary won't see Joey's e-mail address because you "blinded" it by putting it in the BCC field.)

CAUTION: You can also get viruses by downloading executable files (usually .com and .exe on Windows computers) from web sites. Don't download or run executable files from web sites you don't trust.

JohnRouda.com presents:

Microsoft® Office Excel® 2007 Training

Create a chart

Course contents

- Overview: Charts make data visual
- Lesson 1: Create a basic chart
- Lesson 2: Customize your chart

Each lesson includes a list of suggested tasks and a set of test questions.

Overview: Charts make data visual

A chart gets your point across—fast. With a chart, you can transform worksheet data to show comparisons, patterns, and trends.

So instead of having to analyze columns of worksheet numbers, you can see at a glance what the data means.

This course presents the basics of creating charts in Excel 2007.

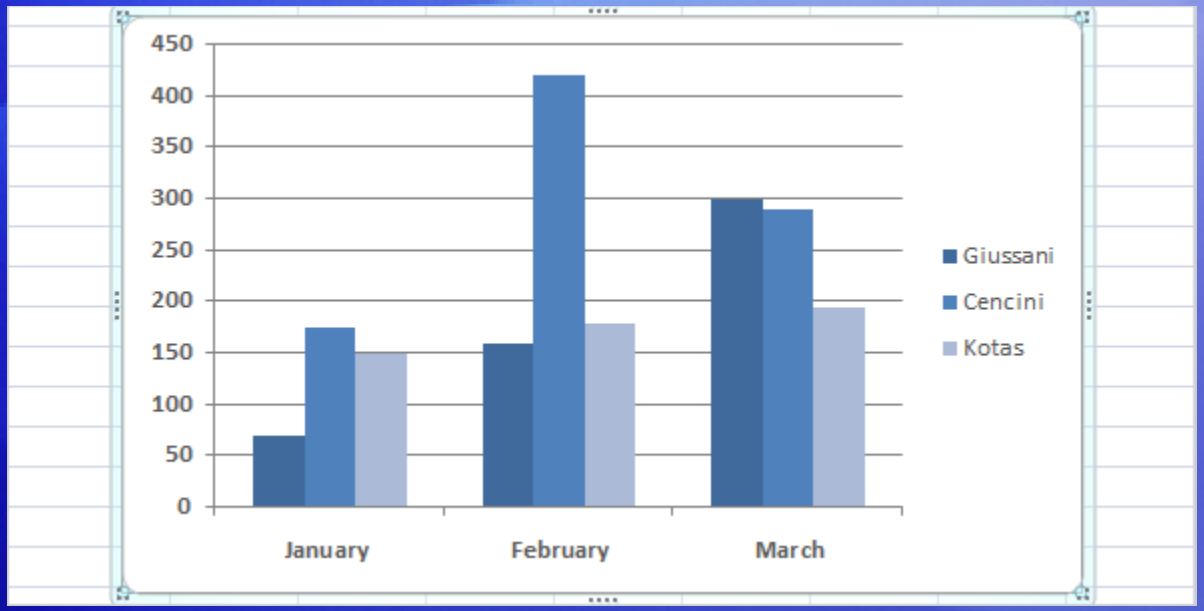
Course goals

- Learn how to create a chart using the new Excel 2007 commands.
- Find out how to make changes to a chart after you create it.
- Develop an understanding of basic chart terminology.

Lesson 1

Create a basic chart

Create a basic chart

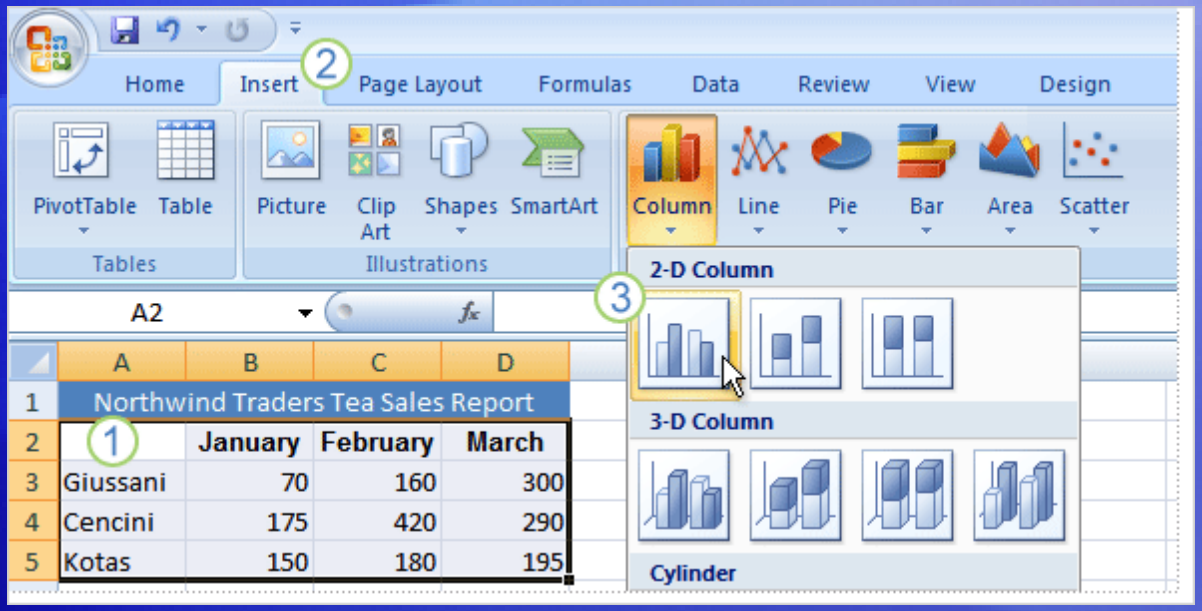


Here's a basic chart in Excel, which you can put together in about 10 seconds.

After you create a chart, you can easily add new elements to it such as chart titles or a new layout.

In this lesson you'll find out how to create a basic chart and learn how the text and numbers from a worksheet become the contents of a chart. You'll also learn a few other chart odds and ends.

Create your chart

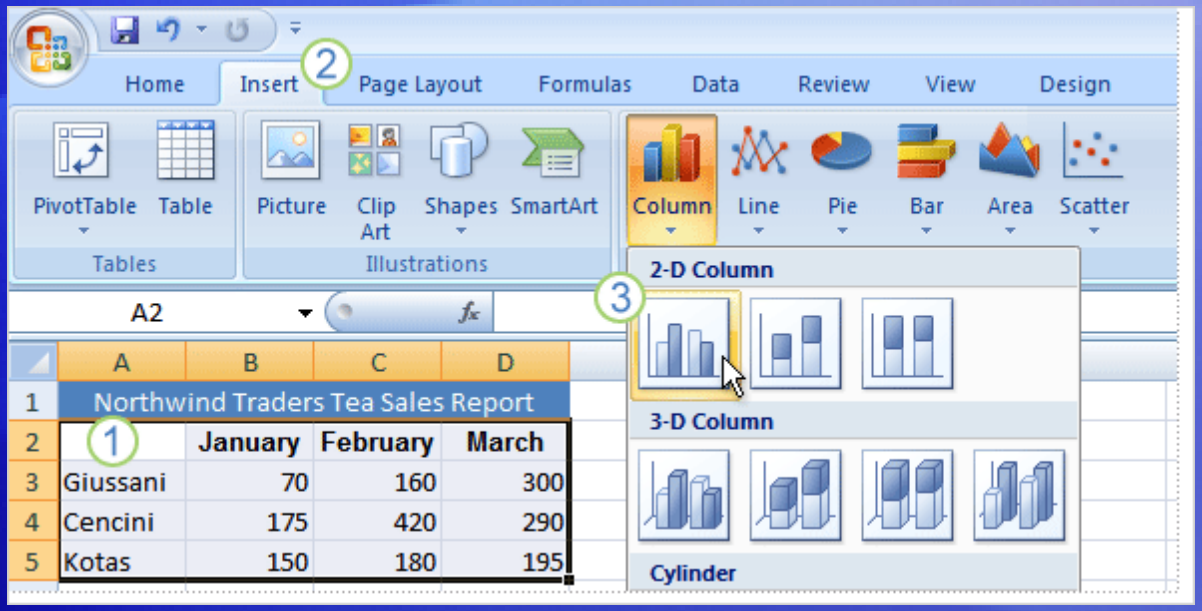


Here's a worksheet that shows how many cases of Northwind Traders Tea were sold by each of three salespeople in three months.

You want to create a chart that shows how each salesperson compares against the others, month by month, for the first quarter of the year.

Create a chart

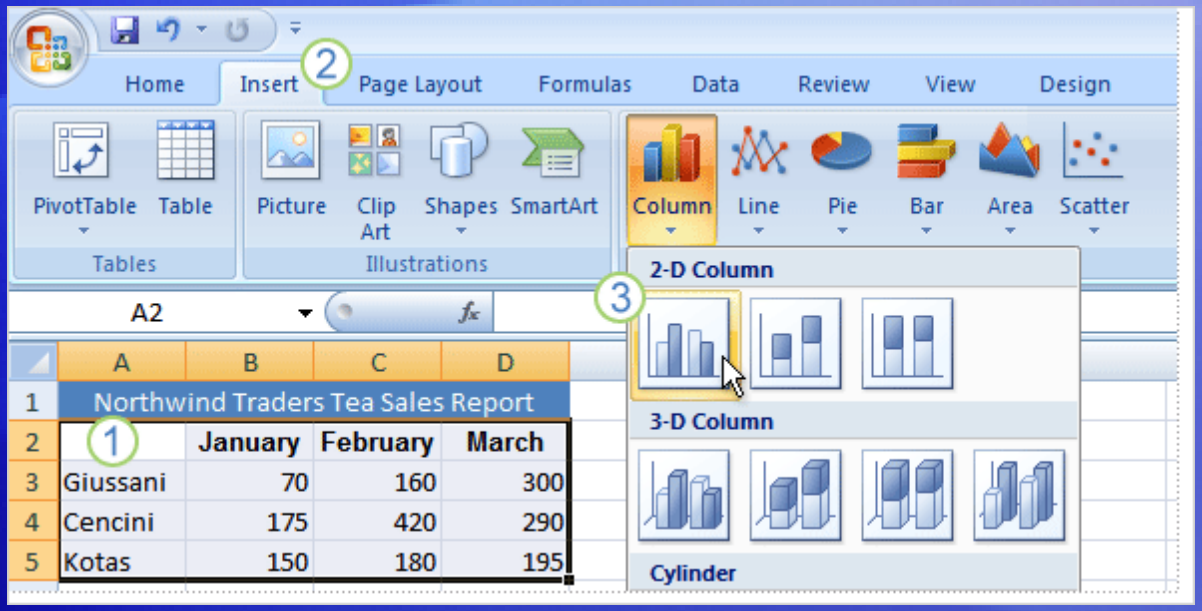
Create your chart



The picture shows the steps for creating the chart.

1. Select the data that you want to chart, including the column titles (January, February, March) and the row labels (the salesperson names).
2. Click the **Insert** tab, and in the **Charts** group, click the **Column** button.

Create your chart

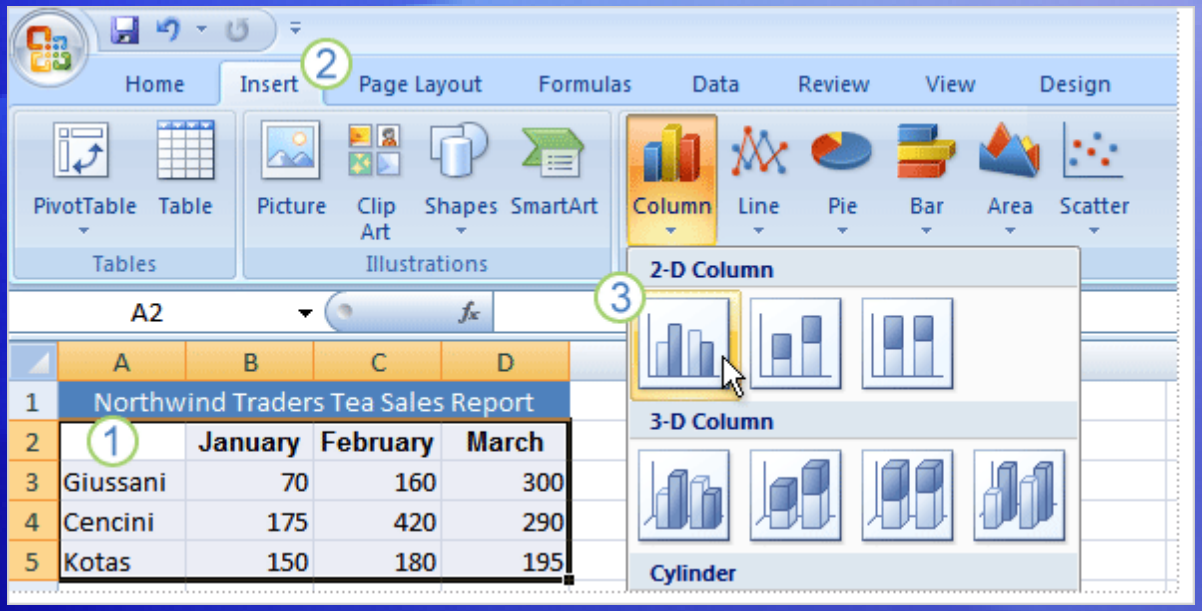


The picture shows the steps for creating the chart.

3 You'll see a number of column chart types to choose from. Click **Clustered Column**, the first column chart in the **2-D Column** list.

That's it. You've created a chart in about 10 seconds.

Create your chart

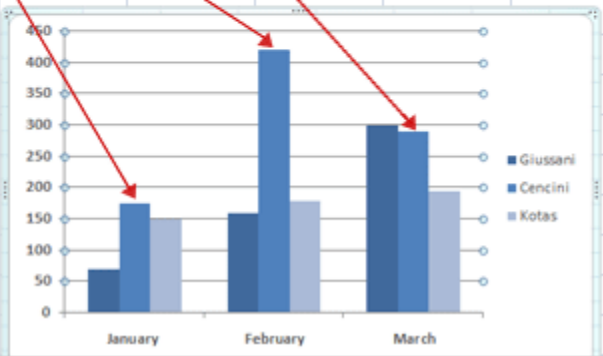


If you want to change the chart type after creating your chart, click inside the chart.

On the **Design** tab under **Chart Tools**, in the **Type** group, click **Change Chart Type**. Then select the chart type you want.

How worksheet data appears in the chart

	A	B	C	D
1	Northwind Traders Tea Sales Report			
2		January	February	March
3	Giussani	70	160	300
4	Cencini	175	420	290
5	Kotas	150	180	195

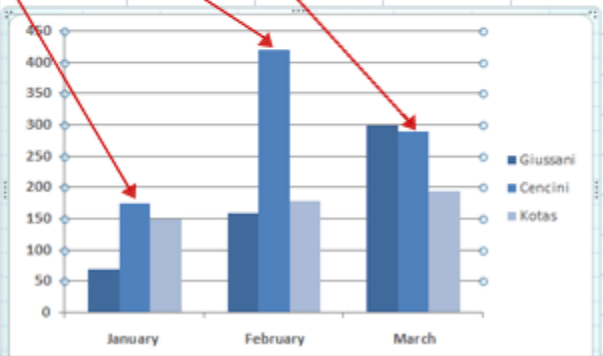


Here's how your new column chart looks.

It shows you at once that Cencini (represented by the middle column for each month) sold the most tea in January and February but was outdone by Giussani in March.

How worksheet data appears in the chart

	A	B	C	D
1	Northwind Traders Tea Sales Report			
2		January	February	March
3	Giussani	70	160	300
4	Cencini	175	420	290
5	Kotas	150	180	195



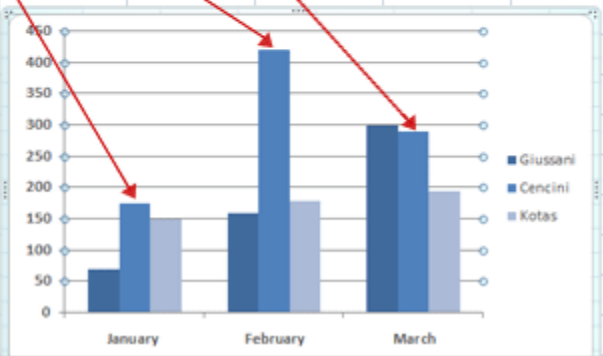
Data for each salesperson appears in three separate columns, one for each month.

The height of each chart is proportional to the value in the cell that it represents.

So the chart immediately shows you how the salespeople stack up against each other, month by month.

How worksheet data appears in the chart

	A	B	C	D
1	Northwind Traders Tea Sales Report			
2		January	February	March
3	Giussani	70	160	300
4	Cencini	175	420	290
5	Kotas	150	180	195



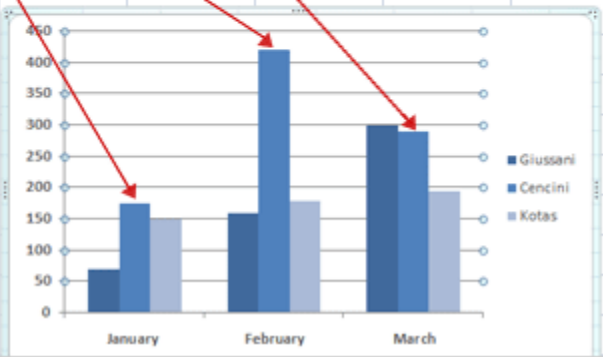
Each row of salesperson data has a different color in the chart.

The chart legend, created from the row titles in the worksheet (the salesperson names), tells which color represents the data for each salesperson.

Giussani data, for example, is the darkest blue, and is the left-most column for each month.

How worksheet data appears in the chart

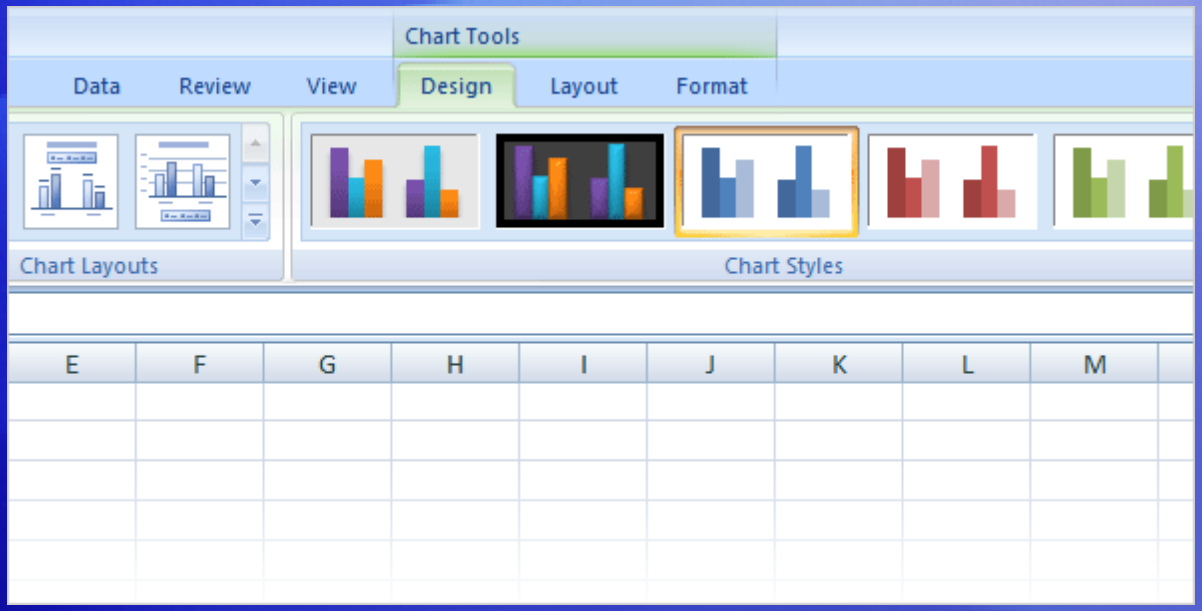
	A	B	C	D
1	Northwind Traders Tea Sales Report			
2		January	February	March
3	Giussani	70	160	300
4	Cencini	175	420	290
5	Kotas	150	180	195



The column titles from the worksheet—January, February, and March—are now at the bottom of the chart.

On the left side of the chart, Excel has created a scale of numbers to help you to interpret the column heights.

Chart Tools: Now you see them, now you don't

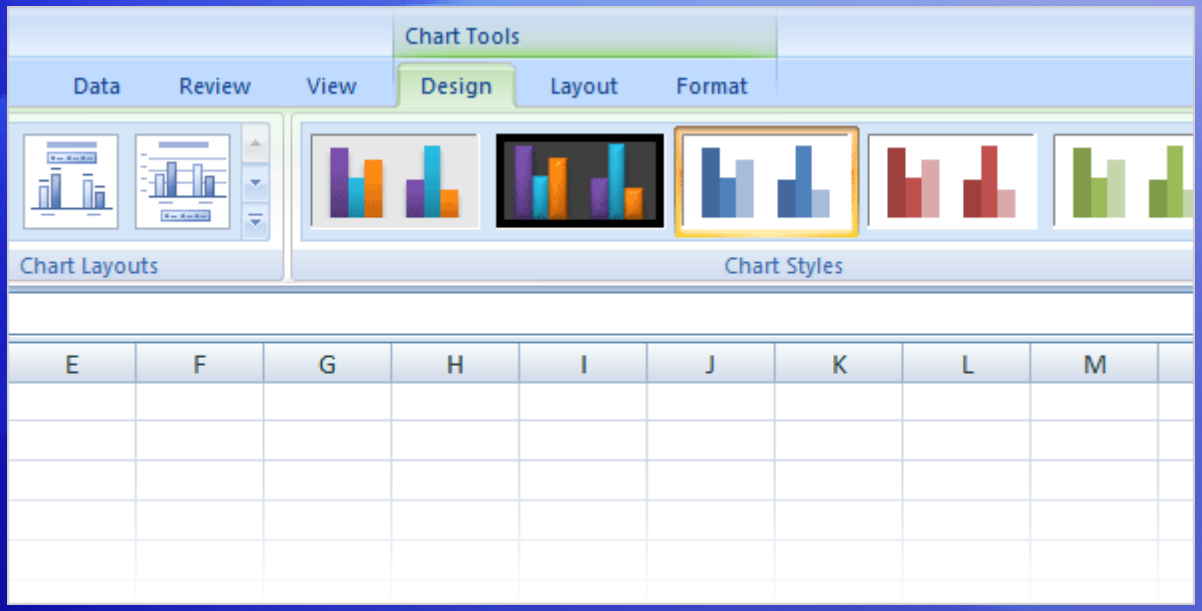


Before you do more work with your chart, you need to know about the **Chart Tools**.

After your chart is inserted on the worksheet, the **Chart Tools** appear on the Ribbon with three tabs: **Design**, **Layout**, and **Format**.

On these tabs, you'll find the commands you need to work with charts.

Chart Tools: Now you see them, now you don't



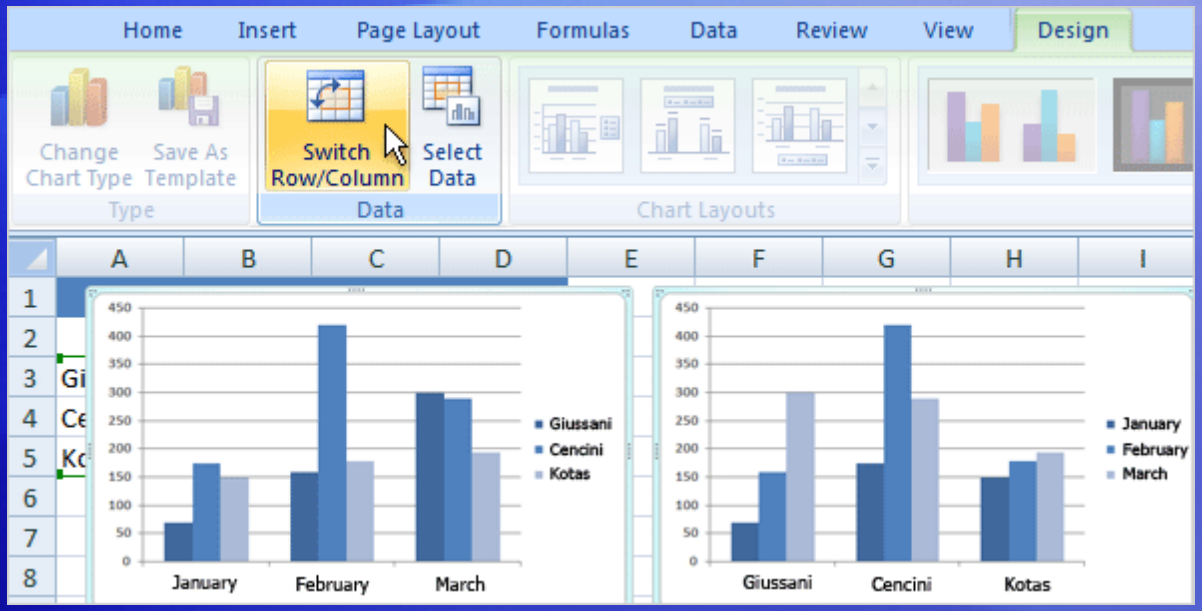
When you complete the chart, click outside it. The **Chart Tools** go away.

To get them back, click inside the chart. Then the tabs reappear.

So don't worry if you don't see all the commands you need at all times.

Take the first steps either by inserting a chart (using the **Charts** group on the **Insert** tab), or by clicking inside an existing chart. The commands you need will be at hand.

Change the chart view

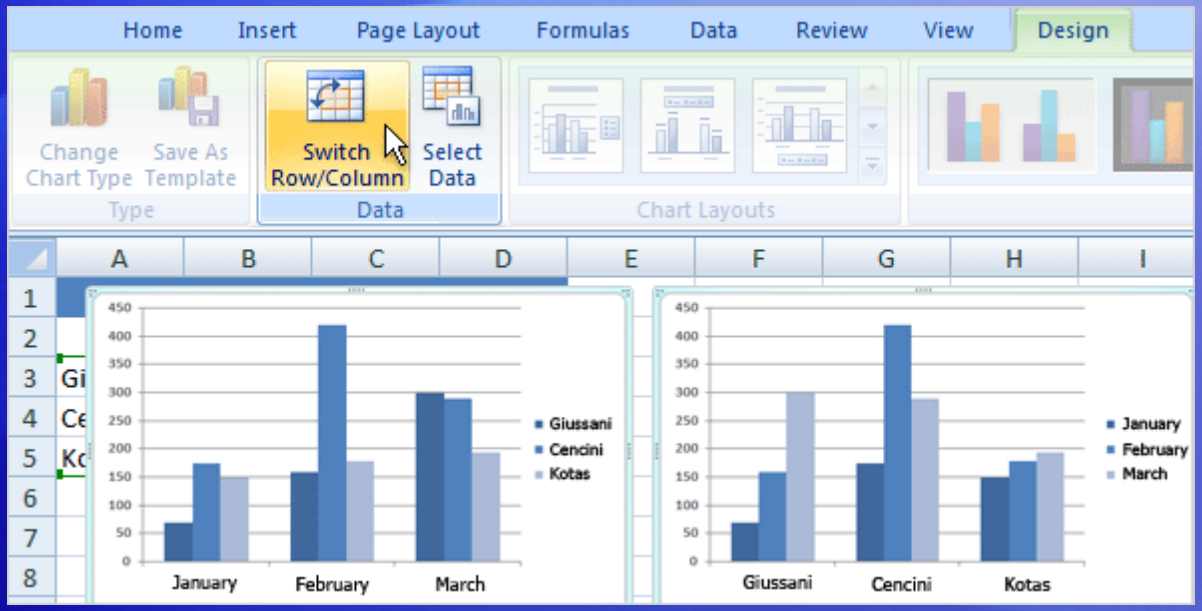


You can do more with your data than create one chart.

You can make your chart compare data another way by clicking a button to switch from one chart view to another.

The picture shows two different views of the same worksheet data.

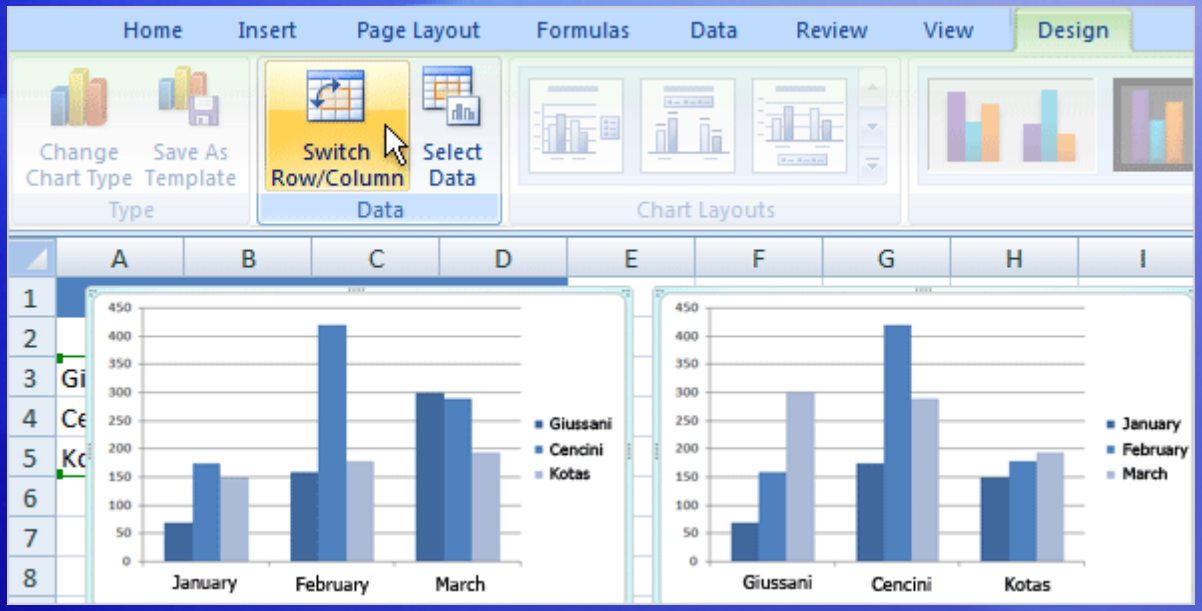
Change the chart view



The chart on the left is the chart you first created, which compares salespeople to each other.

Excel grouped data by worksheet columns and compared worksheet rows to show how each salesperson compares against the others.

Change the chart view

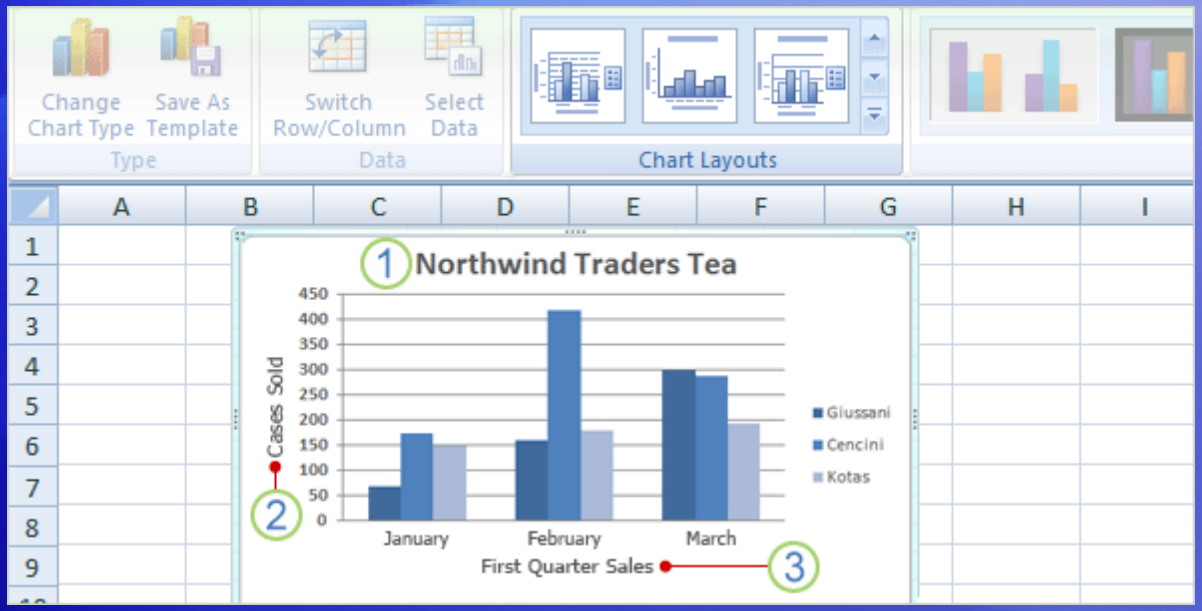


But another way to look at the data is to compare sales for each salesperson, month over month.

To create this view of the chart, click **Switch Row/Column** in the **Data** group on the **Design** tab.

In the chart on the right, data is grouped by rows and compares worksheet columns. So now your chart says something different: It shows how each salesperson did, month by month, compared against themselves.

Add chart titles

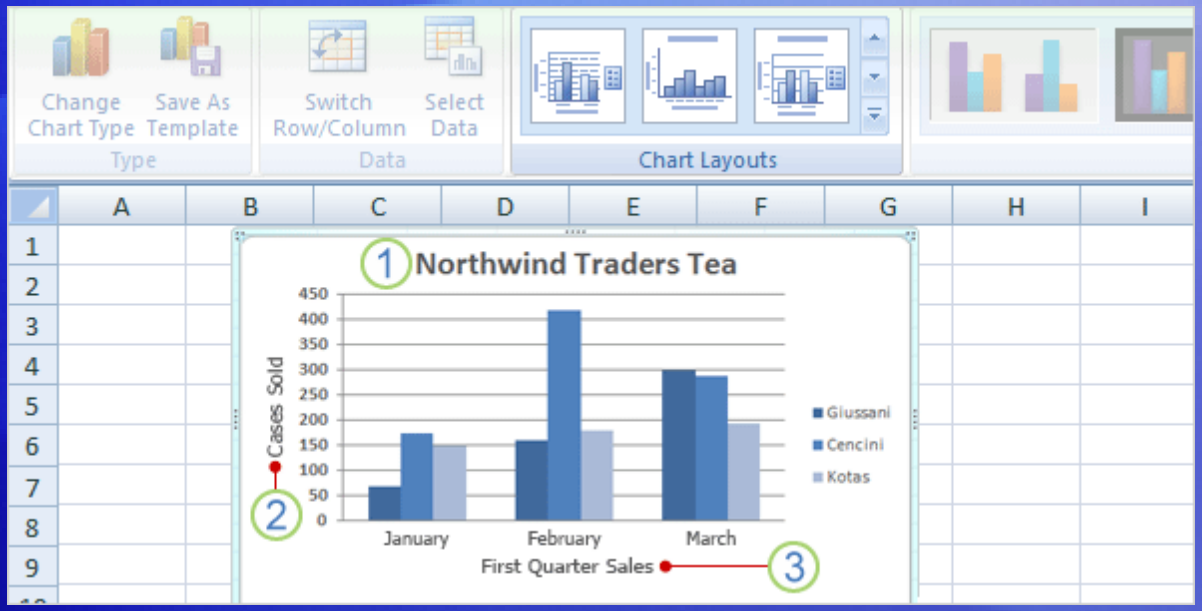


It's a good idea to add descriptive titles to your chart, so that readers don't have to guess what the chart is about.

You can give a title to the chart itself, as well as to the chart axes, which measure and describe the chart data.

This chart has two axes. On the left side is the vertical axis, which is the scale of numbers by which you can interpret the column heights. The months of the year at the bottom are on the horizontal axis.

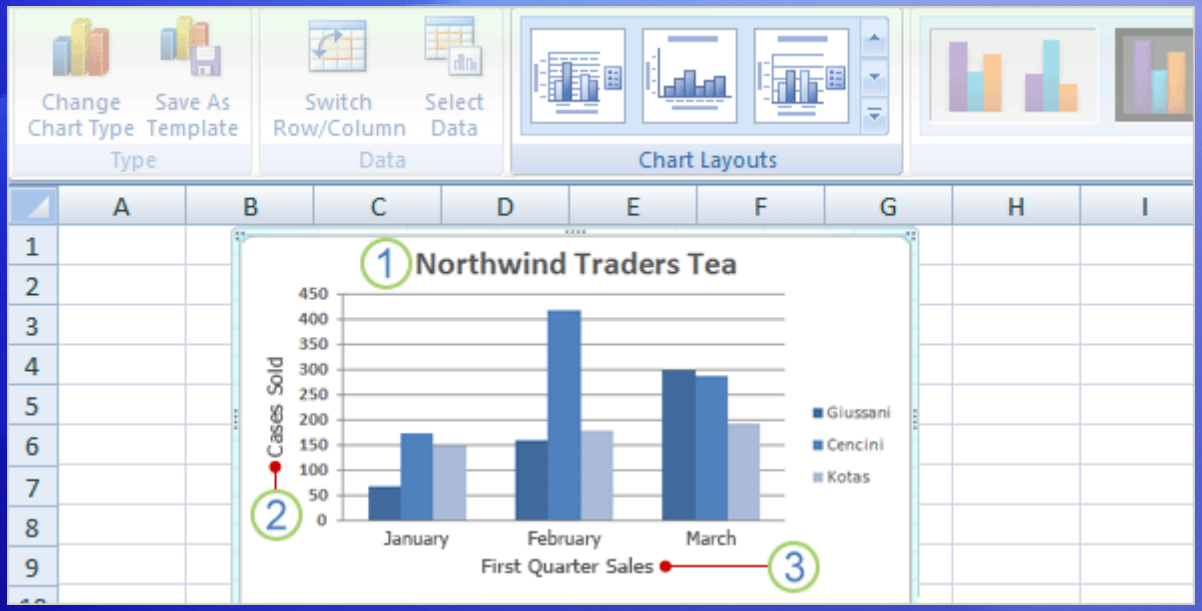
Add chart titles



A quick way to add chart titles is to click the chart to select it, and then go to the **Charts Layout** group on the **Design** tab.

Click the **More** button to see all the layouts. Each option shows different layouts that change the way chart elements are laid out.

Add chart titles



The picture shows Layout 9, which adds placeholders for a chart title and axes titles.

You type the titles directly in the chart.

1. The title for this chart is **Northwind Traders Tea**, the name of the product.
2. The title for the vertical axis on the left is **Cases Sold**.
3. The title for the horizontal axis at the bottom is **First Quarter Sales**.

Suggestions for practice

1. Create a chart.
2. Look at chart data in different ways.
3. Update chart data.
4. Add titles.
5. Change chart layouts.
6. Change the chart type.

Online practice (requires Excel 2007)

Test 1, question 1

You've created a chart. Now you need to compare data another way. To do this, you must create a second chart. (Pick one answer.)

1. True.
2. False.

Test 1, question 1: Answer

False.

You can quickly create another view of your worksheet data by clicking the **Switch Row/Column** button on the **Design** tab.

Test 1, question 2

You create a chart. But later on you don’t see the Chart Tools. What do you do to get them back? (Pick one answer.)

1. Create another chart.
2. Click the **Insert** tab.
3. Click inside the chart.

Test 1, question 2: Answer

Click inside the chart.

The **Chart Tools** will then be at hand with three tabs: **Design**, **Layout**, and **Format**.

Test 1, question 3

You can’t change the chart type after you create a chart. (Pick one answer.)

1. True.
2. False.

Test 1, question 3: Answer

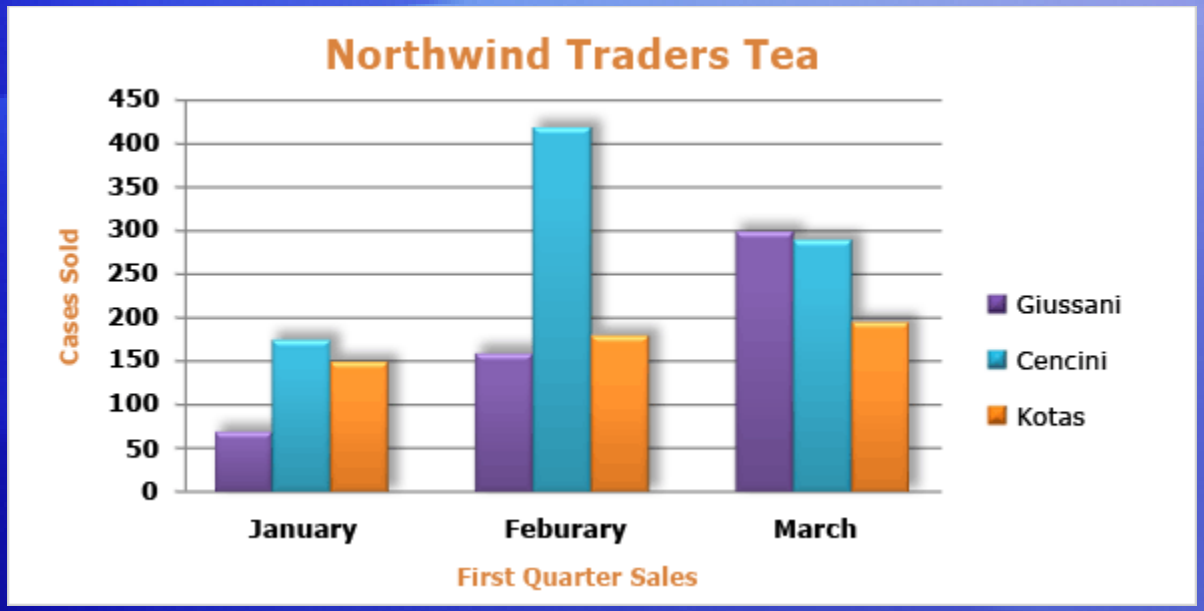
False.

You can always change the chart type after you create your chart. Click inside the chart. On the **Design** tab, in the **Type** group, Click **Change Chart Type**, and then select another chart type.

Lesson 2

Customize your chart

Customize your chart

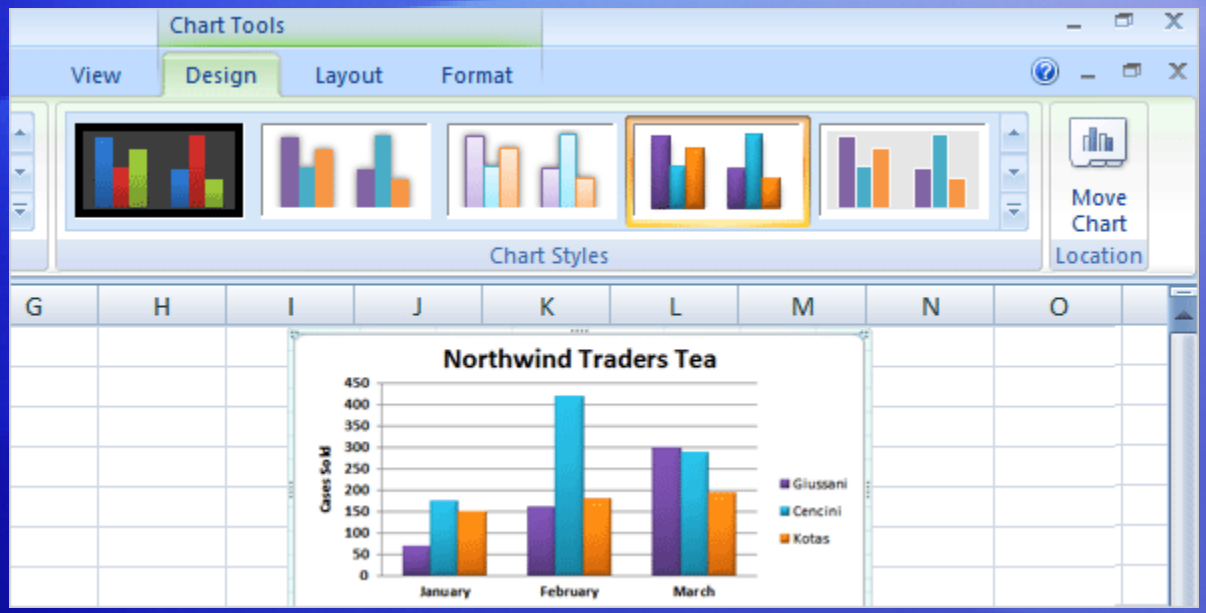


After you create your chart, you can customize it to give it a more professional design.

For example, you can give your chart a whole different set of colors by selecting a new chart style.

You can also format chart titles to change them from plain to fancy. And there are many different formatting options you can apply to individual columns to make them stand out.

Change the look of your chart



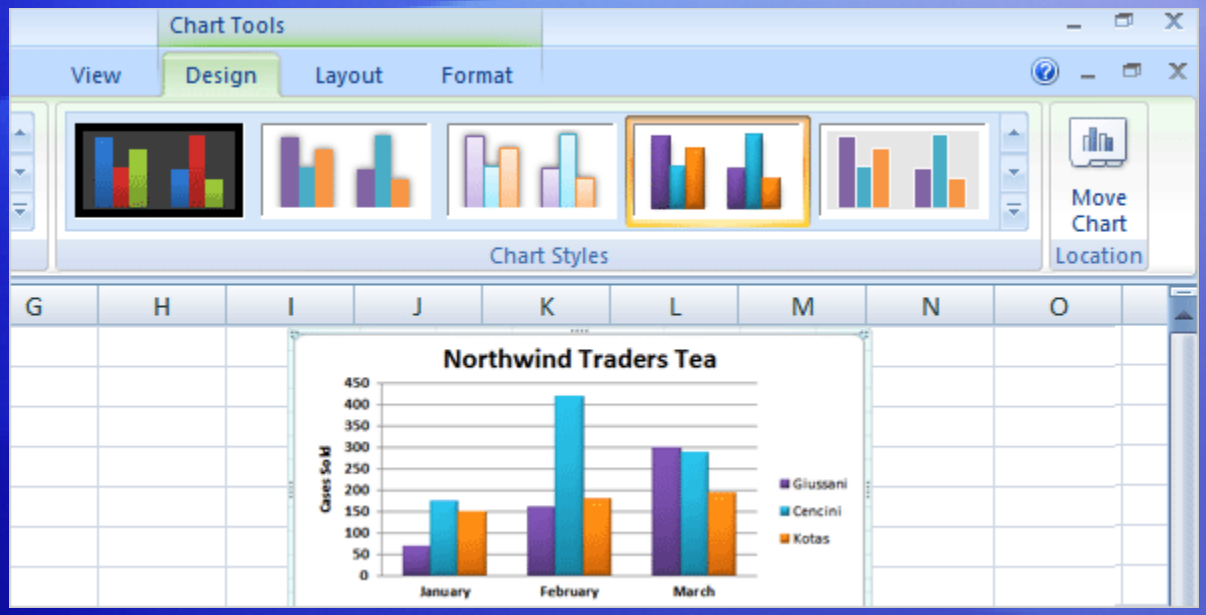
When you first create your chart, it's in a standard color.

By using a **chart style**, you can apply different colors to a chart in just seconds.

First, click in the chart. Then on the **Design** tab, in the **Chart Styles** group, click the **More** button to see all the choices.

Then click the style you want.

Change the look of your chart



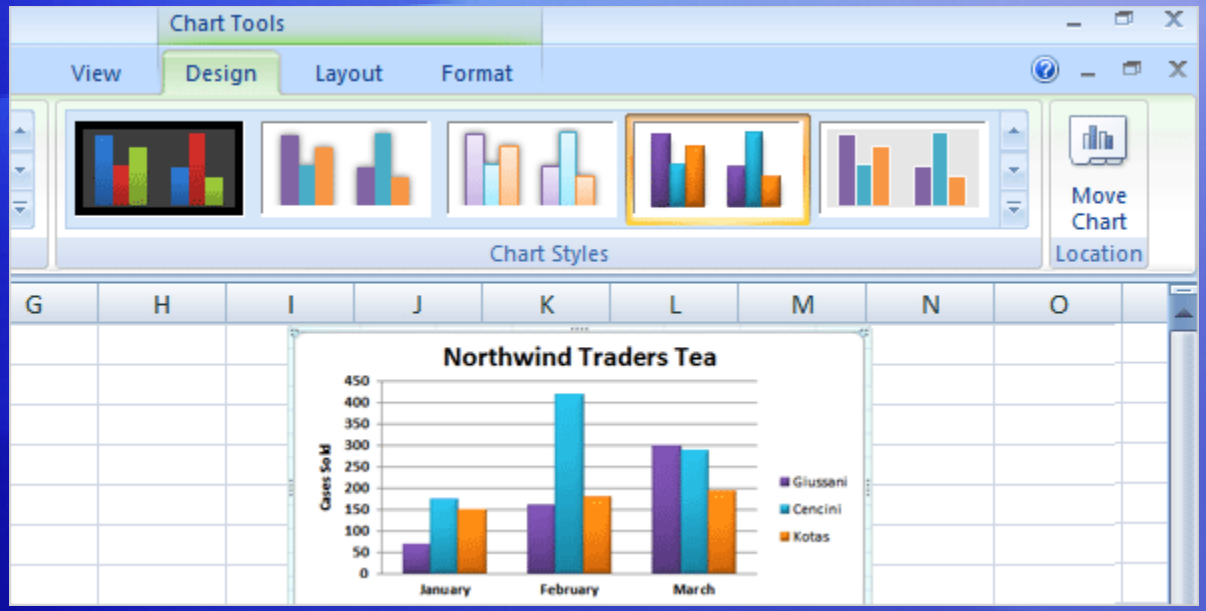
When you first create your chart, it's in a standard color.

By using a **chart style**, you can apply different colors to a chart in just seconds.

Some of the styles change just the color of the columns.

Others change the color and add an outline around the columns, while other styles add color to the plot area (the area bounded by the chart axes). And some styles add color to the chart area (the entire chart).

Change the look of your chart

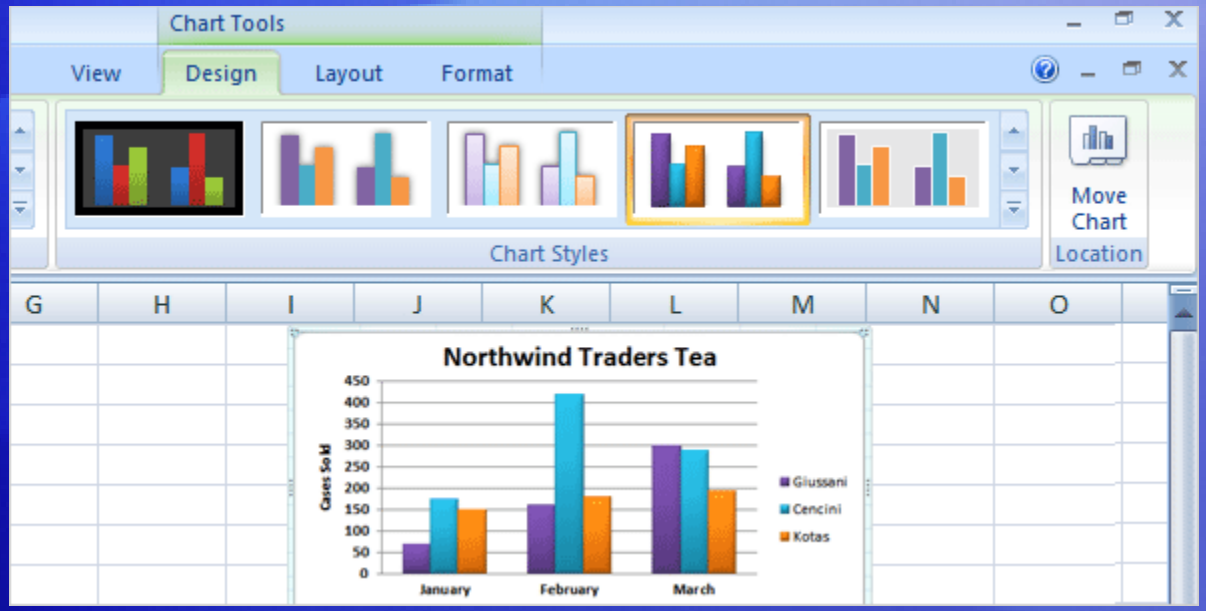


If you don’t see what you want in the **Chart Styles** group, you can get other color choices by selecting a different **theme**.

Click the **Page Layout** tab, and then click **Colors** in the **Themes** group.

When you rest the pointer over a color scheme, the colors are shown in a temporary preview on the chart. Click the one you like to apply it to the chart.

Change the look of your chart

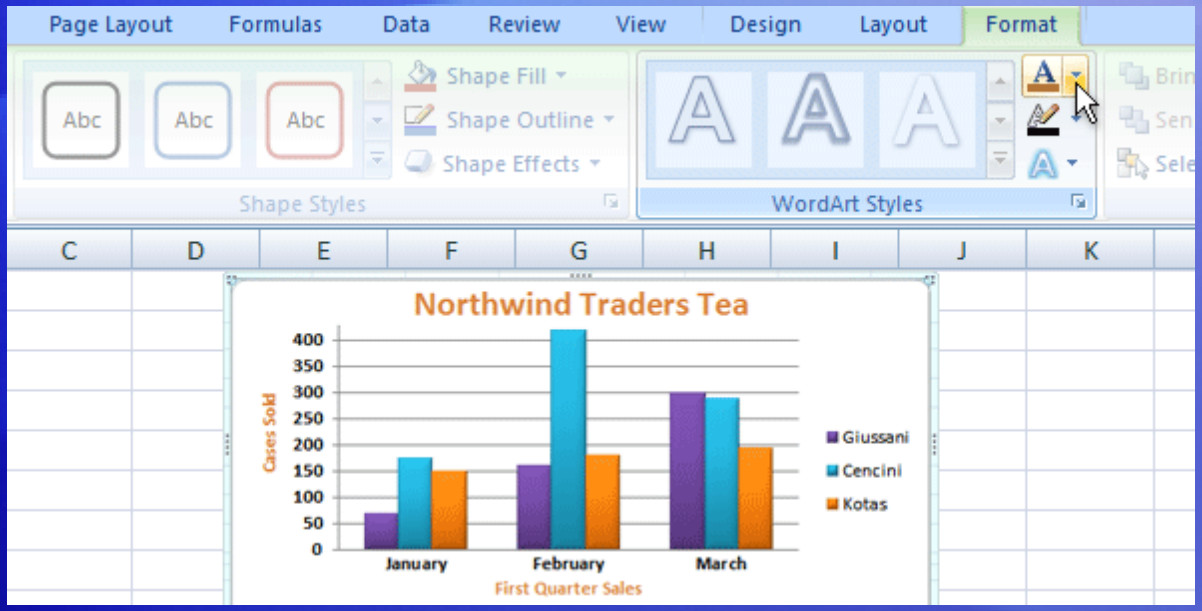


Important

Unlike a chart style, the colors from a theme will be applied to other elements you might add to the worksheet.

For example, a table or a cell style such as a heading will take on the colors of the theme applied to the chart.

Format titles

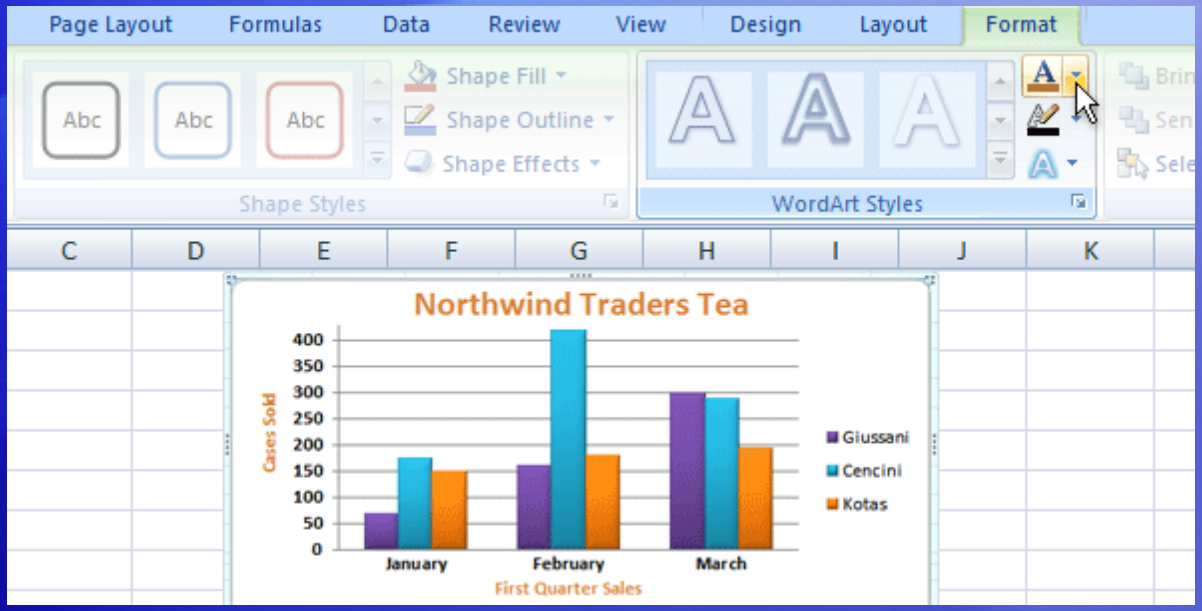


If you'd like to make the chart or axis titles stand out more, that's also easy to do.

On the **Format** tab, in the **WordArt Styles** group, there are many ways to work with the titles.

The picture shows that one of the options in the group, a text fill, has been added to change the color.

Format titles

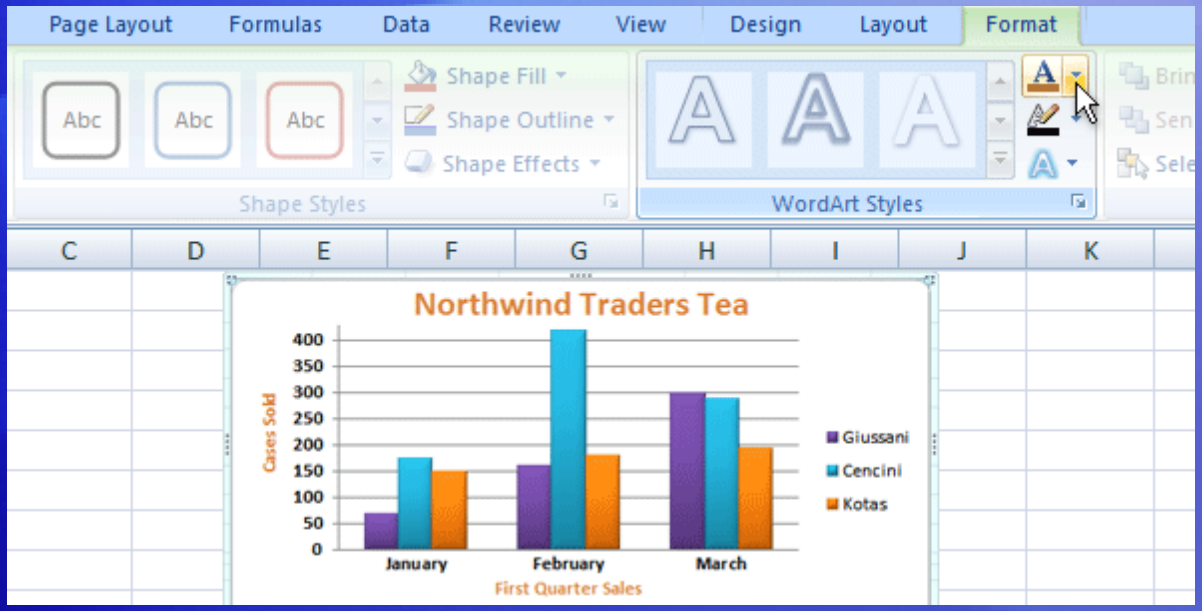


To use a **text fill**, first click in a title area to select it.

Then click the arrow on **Text Fill** in the **WordArt Styles** group. Rest the pointer over any of the colors to see the changes in the title. When you see a color you like, select it.

Text Fill also includes options to apply a gradient or a texture to a title.

Format titles



To make font changes, such as making the font larger or smaller—or to change the font face—click **Home**, and then go to the **Font** group.

Or you can make the same formatting changes by using the **Mini toolbar**.

The toolbar appears in a faded fashion after you select the title text. Point at the toolbar and it becomes solid, and then you can select a formatting option.

Format individual columns

There is still more that you can do with the format of the columns in your chart.

In the picture, a shadow effect has been added to each of the columns (an offset diagonal shadow is behind each column).

Format individual columns

Here's how to add a shadow effect to columns.

1. Click one of Giussani's columns. That will select all three columns for Giussani (known as a series).
2. On the **Format** tab, in the **Shape Styles** group, click the arrow on **Shape Effects**.

Format individual columns

Here's how to add a shadow effect to columns.

3. Point to **Shadow**, and then rest the pointer on the different shadow styles in the list.
4. You can see a preview of the shadows as you rest the pointer on each style. When you see one you like, select it.

Format individual columns

The **Shape Styles** group offers plenty of other great formatting options to choose from.

For example, **Shape Effects** offers more than just shadows. You can add bevel effects and soft edges to columns, or even make columns glow.

You can also click **Shape Fill** to add a gradient or a texture to the columns, or click **Shape Outline** to add an outline around the columns.

Add your chart to a PowerPoint presentation

When your chart looks just the way you want and it's ready for a debut, you can easily add it to a Microsoft Office PowerPoint® presentation.

Here's how it works.

1. Copy the chart in Excel.
2. Open PowerPoint 2007.
3. On the slide you want the chart to be on, paste the chart.

Add your chart to a PowerPoint presentation

When your chart looks just the way you want and it's ready for a debut, you can easily add it to a Microsoft Office PowerPoint® presentation.

Here's how it works.

4. In the chart's lower-right corner, the **Paste Options** button appears. Click the button.

Now you're ready to present your chart.

Suggestions for practice

1. Change the look of a chart.
2. Try out a color scheme by using a theme.
3. Format the chart title.
4. Format a column.
5. Format other areas of the chart.
6. Add your chart to a PowerPoint presentation.
7. Bonus exercises: Make a pie chart, and save your chart as a template.

Online practice (requires Excel 2007)

Test 2, question 1

If you don’t see all the color options you want for your chart in the Chart Styles group on the Design tab, you have another way to get more colors. (Pick one answer.)

1. True.
2. False.

Test 2, question 1: Answer

True.

You can pick other colors by selecting a theme. Click the **Page Layout** tab, and then click **Colors** in the **Themes** group. Remember that the colors from the themes will be applied to other elements in the worksheet such as a table or cell styles.

Test 2, question 2

What do you do first to add an Excel chart to a PowerPoint 2007 presentation? (Pick one answer.)

1. Click the **Data** tab.
2. Click the **Insert** tab.
3. Copy the chart.

Test 2, question 2: Answer

Copy the chart.

Then open PowerPoint 2007, paste, and it’s done.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Excel® 2007 Training

Create your first workbook

Course contents

- Overview: Where to begin?
- Lesson 1: Meet the workbook
- Lesson 2: Enter data
- Lesson 3: Edit data and revise worksheets

Each lesson includes a list of suggested tasks and a set of test questions.

Overview: Where to begin?

You've been asked to enter data in Excel 2007, but you've never worked with Excel. Where do you begin?

Or perhaps you have worked in Excel but still wonder how to do some of the basics like entering and editing text and numbers, or adding and deleting columns and rows.

Here you'll learn the skills you need to work in Excel, quickly and with little fuss.

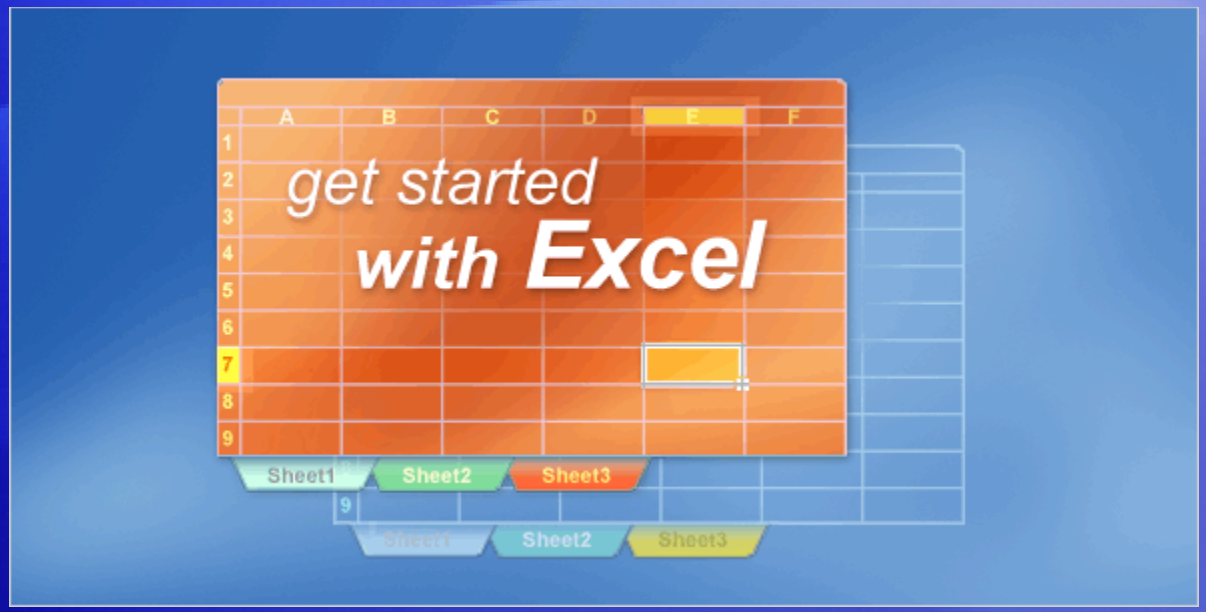
Course goals

- Create a new workbook.
- Enter text and numbers.
- Edit text and numbers.
- Insert and delete columns and rows.

Lesson 1

Meet the workbook

Meet the workbook



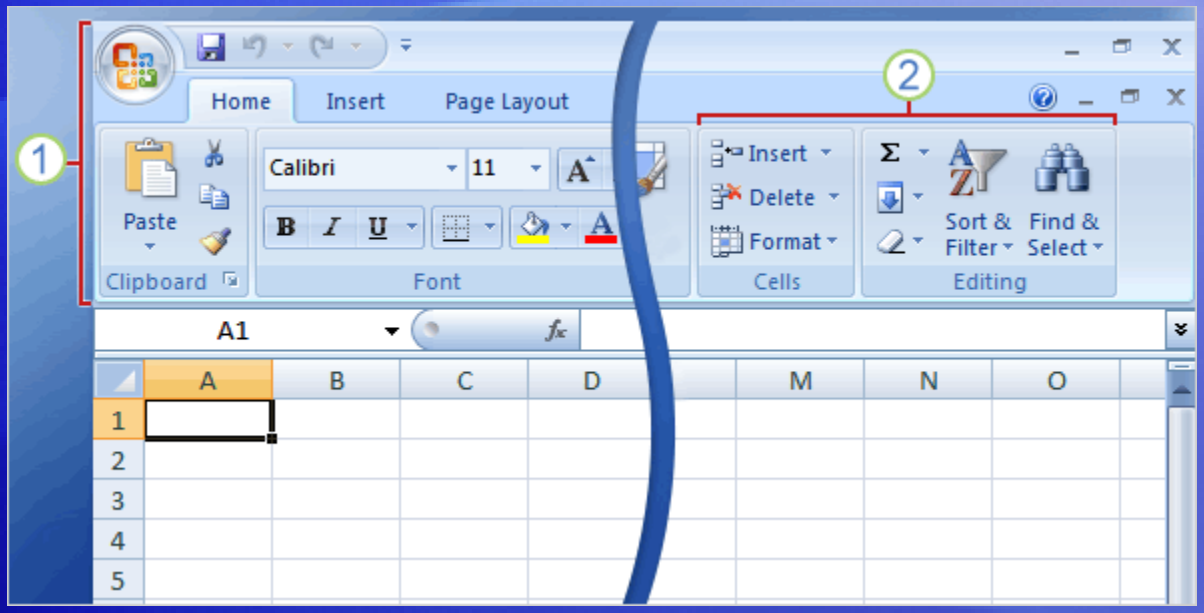
When you start Excel, you're faced with a big empty grid made up of columns, rows, and cells.

If you're new to Excel, you may wonder what to do next.

So this course will start by helping you get comfortable with some Excel basics that will guide you when you enter data in Excel.

Create your first workbook

The Ribbon

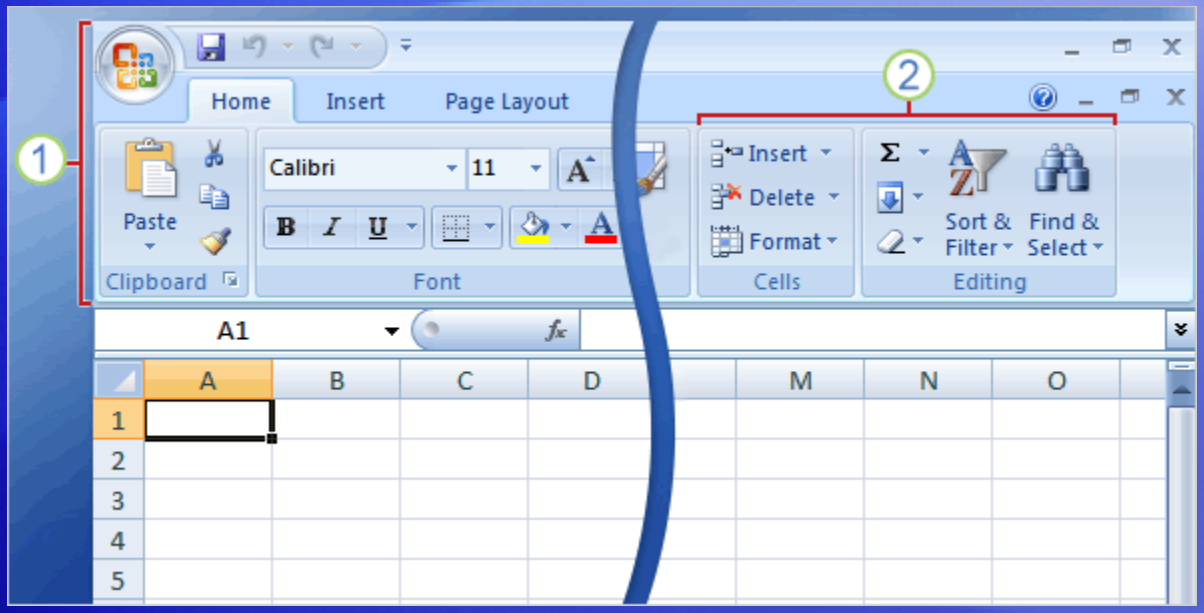


The band at the top of the Excel 2007 window is called **the Ribbon**.

The Ribbon is made up of different **tabs**, each of which is related to specific kinds of work that people do in Excel.

You click the tabs at the top of the Ribbon to see the different commands on each tab.

The Ribbon

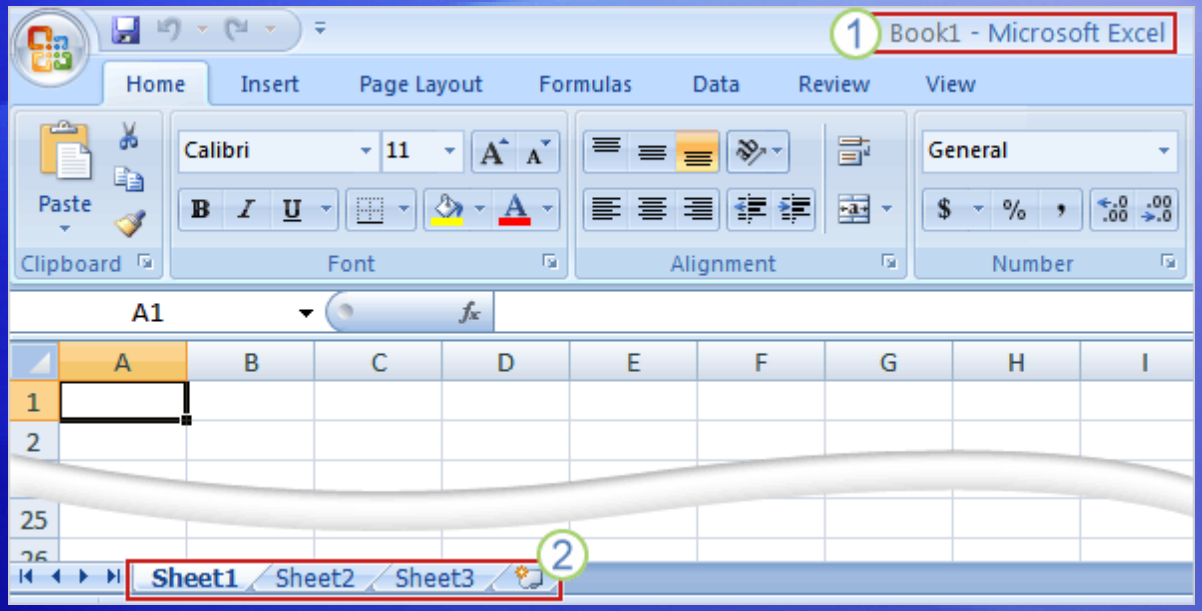


The **Home** tab, first on the left, contains the everyday commands that people use most.

The picture illustrates **Home** tab commands on the Ribbon.

1. The Ribbon spans the top of the Excel window.
2. Commands on the Ribbon are organized in small related **groups**. For example, commands to work with the contents of cells are grouped together in the **Editing** group, and commands to work with cells themselves are in the **Cells** group.

Workbooks and worksheets



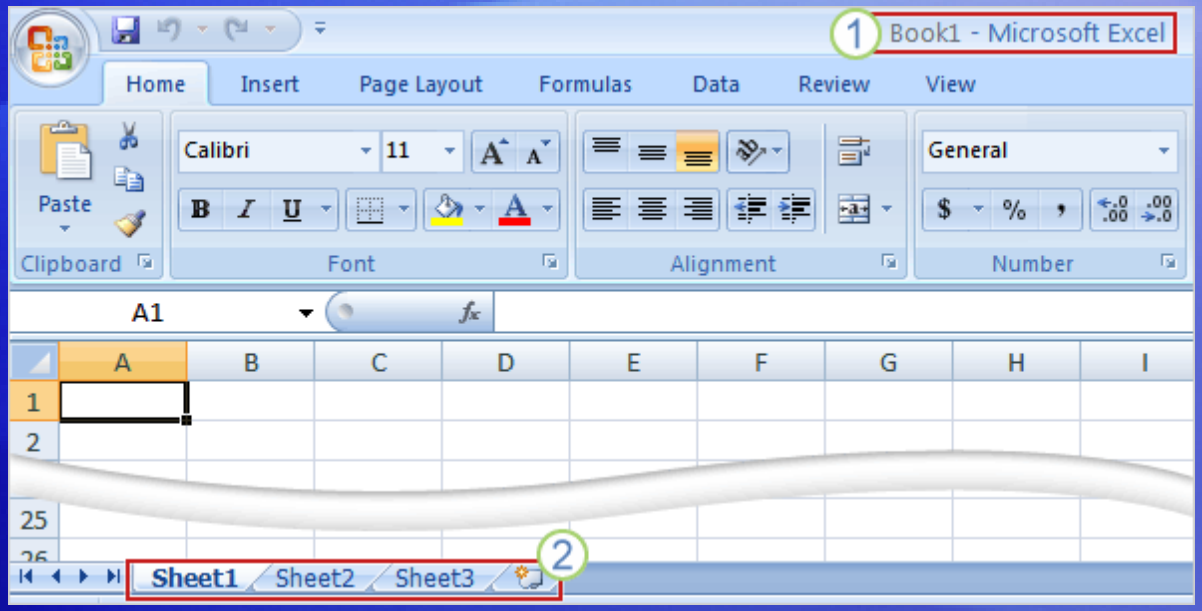
When you start Excel, you open a file that's called a **workbook**.

Each new workbook comes with three **worksheets** into which you enter data.

Shown here is a blank worksheet in a new workbook.

1. The first workbook you'll open is called Book1. This title appears in the bar at the top of the window until you save the workbook with your own title.

Workbooks and worksheets



When you start Excel, you open a file that's called a **workbook**.

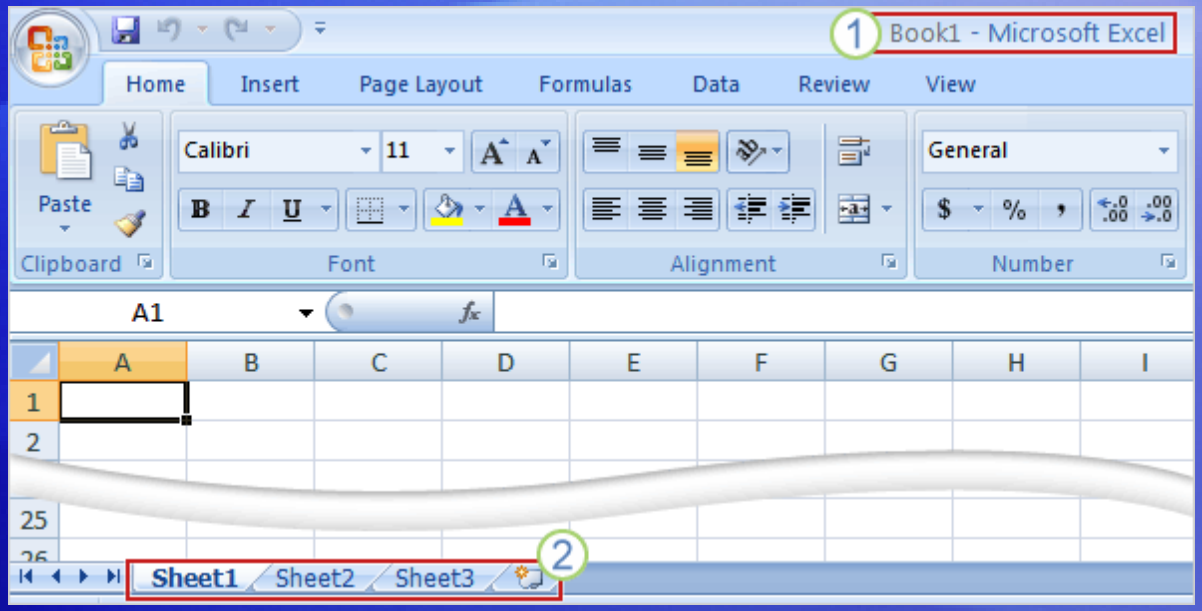
Each new workbook comes with three **worksheets** into which you enter data.

Shown here is a blank worksheet in a new workbook.

2. Sheet tabs appear at the bottom of the window. It's a good idea to rename the sheet tabs to make the information on each sheet easier to identify.

Create your first workbook

Workbooks and worksheets

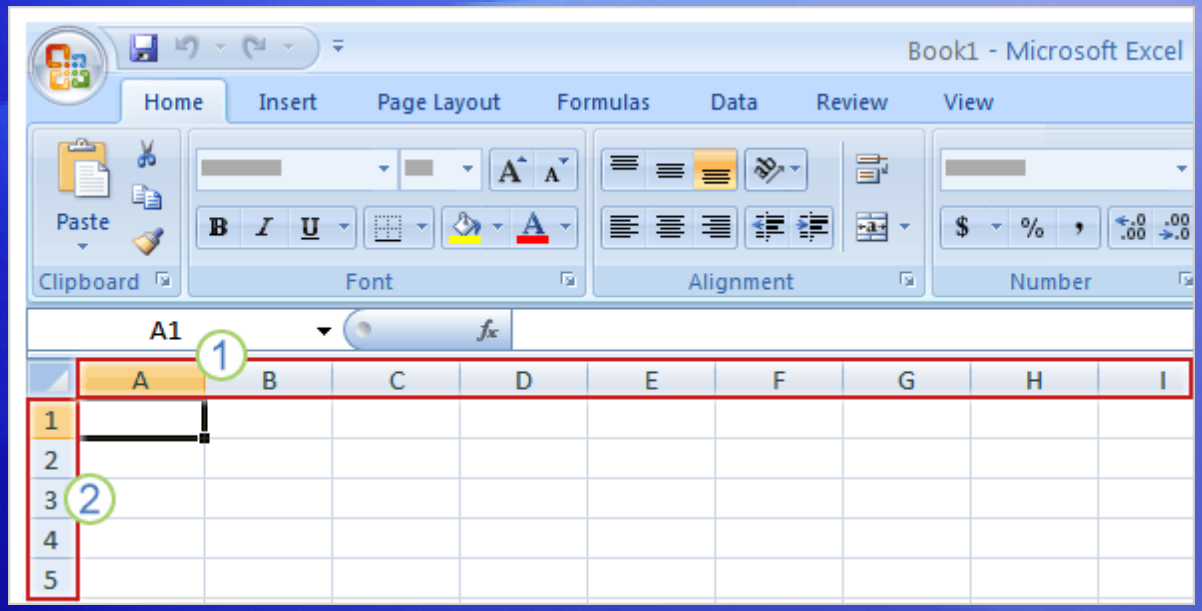


You may also be wondering how to create a new workbook.

Here's how.

1. Click the **Microsoft Office Button** in the upper-left portion of the window.
2. Click **New**.
3. In the **New Workbook** window, click **Blank Workbook**.

Columns, rows, and cells

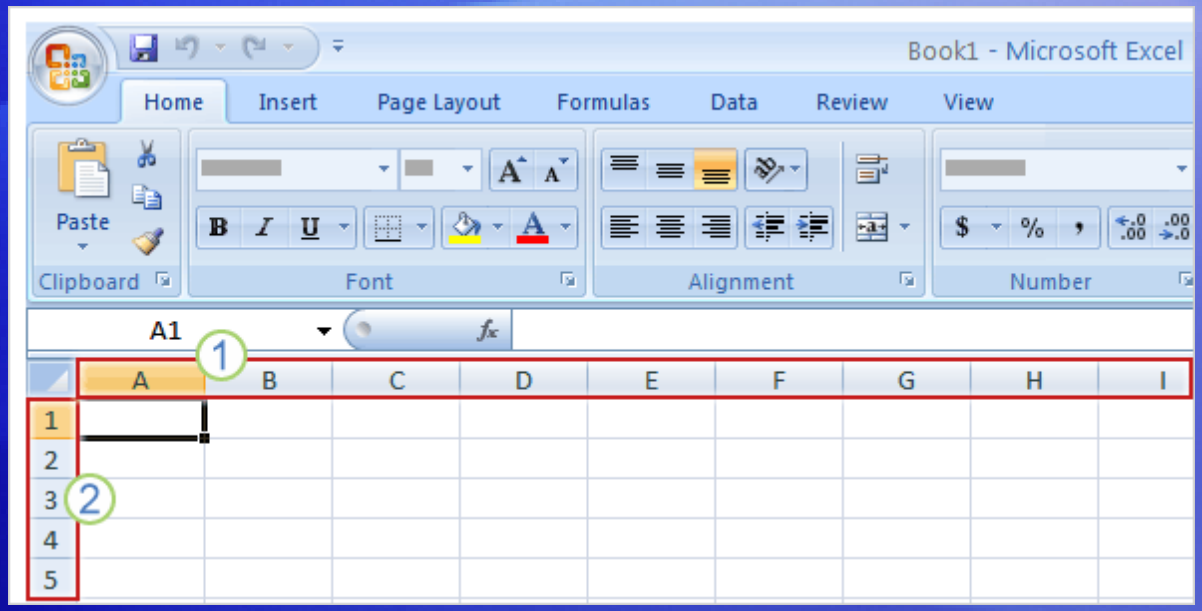


Worksheets are divided into columns, rows, and cells.

That's the grid you see when you open up a workbook.

1. Columns go from top to bottom on the worksheet, vertically. Each column has an alphabetical heading at the top.
2. Rows go across the worksheet, horizontally. Each row also has a heading. Row headings are numbers, from 1 through 1,048,576.

Columns, rows, and cells



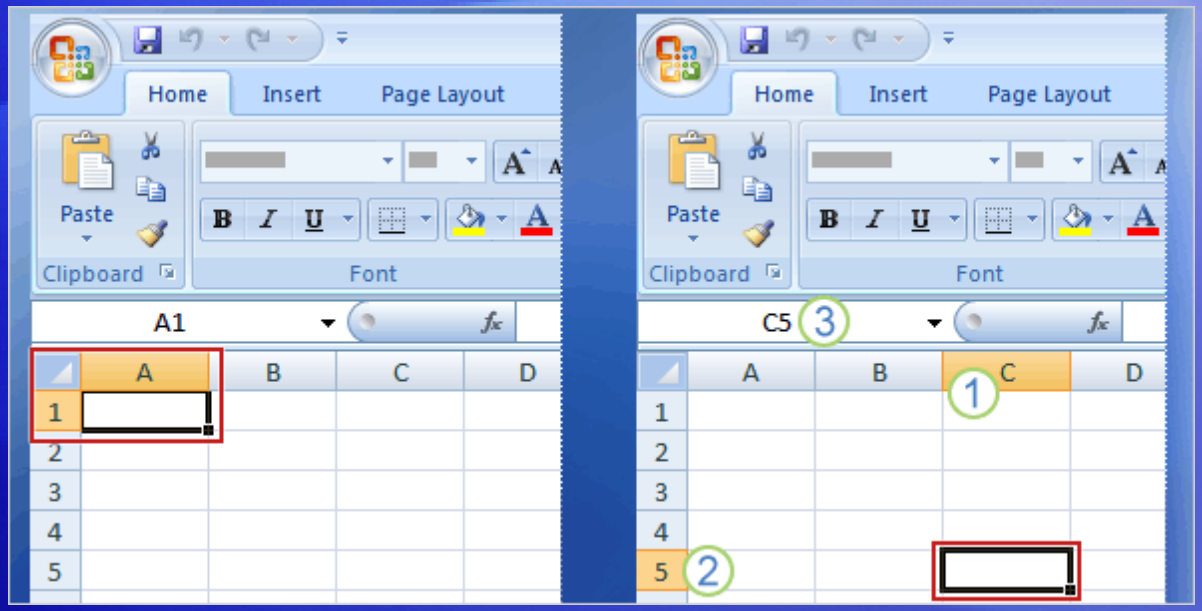
Worksheets are divided into columns, rows, and cells.

That's the grid you see when you open up a workbook.

The alphabetical headings on the columns and the numerical headings on the rows tell you where you are in a worksheet when you click a cell.

The headings combine to form the cell address. For example, the cell at the intersection of column A and row 3 is called cell A3. This is also called the **cell reference**.

Cells are where the data goes

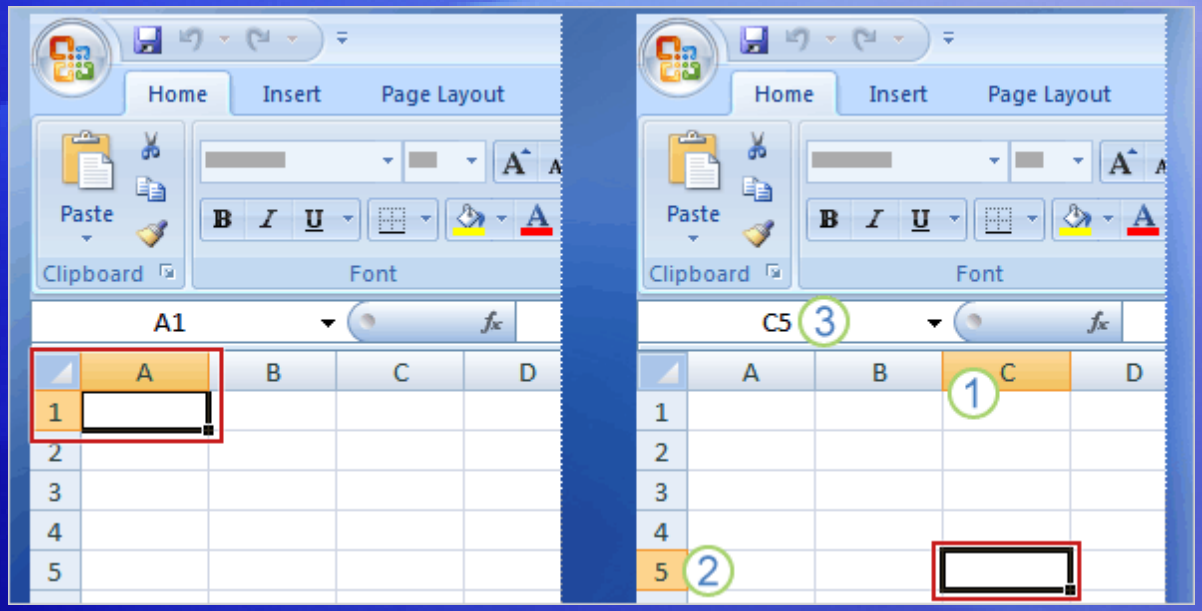


Cells are where you get down to business and enter data in a worksheet.

The picture on the left shows what you see when you open a new workbook.

The first cell in the upper-left corner of the worksheet is the **active cell**. It's outlined in black, indicating that any data you enter will go there.

Cells are where the data goes

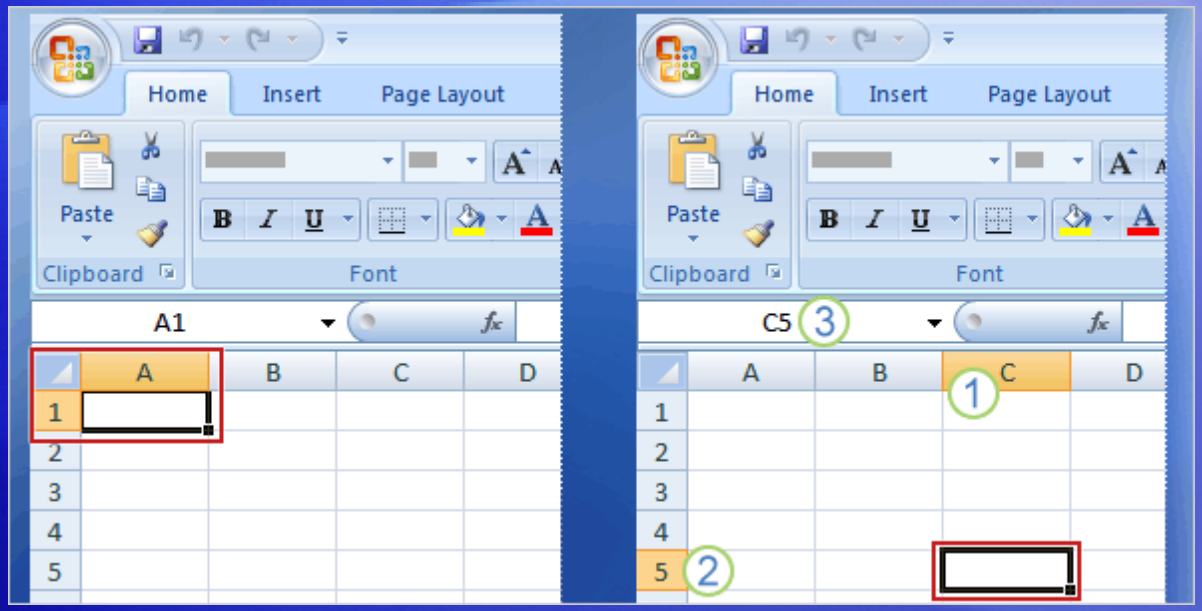


You can enter data wherever you like by clicking any cell in the worksheet to select the cell.

When you select any cell, it becomes the active cell. As described earlier, it becomes outlined in black.

The headings for the column and row in which the cell is located are also highlighted.

Cells are where the data goes

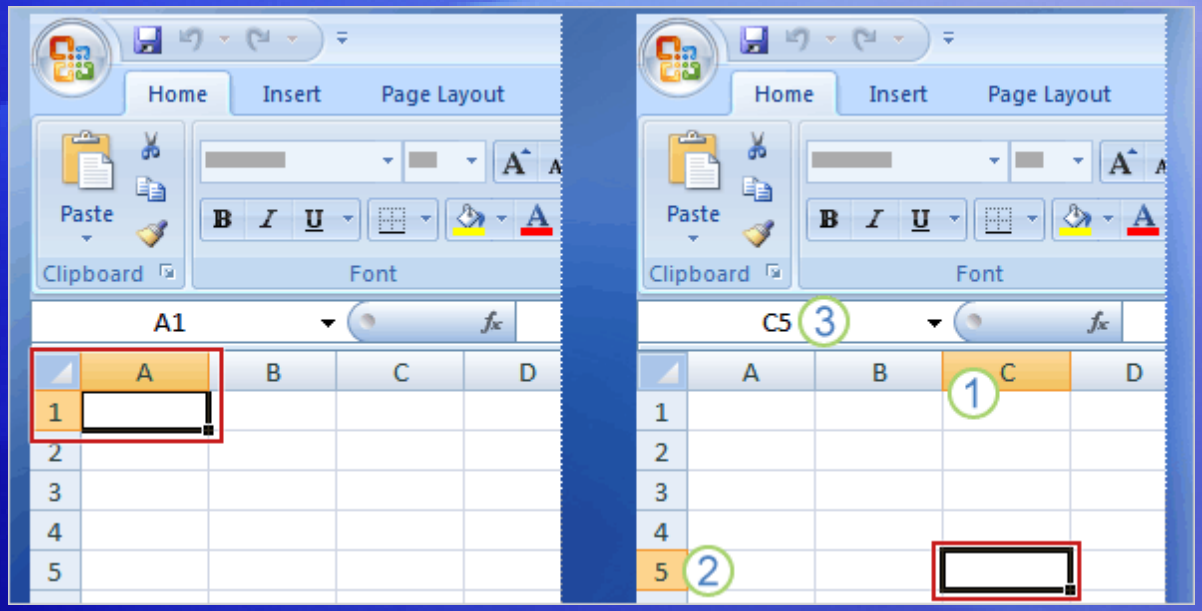


You can enter data wherever you like by clicking any cell in the worksheet to select the cell.

For example, if you select a cell in column C on row 5, as shown in the picture on the right:

1. Column C is highlighted.
2. Row 5 is highlighted.

Cells are where the data goes

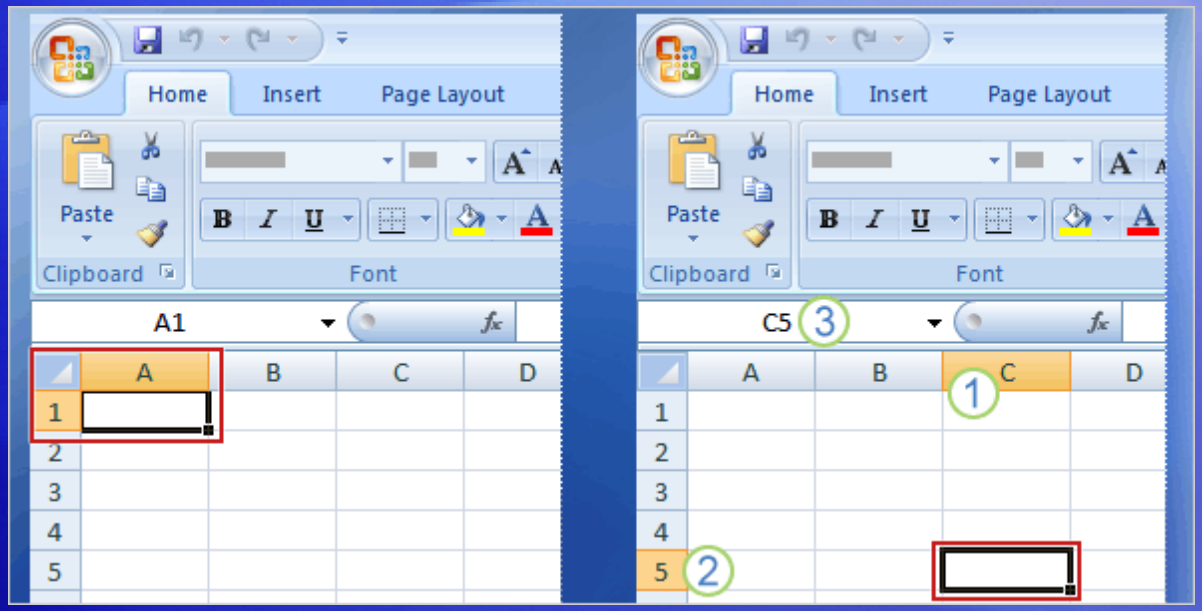


You can enter data wherever you like by clicking any cell in the worksheet to select the cell.

For example, if you select a cell in column C on row 5, as shown in the picture on the right:

3. The active cell, C5 in this case, is outlined. And its name—also known as the **cell reference**—is shown in the Name Box in the upper-left corner of the worksheet.

Cells are where the data goes



The outlined cell, highlighted column and row headings, and appearance of the cell reference in the Name Box make it easy for you to see that C5 is the active cell.

These indicators aren't too important when you're right at the top of the worksheet in the very first few cells.

But when you work farther and farther down or across the worksheet, they can really help you out.

Suggestions for practice

1. Rename a worksheet tab.
2. Move from one worksheet to another.
3. Add color to worksheet tabs.
4. Add and delete worksheets.
5. Review column headings and use the Name Box.

Online practice (requires Excel 2007)

Test 1, question 1

You need a new workbook. How do you create one? (Pick one answer.)

1. In the **Cells** group, click **Insert**, and then click **Insert Sheet**.
2. Click the **Microsoft Office Button**, and then click **New**. In the **New Workbook** window, click **Blank workbook**.
3. In the **Cells** group, click **Insert**, and then click **Workbook**.

Test 1, question 1: Answer

Click the **Microsoft Office Button**, and then click **New**. In the **New Workbook** window, click **Blank workbook**.

Test 1, question 2

The Name Box shows the contents of the active cell. (Pick one answer.)

1. True.
2. False.

Test 1, question 2: Answer

False.

The Name Box gives you the cell reference of the active cell. You can also use the Name Box to select a cell, by typing that cell reference in the box.

Test 1, question 3

In a new worksheet, you must start by typing in cell A1. (Pick one answer.)

1. True.
2. False.

Test 1, question 3: Answer

False.

You’re free to roam and type wherever you want. Click in any cell and start to type. But don’t make readers scroll to see data that could just as well start in cell A1 or A2.

Lesson 2

Enter data

Enter data

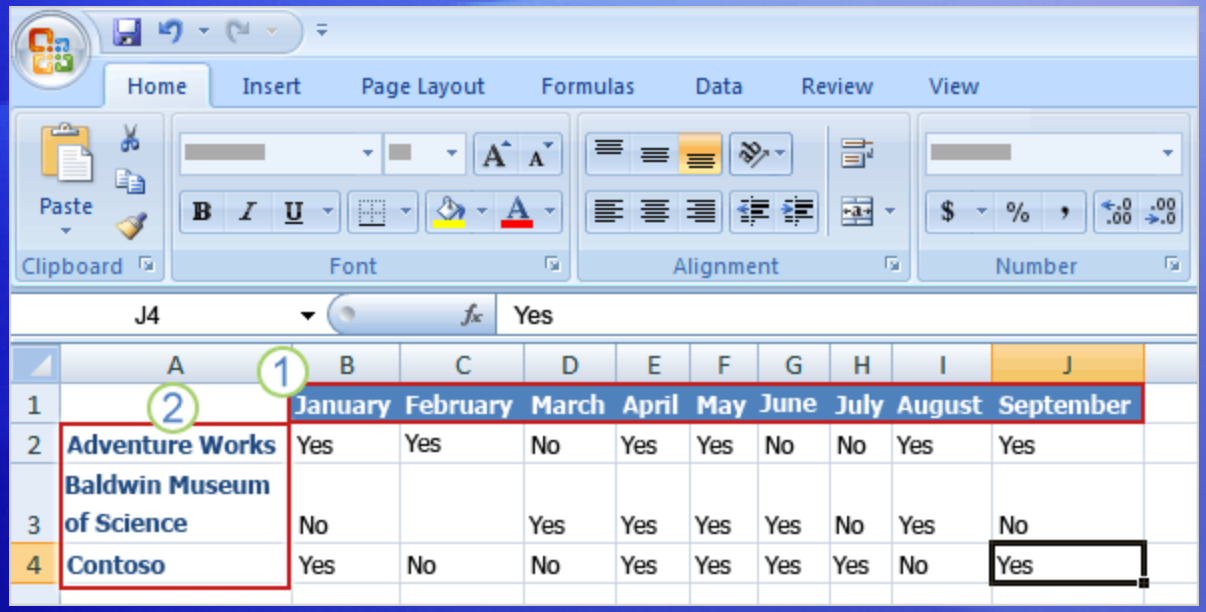
You can use Excel to enter all sorts of data, professional or personal.

You can enter two basic kinds of data into worksheet cells: numbers and text.

So you can use Excel to create budgets, work with taxes, record student grades or attendance, or list the products you sell. You can even log daily exercise, follow your weight loss, or track the cost of your house remodel. The possibilities really are endless.

Now let's dive into data entry.

Be kind to your readers: start with column titles



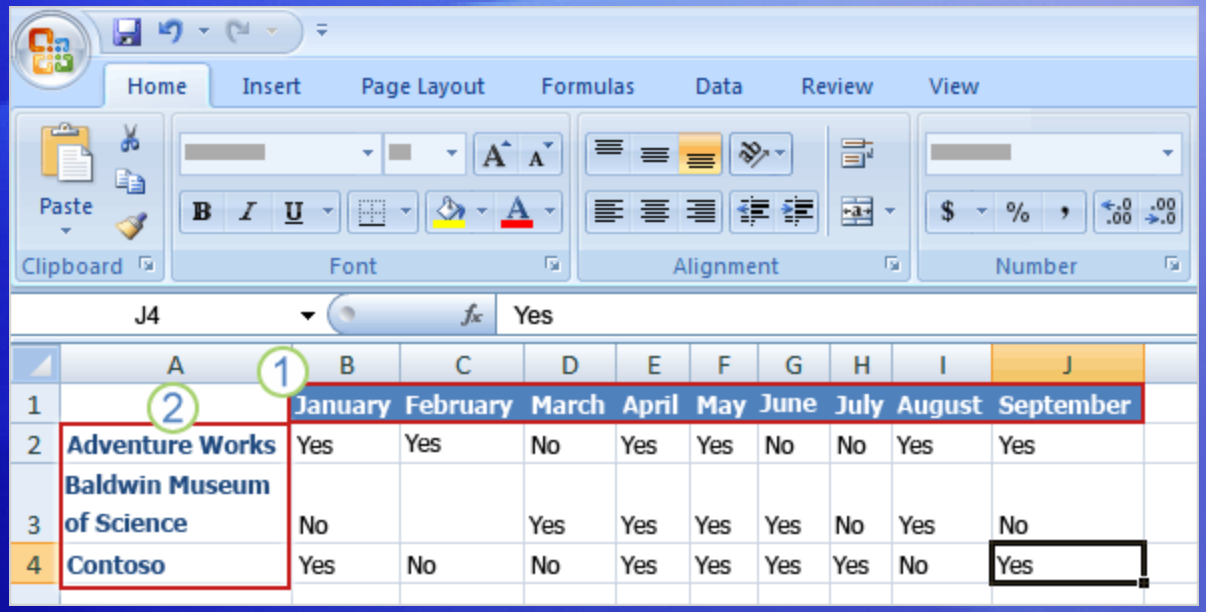
	A	B	C	D	E	F	G	H	I	J
1		January	February	March	April	May	June	July	August	September
2	Adventure Works	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
3	Baldwin Museum of Science	No		Yes	Yes	Yes	Yes	No	Yes	No
4	Contoso	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes

When you enter data, it's a good idea to start by entering titles at the top of each column.

This way, anyone who shares your worksheet can understand what the data means (and you can understand it yourself, later on).

You'll often want to enter row titles too.

Be kind to your readers: start with column titles



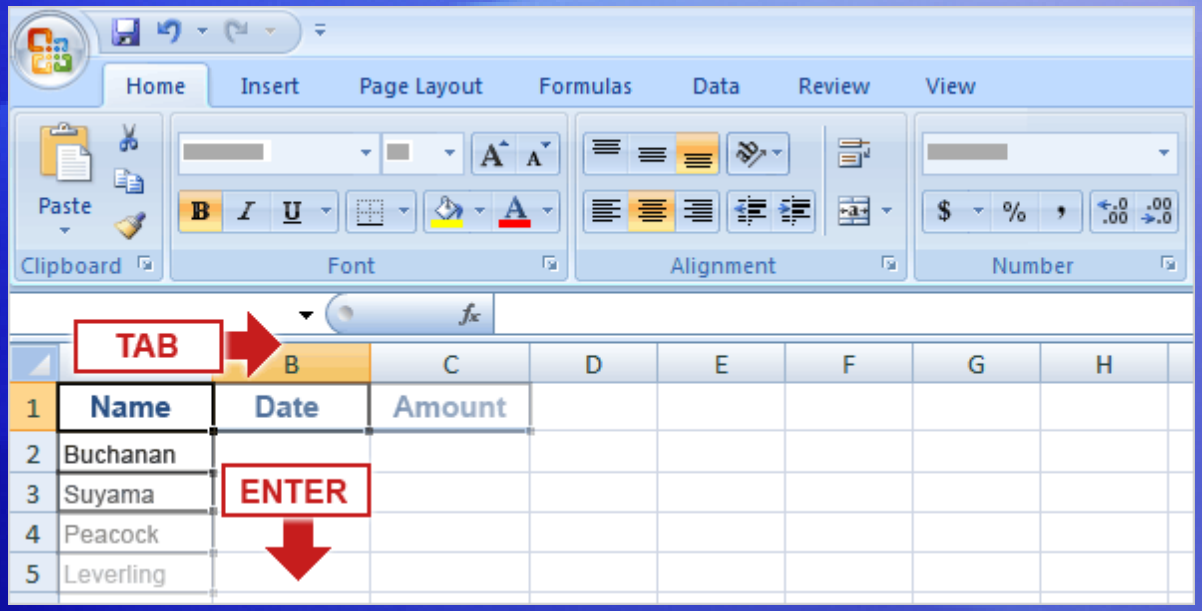
	A	B	C	D	E	F	G	H	I	J
1	②	January	February	March	April	May	June	July	August	September
2	Adventure Works	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
3	Baldwin Museum of Science	No		Yes	Yes	Yes	Yes	No	Yes	No
4	Contoso	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes

The worksheet in the picture shows whether or not representatives from particular companies attended a series of monthly business lunches.

It uses column and row titles:

1. The column titles are the months of the year, across the top of the worksheet.
2. The row titles down the left side are company names.

Start typing

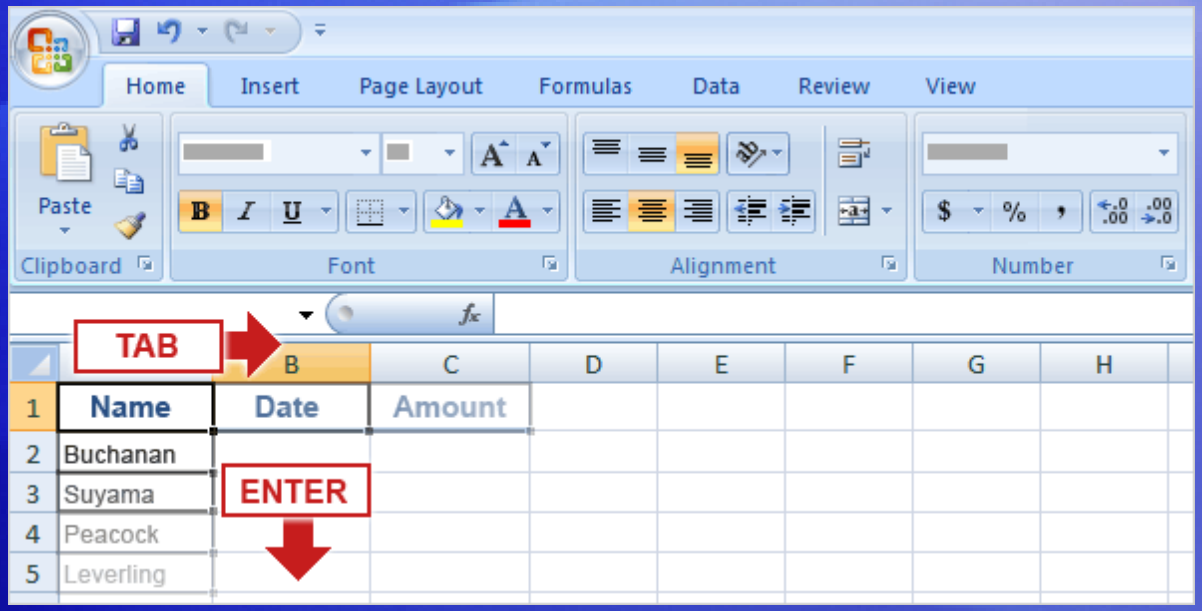


Say you're creating a list of salespeople names.

The list will also have the dates of sales, with their amounts.

So you'll need these column titles: **Name**, **Date**, and **Amount**.

Start typing



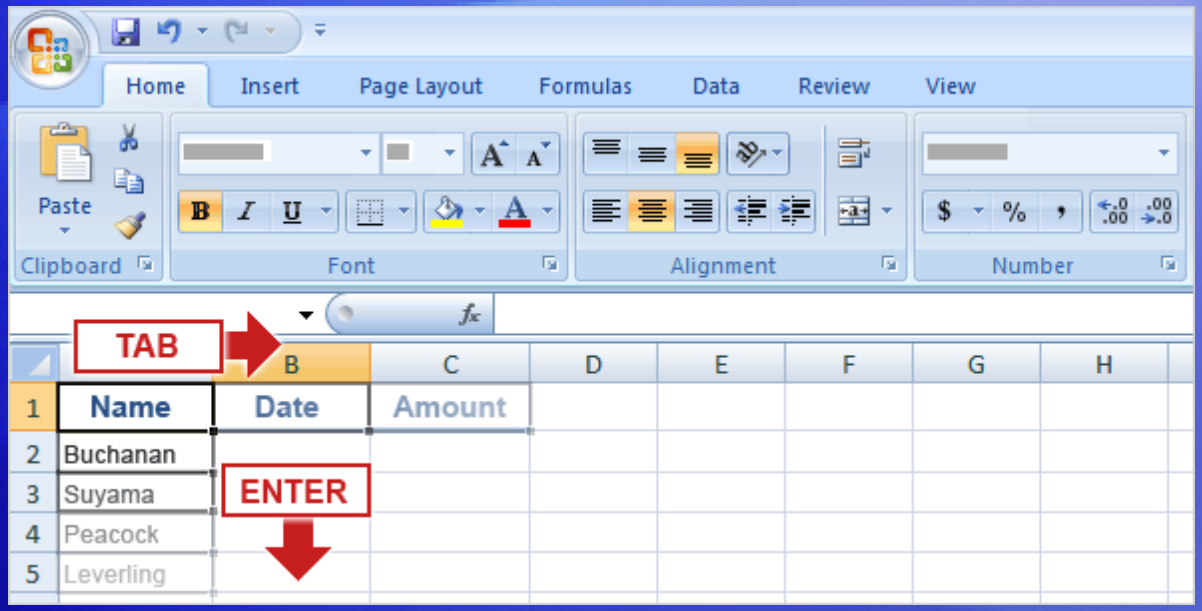
Say you're creating a list of salespeople names.

The list will also have the dates of sales, with their amounts.

The picture illustrates the process of typing the information and moving from cell to cell:

1. Type **Name** in cell A1 and press TAB. Then type **Date** in cell B1, press TAB, and type **Amount** in cell C1.

Start typing



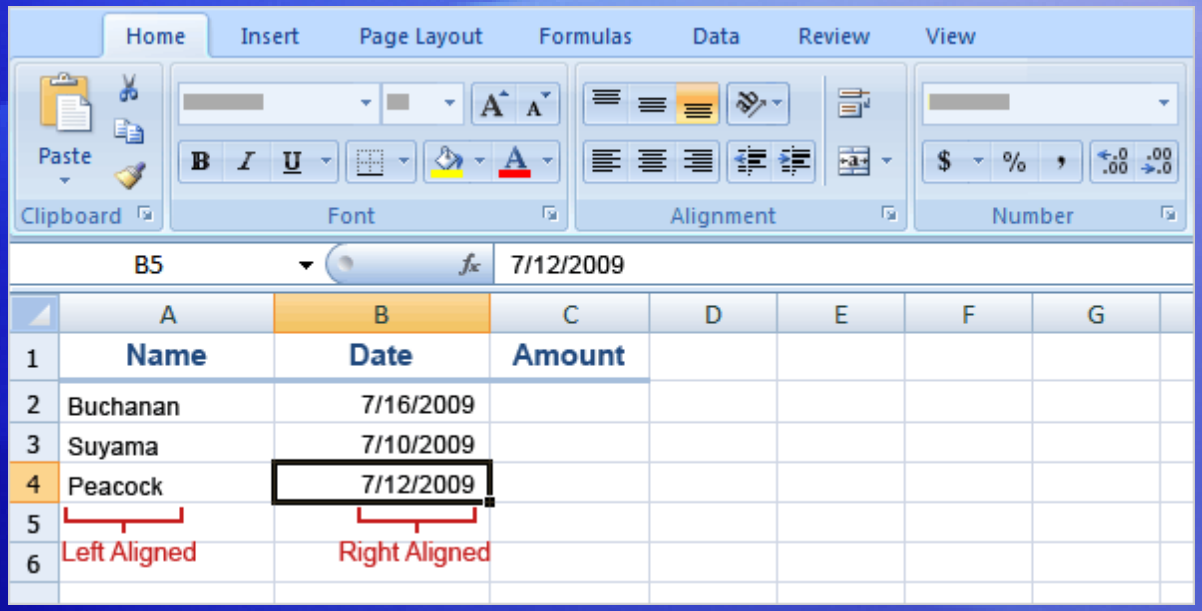
Say you're creating a list of salespeople names.

The list will also have the dates of sales, with their amounts.

The picture illustrates the process of typing the information and moving from cell to cell:

2. After typing the column titles, click in cell A2 to begin typing the salespeople's names. Type the first name, and then press ENTER to move the selection *down* the column by one cell to cell A3. Then type the next name, and so on.

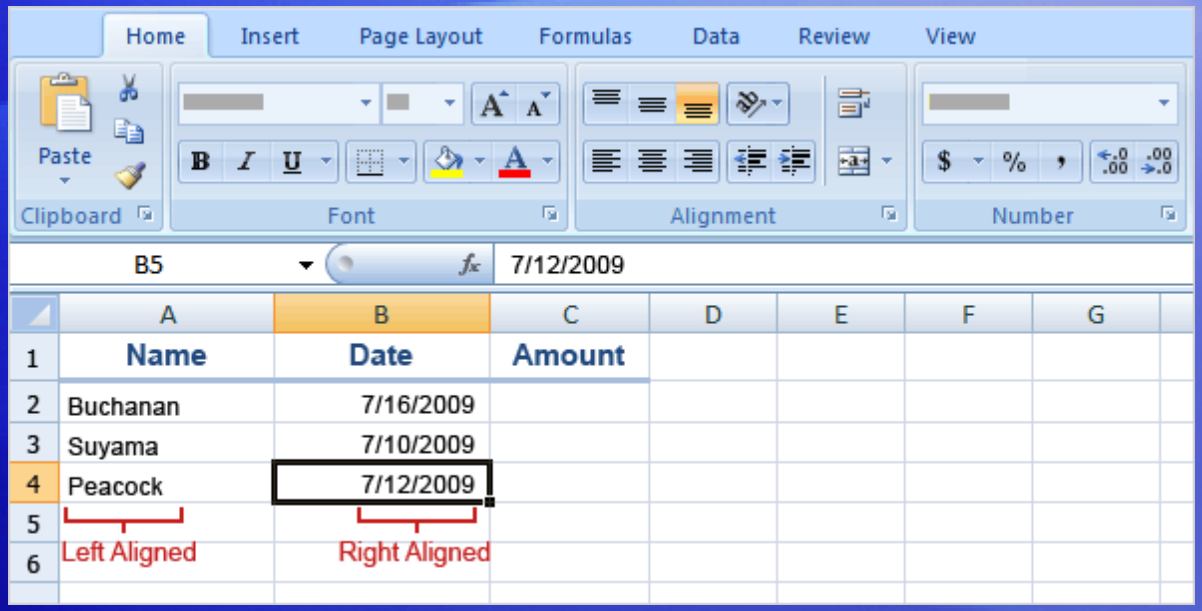
Enter dates and times



Excel aligns text on the left side of cells, but it aligns dates on the right side of cells.

To enter a date in column B, the **Date** column, you should use a slash or a hyphen to separate the parts: 7/16/2009 or 16-July-2009. Excel will recognize either as a date.

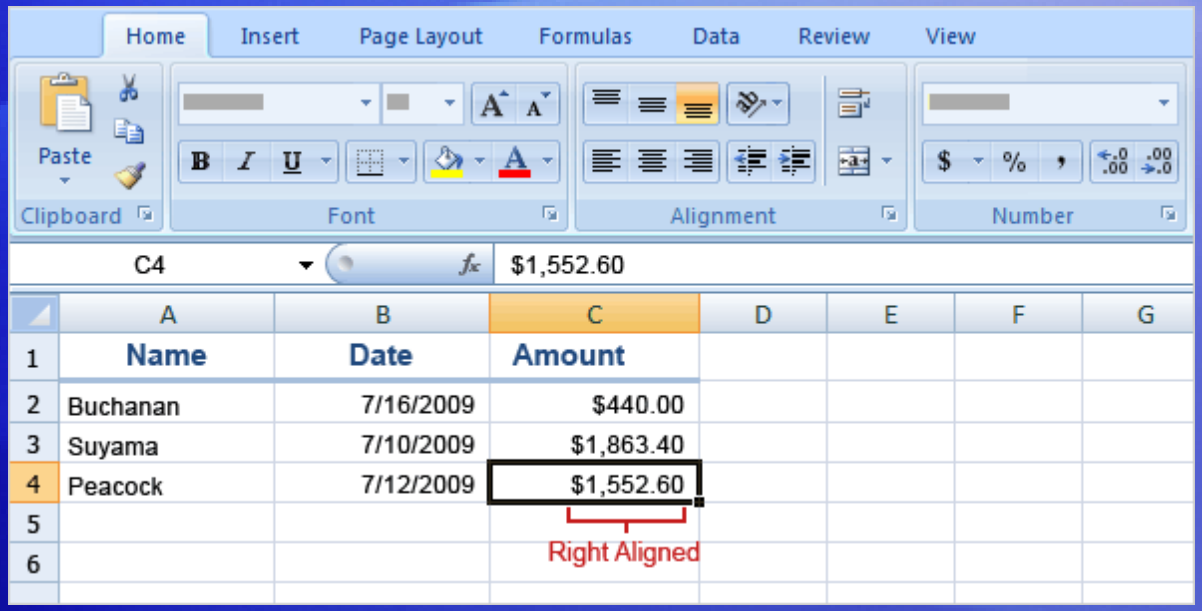
Enter dates and times



Excel aligns text on the left side of cells, but it aligns dates on the right side of cells.

If you need to enter a time, type the numbers, a space, and then **a** or **p**—for example, **9:00 p**. If you put in just the number, Excel recognizes a time and enters it as **AM**.

Enter numbers



	A	B	C	D	E	F	G
1	Name	Date	Amount				
2	Buchanan	7/16/2009	$440.00				
3	Suyama	7/10/2009	$1,863.40				
4	Peacock	7/12/2009	$1,552.60				
5							
6							

Excel aligns numbers on the right side of cells.

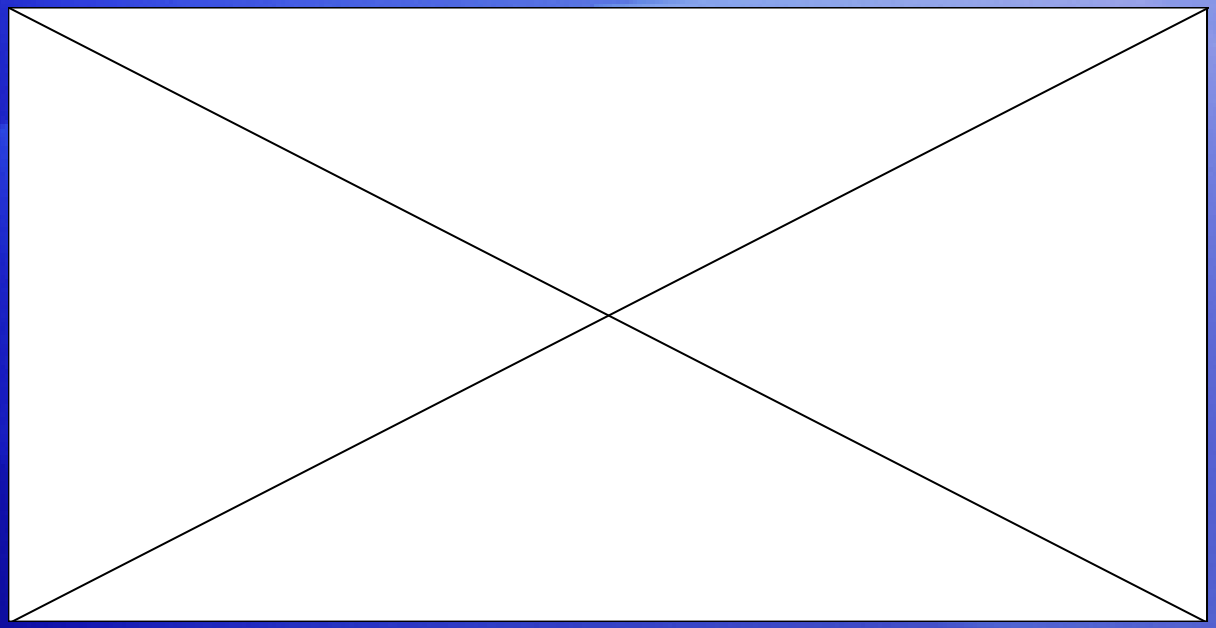
To enter the sales amounts in column C, the **Amount** column, you would type the dollar sign (**$**), followed by the amount.

Enter numbers

Other numbers and how to enter them

- To enter fractions, leave a space between the whole number and the fraction. For example, **1 1/8**.
- To enter a fraction only, enter a zero first, for example, **0 1/4**. If you enter **1/4** without the zero, Excel will interpret the number as a date, January 4.
- If you type **(100)** to indicate a negative number by parentheses, Excel will display the number as -100.

Quick ways to enter data



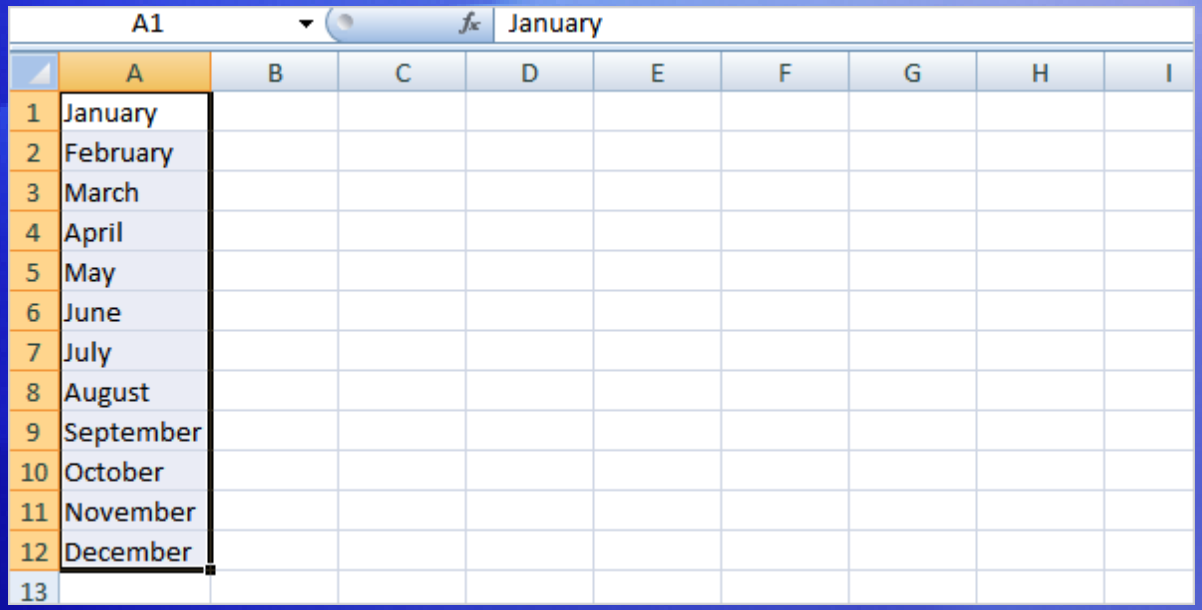
Here are two time-savers you can use to enter data in Excel: **AutoComplete** and **AutoFill**.

Animation: Right-click, and click **Play**.

AutoComplete: Type a few letters in a cell, and Excel can fill in the remaining characters for you.

AutoFill: Type one or more entries in an intended series, and then extend the series. Play the animation to see AutoFill in action.

Quick ways to enter data



Here are two time-savers you can use to enter data in Excel: **AutoComplete** and **AutoFill**.

AutoComplete: Type a few letters in a cell, and Excel can fill in the remaining characters for you. Just press ENTER when you see them added.

AutoFill: Type one or more entries in an intended series, and then extend the series.

Suggestions for practice

1. Enter data using TAB and ENTER.
2. Fix mistakes as you type.
3. Enter dates and times.
4. Enter numbers.
5. Use AutoFill.
6. Use AutoComplete.

Online practice (requires Excel 2007)

Test 2, question 1

Pressing ENTER moves the selection one cell to the right. (Pick one answer.)

1. True.
2. False.

Test 2, question 1: Answer

False.

Pressing ENTER moves the selection down. Pressing TAB moves the selection to the right.

Test 2, question 2

To enter the months of the year without typing each month yourself, you'd use which of the following? (Pick one answer.)

1. AutoComplete.
2. AutoFill.
3. CTRL+ENTER.

Test 2, question 2: Answer

AutoFill.

Use AutoFill to complete lists that you've begun, such as days, weeks, or times tables.

Test 2, question 3

Which of these will Excel recognize as a date? (Pick one answer.)

1. February 6 1947.
2. 2,6,47.
3. 2-Feb-47.

Test 2, question 3: Answer

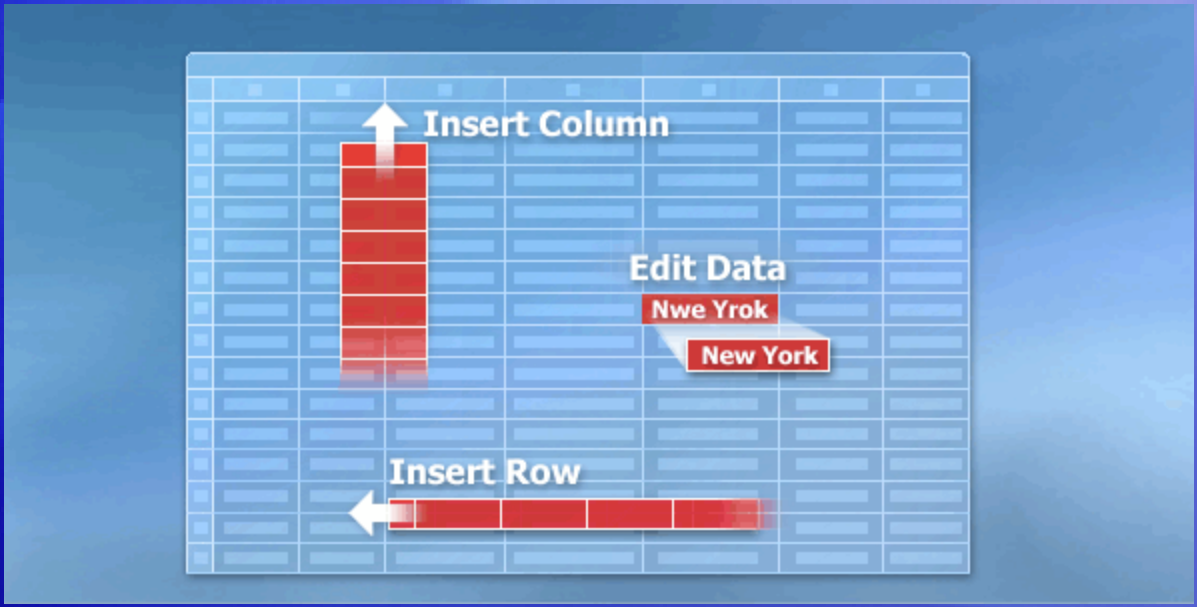
2-Feb-47.

You use a slash or a hyphen to separate the parts of a date.

Lesson 3

Edit data and revise worksheets

Edit data and revise worksheets



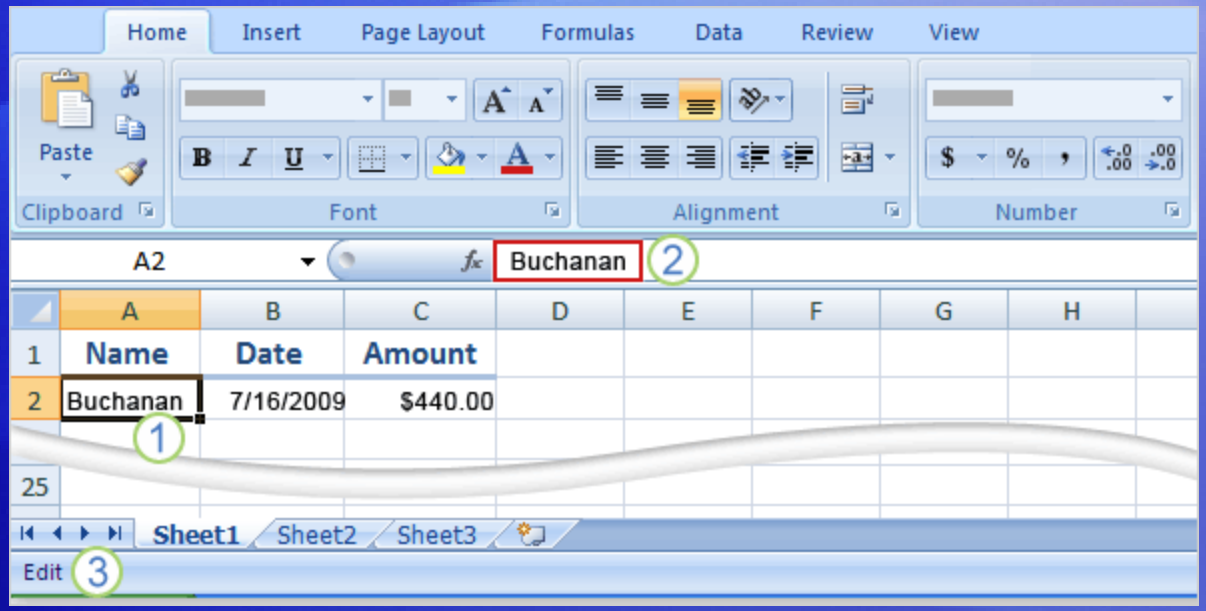
Everyone makes mistakes. Even data that you entered correctly can need updates later on.

Sometimes, the whole worksheet needs a change.

Suppose you need to add another column of data, right in the middle of your worksheet. Or suppose you list employees one per row, in alphabetical order—what do you do when you hire somebody new?

This lesson shows you how easy it is to edit data and add and delete worksheet columns and rows.

Edit data

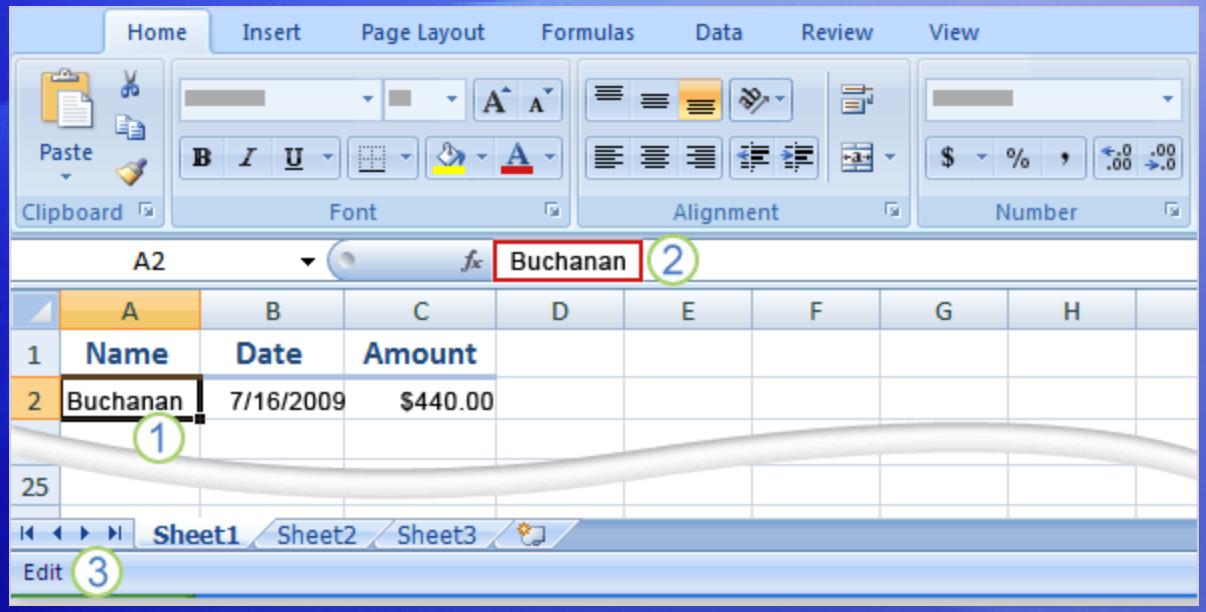


Say that you meant to enter Peacock's name in cell A2, but you entered Buchanan's name by mistake.

Once you spot the error, there are two ways to correct it.

1. Double-click a cell to edit the data in it.
2. Or, after clicking in the cell, edit the data in the Formula Bar.
3. After you select the cell by either method, the worksheet says **Edit** in the status bar in the lower-left corner.

Edit data



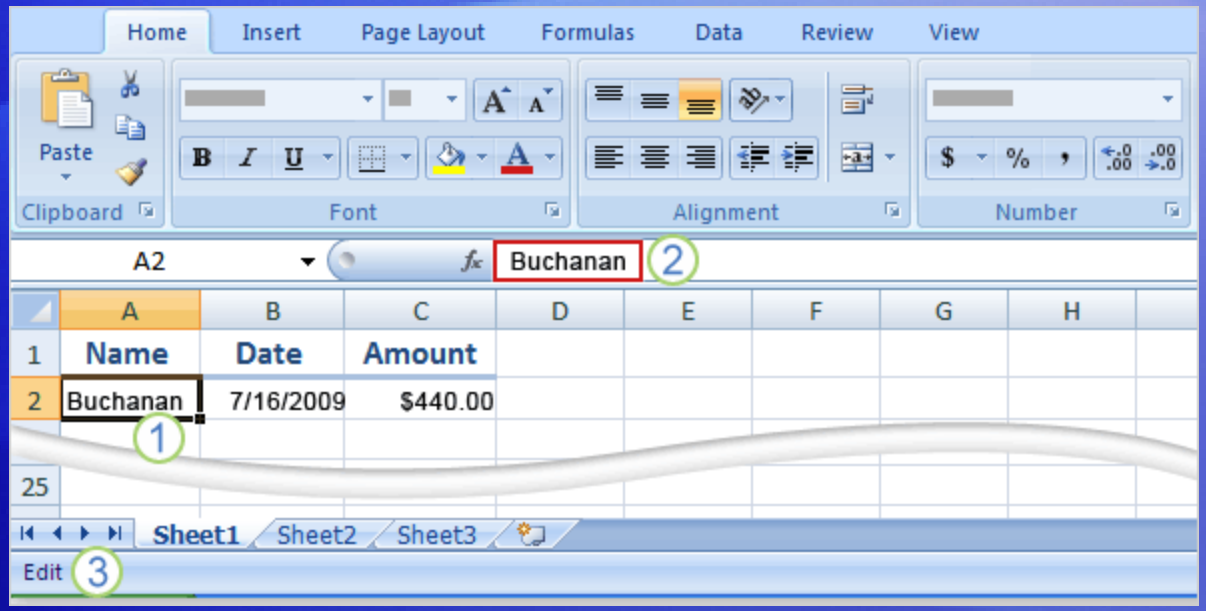
What's the difference between the two methods?

Your convenience. You may find the Formula Bar, or the cell itself, easier to work with.

Here's how you can make changes in either place:

- Delete letters or numbers by pressing BACKSPACE or by selecting them and then pressing DELETE.
- Edit letters or numbers by selecting them and then typing something different.

Edit data



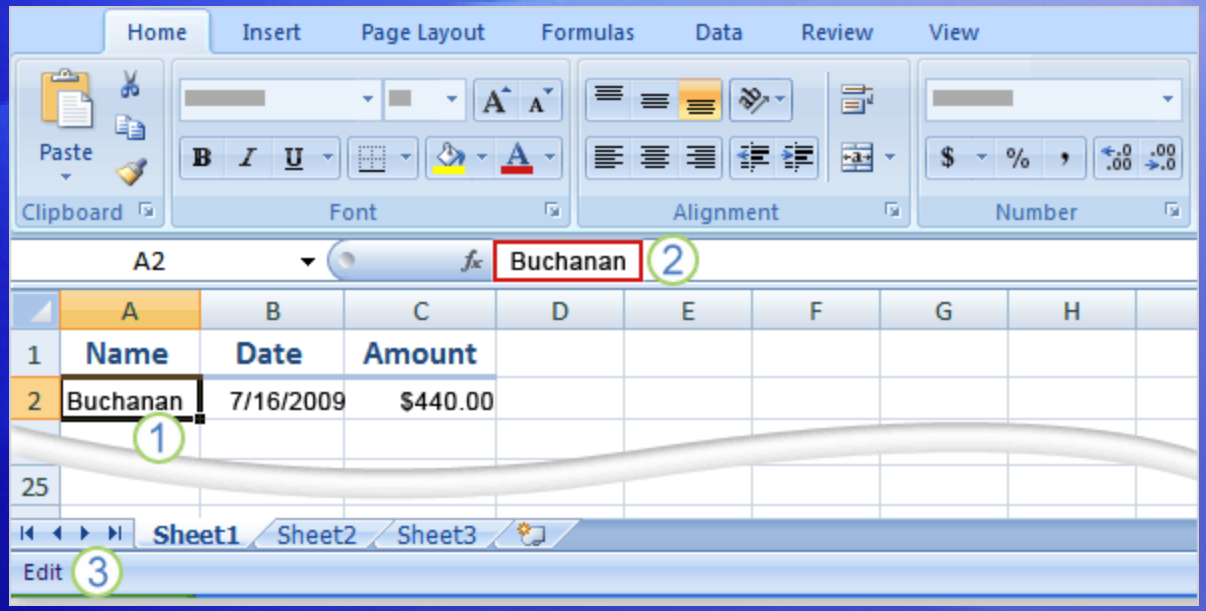
What's the difference between the two methods?

Your convenience. You may find the Formula Bar, or the cell itself, easier to work with.

Here's how you can make changes in either place:

- Insert new letters or numbers into the cell's data by positioning the cursor and typing.

Edit data

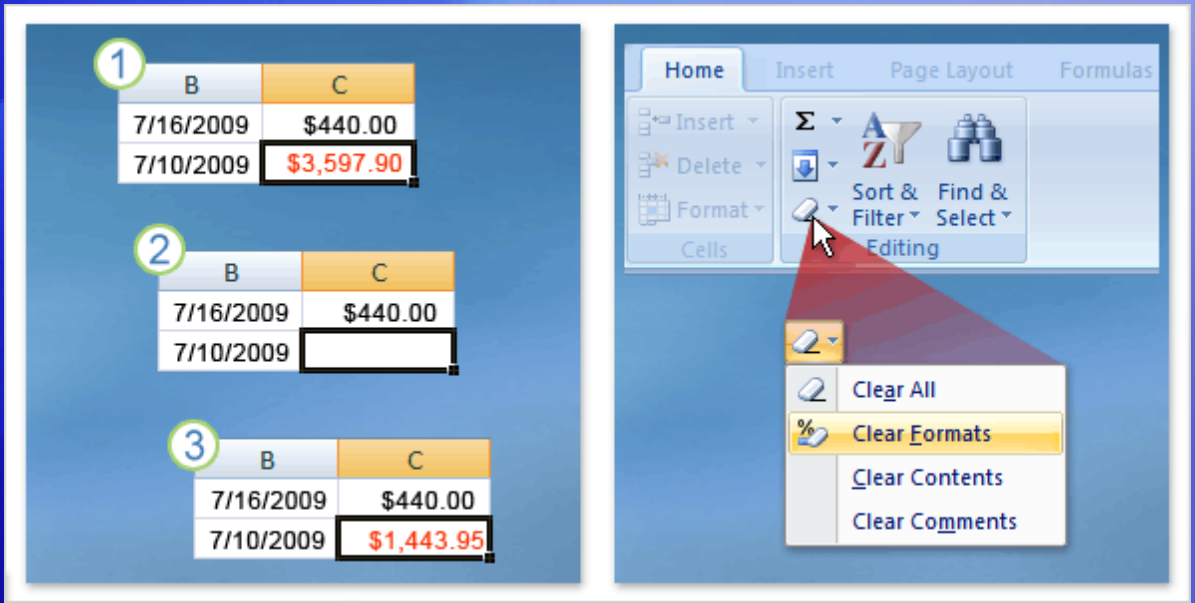


What's the difference between the two methods?

Your convenience. You may find the Formula Bar, or the cell itself, easier to work with.

Whatever you do, when you're all through, remember to press ENTER or TAB so that your changes stay in the cell.

Remove data formatting

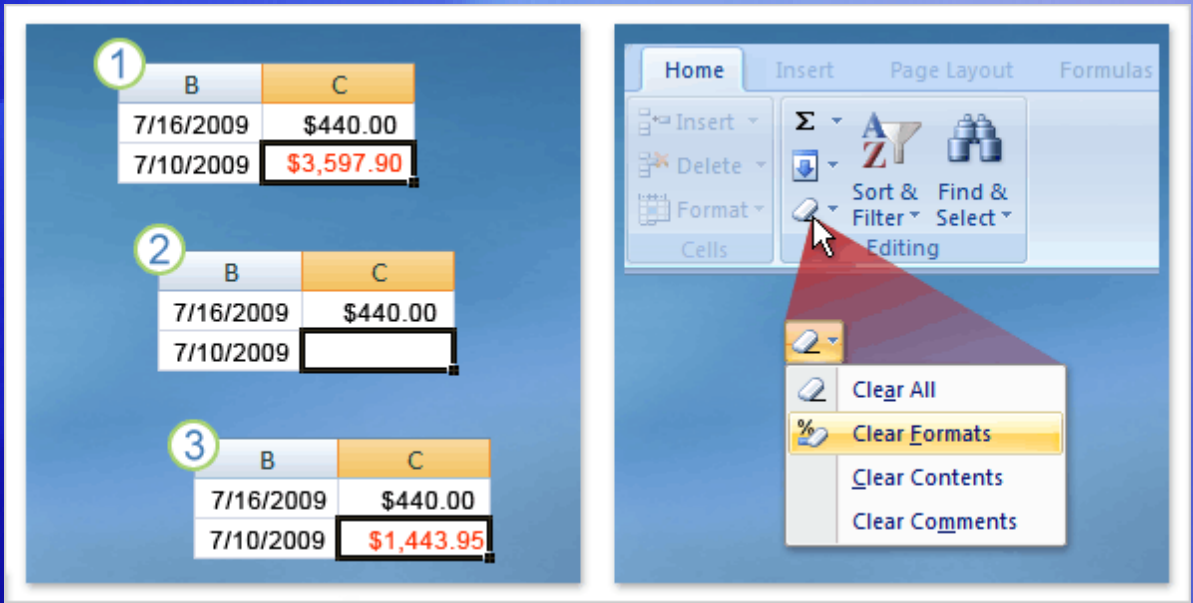


Surprise! Someone else has used your worksheet, filled in some data, and made the number in cell C6 bold and red to highlight that Peacock made the highest sale.

But Peacock's customer has changed her number, so the final sale was much smaller.

You want to remedy the situation.

Remove data formatting

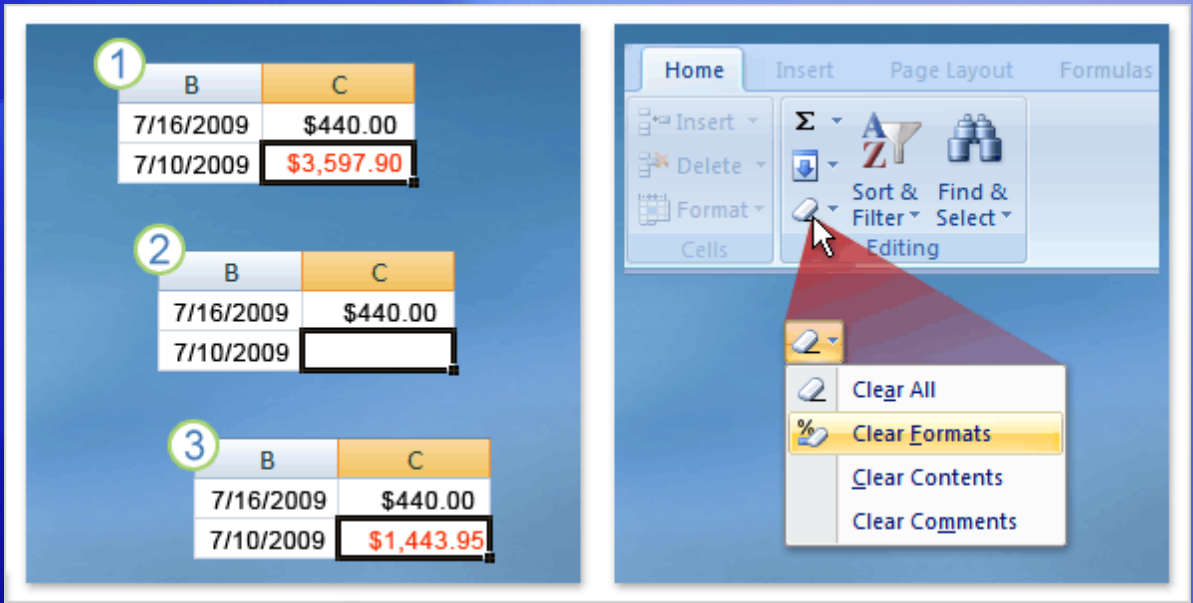


Surprise! Someone else has used your worksheet, filled in some data, and made the number in cell C6 bold and red to highlight that Peacock made the highest sale.

As the picture shows:

1. The original number was formatted bold and red.
2. So you delete the number.
3. You enter a new number. But it's still bold and red! What gives?

Remove data formatting

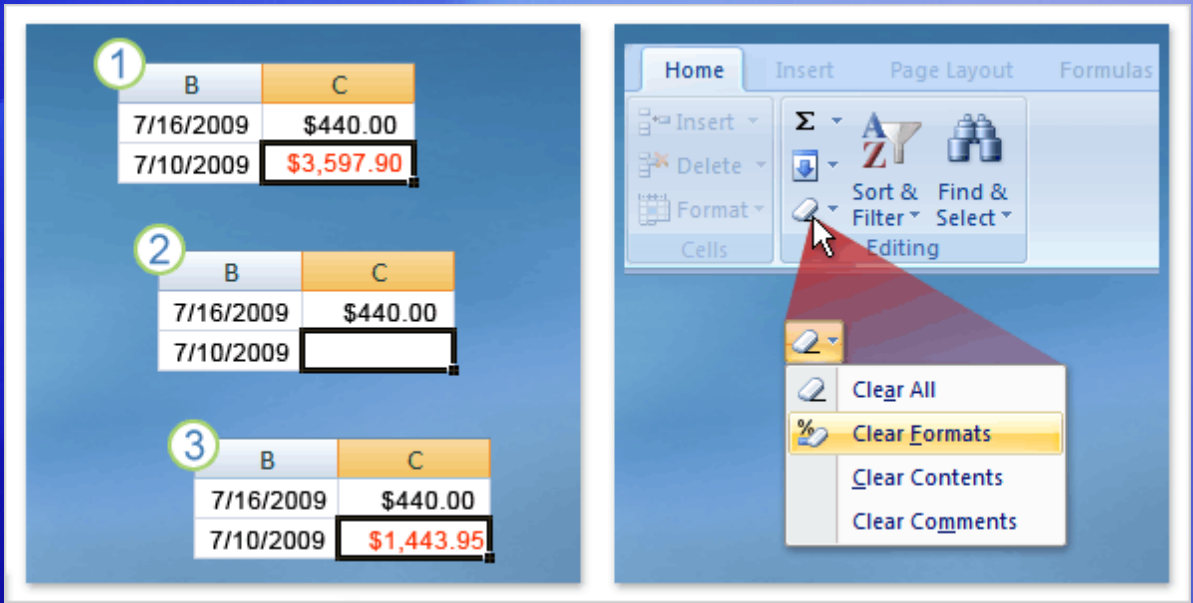


What's going on is that the cell itself is formatted, not data in the cell.

So when you delete data that has special formatting, you also need to delete the formatting from the cell.

Until you do, any data you enter in that cell will have special formatting.

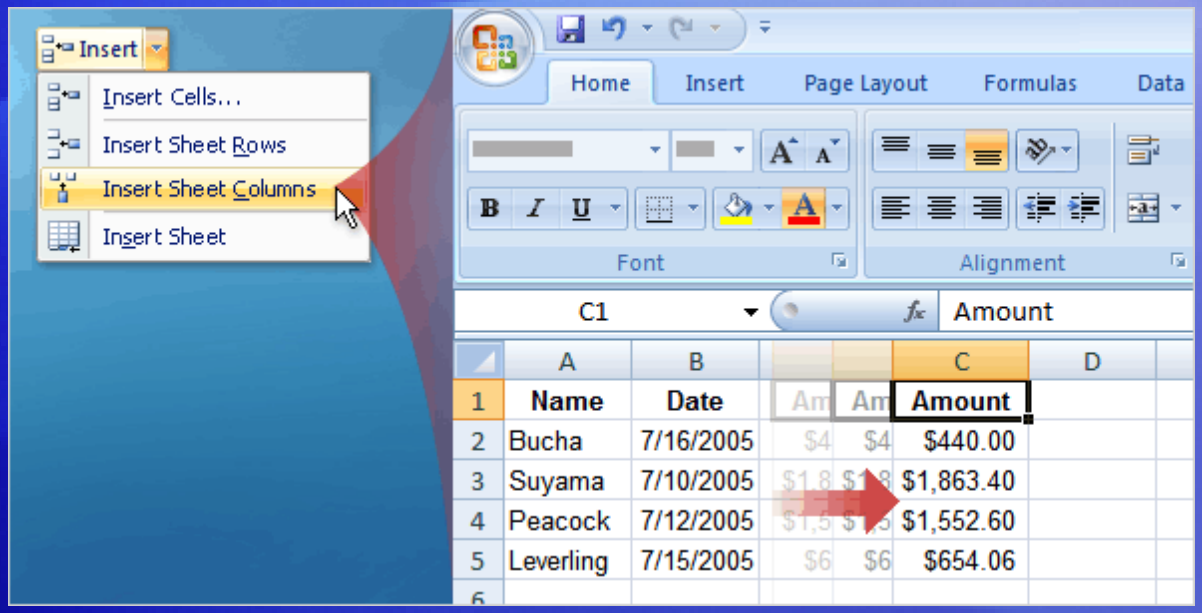
Remove data formatting



Here's how to remove formatting.

1. Click in the cell, and then on the **Home** tab, in the **Editing** group, click the arrow on **Clear** .
2. Click **Clear Formats**, which removes the format from the cell. Or you can click **Clear All** to remove both the data and the formatting at the same time.

Insert a column or row



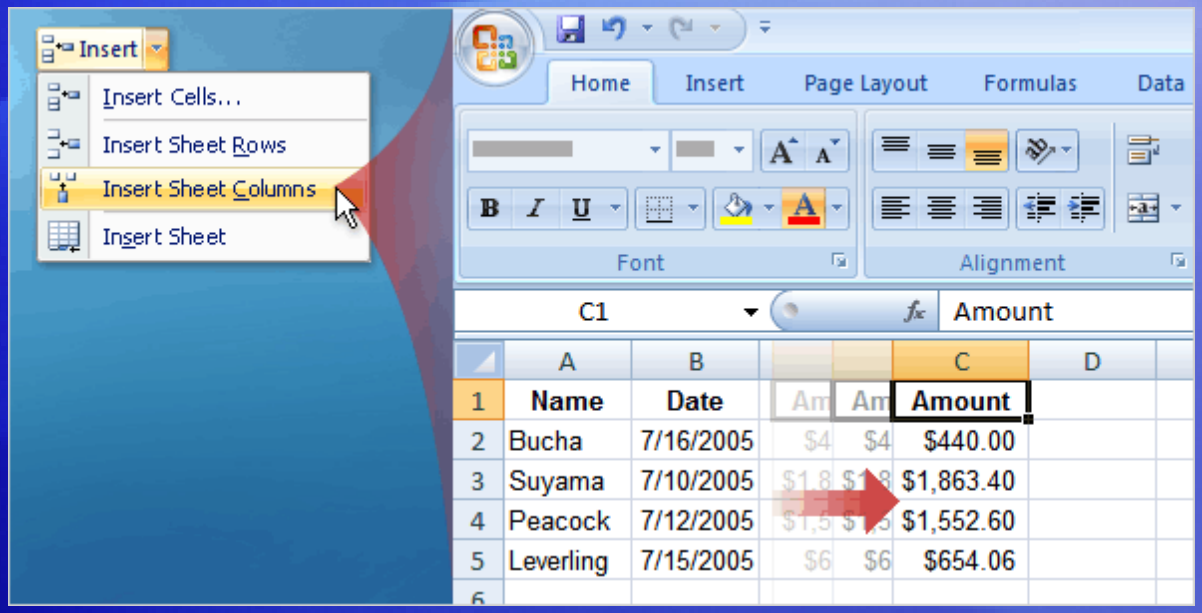
After entering data, you may find that you need to add columns or rows to hold additional information.

Do you need to start over? Of course not.

To insert a single column:

1. Click any cell in the column immediately to the right of where you want the new column to go.
2. On the **Home** tab, in the **Cells** group, click the arrow on **Insert**. On the drop-down menu, click **Insert Sheet Columns**. A new blank column is inserted.

Insert a column or row



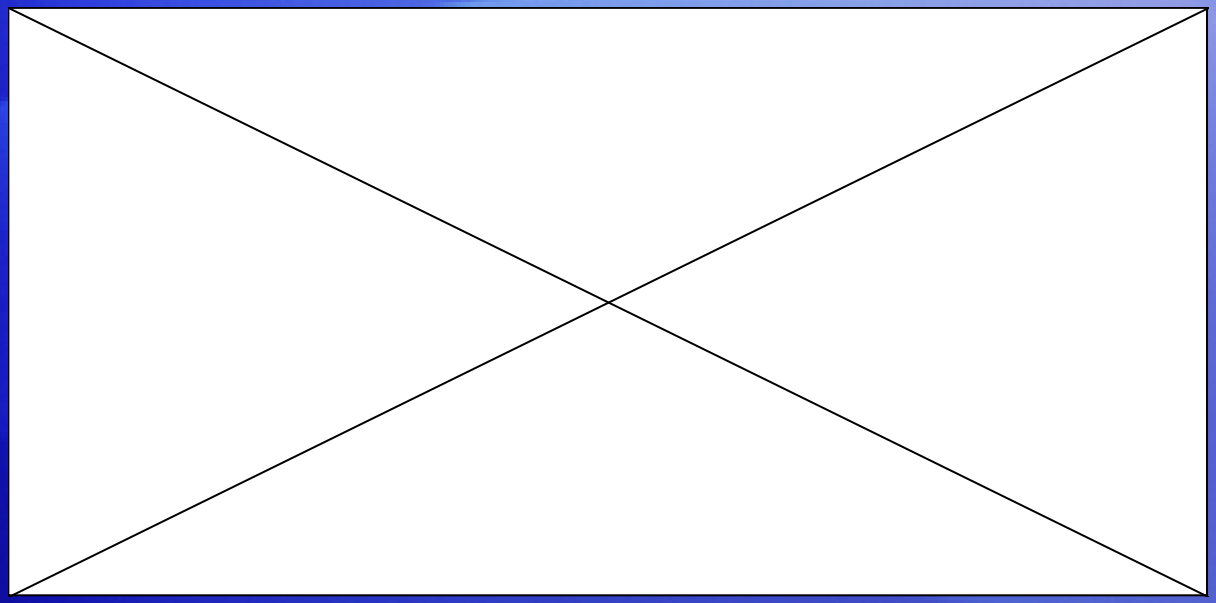
After entering data, you may find that you need to add columns or rows to hold additional information.

Do you need to start over? Of course not.

To insert a single row:

1. Click any cell in the row immediately below where you want the new row.
2. In the **Cells** group, click the arrow on **Insert**. On the drop-down menu, click **Insert Sheet Rows**. A new blank row is inserted.

Insert a column or row

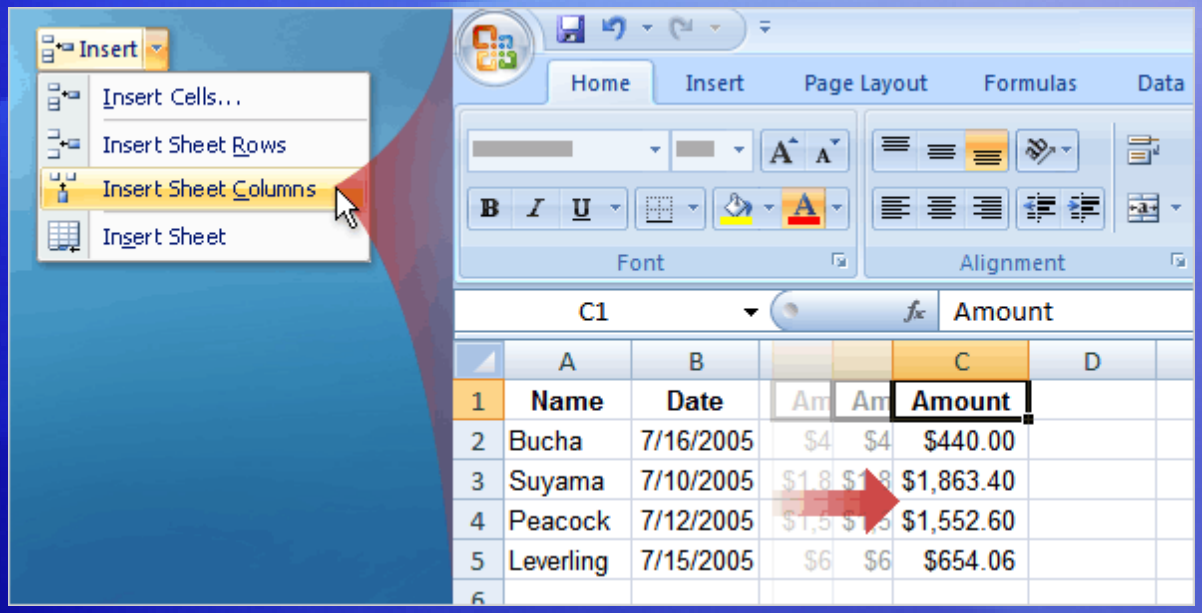


Excel gives a new column or row the heading its place requires, and changes the headings of later columns and rows.

Animation: Right-click, and click **Play**.

Play the animation to see the process of inserting a column and a row in a worksheet.

Insert a column or row



After entering data, you may find that you need to add columns or rows to hold additional information.

Do you need to start over? Of course not.

Excel gives a new column or row the heading its place requires, and changes the headings of later columns and rows.

Suggestions for practice

1. Edit data.
2. Delete formatting from a cell.
3. Work in Edit mode.
4. Insert and delete columns and rows.

Online practice (requires Excel 2007)

Test 3, question 1

What do you first do to delete the formatting in a cell? (Pick one answer.)

1. Delete the cell contents.
2. Click **Format** in the **Cells** group on the **Home tab**.
3. Click **Clear** in the **Editing** group on the **Home** tab.

Test 3, question 1: Answer

Click **Clear** in the **Editing** group on the **Home** tab.

Then click **Clear Formats**.

Test 3, question 2

To add a column, click a cell in the column to the right of where you want the new column. (Pick one answer.)

1. True.
2. False.

Test 3, question 2: Answer

True.

Then on the **Home** tab, in the **Cells** group, click the arrow on **Insert**, and click **Insert Sheet Columns** to insert the column.

Test 3, question 3

To add a new row, click in a cell immediately above where you want the new row. (Pick one answer.)

1. True.
2. False.

Test 3, question 3: Answer

False.

Instead, you click any cell in the row immediately *below* where you want the new row.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Excel® 2007 Training

Enter formulas

Course contents

- Overview: Goodbye, calculator
- Lesson 1: Get started
- Lesson 2: Use cell references
- Lesson 3: Simplify formulas by using functions

Each lesson includes a list of suggested tasks and a set of test questions.

Overview: Goodbye, calculator

Excel is great for working with numbers and math. In this course you'll learn how add, divide, multiply, and subtract by typing formulas into Excel worksheets.

You'll also learn how to use simple formulas that automatically update their results when values change.

After picking up the techniques in this course, you'll be able to put your calculator away for good.

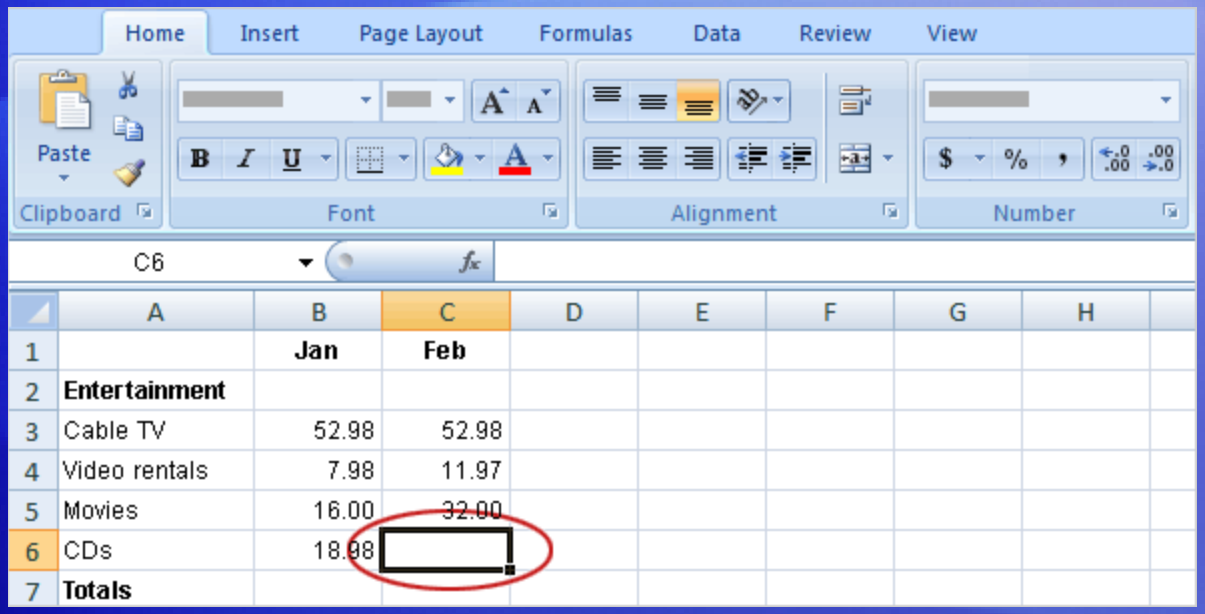
Course goals

- Do math by typing simple formulas to add, divide, multiply, and subtract.
- Use cell references in formulas, so that Excel can automatically update results when values change or when you copy formulas.
- Use functions (prewritten formulas) to add up values, calculate averages, and find the smallest or largest value in a range of values.

Lesson 1

Get started

Get started



	A	B	C	D	E	F	G	H
1		Jan	Feb					
2	**Entertainment**							
3	Cable TV	52.98	52.98					
4	Video rentals	7.98	11.97					
5	Movies	16.00	32.00					
6	CDs	18.98						
7	**Totals**							

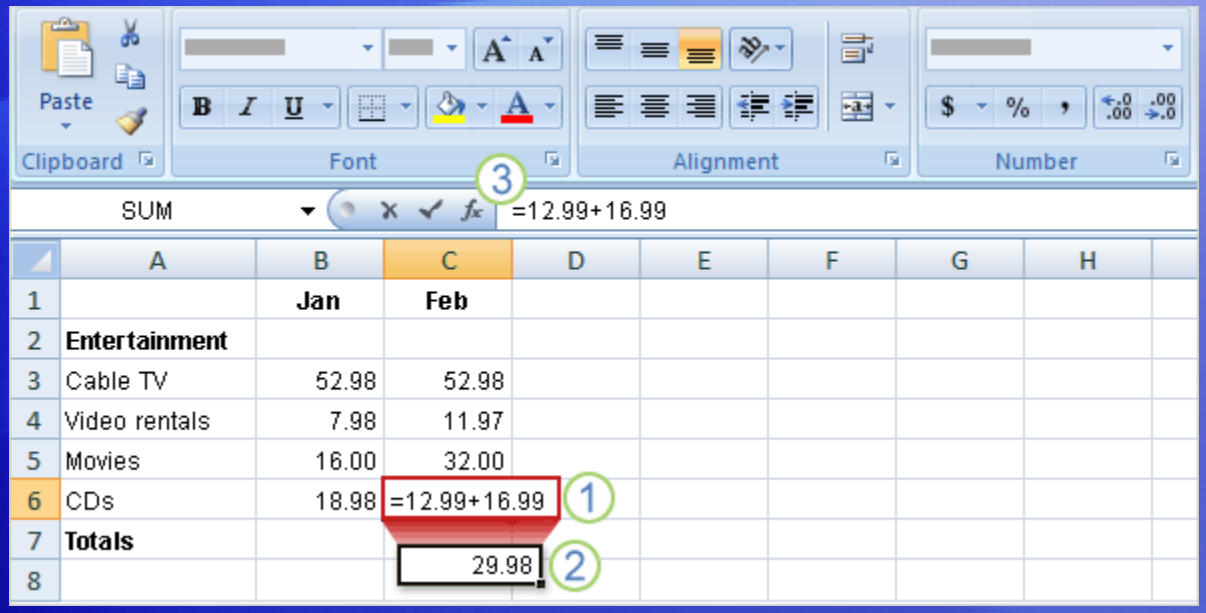
Imagine that Excel is open and you're looking at the "Entertainment" section of a household expense budget.

Cell C6 in the worksheet is empty; the amount spent for CDs in February hasn't been entered yet.

In this lesson, you'll learn how to use Excel to do basic math by typing simple formulas into cells. You'll also learn how to total all the values in a column with a formula that updates its result if values change later.

Enter formulas

Begin with an equal sign



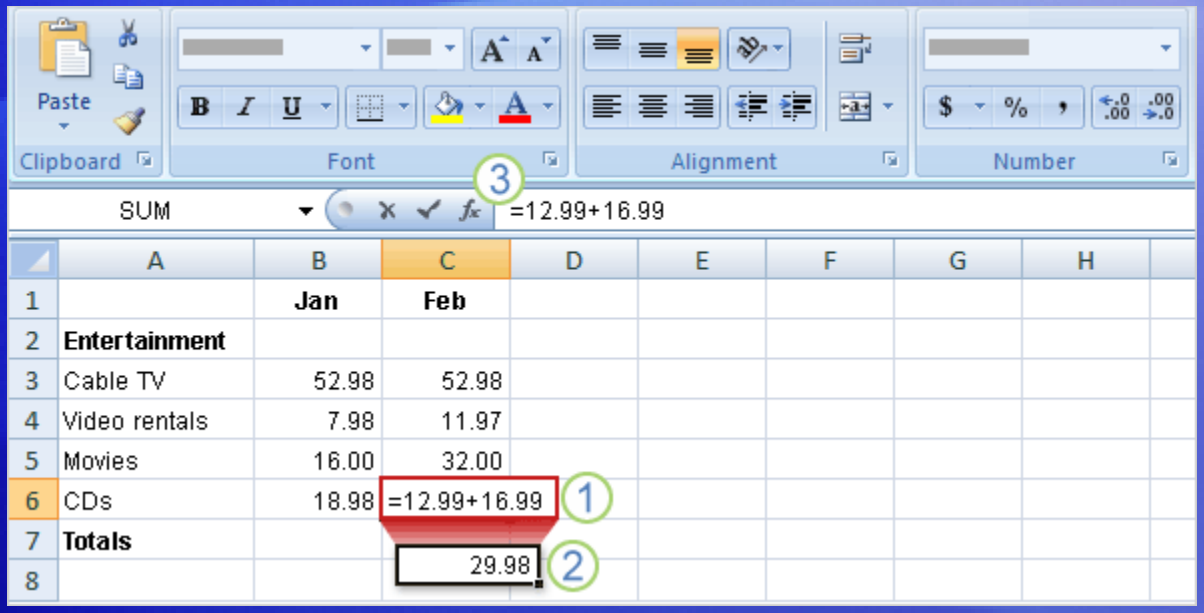
	A	B	C	D	E	F	G	H
1		Jan	Feb					
2	Entertainment							
3	Cable TV	52.98	52.98					
4	Video rentals	7.98	11.97					
5	Movies	16.00	32.00					
6	CDs	18.98	=12.99+16.99					
7	Totals		29.98					
8								

The two CDs purchased in February cost $12.99 and $16.99.

The total of these two values is the CD expense for the month.

You can add these values in Excel by typing a simple formula into cell C6.

Begin with an equal sign



	A	B	C	D	E	F	G	H
1		Jan	Feb					
2	**Entertainment**							
3	Cable TV	52.98	52.98					
4	Video rentals	7.98	11.97					
5	Movies	16.00	32.00					
6	CDs	18.98	=12.99+16.99					
7	**Totals**		29.98					
8								

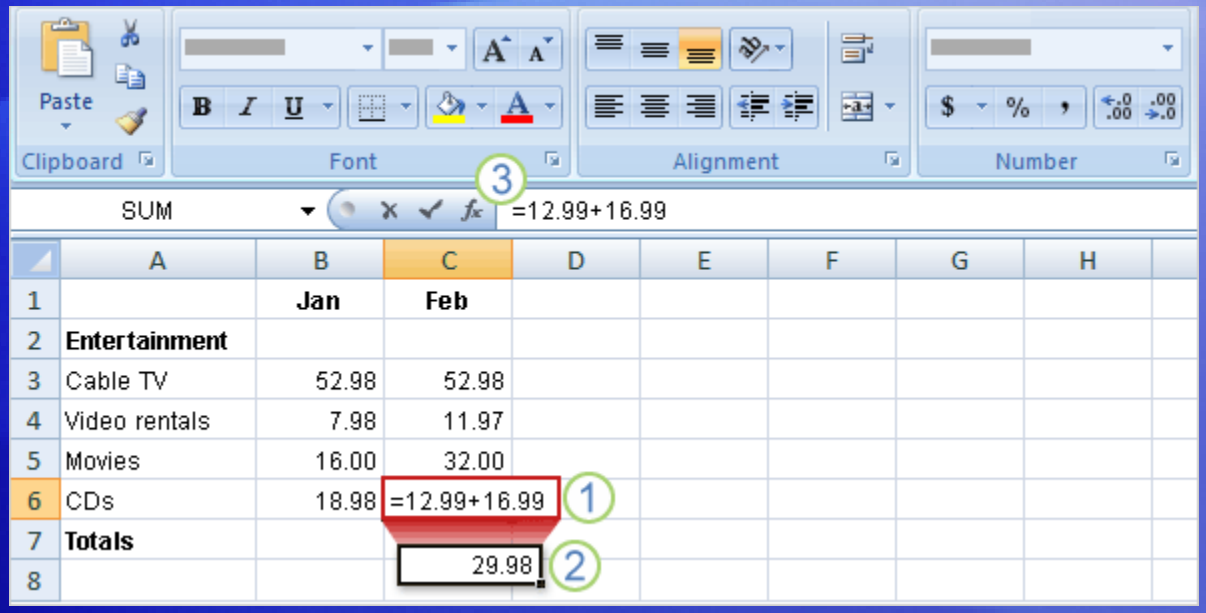
The picture illustrates what to do.

1. Type a formula in cell C6. Excel formulas always begin with an equal sign. To add 12.99 and 16.99, type:

   =12.99+16.99

   The plus sign (+) is the math **operator** that tells Excel to add the values.

Begin with an equal sign



The picture illustrates what to do.

2. Press ENTER to display the formula result.

3. If you wonder later how you got this result, you can click in cell C6 any time and view the formula in the **formula bar** near the top of the worksheet.

Use other math operators

Math operators	
Add (+)	=10+5
Subtract (-)	=10-5
Multiply (*)	=10*5
Divide (/)	=10/5

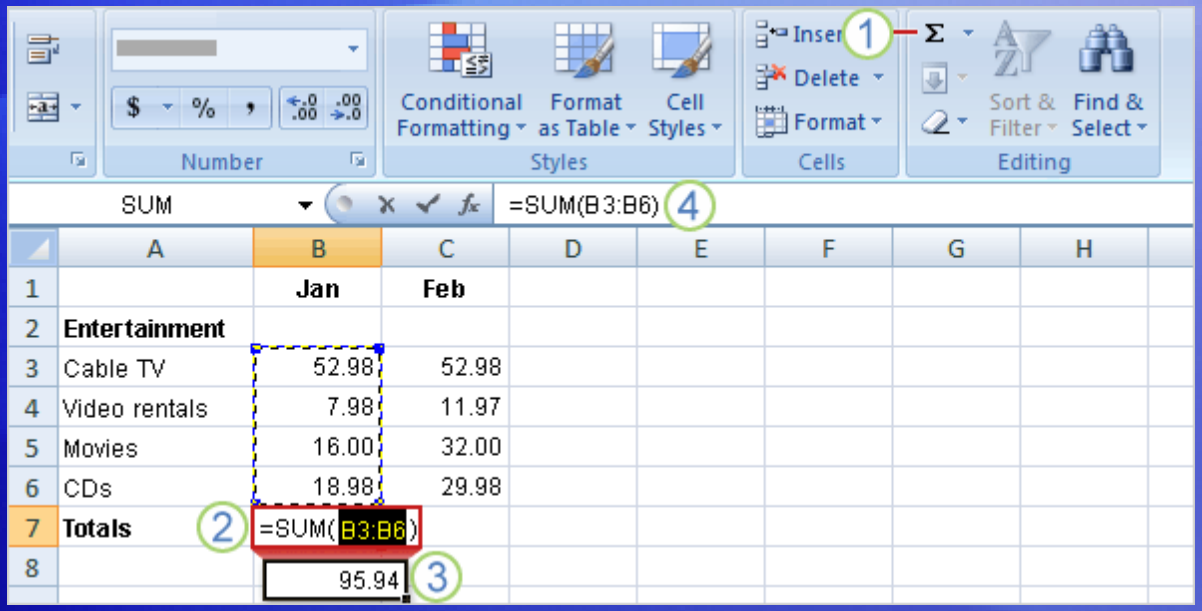
To do more than add, use other math operators as you type formulas into worksheet cells.

Excel uses familiar signs to build formulas.

As the table shows, use a minus sign (-) to subtract, an asterisk (*) to multiply, and a forward slash (/) to divide.

Remember to always start each formula with an equal sign.

Total all the values in a column



	A	B	C
1		Jan	Feb
2	Entertainment		
3	Cable TV	52.98	52.98
4	Video rentals	7.98	11.97
5	Movies	16.00	32.00
6	CDs	18.98	29.98
7	Totals	=SUM(B3:B6)	
8		95.94	

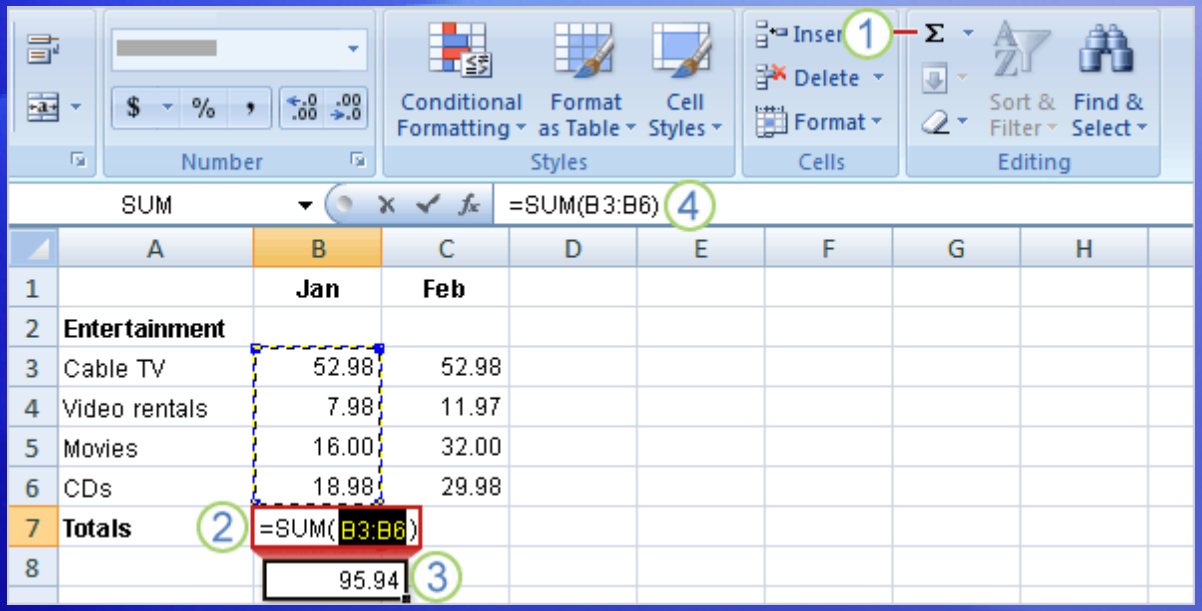
To add up the total of expenses for January, you don't have to type all those values again.

Instead, you can use a prewritten formula called a **function**.

To get the January total, click in cell B7 and then:

1. On the **Home** tab, click the **Sum** button Σ in the **Editing** group.
2. A color marquee surrounds the cells in the formula, and the formula appears in cell B7.

Total all the values in a column



	A	B	C
1		Jan	Feb
2	Entertainment		
3	Cable TV	52.98	52.98
4	Video rentals	7.98	11.97
5	Movies	16.00	32.00
6	CDs	18.98	29.98
7	Totals		
8			

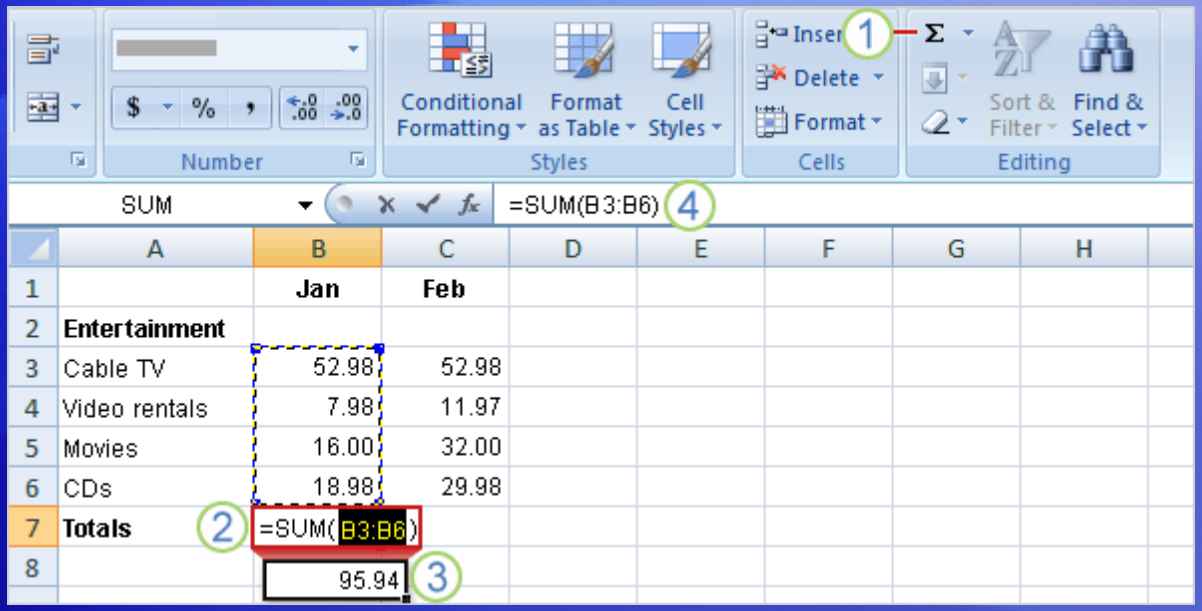
To add up the total of expenses for January, you don't have to type all those values again.

Instead, you can use a prewritten formula called a **function**.

To get the January total, click in cell B7 and then:

3. Press ENTER to display the result in cell B7: **95.94**.
4. Click in cell B7 to display the formula **=SUM(B3:B6)** in the formula bar.

Total all the values in a column



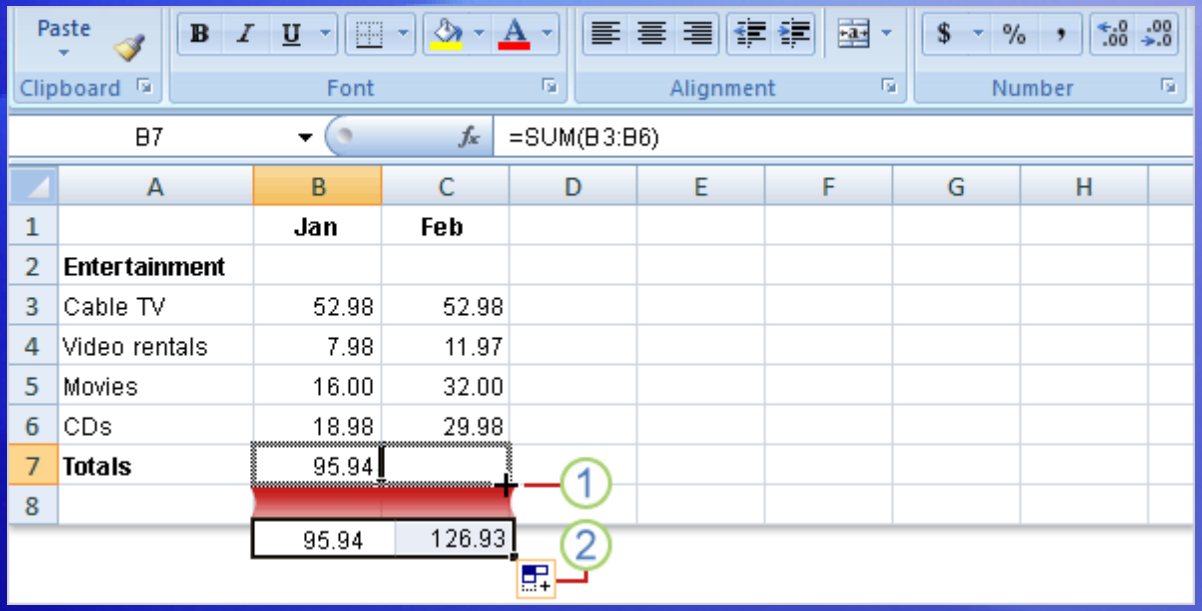
	A	B	C
1		Jan	Feb
2	Entertainment		
3	Cable TV	52.98	52.98
4	Video rentals	7.98	11.97
5	Movies	16.00	32.00
6	CDs	18.98	29.98
7	Totals		
8			

B3:B6 is the information, called the **argument**, that tells the SUM function what to add.

By using a cell reference (B3:B6) instead of the values in those cells, Excel can automatically update results if values change later on.

The colon (:) in B3:B6 indicates a cell range in column B, rows 3 through 6. The parentheses are required to separate the argument from the function.

Copy a formula instead of creating a new one

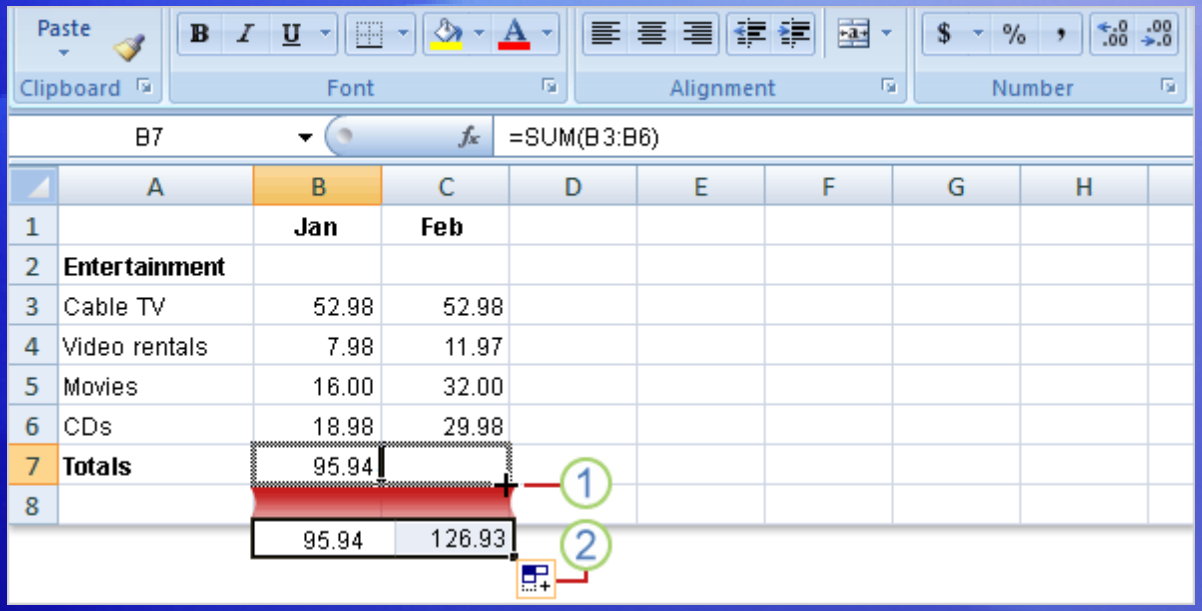


	A	B	C	D	E	F	G	H
1		Jan	Feb					
2	Entertainment							
3	Cable TV	52.98	52.98					
4	Video rentals	7.98	11.97					
5	Movies	16.00	32.00					
6	CDs	18.98	29.98					
7	Totals	95.94						
8								
		95.94	126.93					

Sometimes it's easier to copy formulas than to create new ones.

In this section, you'll see how to copy the formula you used to get the January total and use it to add up February's expenses.

Copy a formula instead of creating a new one



First, select cell B7.

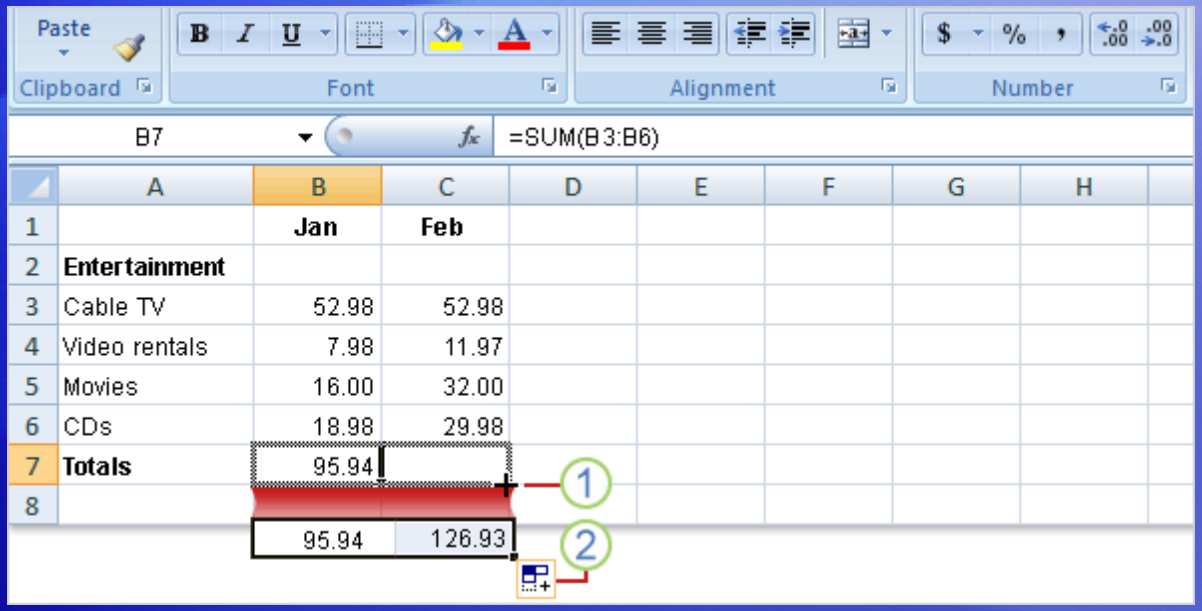
Then position the mouse pointer over the lower-right corner of the cell until the black cross (**+**) appears.

Next, as the picture shows:

1. Drag the **fill handle** from cell B7 to cell C7, and release the fill handle. The February total 126.93 appears in cell C7.

   The formula =SUM(C3:C6) will also become visible in the formula bar near the top of the worksheet.

Copy a formula instead of creating a new one



First, select cell B7.

Then position the mouse pointer over the lower-right corner of the cell until the black cross (**+**) appears.

Next, as the picture shows:

2. The **Auto Fill Options** button appears to give you some formatting options. In this case, you don't need formatting options, so no action is required. The button disappears when you next make an entry in the cell.

Suggestions for practice

1. Create a formula for addition.
2. Create other formulas.
3. Add up a column of numbers.
4. Add up a row of numbers.

Online practice (requires Excel 2007)

Test 1, question 1

What do you type into an empty cell to start a formula? (Pick one answer.)

1. *
2. (
3. =

Test 1, question 1: Answer

=

An equal sign (=) tells Excel that a calculation follows it.

Test 1, question 2

What is a function? (Pick one answer.)

1. A prewritten formula.
2. A math operator.

Test 1, question 2: Answer

A prewritten formula.

Functions are prewritten formulas, such as SUM, that save time.

Test 1, question 3

A formula result is in cell C6. You wonder how you got the result. To see the formula, what do you do? (Pick one answer.)

1. Click in cell C6, and then press CTRL+SHIFT.
2. Click in cell C6, and then press F5.
3. Click in cell C6.

Test 1, question 3: Answer

Click in cell C6.

It’s that simple. The formula is visible in the formula bar near the top of the worksheet whenever you click in cell C6. Or you can double-click cell C6 to see the formula in cell C6. Then press ENTER to see the formula result again in the cell.

Lesson 2

Use cell references

Use cell references

Cell references	Refer to values in
A10	the cell in column A and row 10
A10,A20	cell A10 and cell A20
A10:A20	the range of cells in column A and rows 10 through 20
B15:E15	the range of cells in row 15 and columns B through E
A10:E20	the range of cells in columns A through E and rows 10 through 20

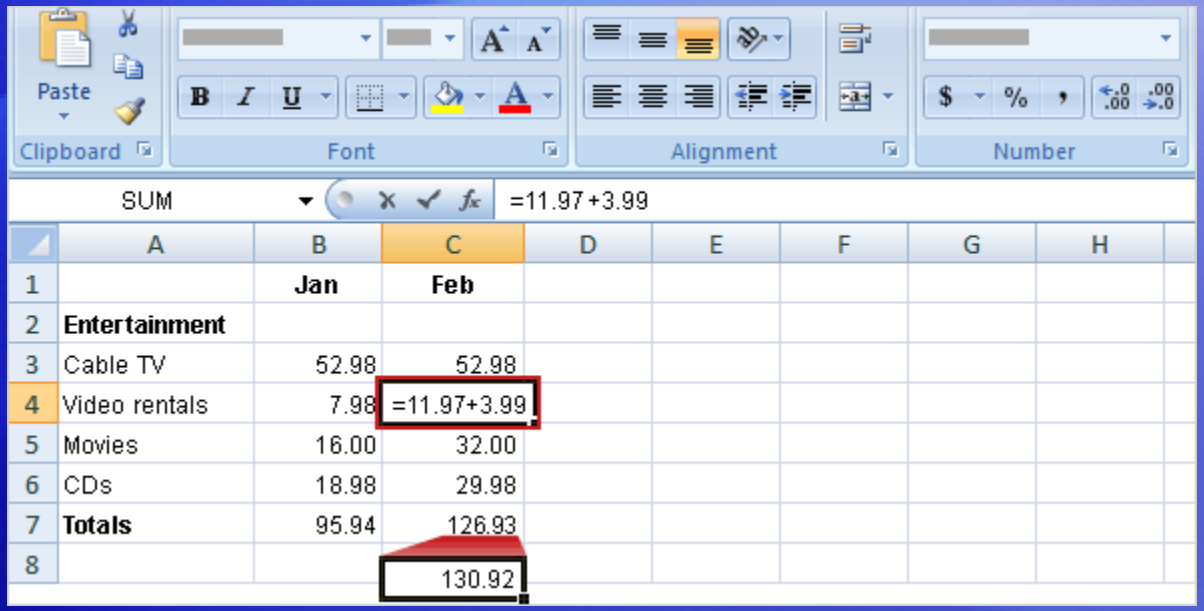
Cell references identify individual cells or cell ranges in columns and rows.

Cell references tell Excel where to look for values to use in a formula.

Excel uses a reference style called A1, which refers to columns with letters and to rows with numbers. The numbers and letters are called row and column **headings**.

This lesson shows how Excel can automatically update the results of formulas that use cell references, and how cell references work when you copy formulas.

Update formula results



	A	B	C	D	E	F	G	H
1		Jan	Feb					
2	**Entertainment**							
3	Cable TV	52.98	52.98					
4	Video rentals	7.98	=11.97+3.99					
5	Movies	16.00	32.00					
6	CDs	18.98	29.98					
7	**Totals**	95.94	126.93					
8			130.92					

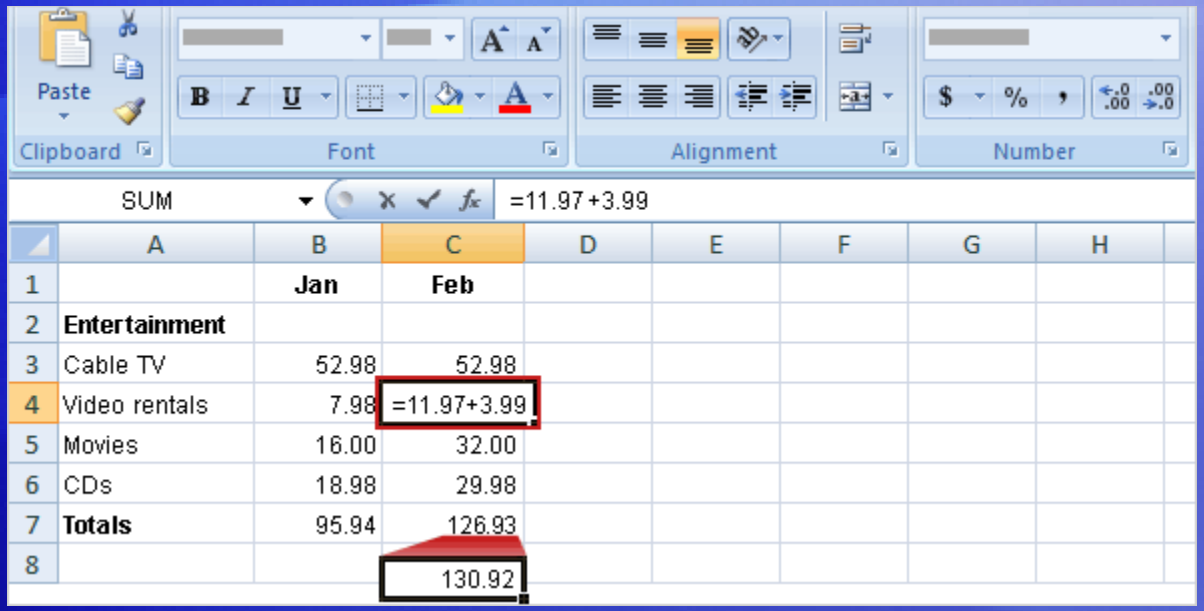
Suppose the 11.97 value in cell C4 was incorrect. A 3.99 video rental was left out.

Excel can automatically update totals to include changed values.

To add 3.99 to 11.97, you would click in cell C4, type the following formula into the cell, and then press ENTER:

=11.97+3.99

Update formula results



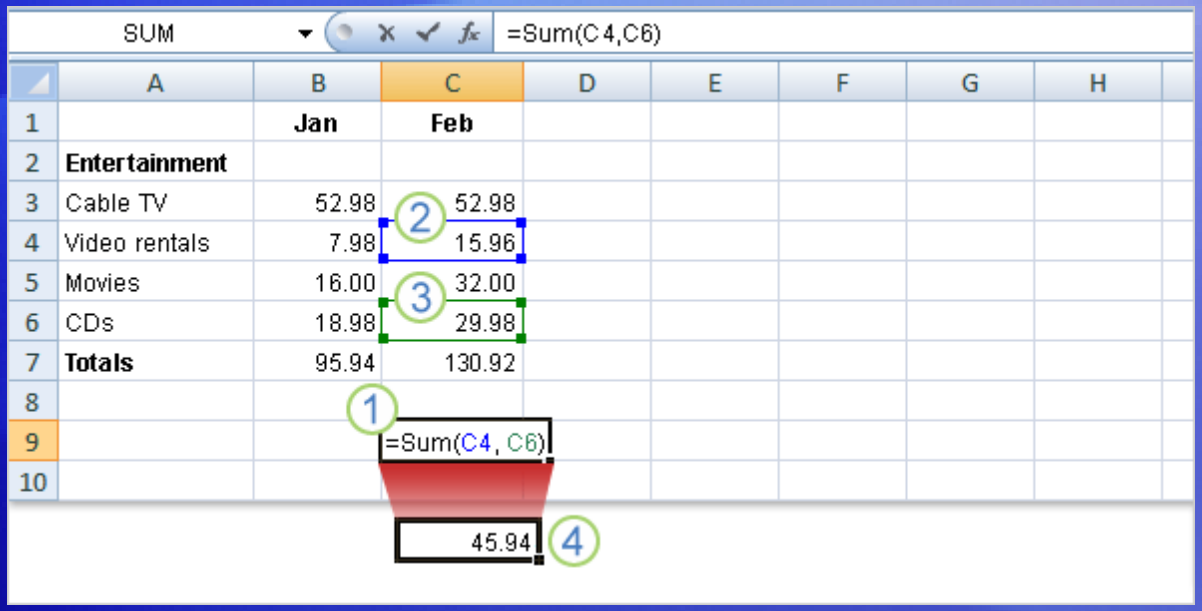
	A	B	C	D	E	F	G	H
1		Jan	Feb					
2	**Entertainment**							
3	Cable TV	52.98	52.98					
4	Video rentals	7.98	=11.97+3.99					
5	Movies	16.00	32.00					
6	CDs	18.98	29.98					
7	**Totals**	95.94	126.93					
8			130.92					

As the picture shows, when the value in cell C4 changes, Excel automatically updates the February total in cell C7 from 126.93 to 130.92.

Excel can do this because the original formula =SUM(C3:C6) in cell C7 contains cell references.

If you had entered 11.97 and other specific values into a formula in cell C7, Excel would not be able to update the total. You'd have to change 11.97 to 15.96 not only in cell C4, but in the formula in cell C7 as well.

Other ways to enter cell references

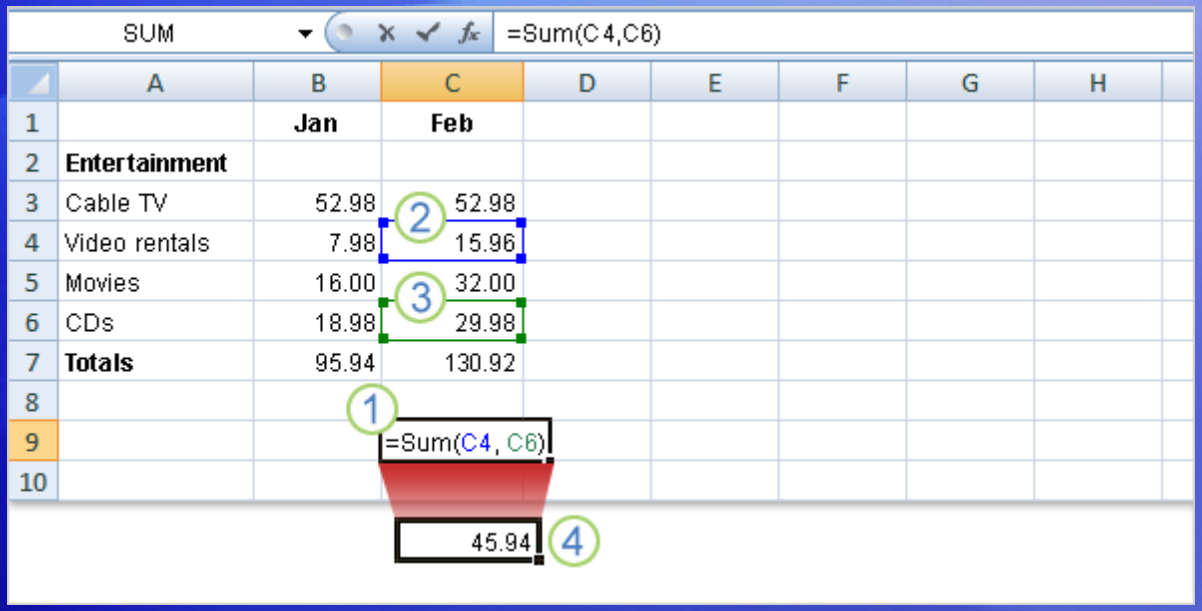


You can type cell references directly into cells, or you can enter cell references by clicking cells, which avoids typing errors.

In the first lesson you saw how to use the SUM function to add all the values in a column.

You could also use the SUM function to add just a few values in a column, by selecting the cell references to include.

Other ways to enter cell references

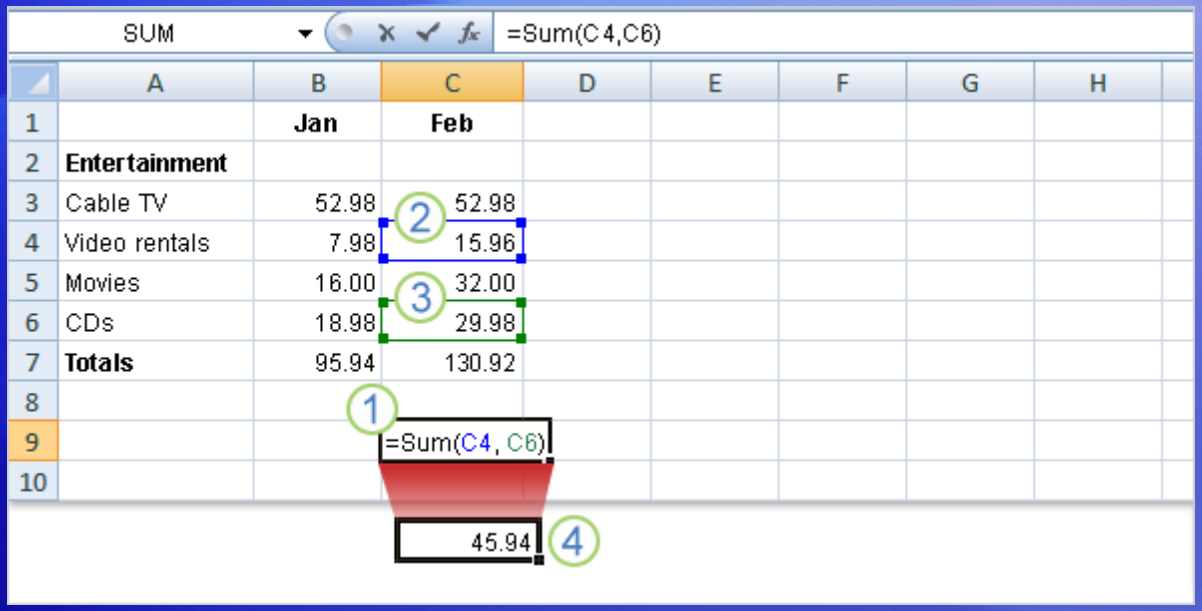


Imagine that you want to know the combined cost for video rentals and CDs in February.

The example shows you how to enter a formula into cell C9 by clicking cells.

1. In cell C9, type the equal sign, type **SUM**, and type an opening parenthesis.
2. Click cell C4. The cell reference for cell C4 appears in cell C9. Type a comma after it in cell C9.

Other ways to enter cell references



Imagine that you want to know the combined cost for video rentals and CDs in February.

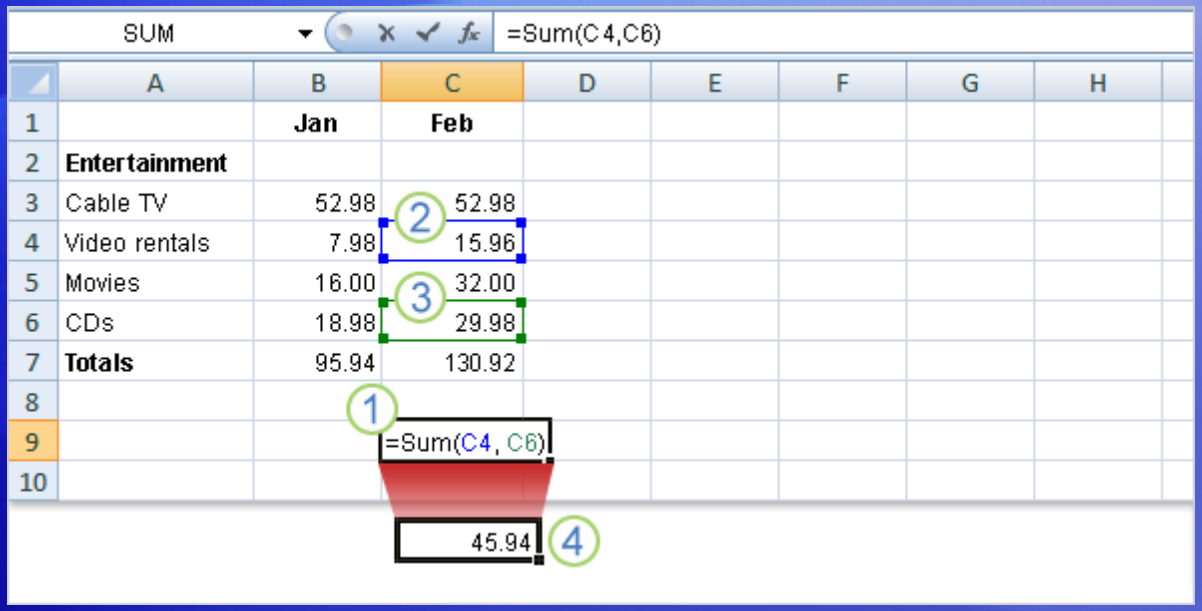
The example shows you how to enter a formula into cell C9 by clicking cells.

3. Click cell C6. That cell reference appears in cell C9 following the comma. Type a closing parenthesis after it.

4. Press ENTER to display the formula result, 45.94.

A color marquee surrounds each cell as it is selected and disappears when you press ENTER to display the result.

Other ways to enter cell references



Here's a little more information about how this formula works.

The arguments C4 and C6 tell the SUM function what values to calculate with. The parentheses are required to separate the arguments from the function.

The comma, which is also required, separates the arguments.

Reference types

Now that you've learned about using cell references, it's time to talk about the different types.

The picture shows two types, **relative** and **absolute**.

1. **Relative references** automatically change as they're copied down a column or across a row.

   When the formula =C4*$D$9 is copied from row to row in the picture, the relative cell references change from C4 to C5 to C6.

Reference types

Now that you've learned about using cell references, it's time to talk about the different types.

The picture shows two types, **relative** and **absolute**.

2 **Absolute references** are fixed. They don't change if you copy a formula from one cell to another. Absolute references have dollar signs ($) like this: $D$9.

As the picture shows, when the formula =C4*$D$9 is copied from row to row, the absolute cell reference remains as $D$9.

Reference types

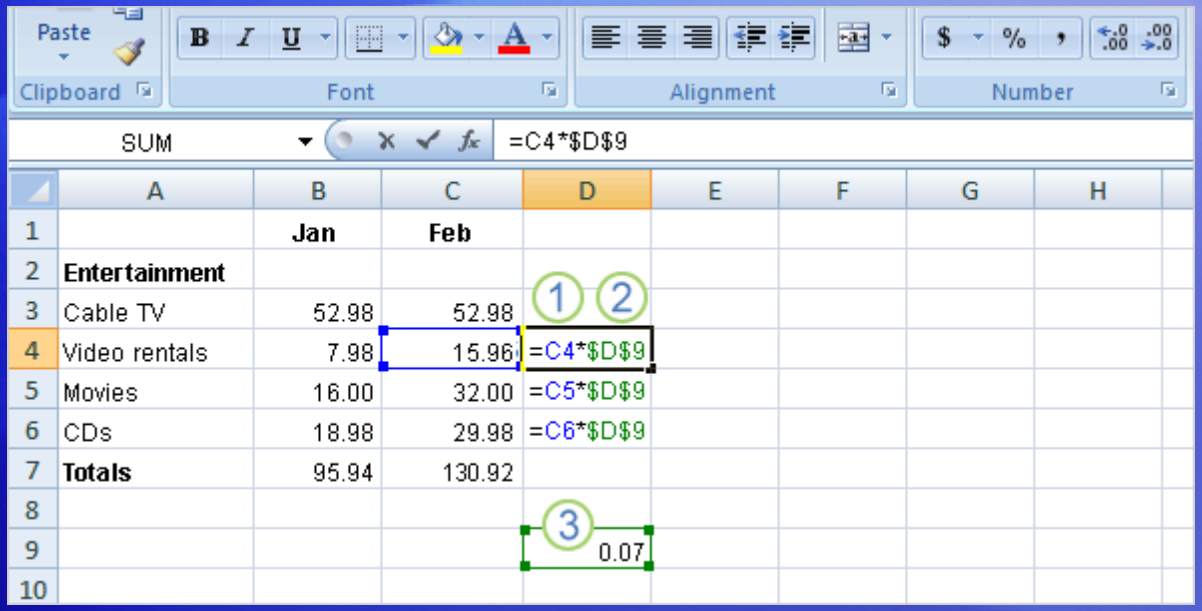
There's one more type of cell reference.

The **mixed reference** has either an absolute column and a relative row, or an absolute row and a relative column.

For example, $A1 is an absolute reference to column A and a relative reference to row 1.

As a mixed reference is copied from one cell to another, the absolute reference stays the same but the relative reference changes.

Using an absolute cell reference

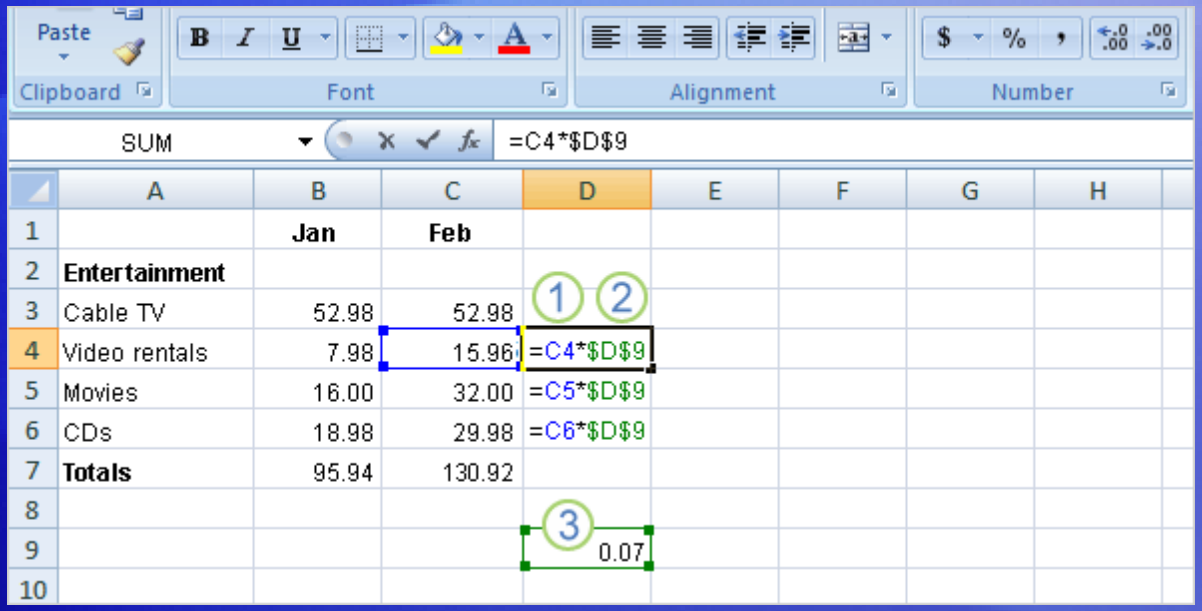


	A	B	C	D	E	F	G	H
1		Jan	Feb					
2	Entertainment							
3	Cable TV	52.98	52.98					
4	Video rentals	7.98	15.96	=C4*$D$9				
5	Movies	16.00	32.00	=C5*$D$9				
6	CDs	18.98	29.98	=C6*$D$9				
7	Totals	95.94	130.92					
8								
9								
10								

You use absolute cell references to refer to cells that you don't want to change as the formula is copied.

References are relative by default, so you would have to type dollar signs, as shown by callout 2 in the picture, to change the reference type to absolute.

Using an absolute cell reference



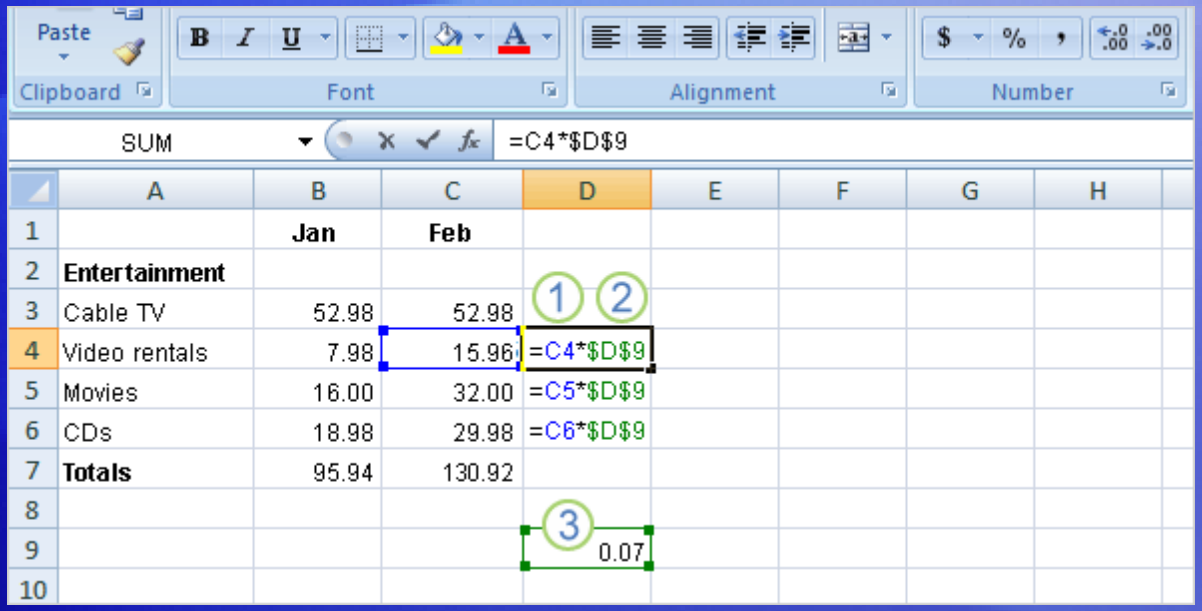
	A	B	C	D
1		Jan	Feb	
2	Entertainment			
3	Cable TV	52.98	52.98	
4	Video rentals	7.98	15.96	=C4*$D$9
5	Movies	16.00	32.00	=C5*$D$9
6	CDs	18.98	29.98	=C6*$D$9
7	Totals	95.94	130.92	
8				
9				
10				

Say you receive some entertainment coupons offering a 7 percent discount for video rentals, movies, and CDs. How much could you save in a month by using the discounts?

You could use a formula to multiply those February expenses by 7 percent.

So start by typing the discount rate **.07** in the empty cell D9, and then type the formula in cell D4.

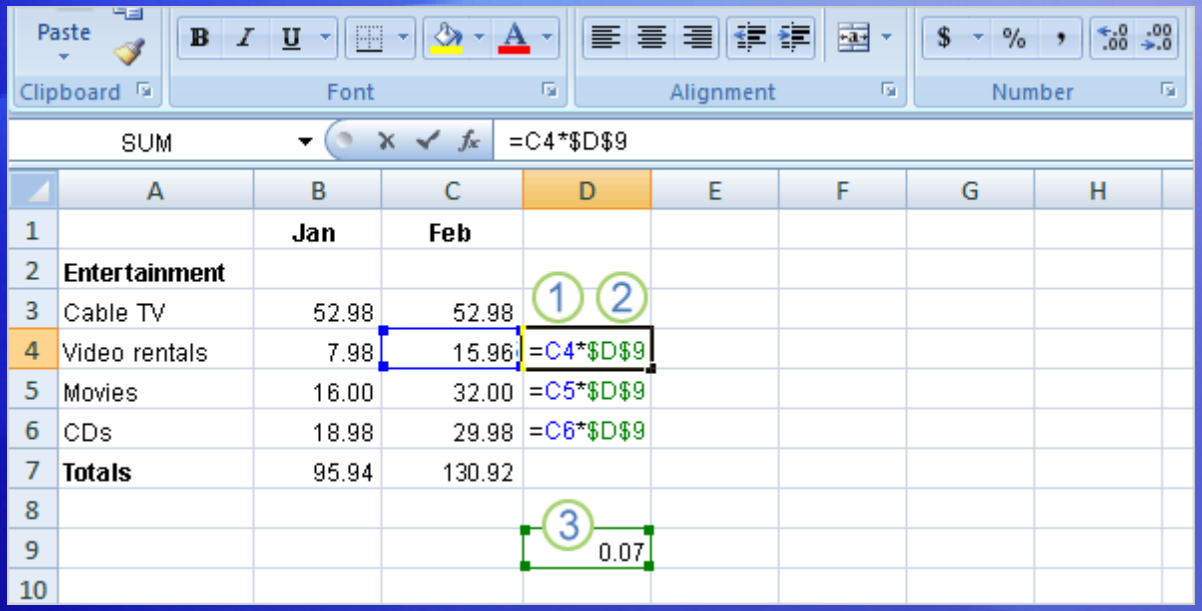
Using an absolute cell reference



Say you receive some entertainment coupons offering a 7 percent discount for video rentals, movies, and CDs. How much could you save in a month by using the discounts?

1. Then in cell D4, type **=C4***. Remember that this relative cell reference will change from row to row.
2. Enter a dollar sign (**$**) and **D** to make an absolute reference to column D, and **$9** to make an absolute reference to row 9. Your formula will multiply the value in cell C4 by the value in cell D9.

Using an absolute cell reference



Say you receive some entertainment coupons offering a 7 percent discount for video rentals, movies, and CDs. How much could you save in a month by using the discounts?

3 Cell D9 contains the value for the 7 percent discount.

You can copy the formula from cell D4 to D5 by using the fill handle. As the formula is copied, the relative cell reference changes from C4 to C5, while the absolute reference to the discount in D9 does not change; it remains as $D$9 in each row it is copied to.

Suggestions for practice

1. Type cell references in a formula.
2. Select cell references for a formula.
3. Use an absolute reference in a formula.
4. Add up several results.
5. Change values and totals.

Online practice (requires Excel 2007)

Test 2, question 1

How does an absolute cell reference work? (Pick one answer.)

1. The cell reference automatically changes when the formula is copied down a column or across a row.
2. The cell reference is fixed.
3. The cell reference uses the A1 reference style.

Test 2, question 1: Answer

The cell reference is fixed.

Absolute cell references don’t change if you copy a formula from one cell to another.

Test 2, question 2

Which of these is an absolute reference? (Pick one answer.)

1. B4:B12
2. $A$1

Test 2, question 2: Answer

$A$1

The dollar signs indicate an absolute reference to column A, row 1, which does not change when it’s copied.

Test 2, question 3

If you copy the formula =C4*$D$9 from cell C4 to cell C5, what will the formula be in cell C5? (Pick one answer.)

1. =C5*$D$9
2. =C4*$D$9
3. =C5*$E$10

Test 2, question 3: Answer

=C5*$D$9

As the formula is copied, the relative cell reference, C4, changes to C5. The absolute cell reference, $D$9, does not change; it remains the same in each row it is copied to.

Lesson 3

Simplify formulas by using functions

Simplify formulas by using functions

Function	Calculates
AVERAGE	an average
MAX	the largest number
MIN	the smallest number

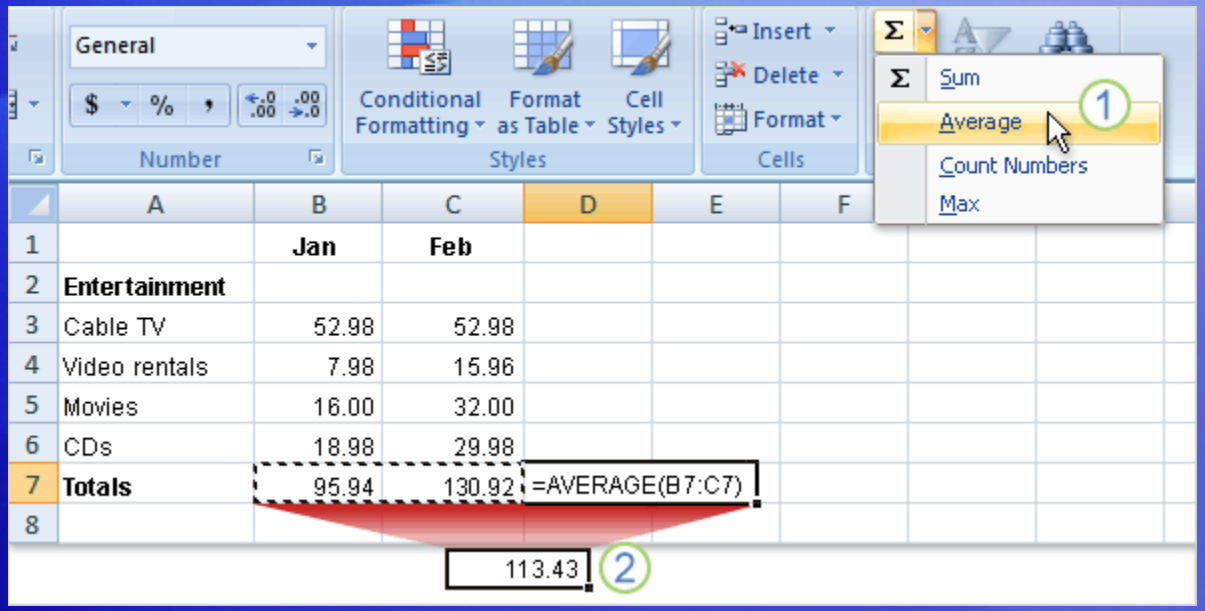
Function names express long formulas quickly.

As prewritten formulas, functions simplify the process of entering calculations.

Using functions, you can easily and quickly create formulas that might be difficult to build for yourself.

SUM is just one of the many Excel functions. In this lesson you'll see how to speed up tasks with a few other easy ones.

Find an average



	A	B	C	D	E	F
1		Jan	Feb			
2	Entertainment					
3	Cable TV	52.98	52.98			
4	Video rentals	7.98	15.96			
5	Movies	16.00	32.00			
6	CDs	18.98	29.98			
7	Totals	95.94	130.92	=AVERAGE(B7:C7)		
8						

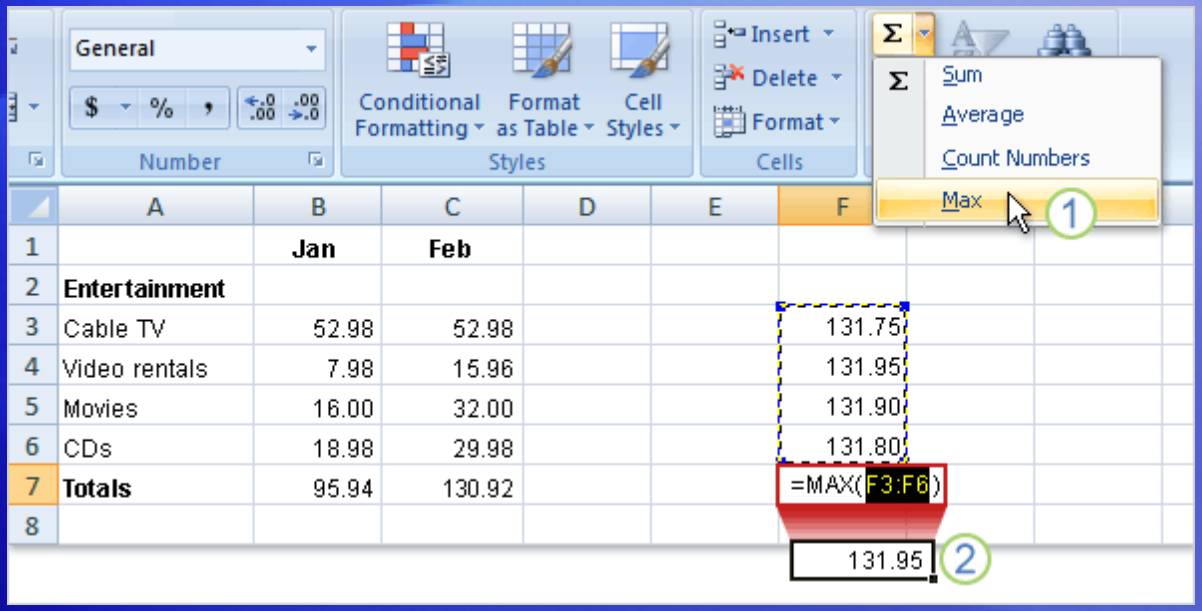
You can use the AVERAGE function to find the mean average cost of all entertainment for January and February.

Excel will enter the formula for you.

Click in cell D7, and then:

1. On the **Home** tab, in the **Editing** group, click the arrow on the **Sum** button, and then click **Average** in the list.
2. Press ENTER to display the result in cell D7.

Find the largest or smallest value



	A	B	C	D	E	F
1		Jan	Feb			
2	Entertainment					
3	Cable TV	52.98	52.98			131.75
4	Video rentals	7.98	15.96			131.95
5	Movies	16.00	32.00			131.90
6	CDs	18.98	29.98			131.80
7	Totals	95.94	130.92			
8						

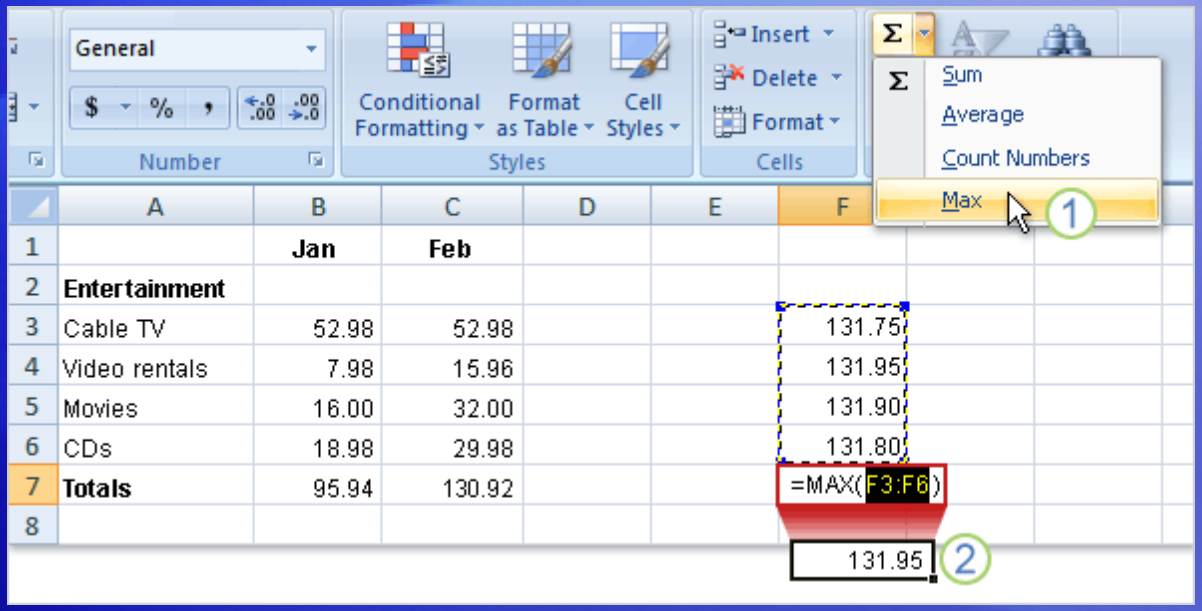
The MAX function finds the largest number in a range, and the MIN function finds the smallest number in a range.

The picture illustrates the use of MAX.

Start by clicking in cell F7. Then:

1. On the **Home** tab, in the **Editing** group, click the arrow on the **Sum** button, and then click **Max** in the list.
2. Press ENTER to display the result in cell F7. The largest value in the series is 131.95.

Find the largest or smallest value



	A	B	C	D	E	F
1		Jan	Feb			
2	**Entertainment**					
3	Cable TV	52.98	52.98			131.75
4	Video rentals	7.98	15.96			131.95
5	Movies	16.00	32.00			131.90
6	CDs	18.98	29.98			131.80
7	**Totals**	95.94	130.92			
8						

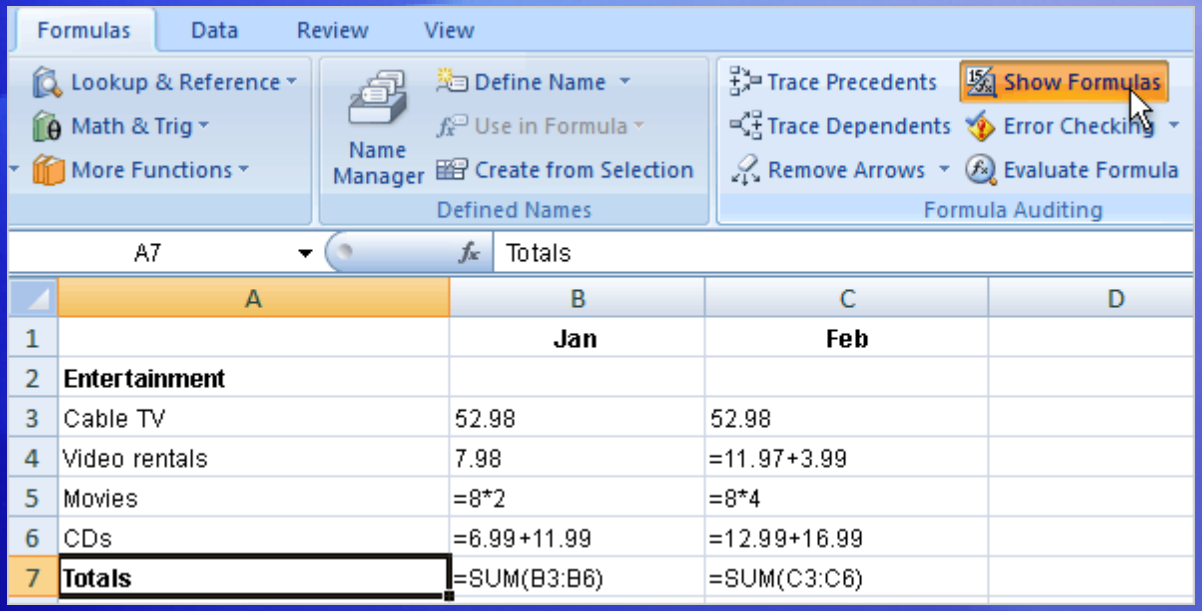
The MAX function finds the largest number in a range, and the MIN function finds the smallest number in a range.

The picture illustrates the use of MAX.

To find the smallest value in the range, you would click **Min** in the list and press ENTER.

The smallest value in the series is 131.75.

Print formulas



	A	B	C	D
1		**Jan**	**Feb**	
2	**Entertainment**			
3	Cable TV	52.98	52.98	
4	Video rentals	7.98	=11.97+3.99	
5	Movies	=8*2	=8*4	
6	CDs	=6.99+11.99	=12.99+16.99	
7	**Totals**	=SUM(B3:B6)	=SUM(C3:C6)	

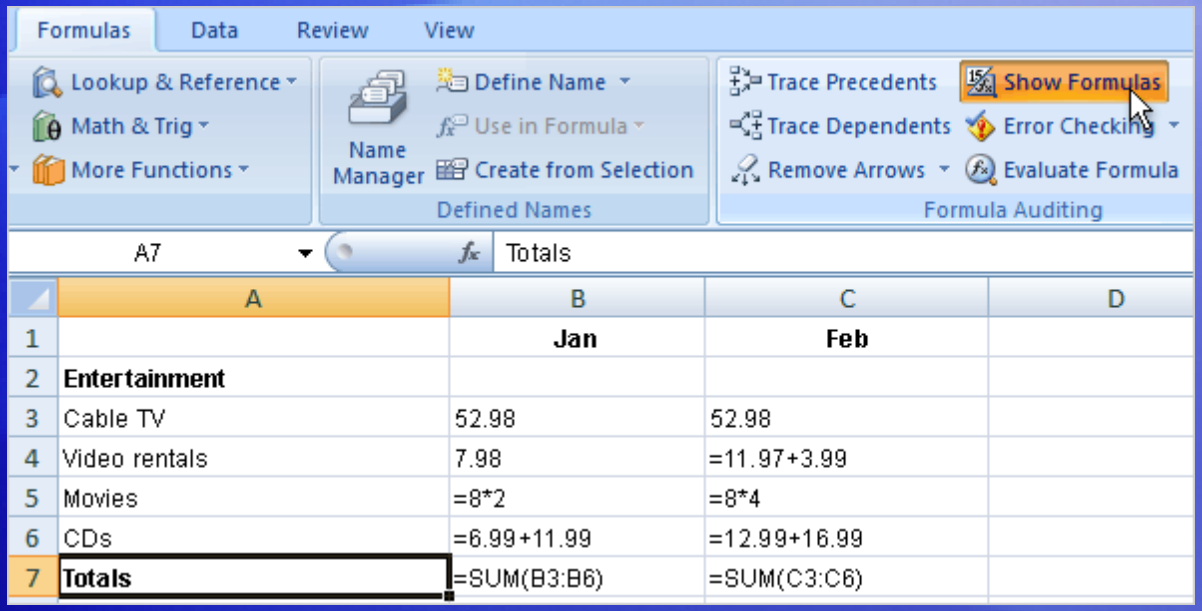
You can print formulas and put them up on your bulletin board to remind you how to create them.

But first, you need to display the formulas on the worksheet.

Here's how:

1. Click the **Formulas** tab.
2. In the **Formula Auditing** group, click **Show Formulas** .

Print formulas



	A	B	C	D
1		**Jan**	**Feb**	
2	**Entertainment**			
3	Cable TV	52.98	52.98	
4	Video rentals	7.98	=11.97+3.99	
5	Movies	=8*2	=8*4	
6	CDs	=6.99+11.99	=12.99+16.99	
7	**Totals**	=SUM(B3:B6)	=SUM(C3:C6)	

You can print formulas and put them up on your bulletin board to remind you how to create them.

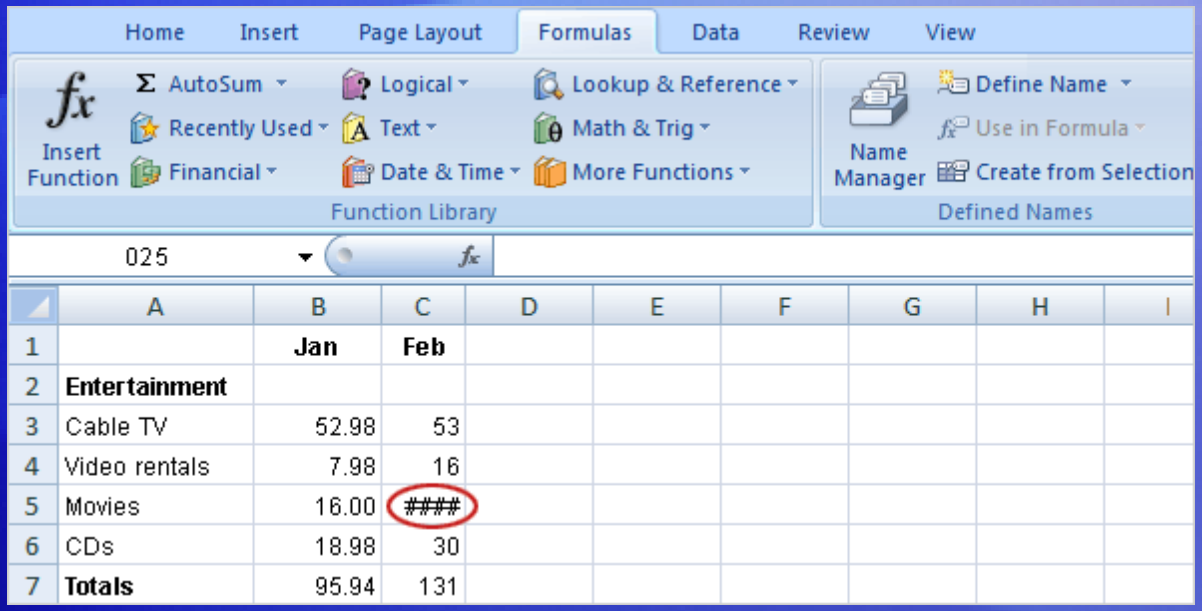
But first, you need to display the formulas on the worksheet.

Here's how:

3. Click the **Microsoft Office Button** in the upper-left corner of the Excel window, and click **Print**.

Tip: You can also press CTRL+` to display and hide formulas.

What's that funny thing in my worksheet?



	A	B	C	D	E	F	G	H	I
1		**Jan**	**Feb**						
2	**Entertainment**								
3	Cable TV	52.98	53						
4	Video rentals	7.98	16						
5	Movies	16.00	####						
6	CDs	18.98	30						
7	**Totals**	95.94	131						

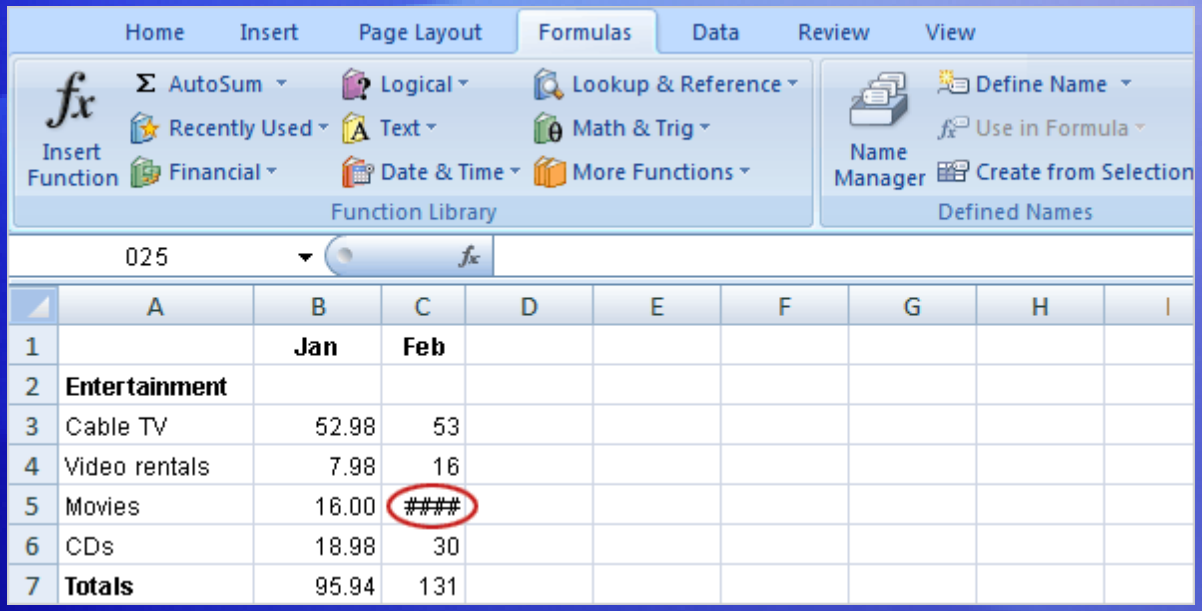
Sometimes Excel can't calculate a formula because the formula contains an error.

If that happens, you'll see an error value in a cell instead of a result.

Here are three common error values:

- #### The column isn't wide enough to display the contents of the cell. To fix the problem, you can increase column width, shrink the contents to fit the column, or apply a different number format.

What's that funny thing in my worksheet?



	A	B	C	D	E	F	G	H	I
1		**Jan**	**Feb**						
2	**Entertainment**								
3	Cable TV	52.98	53						
4	Video rentals	7.98	16						
5	Movies	16.00	####						
6	CDs	18.98	30						
7	**Totals**	95.94	131						

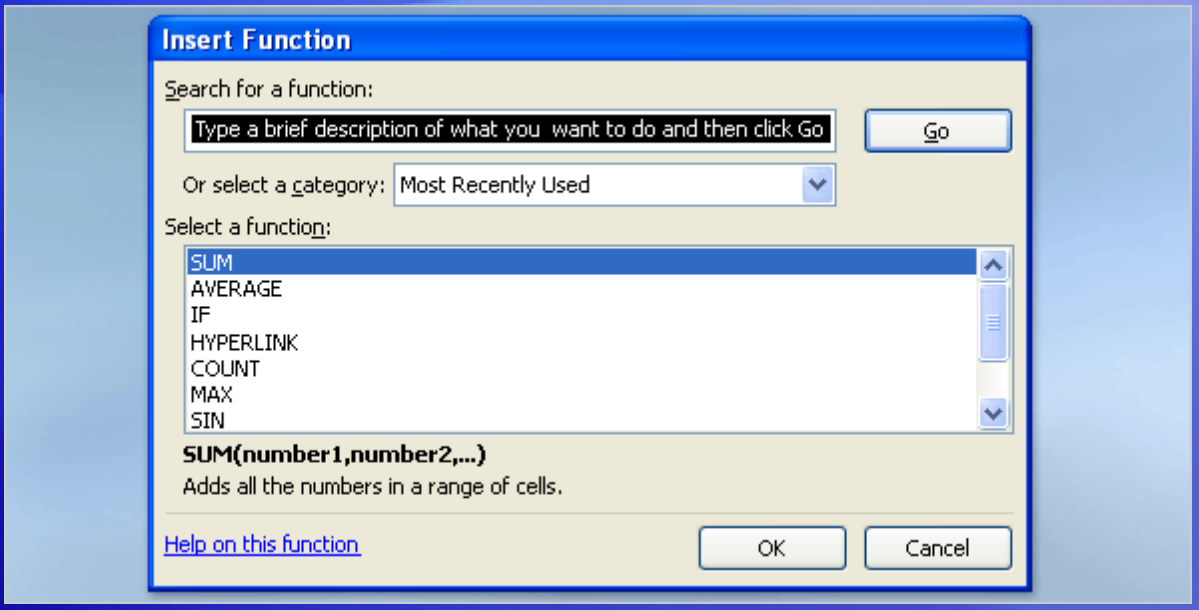
Sometimes Excel can't calculate a formula because the formula contains an error.

If that happens, you'll see an error value in a cell instead of a result.

Here are three common error values:

- **#REF!** A cell reference isn't valid. Cells may have been deleted or pasted over.
- **#NAME?** You may have misspelled a function name or used a name that Excel doesn't recognize.

Find more functions

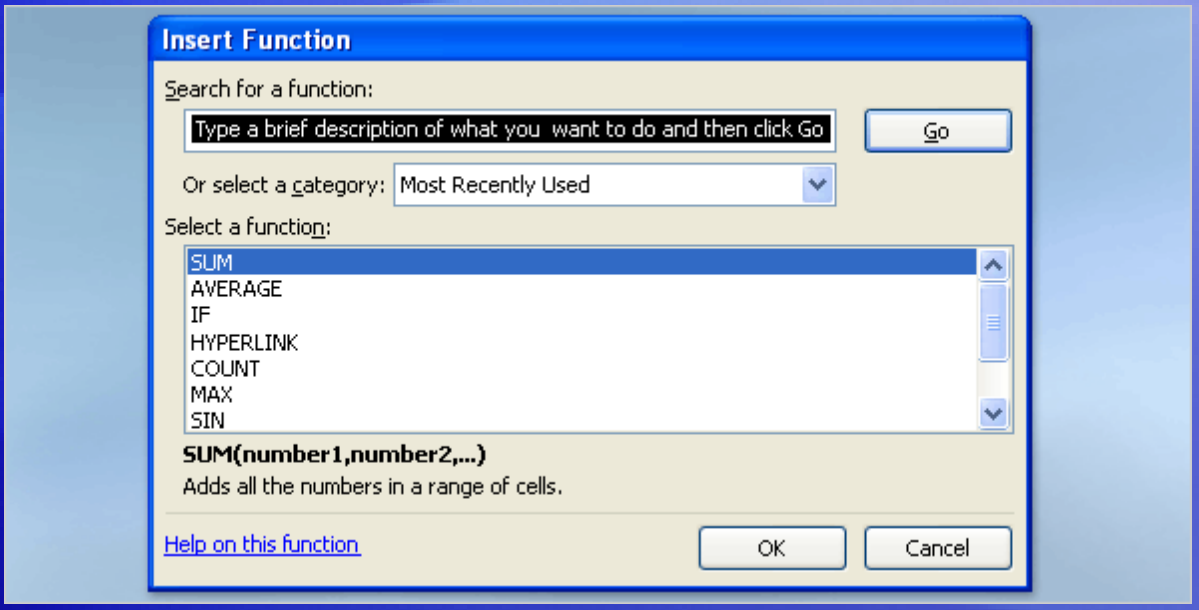


Excel offers many other useful functions, such as date and time functions and functions you can use to manipulate text.

To see all the other functions:

1. Click the **Sum** button in the **Editing** group on the **Home** tab.
2. Click **More Functions** in the list.
3. In the **Insert Function** dialog box that opens, you can search for a function.

Find more functions



Excel offers many other useful functions, such as date and time functions and functions you can use to manipulate text.

In addition to searching for a function in this dialog box, you can select a category and then scroll through the list of functions in the category.

And you can click **Help on this function** at the bottom of the dialog box to find out more about any function.

Suggestions for practice

1. Find an average.
2. Find the largest number.
3. Find the smallest number.
4. Display and hide formulas.
5. Create and fix error values.
6. Create and fix the error value **#NAME?**.

Online practice (requires Excel 2007)

Test 3, question 1

How would you print formulas? (Pick one answer.)

1. Click the **Microsoft Office Button,** and then click **Print**.
2. Click **Normal** on the **View** tab at the top of the screen, click the **Microsoft Office Button**, and then click **Print.**
3. In the **Formula Auditing** group on the **Formulas** tab, click **Show Formulas**; then click the **Microsoft Office Button**, and click **Print.**

Test 3, question 1: Answer

In the **Formula Auditing** group on the **Formulas** tab, click **Show Formulas**; then click the **Microsoft Office Button**, and click **Print**.

Clicking **Show Formulas** displays the formulas on your worksheet before you print.

Test 3, question 2

What does #### mean? (Pick one answer.)

1. The column is not wide enough to display the content of the cell.
2. The cell reference is not valid.
3. You have misspelled a function name or used a name that Excel doesn’t recognize.

Test 3, question 2: Answer

The column is not wide enough to display the content of the cell.

You can increase the column width to display the content.

Test 3, question 3

What is the keyboard shortcut to display formulas on the worksheet? (Pick one answer.)

1. CTRL+`
2. CTRL+:
3. CTRL+;

Test 3, question 3: Answer

CTRL+`

The ` is next to the 1 key on most keyboards. The keyboard shortcut displays and hides formulas.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Excel® 2007 Training

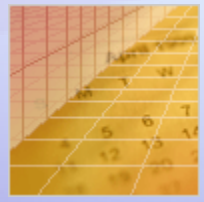
Learn how to figure out dates using formulas in Excel

Course contents

- Overview: It’s a date
- Lesson 1: What dates mean to Excel
- Lesson 2: Calculate dates by using formulas

Each lesson includes a list of suggested tasks and a set of test questions.

Overview: It’s a date



How many workdays until vacation? What’s the finish date for a project?

In this course, we’ll show you how to use formulas to find the number of days between dates.

You can calculate pretty much anything using these formulas — and we’ll even show you how to determine how many days old you are.

Learn how to figure out dates using formulas in Excel

Course goals

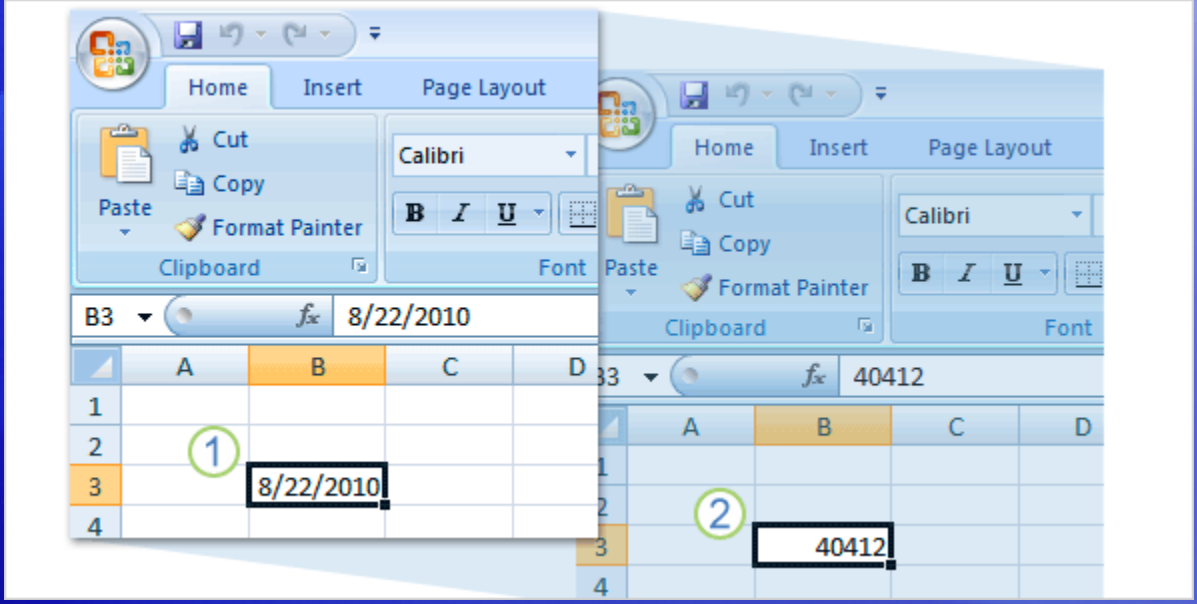
- Use formulas to find the number of days between dates.
- Determine the date that falls after a number of workdays.
- Find a date that falls after a number of years, months, or days.

Learn how to figure out dates
using formulas in Excel

Lesson 1

What dates mean to Excel

What dates mean to Excel



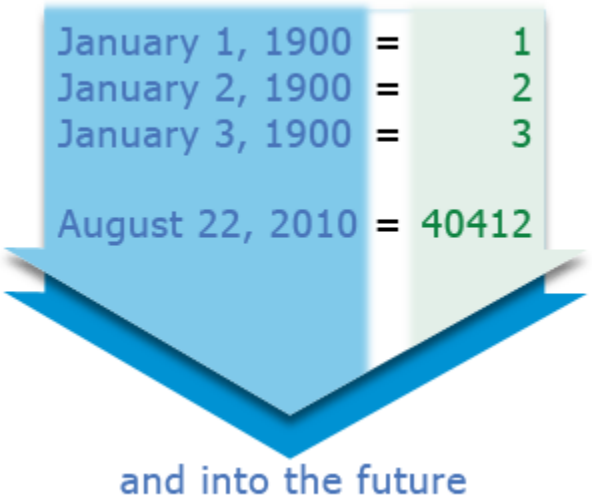
There's a difference between what dates mean to you and what they mean to Excel.

1. To you, 8/22/2010 is a month, day, and year.
2. To Excel, 8/22/2010 is serial number 40412.

In this lesson you'll learn how Excel's view of dates makes it possible to do date arithmetic, and how to enter dates in a format that Excel can understand.

Learn how to figure out dates using formulas in Excel

The calendar starts in 1900



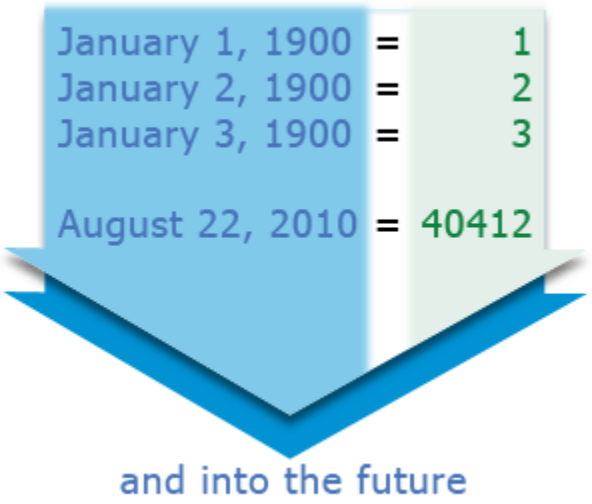
Dates are stored in Excel as serial numbers starting with 1, which represents January 1, 1900. That's when the Excel calendar starts.

Each day after that adds one number to the sequence. For example, January 2, 1900 is stored as 2.

That means if you type 8/22/2010, Excel stores the date as 40412 — or 40411 days from January 1, 1900.

Learn how to figure out dates using formulas in Excel

The calendar starts in 1900

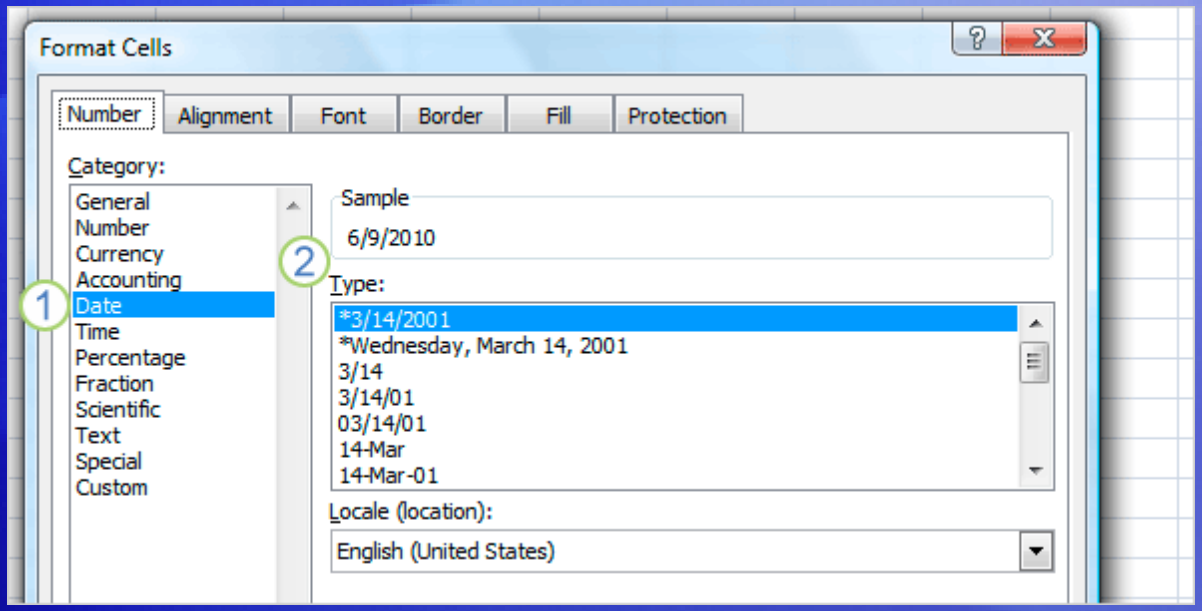


Storing dates as serial numbers makes it possible for Excel to do date arithmetic.

To find the number of days between two dates, for example, Excel subtracts one serial number from another.

Learn how to figure out dates using formulas in Excel

How Excel recognizes dates



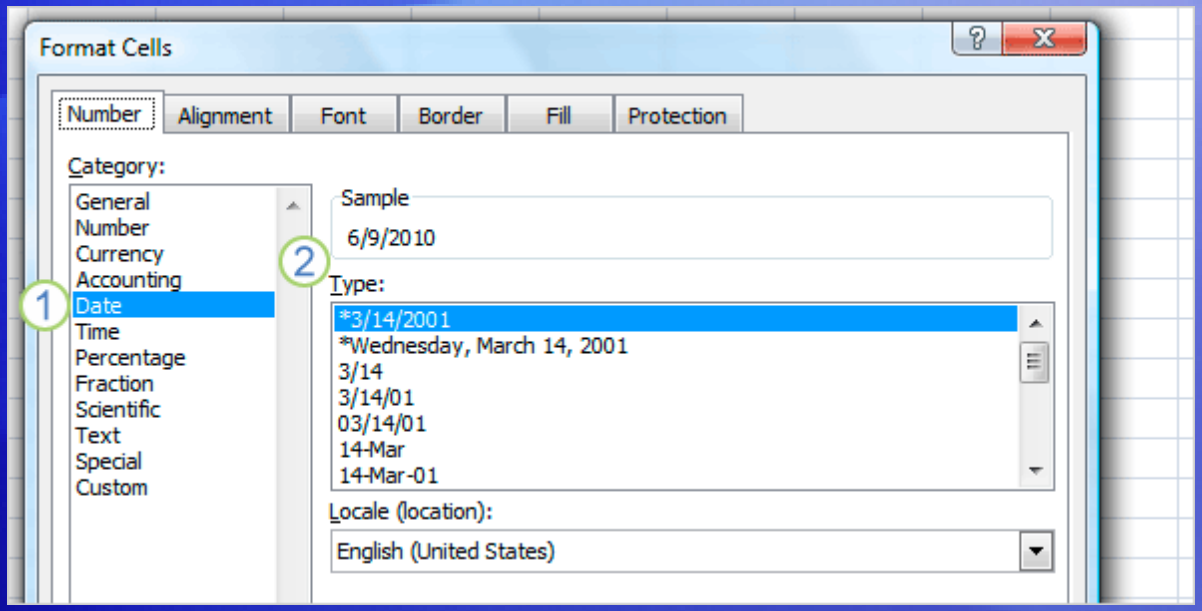
Whether you type 8/22/2010, 22-Aug-2010, or even August 22, 2010, it's all stored as serial number 40412.

The exception is if you use a format that Excel doesn't recognize as a date.

For example, if you typed August-22,2010 or 8,22,10, Excel would store that information as plain text, not a serial number.

Learn how to figure out dates using formulas in Excel

How Excel recognizes dates



Here's how you can change the format—or see some of the other ways you can use slashes or hyphens to format dates.

Right-click a cell with a date in it, and choose **Format Cells**. Then you can:

1. Select **Date** in the **Category** list.
2. Select a date format in the **Type** list.

Learn how to figure out dates using formulas in Excel

Suggestions for practice

1. Format a date as a serial number.
2. Format a serial number as a date.
3. Select different date formats.
4. Enter the current date.

Online practice (requires Excel 2007)

Test 1, question 1

Which of these dates will Excel store as plain text rather than as a serial number? (Pick one answer.)

1. June 23, 2012
2. 23-June-12
3. June 23 2012

Test 1, question 1: Answer

June 23 2012.

This date does not contain any formatting that Excel recognizes as a date.

Test 1, question 2

What would happen if you used a formula to do math with dates, but one of the dates was typed in a format that Excel does not recognize as a date? (Pick one answer.)

1. Excel would display a message telling you to reformat the date.
2. Excel would display an error value.
3. Excel would reformat the date into the correct format.

Test 1, question 2: Answer

Excel would display an error value.

Excel would display #VALUE! instead of a formula result. In this case the error value means that a cell in the formula contains text instead of a date.

Test 1, question 3

8/22/2011 and 22-August-2011 are stored as different serial numbers. (Pick one answer.)

1. True.
2. False.

Test 1, question 3: Answer

False.

Same date, same number.

Lesson 2

Calculate dates by using formulas

Calculate dates by using formulas

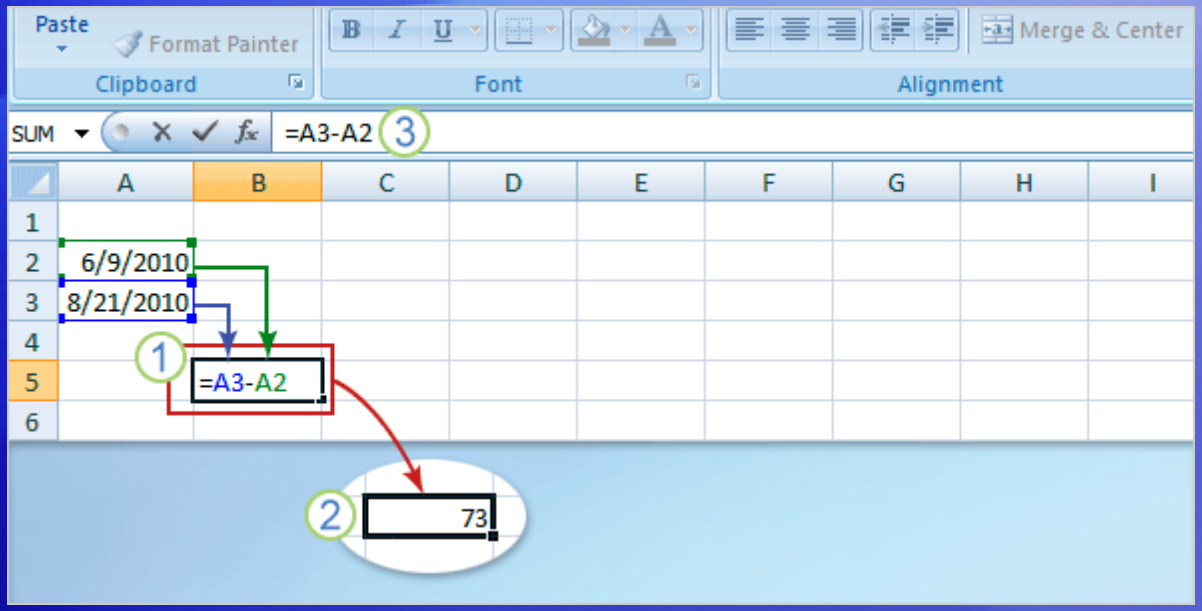
Function	Used to find
NETWORKDAYS	Net number of workdays between two dates
WORKDAY	Date that falls a specified number of workdays after another date
DATE	Date that falls a specified number of years, months, or days after another
TODAY	Current date

To do arithmetic in Excel, you use formulas.

In this lesson, you'll learn how to use a simple formula to find the number of days between two dates, and you'll see why it's very important to type dates so that Excel can recognize them.

Learn how to figure out dates using formulas in Excel

Find the number of days between two dates

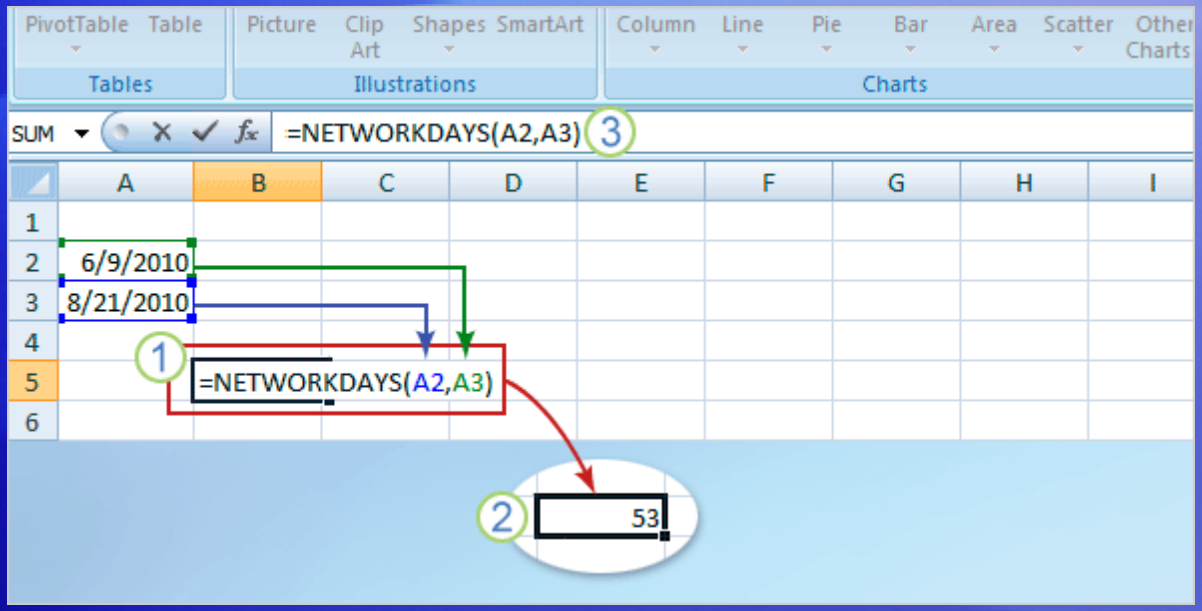


Imagine that today is June 9, 2010. Your vacation starts on Aug. 21, 2010. You want to find out how many days there are until vacation. Here's how to do the math.

1. Type a simple formula into an empty cell: **=A3-A2**
2. The result is that there are 73 days between the two dates.
3. The formula is visible in the formula bar near the top of the worksheet whenever you select the cell that contains the formula.

Learn how to figure out dates using formulas in Excel

Find the number of workdays between two dates

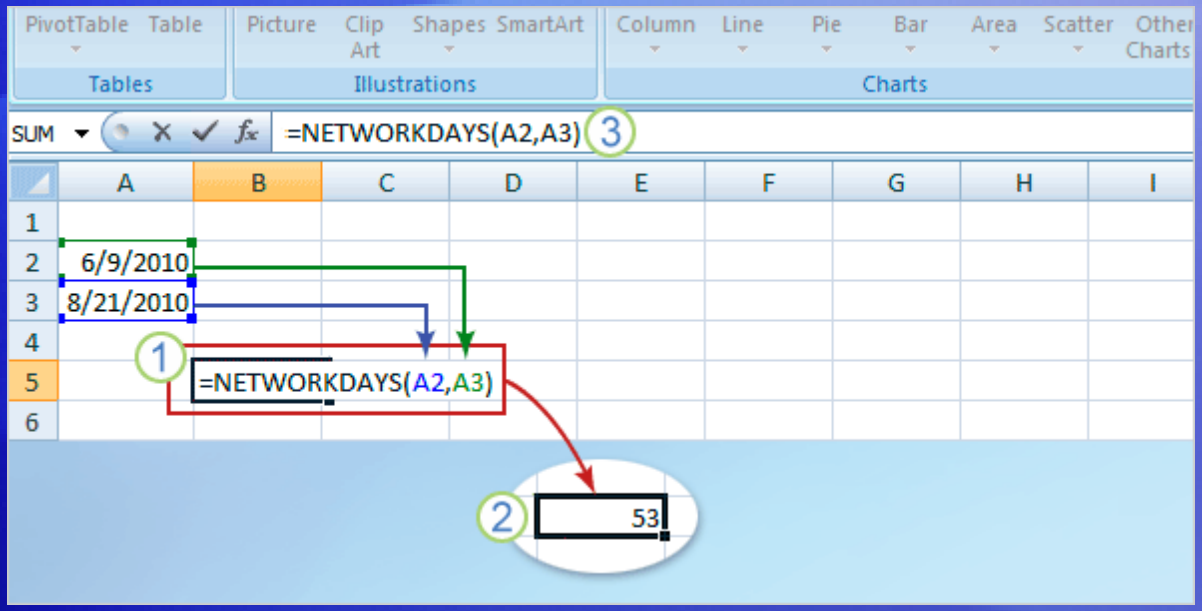


Finding the number of workdays (Monday through Friday) between two dates can't be done by simply subtracting one date from another.

It requires a prewritten formula called the NETWORKDAYS function, which calculates the net number of workdays between two dates.

Learn how to figure out dates using formulas in Excel

Find the number of workdays between two dates

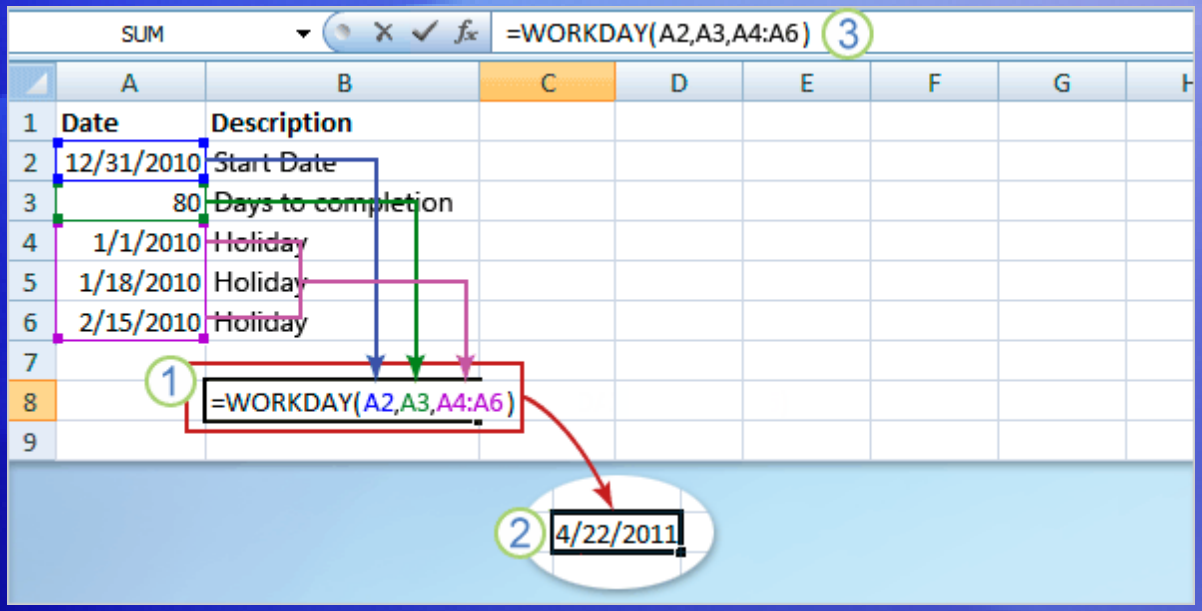


It's still June 9, 2010, and your vacation still starts on August 21, 2010, but now you want to find how many workdays until vacation.

1. Type the formula **=NETWORKDAYS(A2,A3)**
2. The result is that there are 53 workdays until vacation.
3. Once again, the formula is visible in the formula bar near the top of the worksheet whenever you select the cell that contains the formula.

Learn how to figure out dates using formulas in Excel

Find the date after a number of workdays



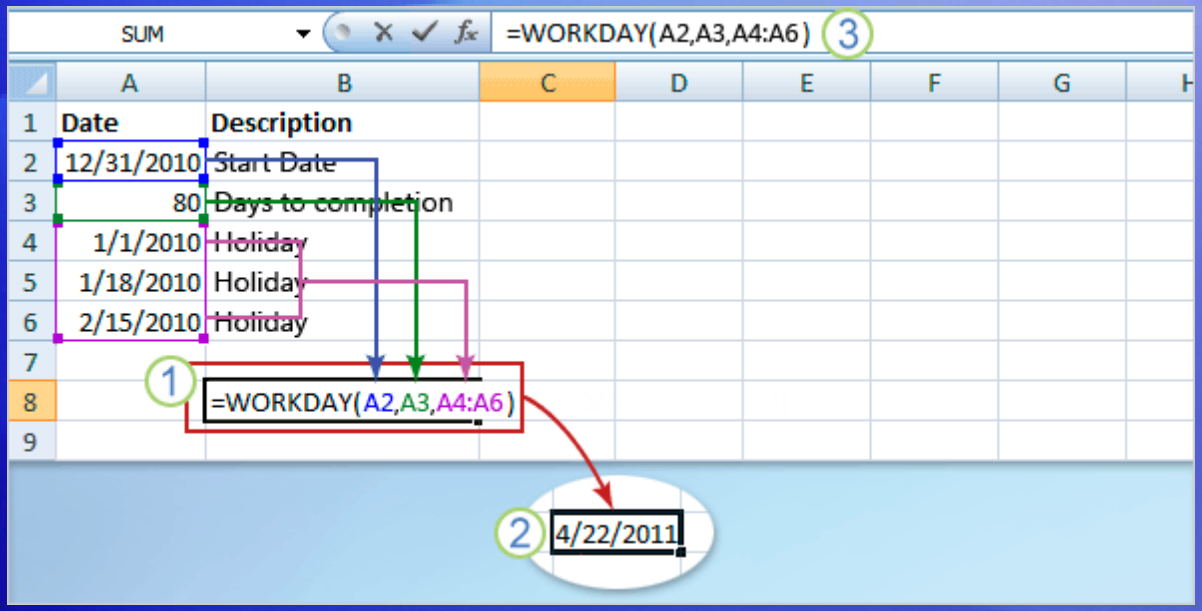
Suppose you need to find a date, such as an invoice due date or project end date that occurs a number of workdays before or after a certain date. It's easy using the WORKDAY function.

Imagine that you have approximately 80 workdays in which to complete a project that begins on 12/31/2010, and you need to find the project end date.

First you'd enter those values into cells A2 and A3 as shown. Next, you'd enter the dates of any holidays likely to affect the calculation, each holiday in its own cell.

Learn how to figure out dates using formulas in Excel

Find the date after a number of workdays

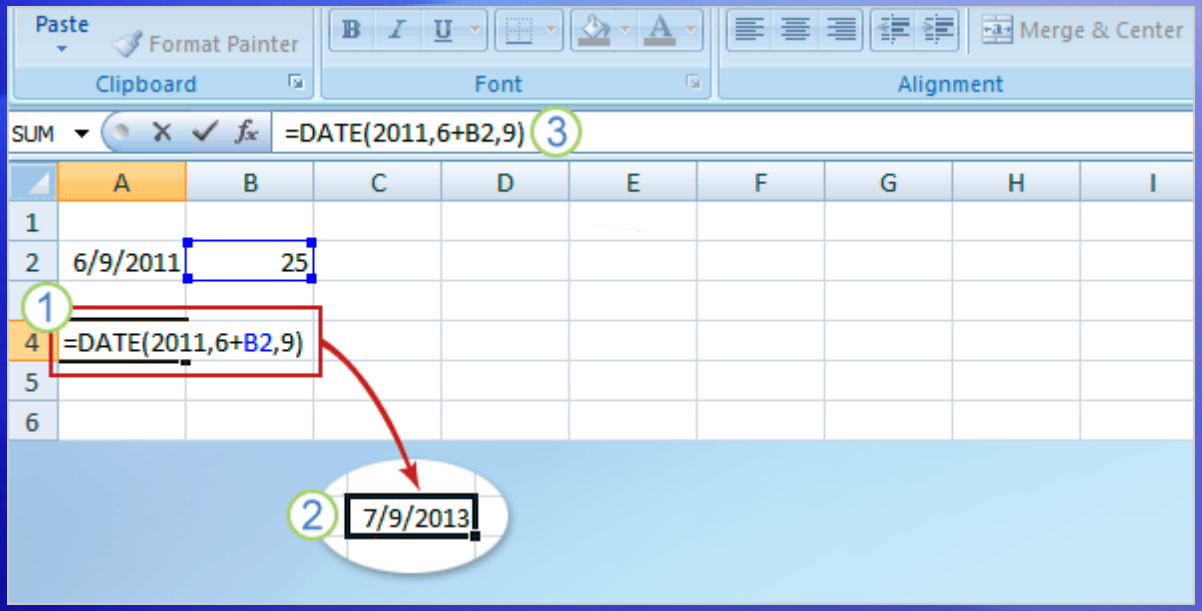


Suppose you need to find a date, such as an invoice due date or project end date that occurs a number of workdays before or after a certain date. It's easy using the WORKDAY function.

1. Then you would type the formula into an empty cell: **=WORKDAY(A2,A3,A4:A6)**
2. …and find that the project must be completed by 4/22/2011.

Learn how to figure out dates using formulas in Excel

Find the date after a number of months



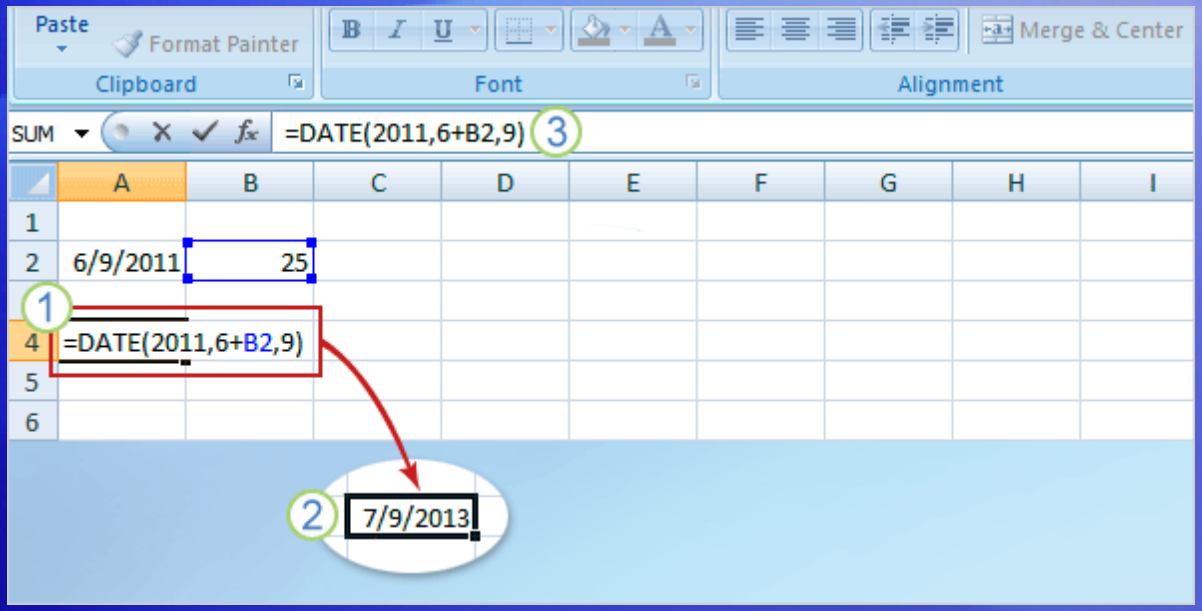
Say that you have about 25 months from 6/9/2011 to complete a project, and you need to find the project end date.

You could do that by using the DATE function.

The DATE function has three arguments: year, month, and day.

Learn how to figure out dates using formulas in Excel

Find the date after a number of months

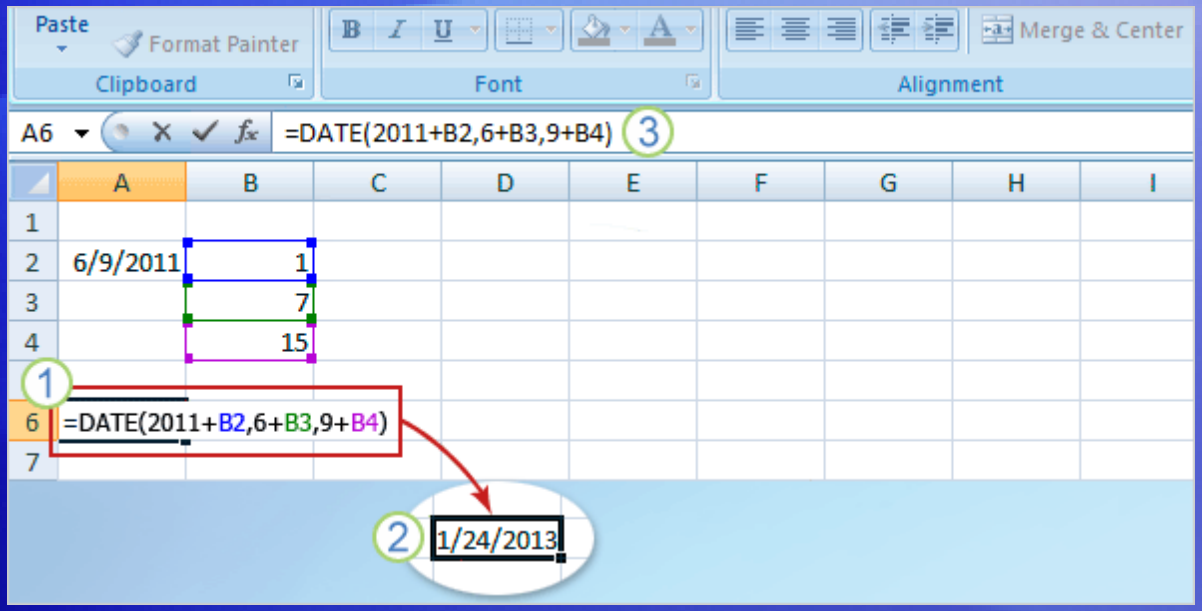


In this example, you'd start by entering 25 in cell B2.

1. Type this formula in cell A4: **=DATE(2011,6+B2,9)**
2. The project ends on 7/9/2013.
3. The formula is shown in the formula bar.

Learn how to figure out dates using formulas in Excel

Find the date after a number of years, months, days

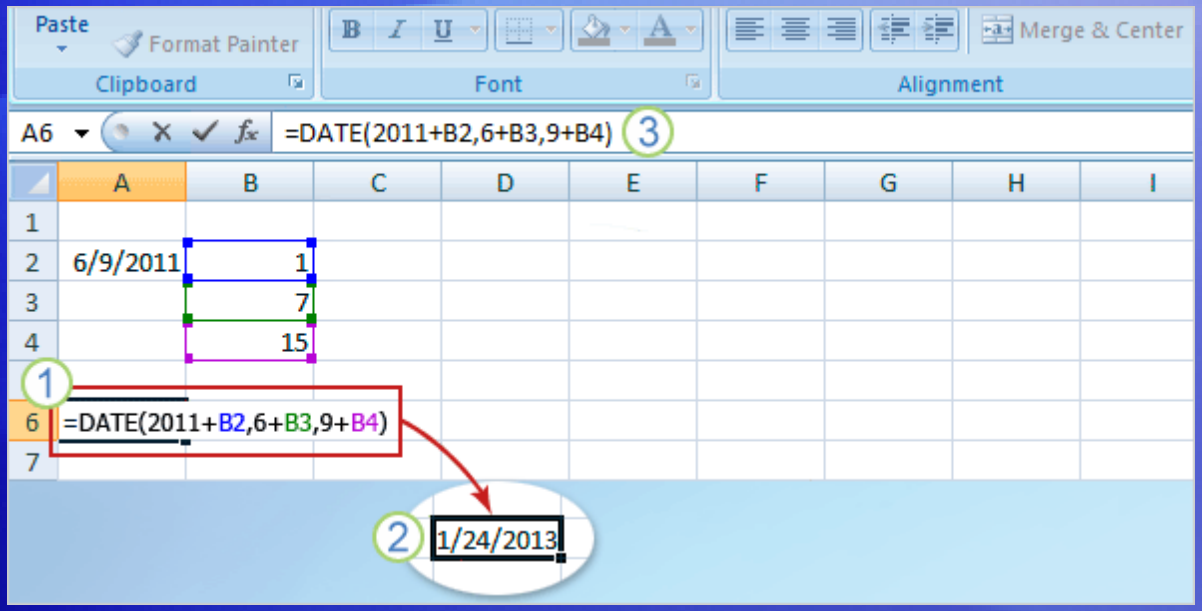


Imagine that you've been given an estimate of 1 year and 7 and a half months (15 days) to finish a project, and you need to find the project end date.

You can use the DATE formula once again.

Learn how to figure out dates using formulas in Excel

Find the date after a number of years, months, days

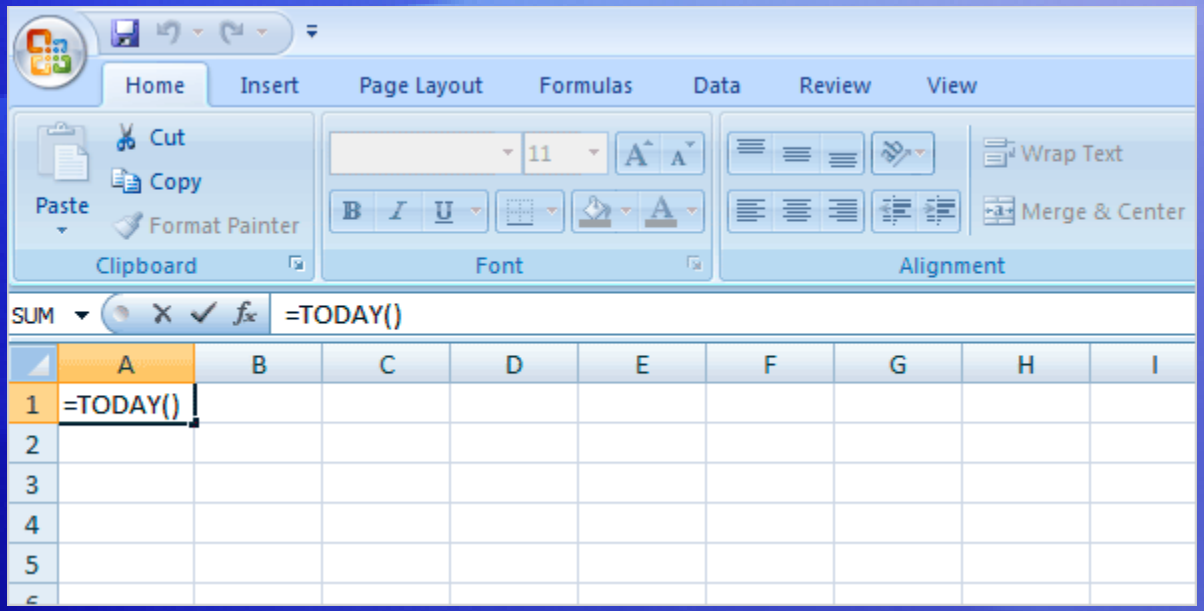


Start by entering those values into cells, as shown in the picture.

1. Then type this formula into cell A6: **=DATE(2011+B2,6+B3,9+B4)**.
2. The result shows that the project ends on January 24, 2013.
3. The formula is shown in the formula bar.

Learn how to figure out dates using formulas in Excel

Using the TODAY function



The TODAY function is unusual; it's one of the few Excel functions that doesn't require any argument, although it does require opening and closing parentheses: **=TODAY()**

TODAY inserts the current date, which is updated each time a workbook is opened or recalculated.

You can use it to find out things like how many days old you are, based on today's date.

Learn how to figure out dates using formulas in Excel

Suggestions for practice

1. Find the total number of days between two dates.
2. Find the number of workdays between two dates.
3. Find the date after a number of workdays.
4. Find the number of workdays before a date.
5. Find the date after a number of months.
6. Find the date after a number of years, months, and days.
7. Update formula results.
8. Find out how many days old you are today.

Online practice (requires Excel 2007)

Test 2, question 1

Which function would you use to find the date that falls after a number of workdays? (Pick one answer.)

1. NETWORKDAYS
2. WORKDAY
3. TODAY

Test 2, question 1: Answer

WORKDAY

Use WORKDAY to find a date, such as a due date or end date, that is a number of workdays before or after a date.

Test 2, question 2

What do you type to start a formula in Excel? (Pick one answer.)

1. A function.
2. Mathematical operators.
3. An equal sign (=).

Test 2, question 2: Answer

An equal sign (=).

Every formula begins with an equal sign. If a formula does not produce results, check to see if there's an equal sign at the beginning.

Test 2, question 3

How many arguments does the DATE function have? (Pick one answer.)

1. One.
2. Two.
3. Three.

Test 2, question 3: Answer

Three.

The arguments are year, month, and day.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Excel® 2007 Training

Get up to speed

Course contents

- Overview: A hands-on introduction
- Lesson 1: What's changed, and why
- Lesson 2: Get to work in Excel
- Lesson 3: A new file format

The first two lessons include a list of suggested tasks, and all include a set of test questions.

Overview: A hands-on introduction

Excel 2007 has a new look! It's got the familiar worksheets you're accustomed to, but with some changes.

Notably, the old look of menus and buttons at the top of the window has been replaced with **the Ribbon**.

This course shows you how to use the Ribbon and highlights the other changes in Excel that will help you make better worksheets, faster.

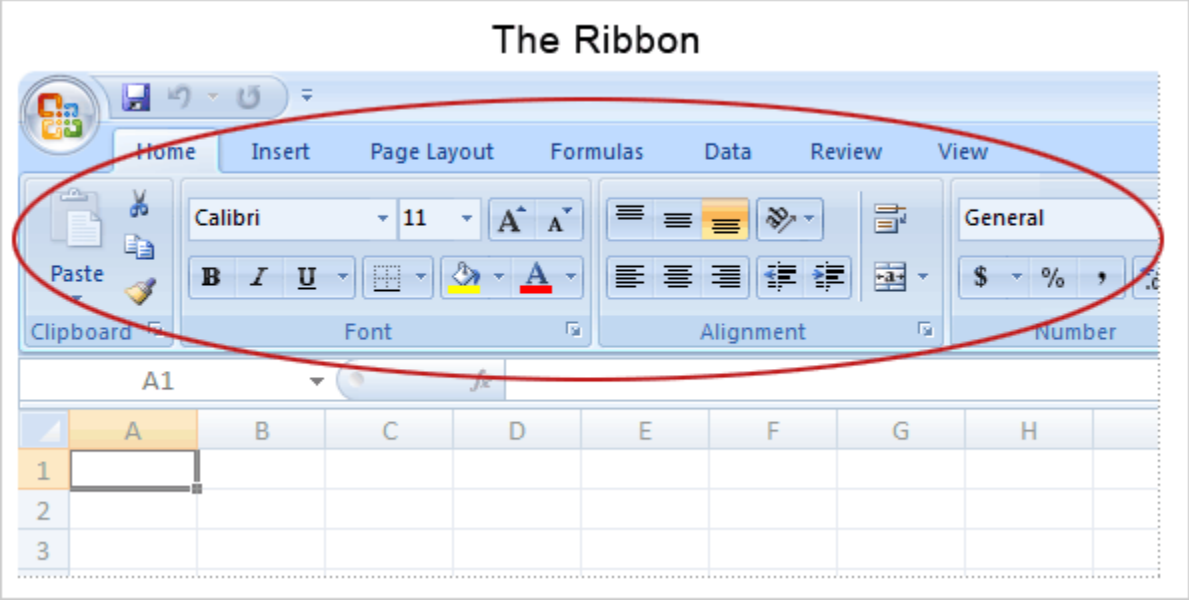
Course goals

- Get a handle on the new look of Excel.
- Find everyday commands on the Ribbon: **Cut**, **Copy**, **Paste**, **Insert Sheet Rows**, **Insert Sheet Columns**, and **Sum**.
- Save workbooks in the new Excel file formats.

Lesson 1

What’s changed, and why

What's changed, and why

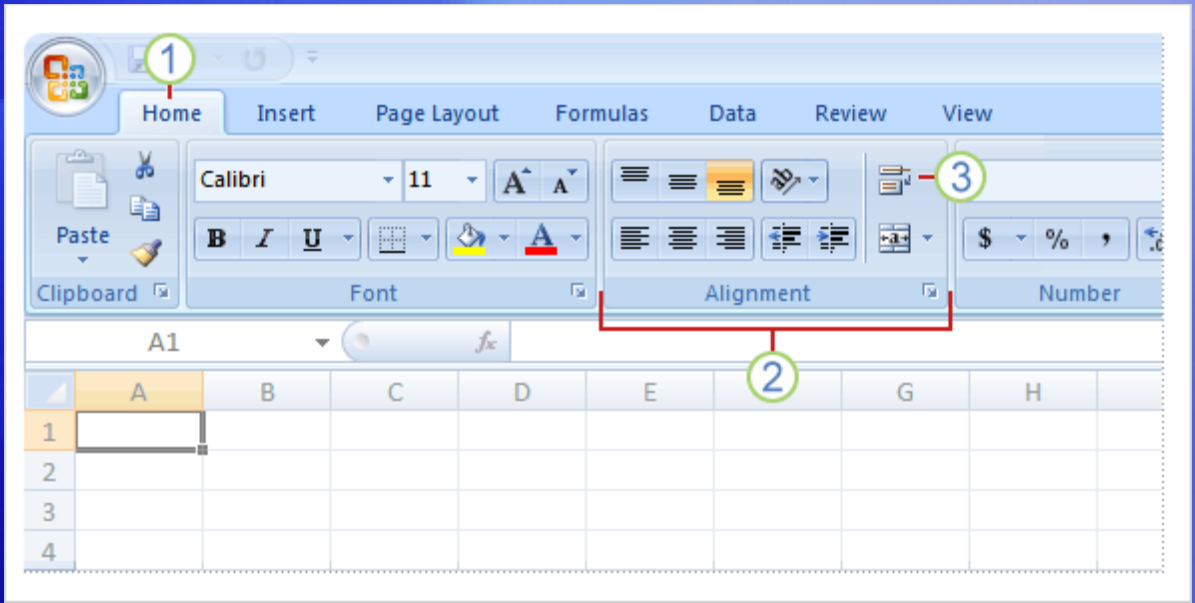


Yes, there's a lot of change in Excel 2007. It's most noticeable at the top of the window.

But it's good change.

The commands you need are now more clearly visible and more readily available in one control center called **the Ribbon**.

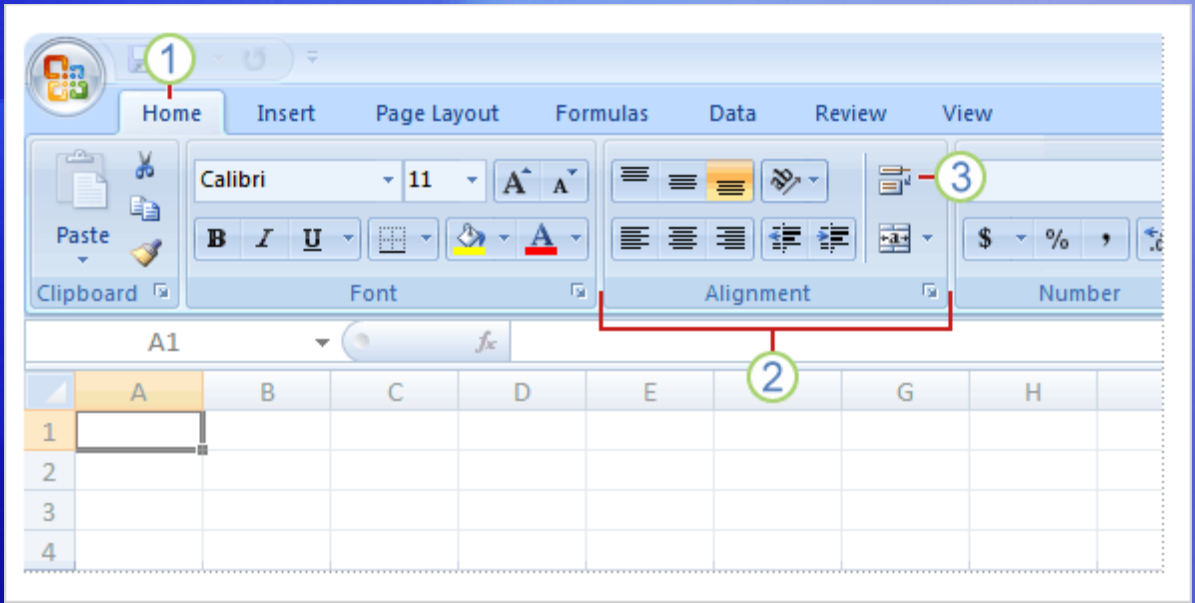
What's on the Ribbon?



The three parts of the Ribbon are tabs, groups, and commands.

1. **Tabs:** Tabs represent core tasks you do in Excel. There are seven tabs across the top of the Excel window.
2. **Groups:** Groups are sets of related commands, displayed on tabs.
3. **Commands:** A command is a button, a menu, or a box where you enter information.

What's on the Ribbon?

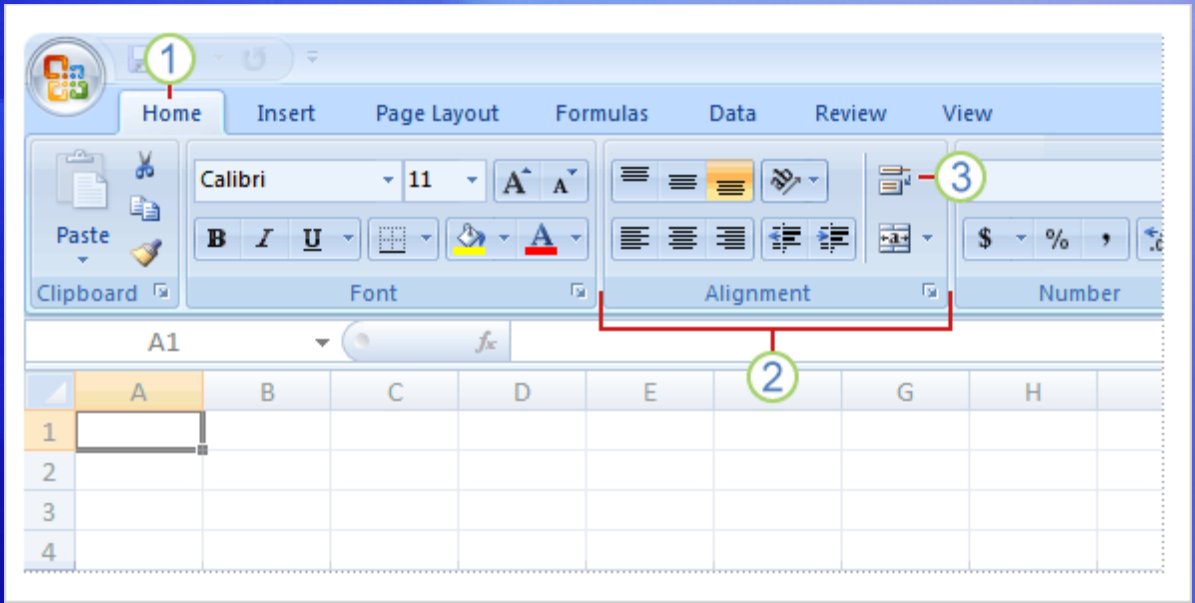


How do you get started on the Ribbon?

Begin at the beginning.

The principal commands in Excel are gathered on the first tab, the **Home** tab.

What's on the Ribbon?

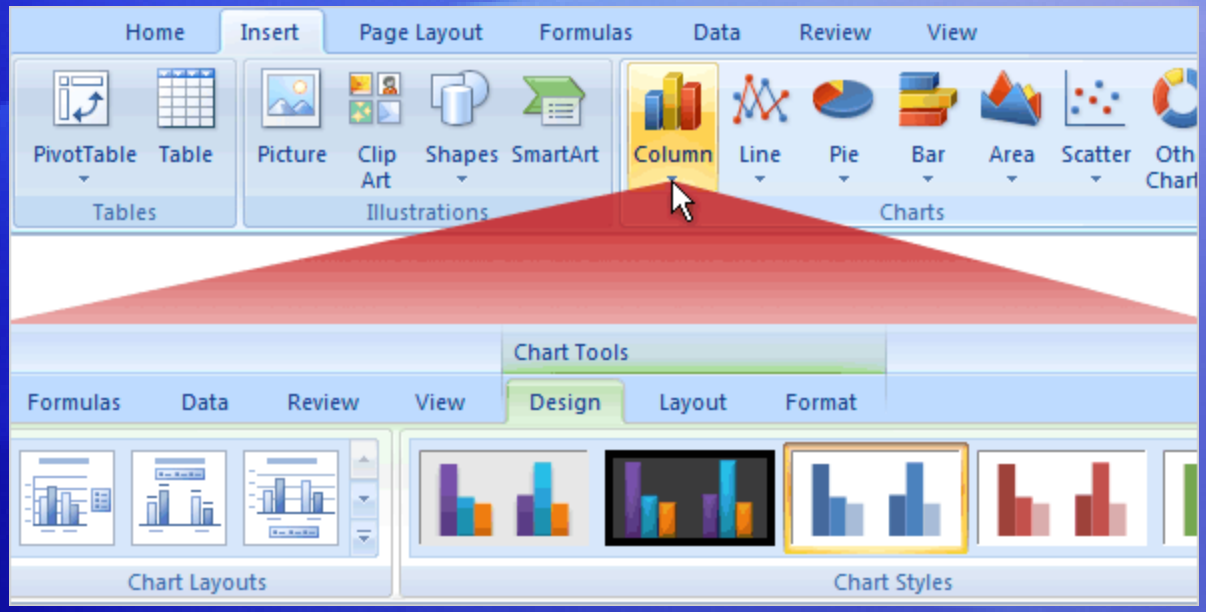


Groups pull together all the commands you're likely to need for a particular type of task.

Throughout your task, groups remain on display and readily available; commands are no longer hidden in menus.

Instead, vital commands are visible above your work space.

More commands, but only when you need them

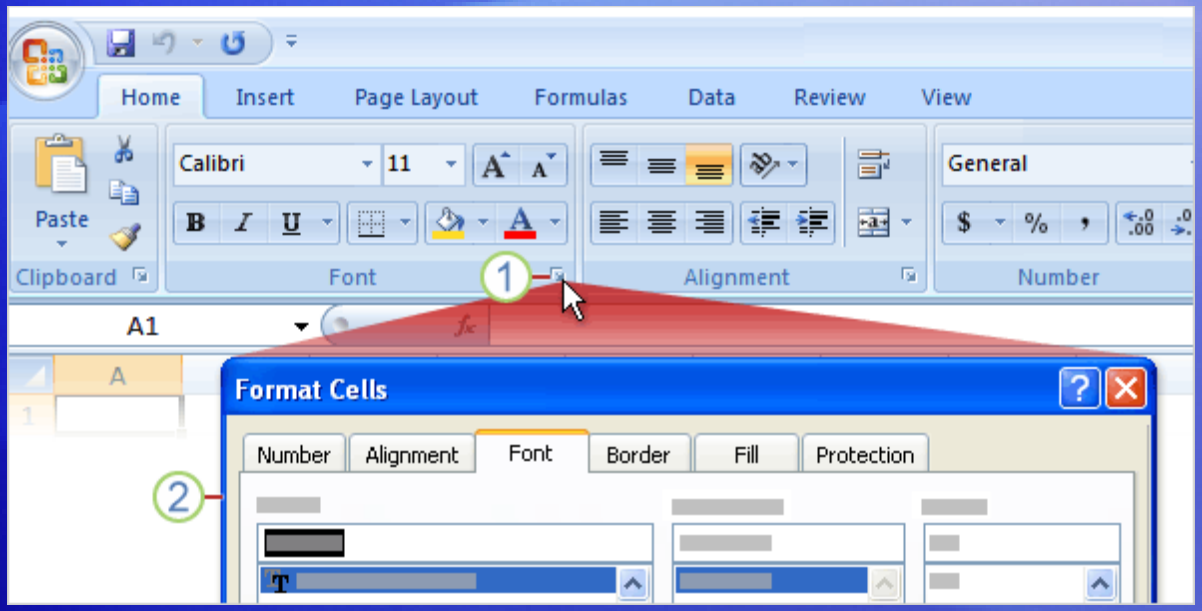


The commands on the Ribbon are the ones you use the most.

Instead of showing every command all the time, Excel 2007 shows some commands only when you may need them, in response to an action you take.

So don't worry if you don't see *all* the commands you need at all times. Take the first steps, and the commands you need will be at hand.

More options, if you need them



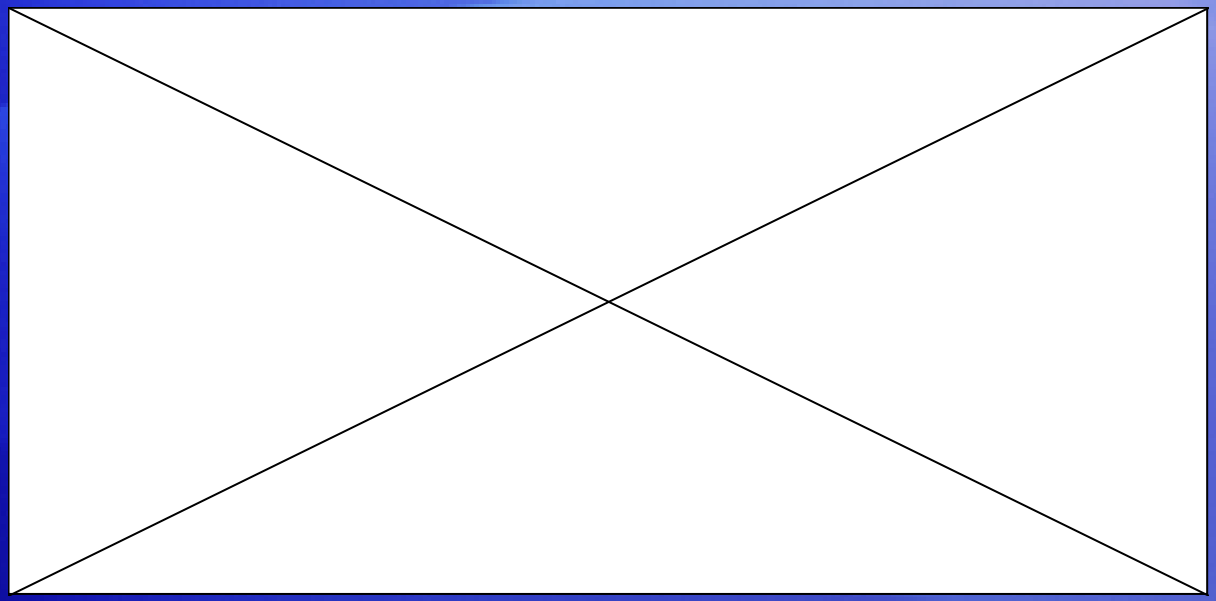
Sometimes an arrow, called the **Dialog Box Launcher**, appears in the lower-right corner of a group.

This means more options are available for the group.

Click the Dialog Box Launcher, and you'll see a dialog box or task pane. The picture shows an example:

1. On the **Home** tab, click the arrow in the **Font** group.
2. The **Format Cells** dialog box opens, with superscript and other options related to fonts.

Put commands on your own toolbar



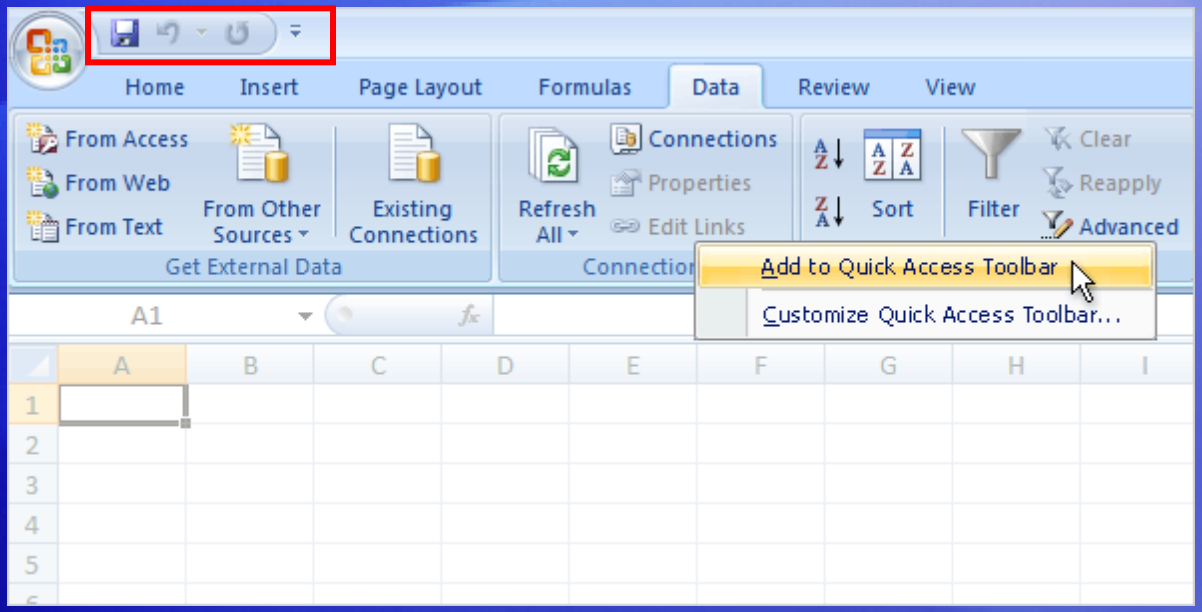
Do you often use commands that aren't as quickly available as you'd like?

You can easily add them to the **Quick Access Toolbar**.

Animation: Right-click, and click **Play**.

Play the animation to see the process of adding a button to the toolbar and then removing a button from the toolbar.

Put commands on your own toolbar

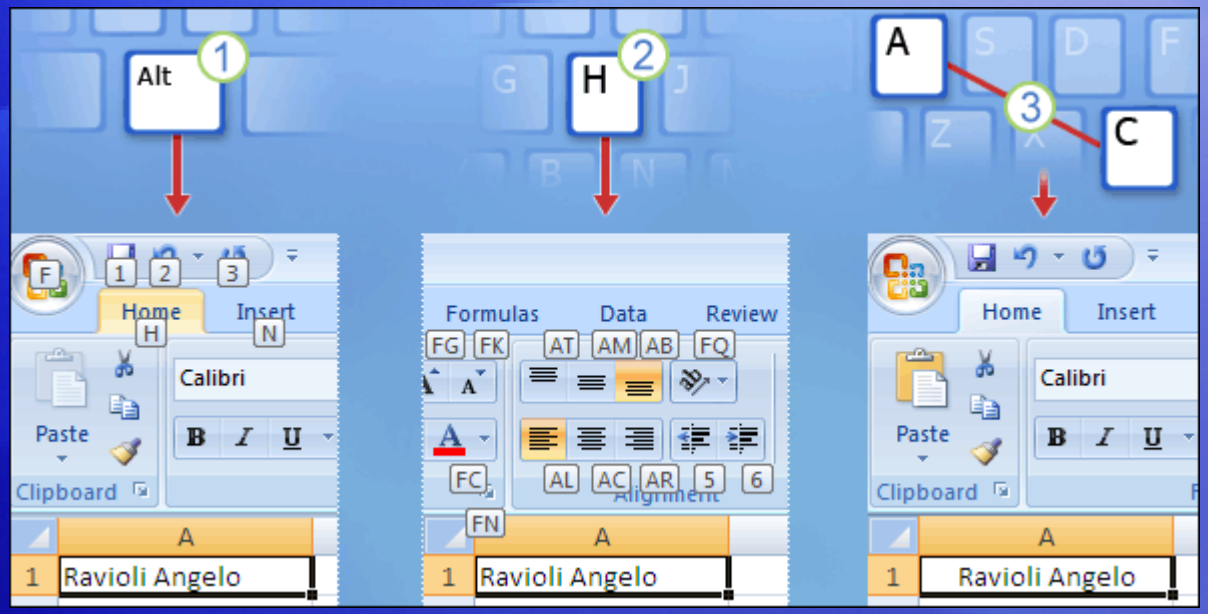


Do you often use commands that aren't as quickly available as you'd like?

You can easily add them to the **Quick Access Toolbar**.

The Quick Access Toolbar is above the Ribbon when you first start Excel 2007. There, commands are always visible and near at hand.

What about favorite keyboard shortcuts?

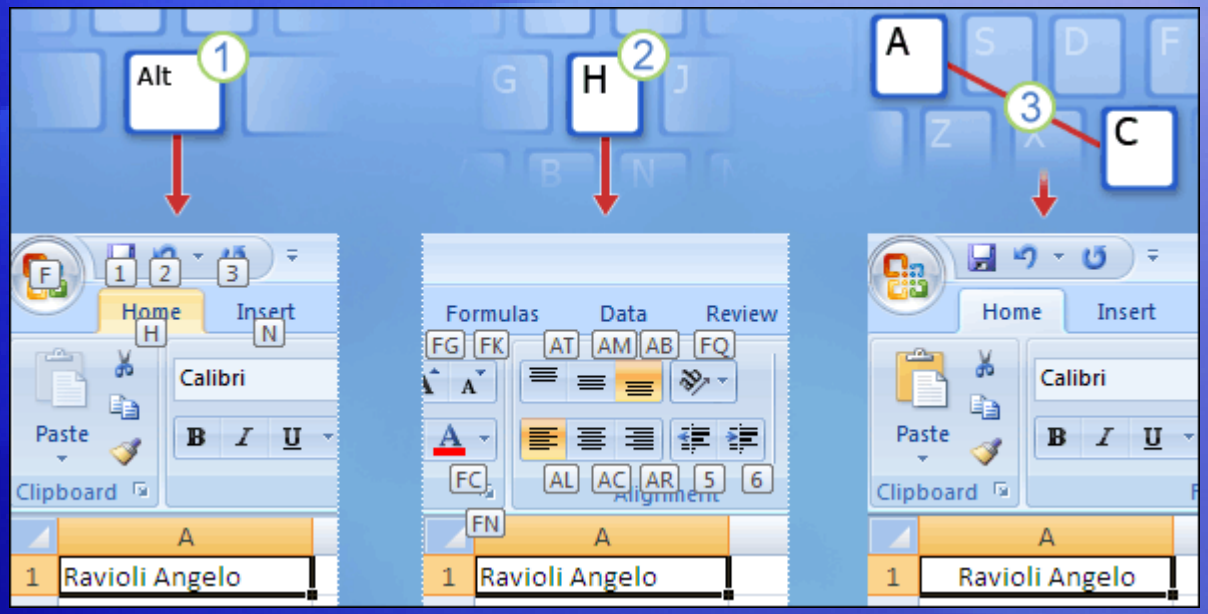


If you rely on the keyboard more than the mouse, you'll want to know that the Ribbon design comes with new shortcuts.

This change brings two big advantages over previous versions of Excel:

- There are shortcuts for every single button on the Ribbon.
- Shortcuts often require fewer keys.

What about favorite keyboard shortcuts?



The new shortcuts also have a new name: **Key Tips**.

You press ALT to make Key Tips appear.

For example, here's how to use Key Tips to center text:

1. Press ALT to make the Key Tips appear.
2. Press H to select the **Home** tab.
3. Press A, then C to center the selected text.

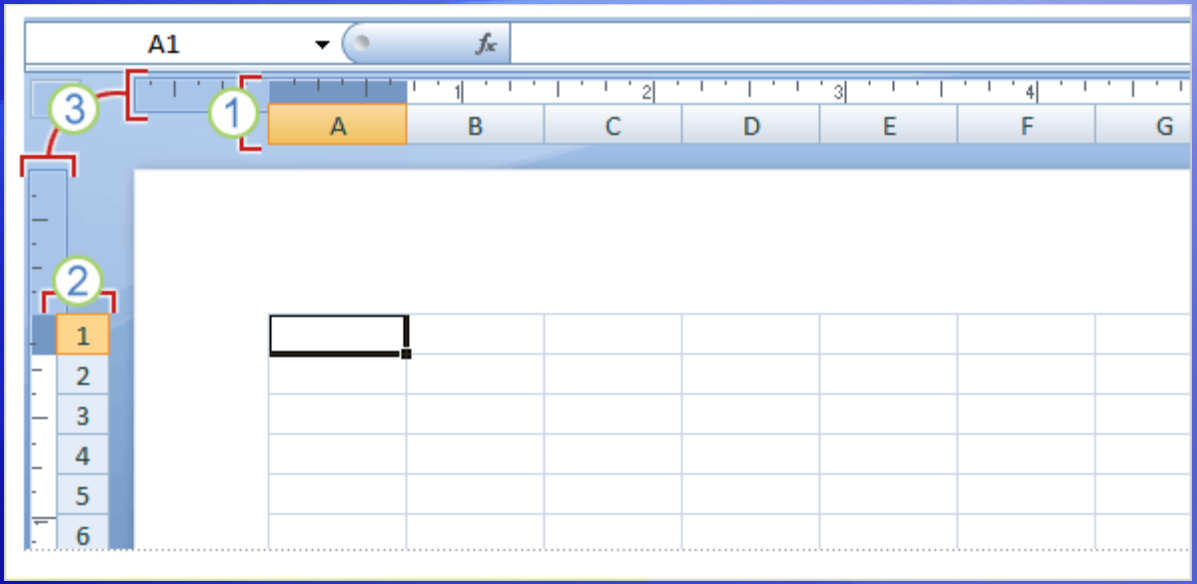
What about favorite keyboard shortcuts?

What about the old keyboard shortcuts?

Keyboard shortcuts of old that begin with CTRL are still intact, and you can use them the same way you always have.

For example, the shortcut CTRL+C still copies something to the clipboard, and the shortcut CTRL+V still pastes something from the clipboard.

A new view

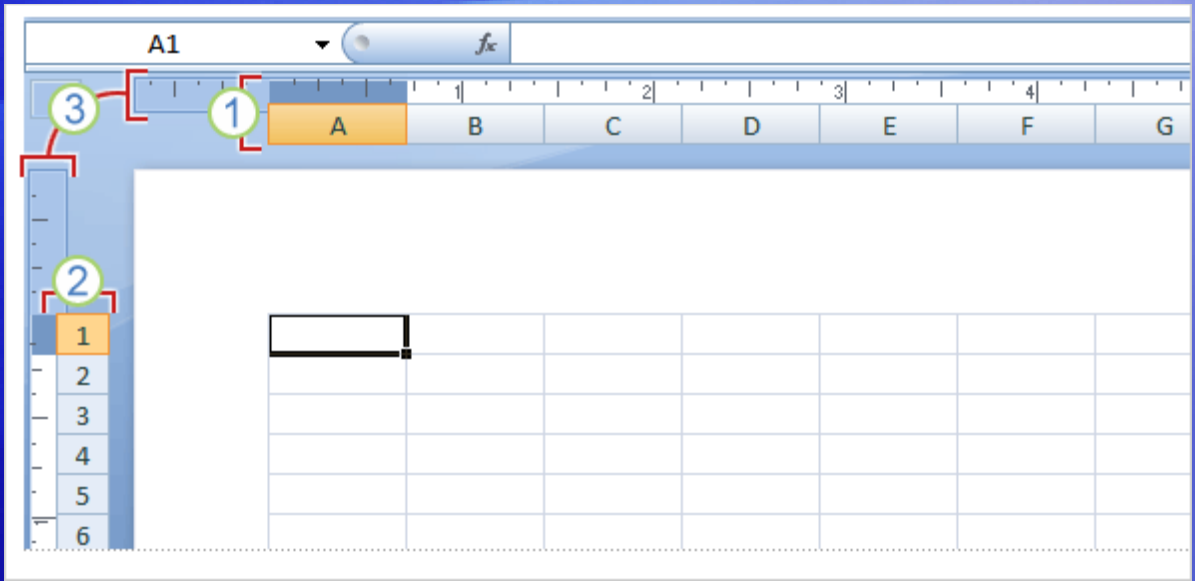


Not only the Ribbon is new in Excel 2007.

Page Layout view is new, too.

If you've worked in Print Layout view in Microsoft Office Word, you'll be glad to see Excel with similar advantages.

A new view

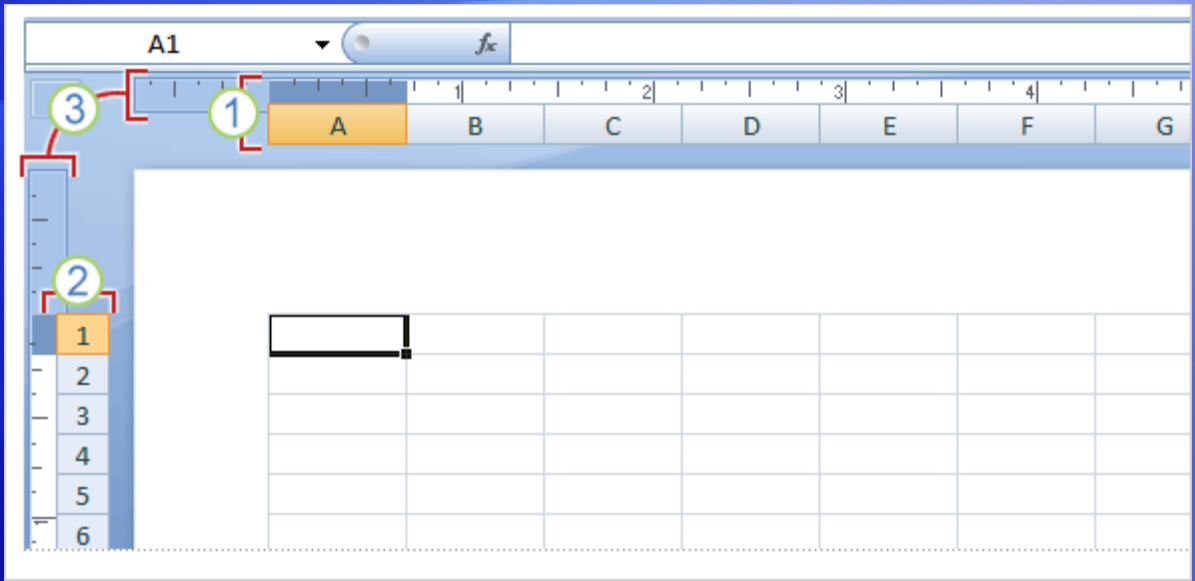


To see the new view, click **Page Layout View** on the **View** toolbar .

Here's what you'll see in the worksheet:

1. Column headings.
2. Row headings.
3. Margin rulers.

A new view



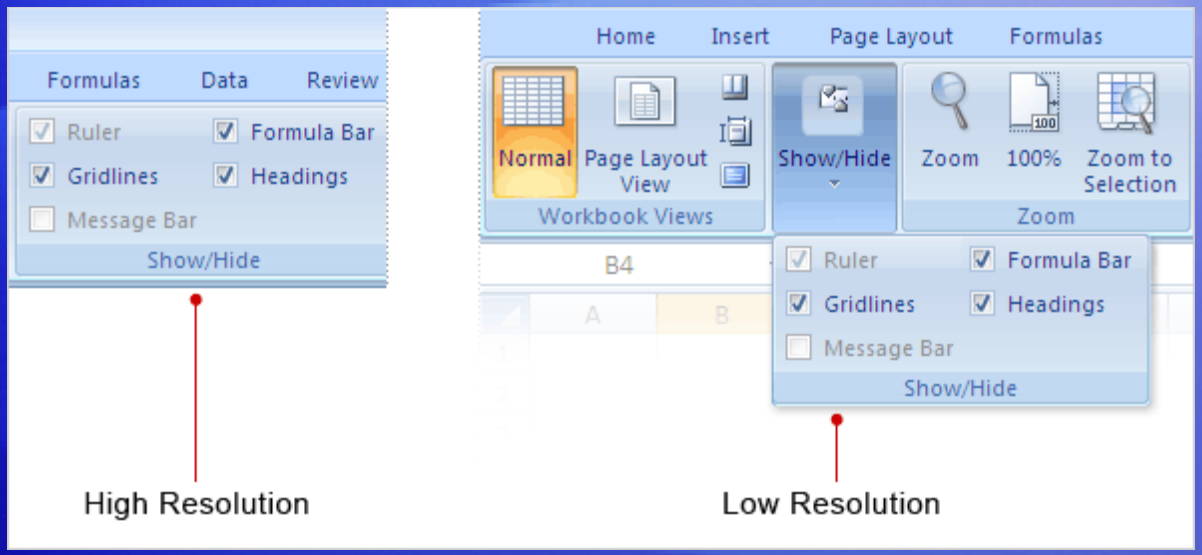
In Page Layout view there are page margins at the top, sides, and bottom of the worksheet, and a bit of blue space between worksheets.

Rulers at the top and side help you adjust margins.

Other benefits of the new view:

- You don't need to use Print Preview to find problems before you print.
- It's easier than ever to add headers and footers.
- You can see different worksheets in different views.

Working with different screen resolutions



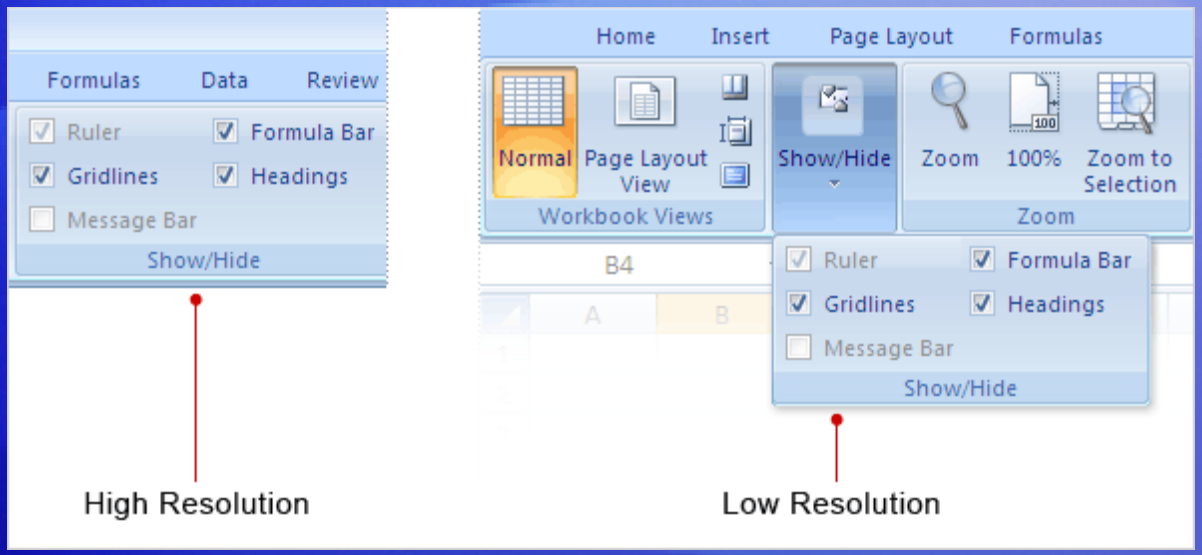
Everything described so far applies if your screen is set to high resolution and the Excel window is maximized.

If not, things look different.

When and how do things look different?

- **At low resolution.** If your screen is set to a low resolution, for example to 800 by 600 pixels, a few groups on the Ribbon will display the group name only, not the commands in the group.

Working with different screen resolutions



Everything described so far applies if your screen is set to high resolution and the Excel window is maximized.

If not, things look different.

When and how do things look different?

- **When the Excel window isn't maximized.** Some groups will display only the group name.
- **With Tablet PCs.** On those with smaller screens, the Ribbon adjusts to show smaller versions of tabs and groups.

Suggestions for practice

1. Enter text.
2. Adjust column width.
3. Change document views.
4. Show or hide white space.
5. Add a button to the Quick Access Toolbar.

Online practice (requires Excel 2007)

Test 1, question 1

You can customize Excel 2007 by adding commands to the Quick Access Toolbar. (Pick one answer.)

1. True.
2. False.

Test 1, question 1: Answer

True.

You can add the commands you want to be at your fingertips to the Quick Access Toolbar.

Test 1, question 2

Some commands appear only when you need them. (Pick one answer.)

1. True.
2. False.

Test 1, question 2: Answer

True.

Take the first step or two, and a new tab will appear, with all the commands you need. For example, insert a chart, or a header and footer, and you'll see more commands.

Lesson 2

Get to work in Excel

Get to work in Excel

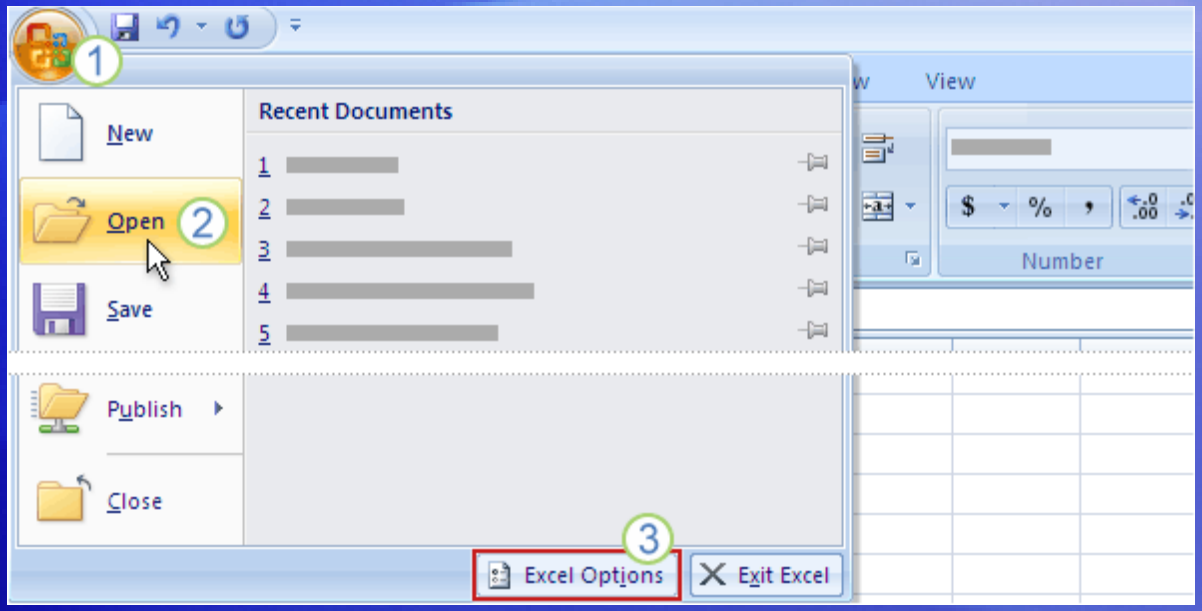
The first lesson helped you get oriented to the new look of Excel 2007.

Now it’s time to get to work.

Say you’ve got a half hour before your next meeting to make some revisions to a worksheet that you created in a previous version of Excel.

Can you do the basic things you need to do in Excel 2007, in just 30 minutes? This lesson will show you how.

Open your file

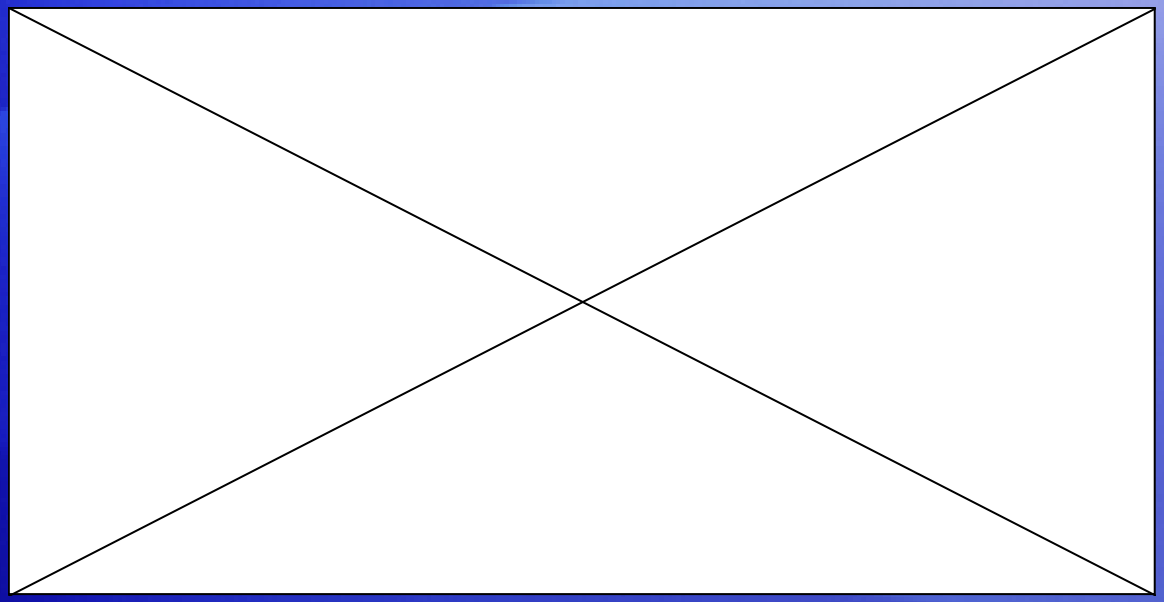


First things first. You want to open an existing workbook created in an earlier version of Excel.

Do the following:

1. Click the **Microsoft Office Button** .
2. Click **Open**, and select the workbook you want.
3. Also note that you can click **Excel Options**, at the bottom of the menu, to set program options.

Insert a column



Now you want to add a column to your worksheet to identify product categories.

You want it to go between two existing columns of data.

Animation: Right-click, and click **Play**.

View the animation to see the process of inserting a column into the worksheet.

Insert a column

Now you want to add a column to your worksheet to identify product categories.

It should go between two existing columns of data, **Quantity** and **Supplier**.

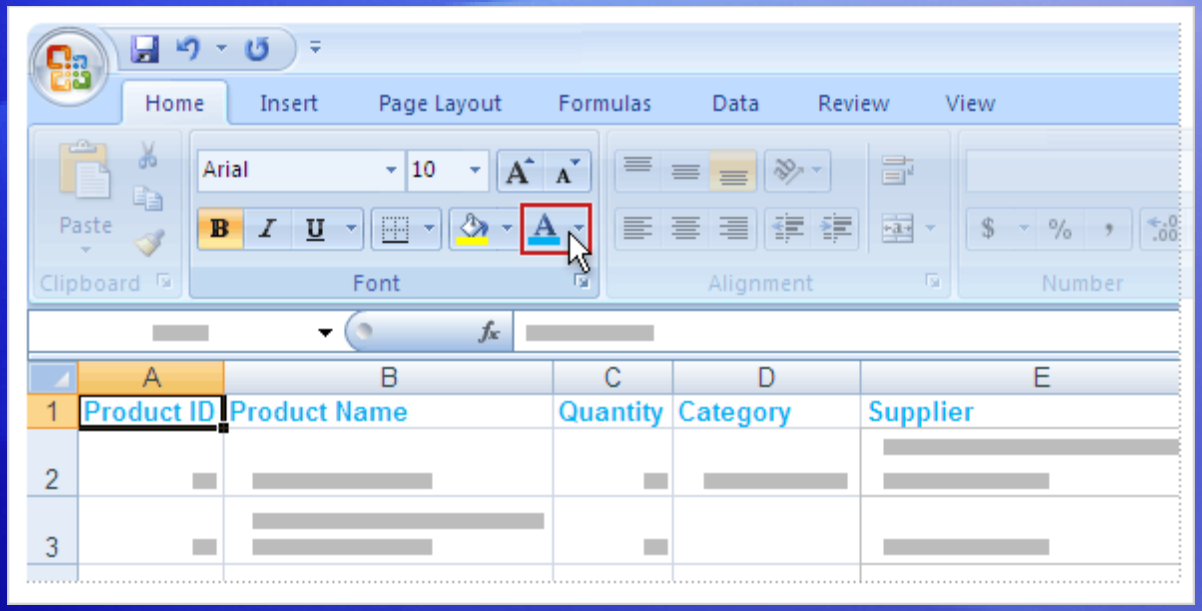
Your worksheet contains rows of products ordered from various suppliers, and you want to add the new column to identify the various products as dairy, grains, produce, and so on.

Insert a column

Follow this procedure to add the column between the **Quantity** column and the **Supplier** column:

1. Click in the **Supplier** column. Then on the **Home** tab, in the **Cells** group, click the arrow on **Insert**.
2. On the menu that appears, click **Insert Sheet Columns**. A new blank column is inserted, and you enter the new data in the column.
3. If you need to adjust the column width to fit the data, in the **Cells** group, click the arrow on **Format**. In the list that appears, click **AutoFit Column Width**.

Format and edit data

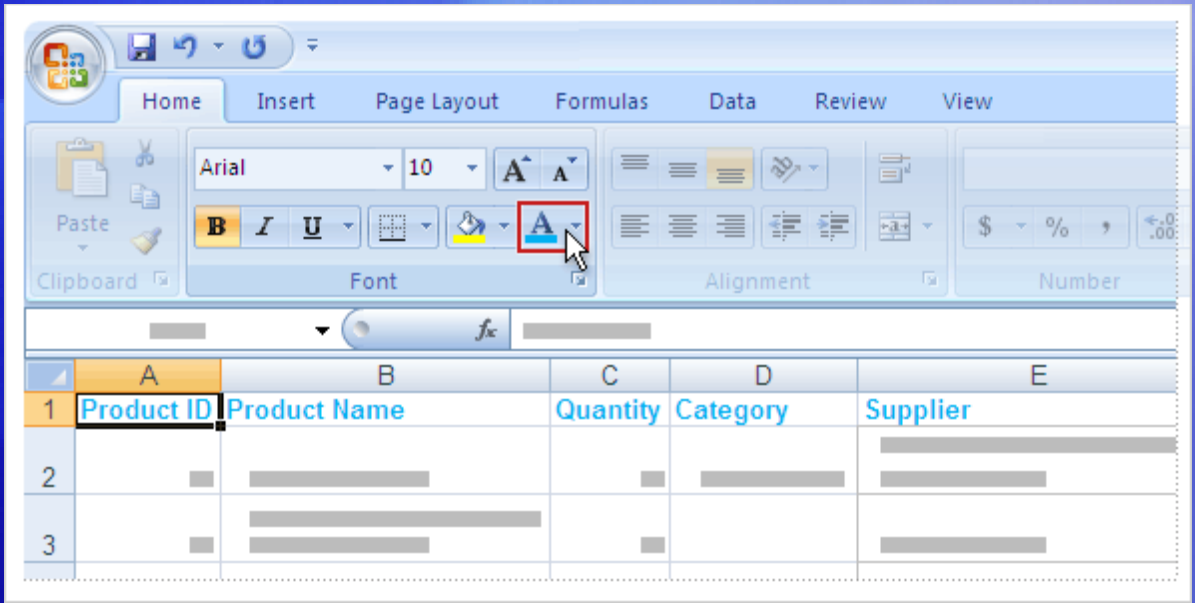


You format and edit data by using commands in groups on the **Home** tab.

For example, the column titles will stand out better if they are in bold type.

To make it so, select the row with the titles and then on the **Home** tab, in the **Font** group, click **Bold**.

Format and edit data



While the titles are still selected, you decide to change their color and their size, to make them stand out even more.

In the **Font** group, click the arrow on **Font Color**. You'll see many more colors to choose from than before.

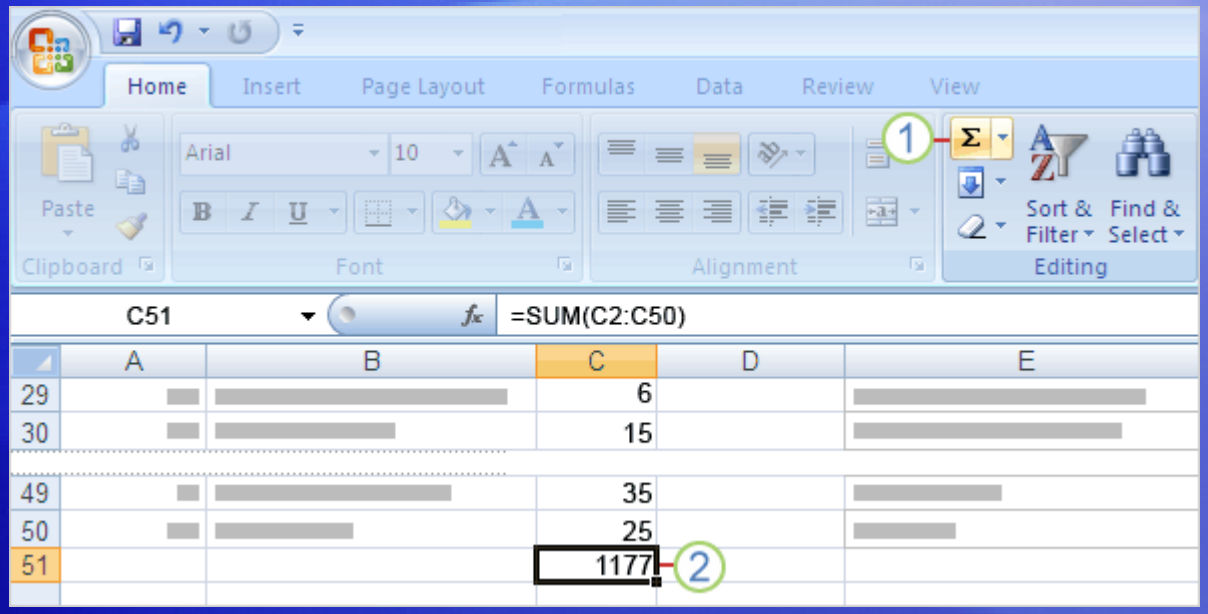
You can also see how the title will look in different colors by pointing at any color and waiting a moment.

Format and edit data

You can use the **Font** group to take care of other formatting and editing options, too.

- To increase the font size, click **Increase Font Size** .
- While the titles are still selected, you decide to center them in the cells. In the **Alignment** group, click **Center** .
- Finally, you find that you need to enter one more order for Louisiana Fiery Hot Pepper Sauce. Select that product name, and in the **Clipboard** group, click **Copy** . Then click in the bottom row, and in the **Clipboard** group again, click **Paste** .

Enter a formula

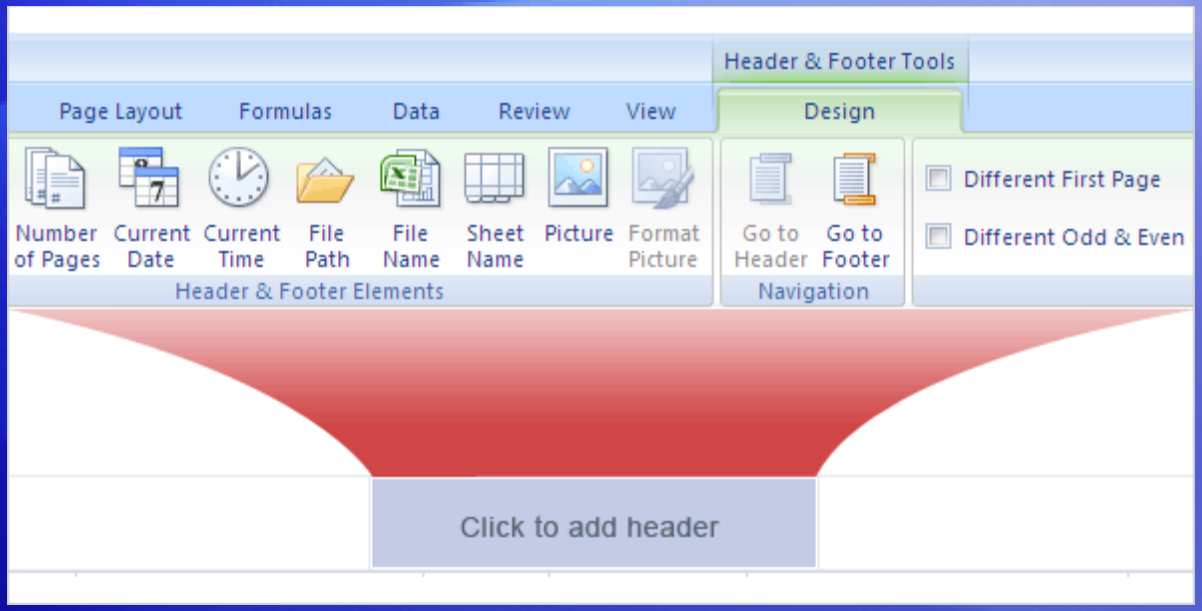


Before handing off your report, you want to add up the numbers in the Quantity column.

It's easy: Use the **Sum** button . Σ

1. Place the cursor in the last cell in the Quantity column, and then click the **Sum** button on the **Home** tab. (It's in the **Editing** group.)
2. Press ENTER to see the formula result.

Add headers and footers



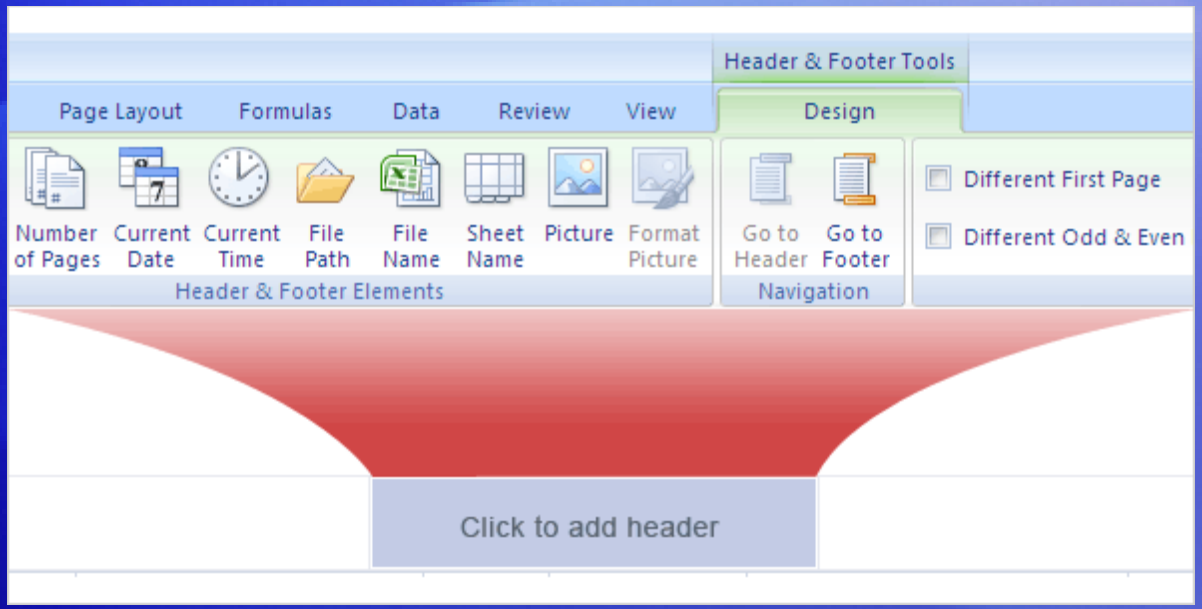
As a finishing touch, you decide to add headers and footers to the worksheet.

This will help make clear to everyone what the data is about.

Here's what to do:

1. Switch to Page Layout view. You can click the **View** tab, and then click **Page Layout View** in the **Workbook Views** group. Or click the middle button on the **View** toolbar at the bottom of the window.

Add headers and footers



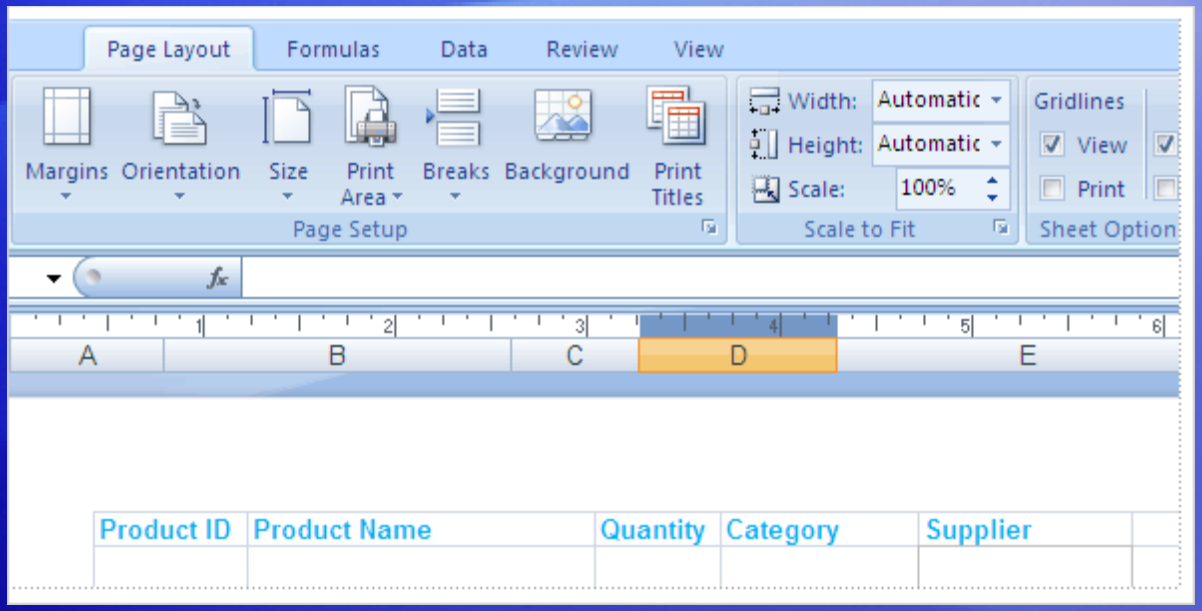
As a finishing touch, you decide to add headers and footers to the worksheet.

This will help make clear to everyone what the data is about.

Here's what to do:

2. Click in the area at the top of the page that says **Click to add header**.
3. As soon as you do, the **Header & Footer Tools** and the **Design** tab appear at the top of the Ribbon.

Print



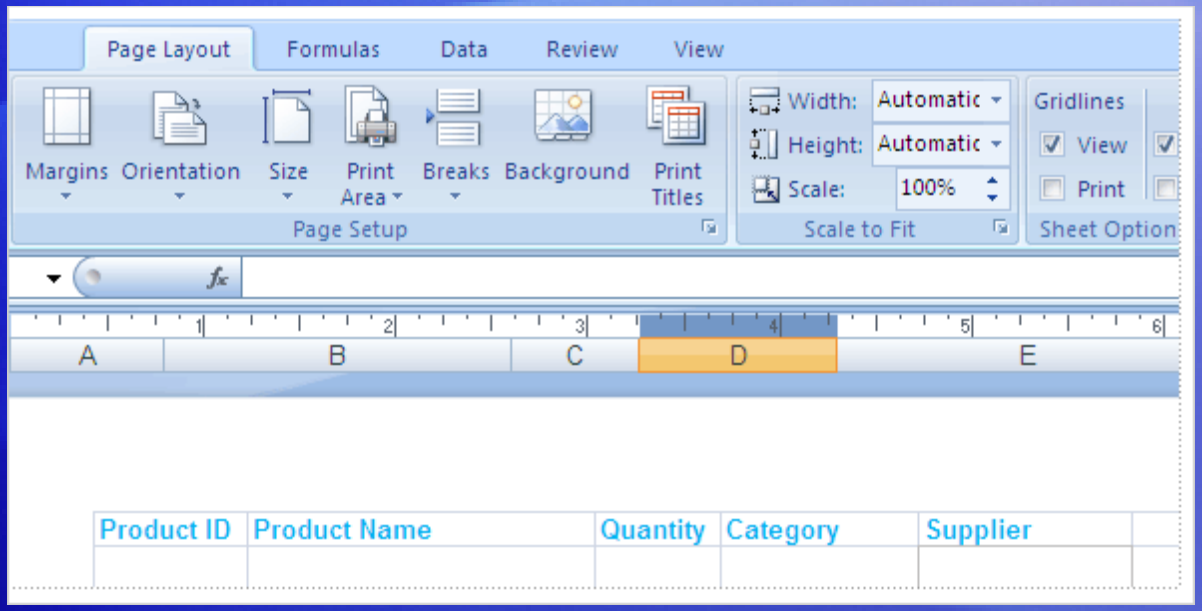
It's time to print the report.

In Page Layout view, you can make adjustments and see the changes on the screen before you print.

Here's how to use Page Layout view:

1. Click the **Page Layout** tab.
2. In the **Page Setup** group, click **Orientation** and then select **Portrait** or **Landscape**. In Page Layout view, you'll see the orientation change, and how your data will look each way.

Print



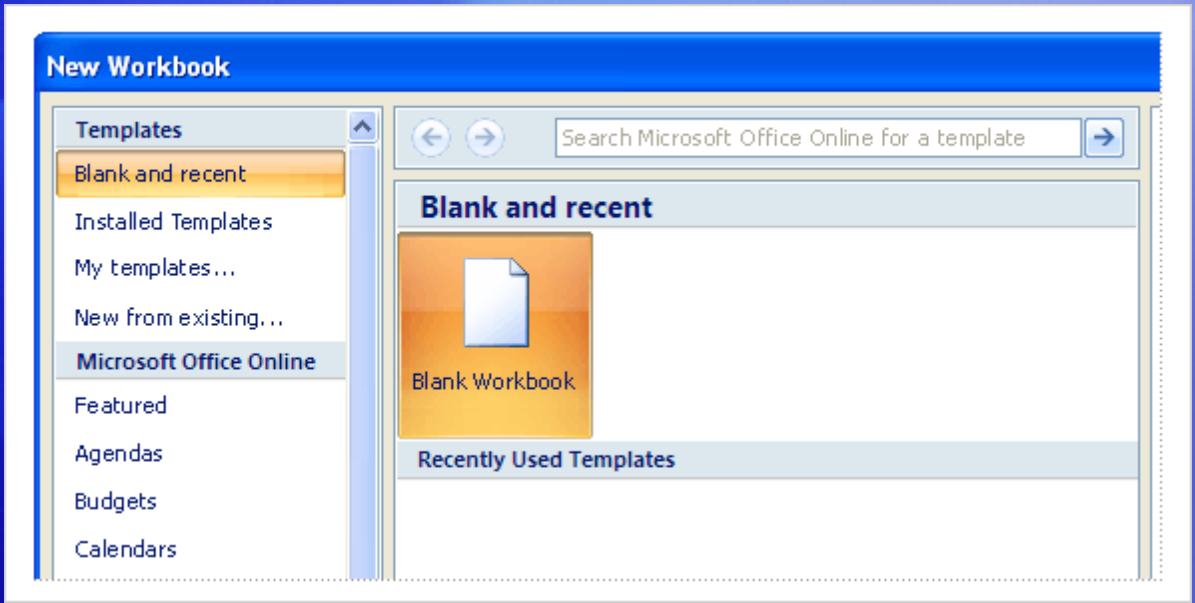
It's time to print the report.

In Page Layout view, you can make adjustments and see the changes on the screen before you print.

Here's how to use Page Layout view:

3. Still in the **Page Setup** group, click **Size** to choose paper size. You'll see the results of your choices as you make them. (What you see is what you print.)

The **New Workbook** window



The **New Workbook** window offers the perfect place to start in Excel.

When you click the **Microsoft Office Button** and then click **New**, the **New Workbook** window opens.

At the top of the window, you can select either a new blank workbook or a template.

Suggestions for practice

1. Insert a column.
2. Use AutoSum.
3. Add a header and a footer.
4. Add a few finishing touches.
5. Explore print options.

Online practice (requires Excel 2007)

Test 2, question 1

To insert a new column, you use the commands in the Cells group on the Home tab. (Pick one answer.)

1. True.
2. False.

Test 2, question 1: Answer

True.

Then click the arrow next to **Insert**, and then click **Insert Sheet Columns**.

Test 2, question 2

Where is the button that you click to find commands to open and close your files? (Pick one answer.)

1. On the first tab.
2. In the upper-left corner of the window.
3. Underneath the Ribbon.

Test 2, question 2: Answer

In the upper-left corner of the window.

Click the big round **Microsoft Office Button** in the upper-left corner.

Test 2, question 3

In Page Layout view, you want to add a header to your worksheet, but you don't see the commands you need. To get the commands, you need to click in the area that says "Click to add header." (Pick one answer.)

1. True.
2. False.

Test 2, question 3: Answer

True.

As soon as you do, the **Header & Footer Tools** and the **Design** tab appear on the Ribbon. These have all the commands to work with headers and footers.

Lesson 3

A new file format

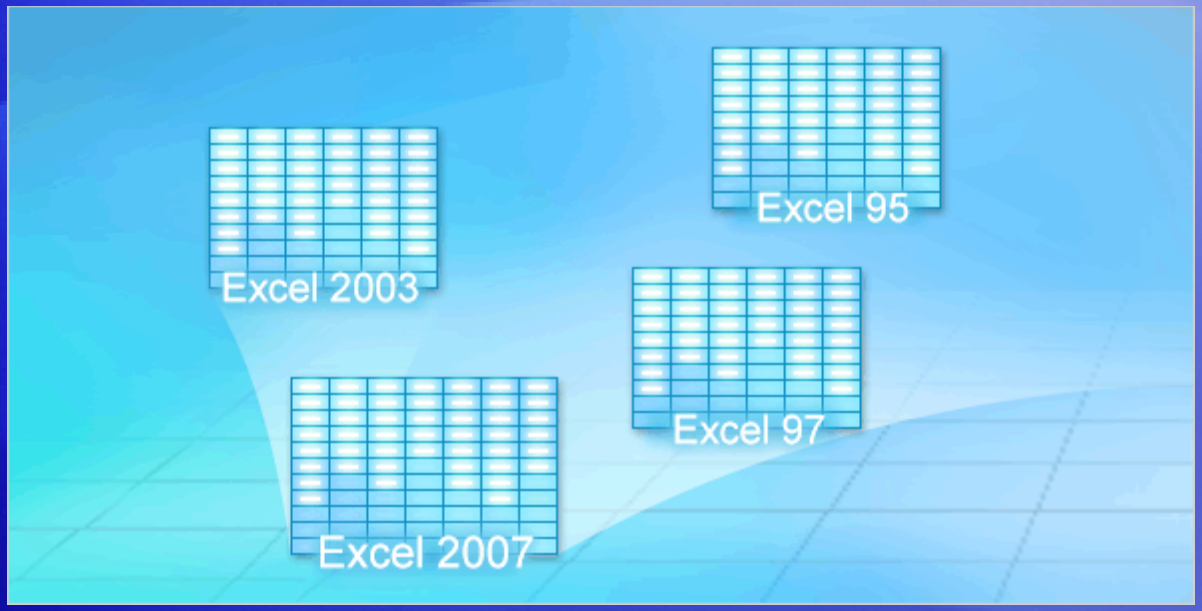
A new file format

Excel has a new file format.

But you can still open and edit older workbooks and share files with people who don’t have Excel 2007.

The new file format brings increased security for your files, reduced risk of file corruption, reduced file size, and new features.

Working with files from earlier versions



In Excel 2007, you can open files created in Excel 95 through Excel 2003.

But what if you're the first person in your office to have Excel 2007? What if you need to need to share files with departments that don't have Excel 2007 yet?

Don't panic. You can all share workbooks with each other.

Working with files from earlier versions

Here’s how:

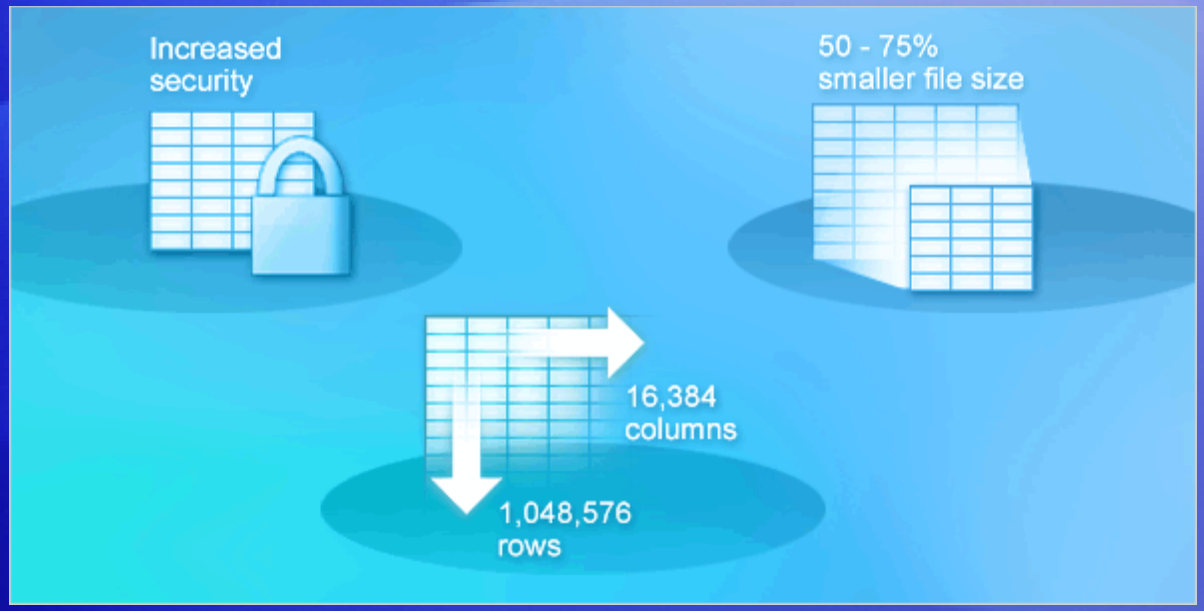
- Old files stay old unless you choose otherwise.
  - Excel will save an older file in its original format unless you specify otherwise. For example, if it started in Excel 2003, Excel 2007 saves it in 2003 format by default.
- Newer features warn you if you save a file as older.
  - When you save a file in a previous version’s format, and the 2007 features you used are not compatible with the previous version, a Compatibility Checker tells you so.

Working with files from earlier versions

Here’s how:

- You can always copy newer files in newer format first.
  - Just tell Excel you want an Excel Workbook (*.xlsx). That copy of the file will contain all the Excel 2007 features.
- You can share documents between versions by using a converter.
  - Colleagues with Excel 2000 through 2003 can open 2007 files by downloading and using a converter.

Benefits of the new format

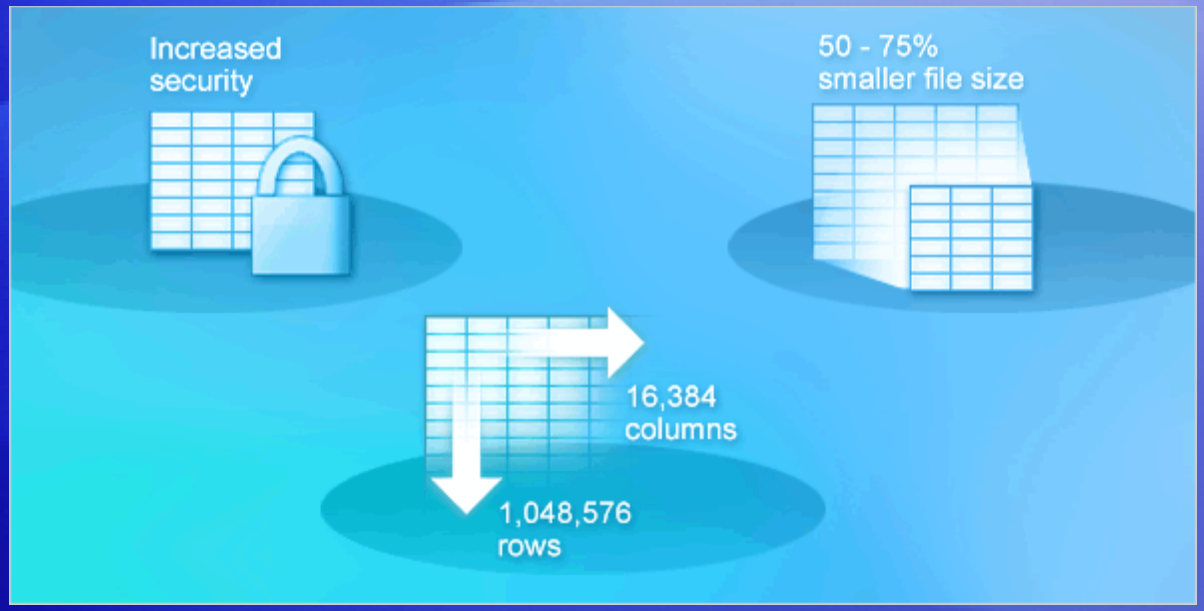


The new file format means improvements to Excel.

Here are its chief benefits:

- New features
- Safer files
- Less risk of file corruption

Benefits of the new format



The new file format means improvements to Excel.

Here are its chief benefits:

- Reduced file size
- More useful data

New file formats, new options when you save

When you save a file in Excel 2007, you can choose from several file types.

- **Excel Workbook (*.xlsx).** Use when there are no macros or VBA code.
- **Excel Macro-Enabled Workbook (*.xlsm).** Use when there are macros or VBA code.
- **Excel Template (*.xltx).** Use when you need a template.

New file formats, new options when you save

When you save a file in Excel 2007, you can choose from several file types.

- **Excel Macro-Enabled Template (*.xltm).** Use when you need a template and the workbook contains macros or VBA.
- **Excel Binary Workbook (*.xlsb).** Use with an especially large workbook.

New file formats, new options when you save

When you save a file in Excel 2007, you can choose from several file types.

- **Excel 97-Excel 2003 Workbook (*.xls).** Use when you need to share with someone working in a previous version of Excel.
- **Microsoft Excel 5.0/95 Workbook (*.xls).** Use when you need to share with someone using Microsoft Excel 5.0.

Test 3, question 1

If you save a file that was created in a previous version of Excel as an Excel 2007 file, the file can use all the new Excel features. (Pick one answer.)

1. True.
2. False.

Test 3, question 1: Answer

True.

Test 3, question 2

Why was the Excel 2007 file format changed to XML? (Pick one answer.)

1. New features could be added to Excel.
2. Files are safer.
3. Less risk of file corruption.
4. Reduced file size.
5. All of the above.

Test 3, question 2: Answer

All of the above.

Test 3, question 3

Someone sends you an Excel 2003 file, which you open in Excel 2007. When you're finished working with it in 2007, the file will automatically be saved as Excel 2007, unless you change the option. (Pick one answer.)

1. True.

2. False.

Test 3, question 3: Answer

False.

If it started in Excel 2003, Excel 2007 saves it in the 2003 format unless you say otherwise.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Excel® 2007 Training

Get started with PivotTable® reports

Course contents

- Overview: Make sense out of data
- Lesson: Make your data work for you

The lesson includes a list of suggested tasks and a set of test questions.

Overview: Make sense out of data

Your worksheet has lots of data, but do you know what those numbers mean? Does the data answer your questions?

PivotTable reports offer a fast and powerful way to analyze numerical data, look at the same data in different ways, and answer questions about it.

In this short course you'll learn how PivotTable reports work and find out how to create one in Excel 2007.

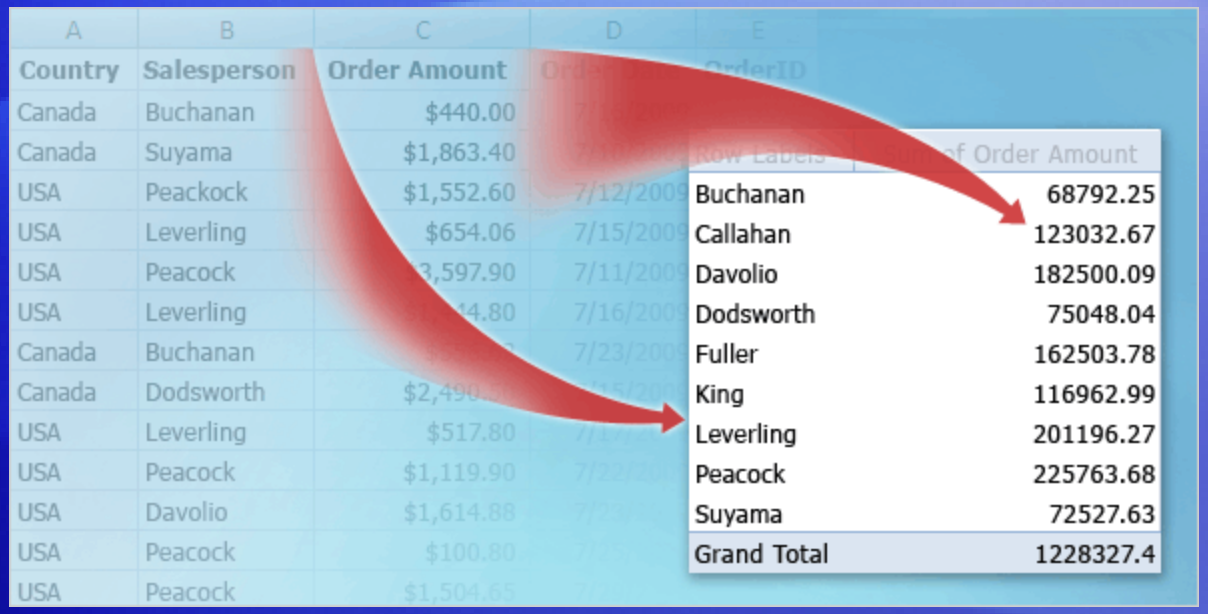
Course goal

- Use a PivotTable report to analyze and summarize your data.

Lesson

Make your data work for you

Make your data work for you



Country	Salesperson	Order Amount
Canada	Buchanan	$440.00
Canada	Suyama	$1,863.40
USA	Peackock	$1,552.60
USA	Leverling	$654.06
USA	Peacock	3,597.90
USA	Leverling	14.80
Canada	Buchanan	
Canada	Dodsworth	$2,490
USA	Leverling	$517.80
USA	Peacock	$1,119.90
USA	Davolio	$1,614.88
USA	Peacock	$100.80
USA	Peacock	$1,504.65

Row Labels	Sum of Order Amount
Buchanan	68792.25
Callahan	123032.67
Davolio	182500.09
Dodsworth	75048.04
Fuller	162503.78
King	116962.99
Leverling	201196.27
Peacock	225763.68
Suyama	72527.63
Grand Total	1228327.4

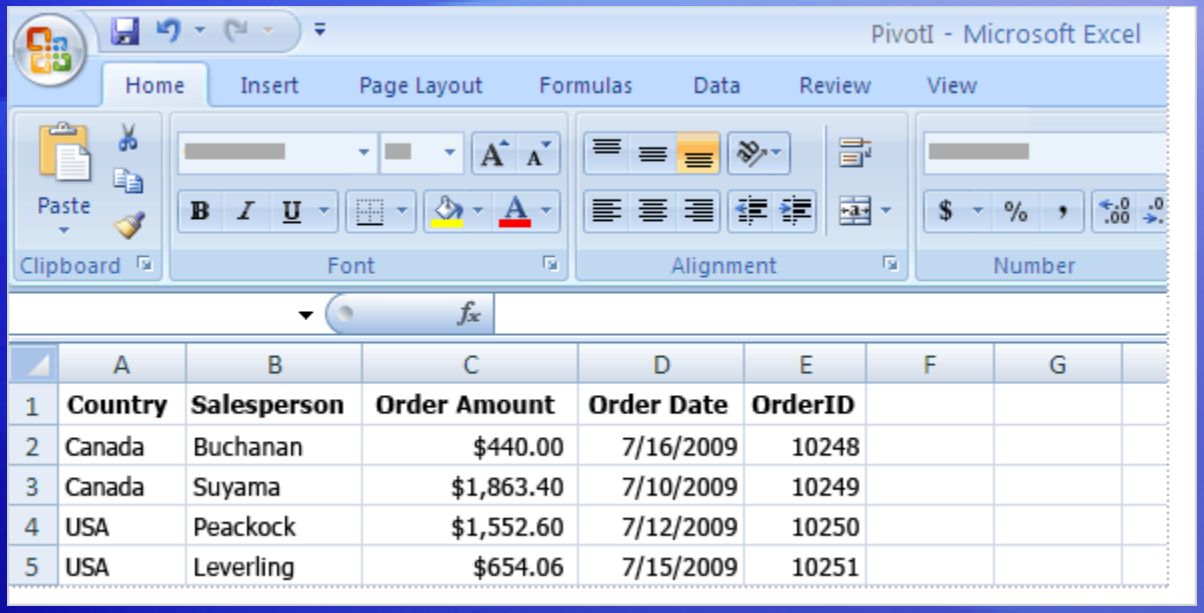
Imagine an Excel worksheet of sales figures. It lays out thousands of rows of data about salespeople in two countries along with how much they sold on individual days.

It's a lot of data to deal with—listed in row after row and divided into multiple columns. How can you get information out of the worksheet and make sense out of all of the data?

Use PivotTable reports. They turn the data into small, concise reports that tell you exactly what you need to know.

Get started with PivotTable reports

Review your source data



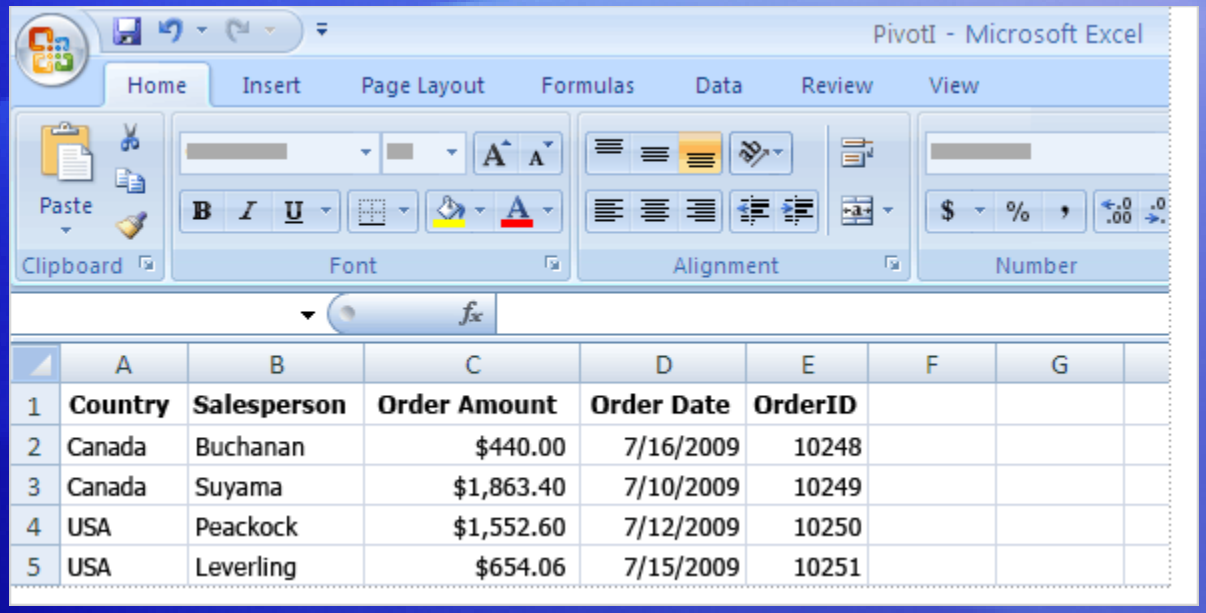
	A	B	C	D	E	F	G
1	**Country**	**Salesperson**	**Order Amount**	**Order Date**	**OrderID**		
2	Canada	Buchanan	$440.00	7/16/2009	10248		
3	Canada	Suyama	$1,863.40	7/10/2009	10249		
4	USA	Peackock	$1,552.60	7/12/2009	10250		
5	USA	Leverling	$654.06	7/15/2009	10251		

Before you start to work with a PivotTable report, take a look at your Excel worksheet to make sure it's well prepared for the report.

When you create a PivotTable report, each column of source data becomes a **field** that you can use in the report.

Fields summarize multiple rows of information from the source data.

Review your source data



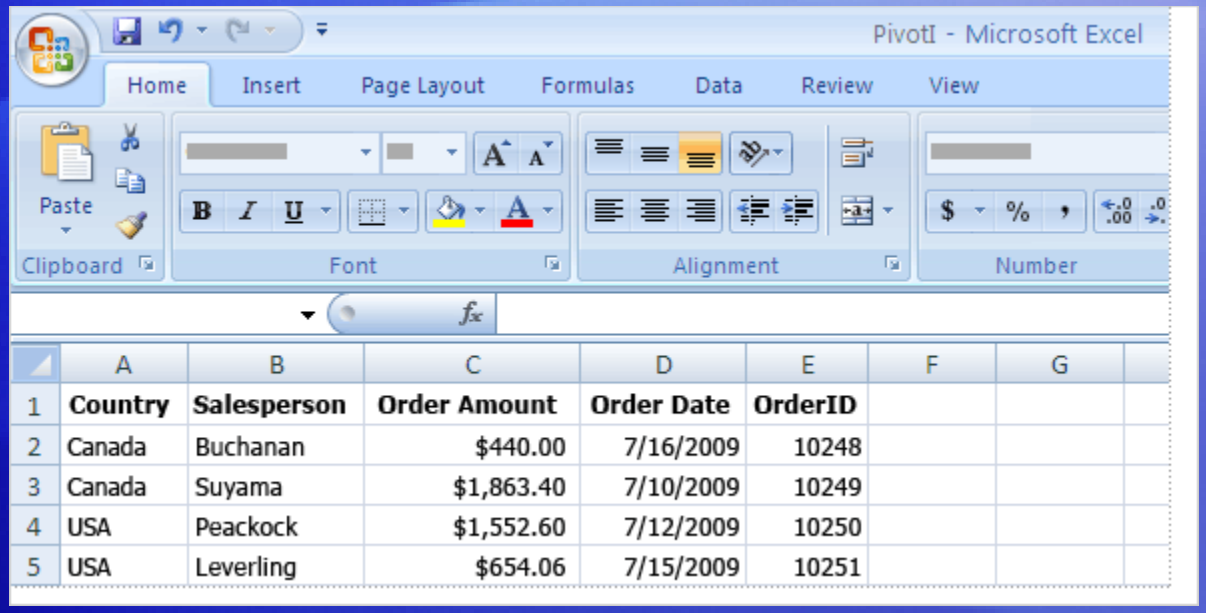
	A	B	C	D	E	F	G
1	**Country**	**Salesperson**	**Order Amount**	**Order Date**	**OrderID**		
2	Canada	Buchanan	$440.00	7/16/2009	10248		
3	Canada	Suyama	$1,863.40	7/10/2009	10249		
4	USA	Peackock	$1,552.60	7/12/2009	10250		
5	USA	Leverling	$654.06	7/15/2009	10251		

The names of the fields for the report come from the column titles in your source data. So be sure you have names for each column across the first row of the worksheet in the source data.

The remaining rows below the headings should contain similar items in the same column.

For example, text should be in one column, numbers in another column, and dates in another column. In other words, a column that contains numbers should not contain text, and so on.

Review your source data



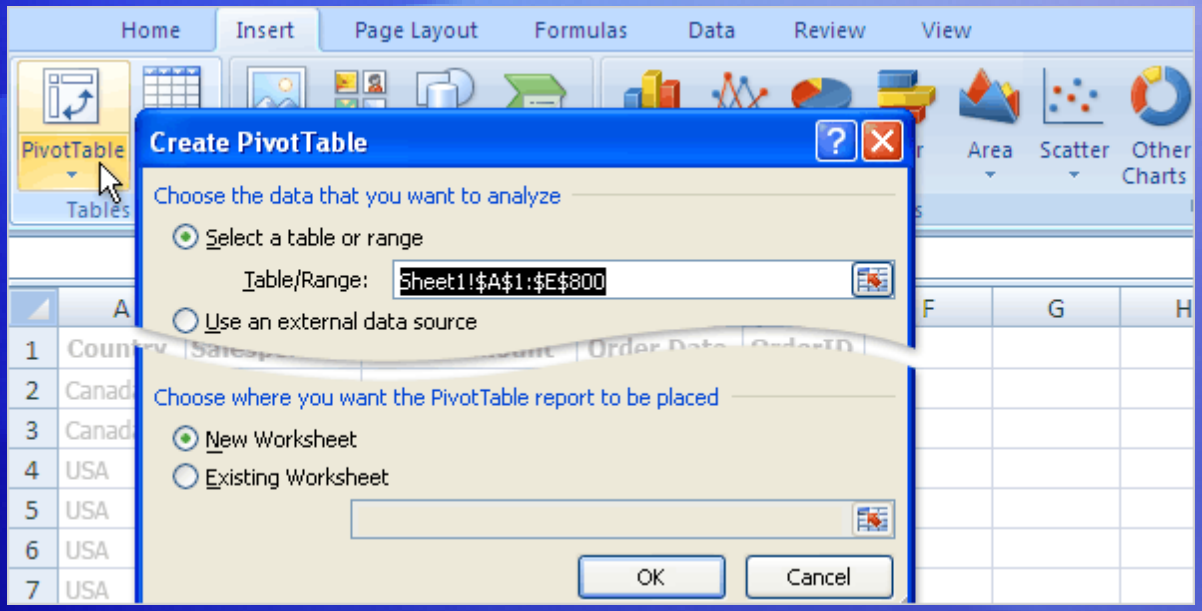
	A	B	C	D	E	F	G
1	**Country**	**Salesperson**	**Order Amount**	**Order Date**	**OrderID**		
2	Canada	Buchanan	$440.00	7/16/2009	10248		
3	Canada	Suyama	$1,863.40	7/10/2009	10249		
4	USA	Peackock	$1,552.60	7/12/2009	10250		
5	USA	Leverling	$654.06	7/15/2009	10251		

Finally, there should be no empty columns within the data that you're using for the PivotTable report.

It's also best if there are no empty rows.

For example, blank rows that are used to separate one block of data from another should be removed.

Get started

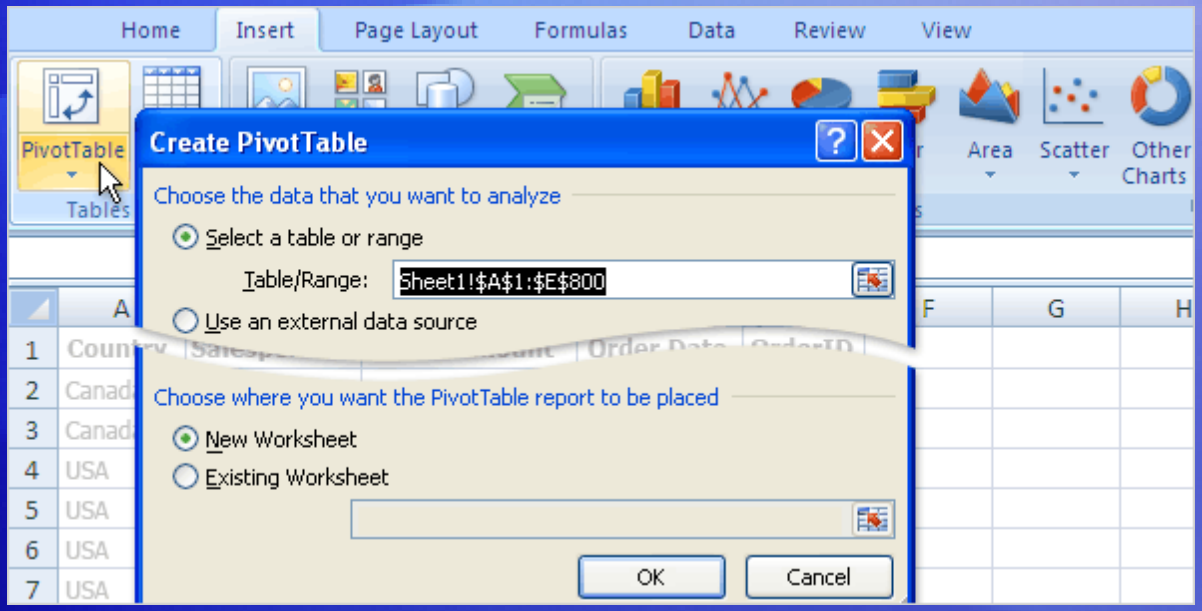


Here's how to get started with a PivotTable report.

You use the **Create PivotTable** dialog box, shown here.

1. When the data is ready, click anywhere in the data.
2. On the **Insert** tab, in the **Tables** group, click **PivotTable**, and then click **PivotTable** again. The **Create PivotTable** dialog box opens.

Get started

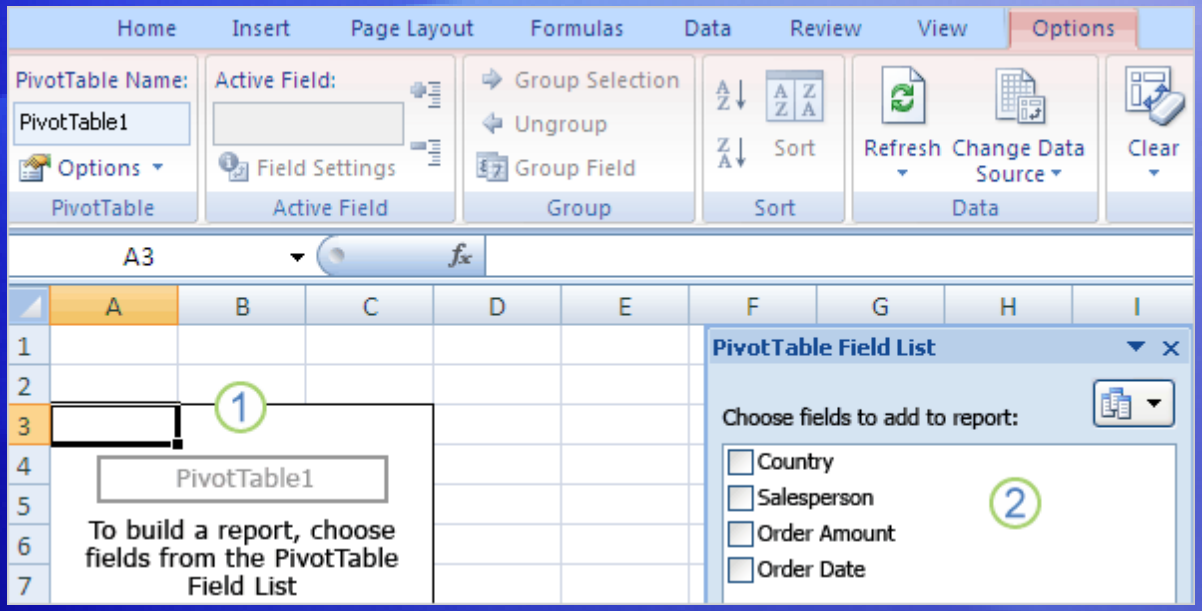


Here's how to get started with a PivotTable report.

You use the **Create PivotTable** dialog box, shown here.

3. The **Select a table or range** option is already selected for you. The **Table/Range** box shows the range of the selected data, which you can change if you want.
4. Click **OK**.

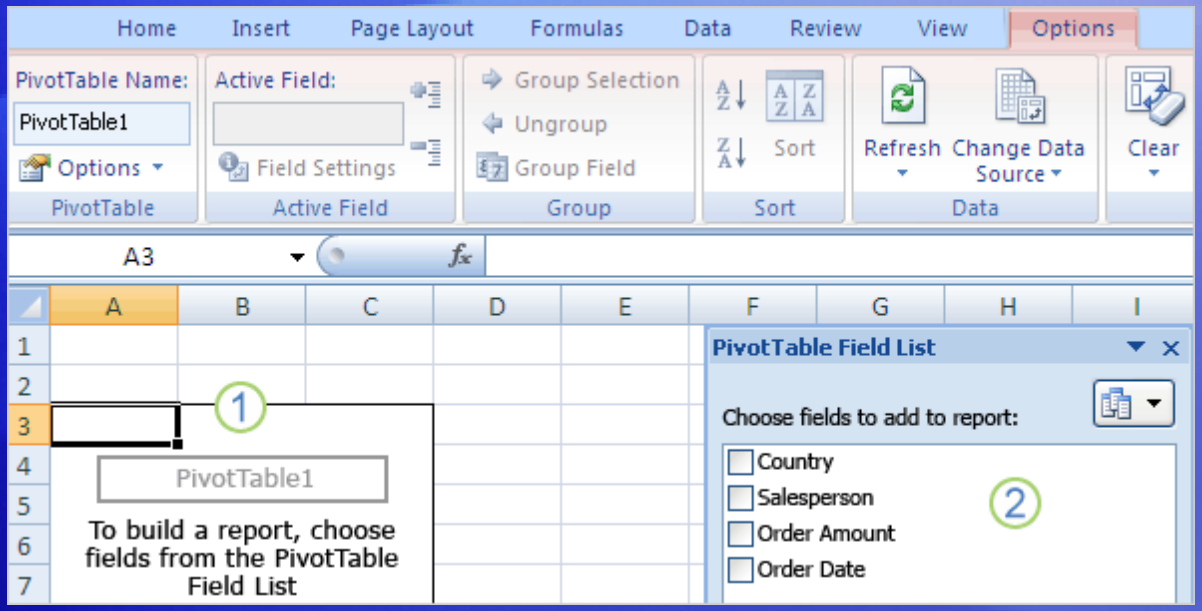
PivotTable report basics



This is what you see in the new worksheet after you close the **Create PivotTable** dialog box.

1. On one side is the **layout area** ready for the PivotTable report.
2. On the other side is the **PivotTable Field List**. This list shows the column titles from the source data. As mentioned earlier, each title is a **field**: Country, Salesperson, and so on.

PivotTable report basics

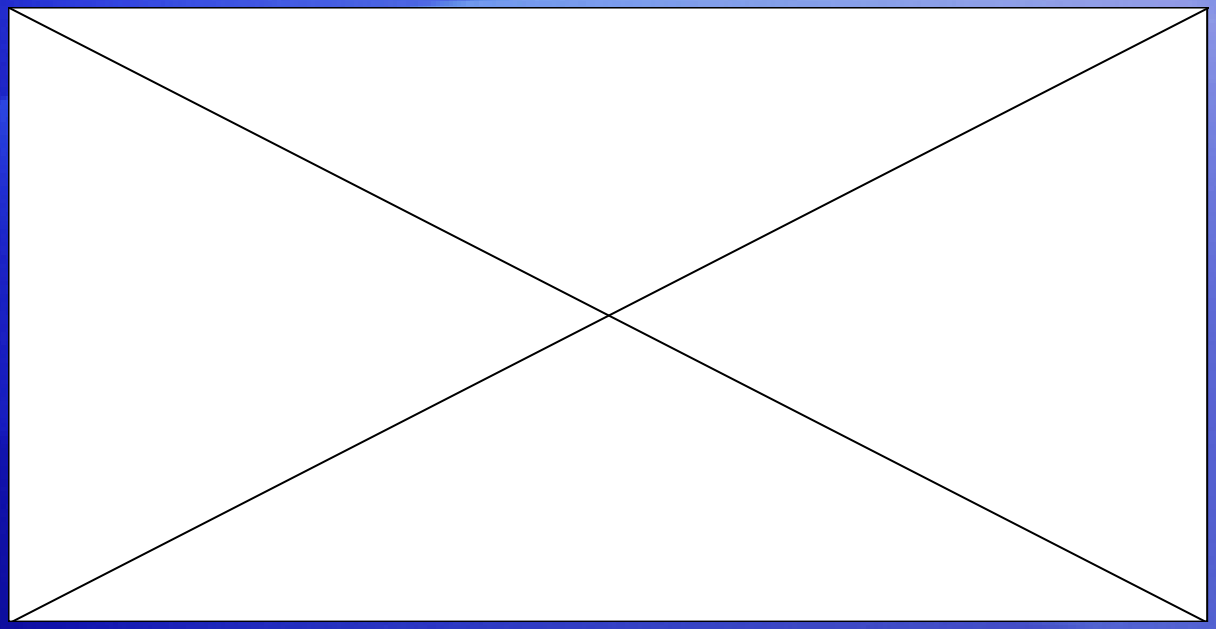


You create the PivotTable report by moving any of the fields shown in the **PivotTable Field List** to the layout area.

To do this, either select the check box next to the field name, or right-click a field name and then select a location to move the field to.

Get started with PivotTable reports

Build a PivotTable report



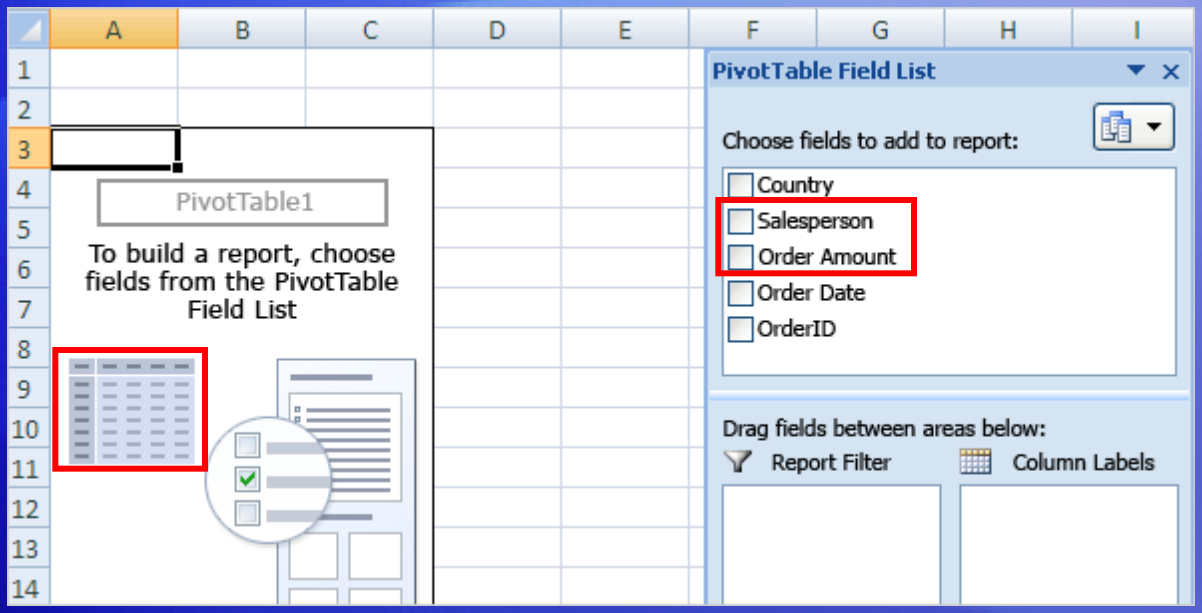
Now you're ready to build the PivotTable report. The fields you select for the report depend on what you want to know.

To start: How much has each person sold?

Animation: Right-click, and click **Play**.

To get this answer, you need data about the salespeople and their sales numbers. So in the **PivotTable Field List**, select the check boxes next to the **Salesperson** and **Order Amount** fields. Excel then places each field in a default area of the layout.

Build a PivotTable report



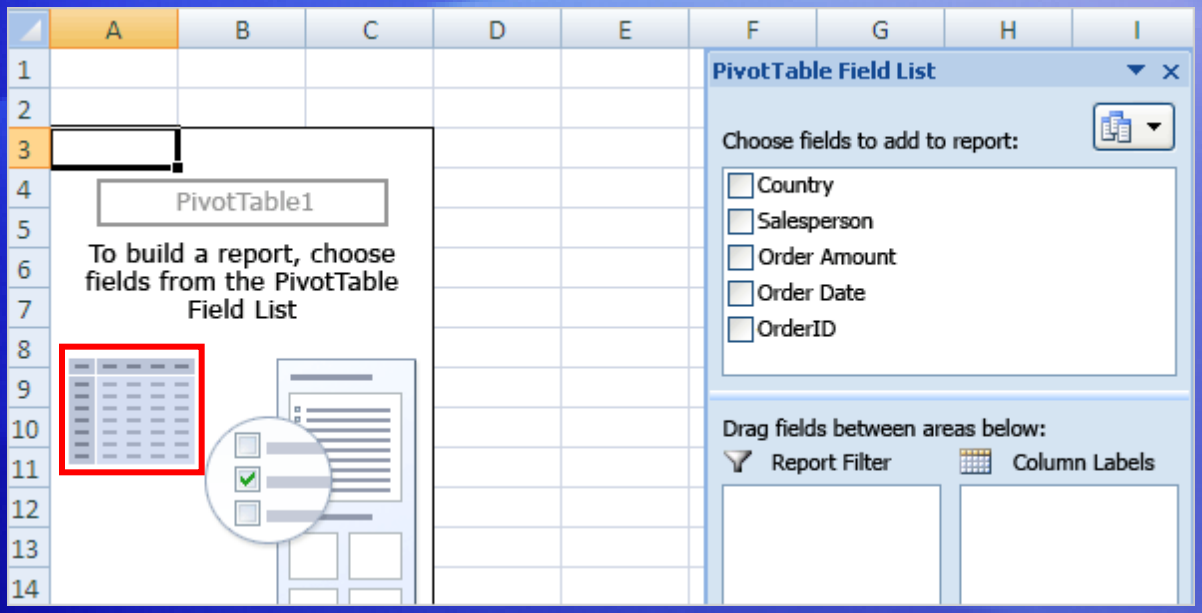
Now you're ready to build the PivotTable report. The fields you select for the report depend on what you want to know.

To start: How much has each person sold?

To get the answer, you need data about the salespeople and their sales numbers.

So in the **PivotTable Field List**, you'll select the check boxes next to the **Salesperson** and **Order Amount** fields. Excel then places each field in a default area of the layout.

Build a PivotTable report



The gray table at the illustration's far left provides a conceptual view of how the report will automatically appear based on the fields you select.

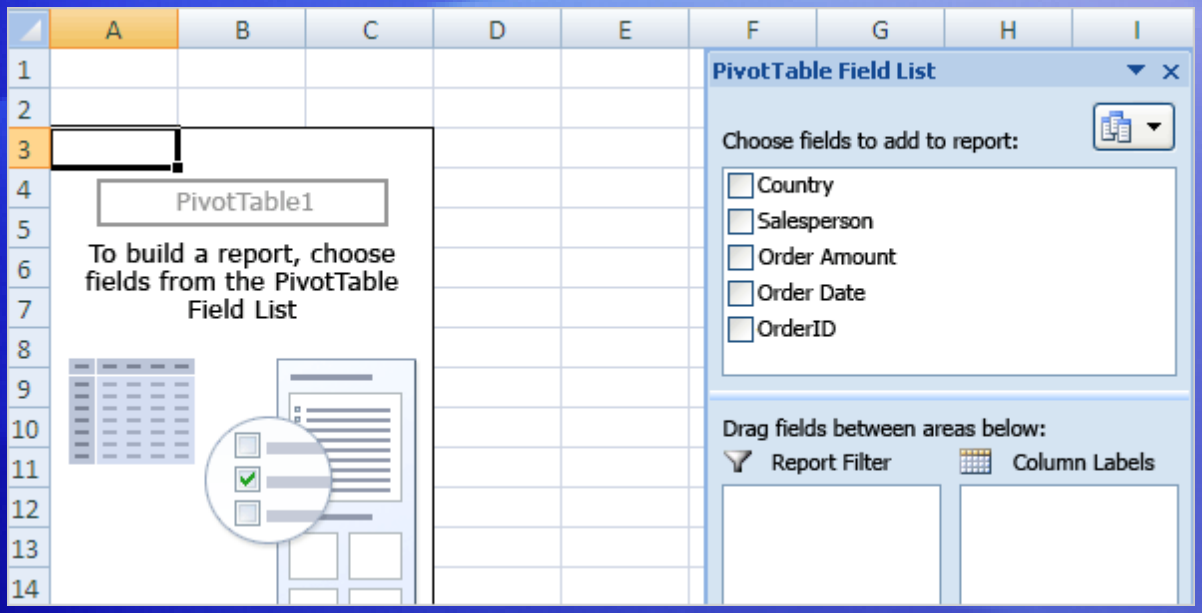
Here are details.

The data in the **Salesperson** field (the salespeople's names), which doesn't contain numbers, is displayed as rows on the left side of the report.

The data in the **Order Amount** field, which does contain numbers, correctly shows up in an area to the right.

Get started with PivotTable reports

Build a PivotTable report

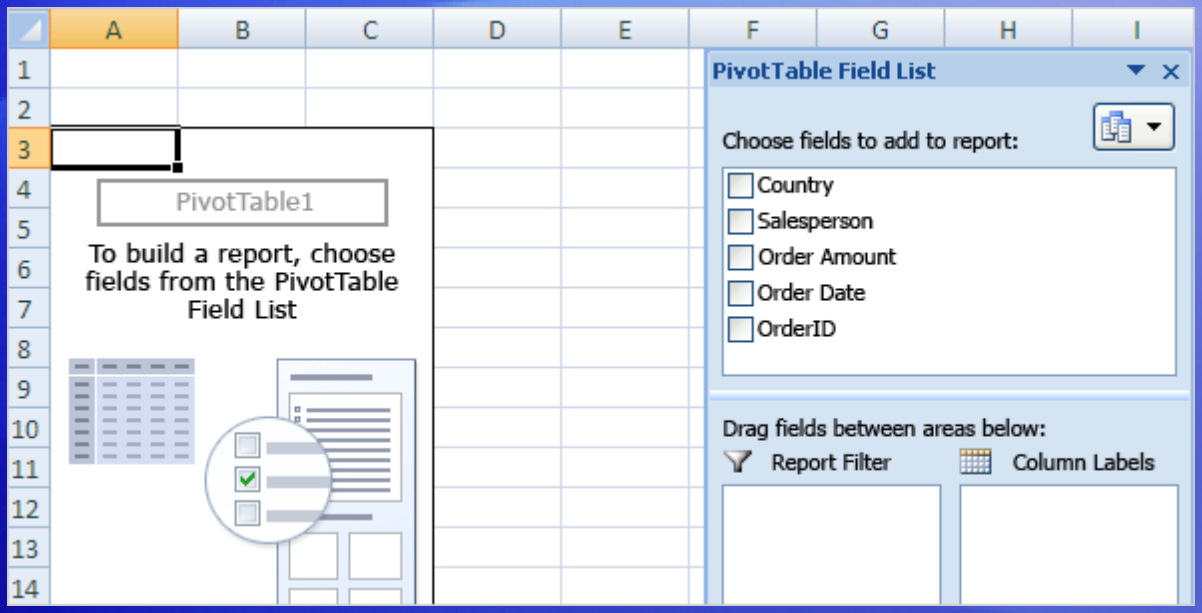


It doesn't matter whether you select the check box next to the **Salesperson** field before or after the **Order Amount** field. Excel automatically puts them in the right place every time.

Fields without numbers will land on the left, and fields with numbers will land on the right, regardless of the order in which you select them.

Get started with PivotTable reports

Build a PivotTable report



That's it. With just two mouse clicks, you can see at a glance how much each salesperson sold.

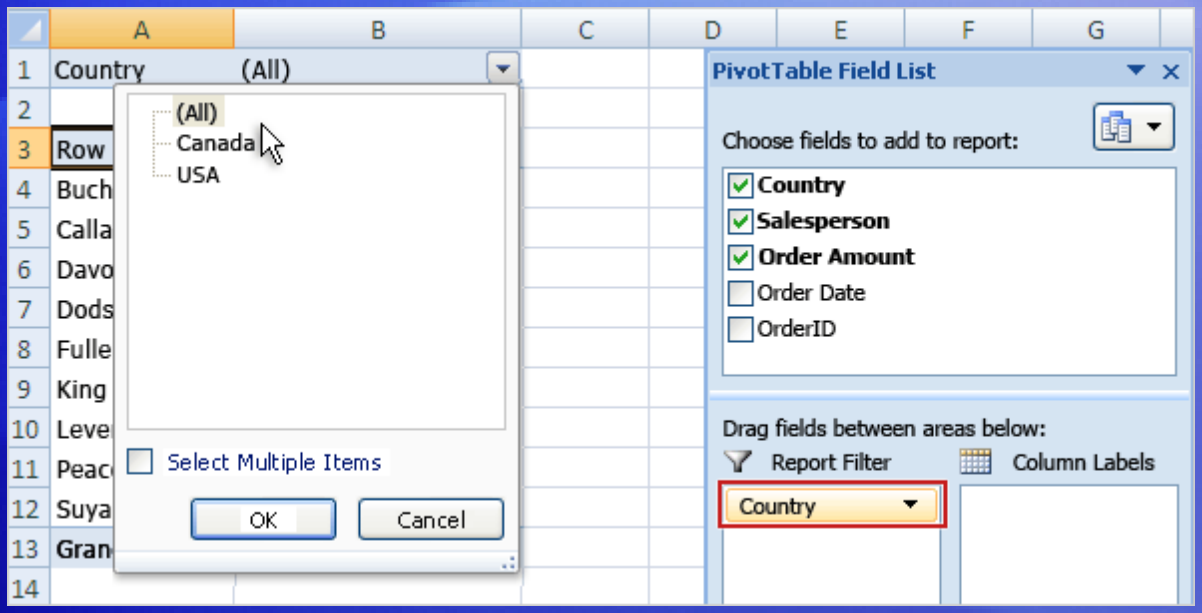
And here are a couple of parting tips on the topic.

First, it's fine to stop with just one or two questions answered; the report doesn't have to be complex to be useful. PivotTable reports can offer a fast way to get a simple answer.

Next, don't worry about building a report incorrectly. Excel makes it easy to try things out and see how data looks in different areas of the report.

Get started with PivotTable reports

See sales by country

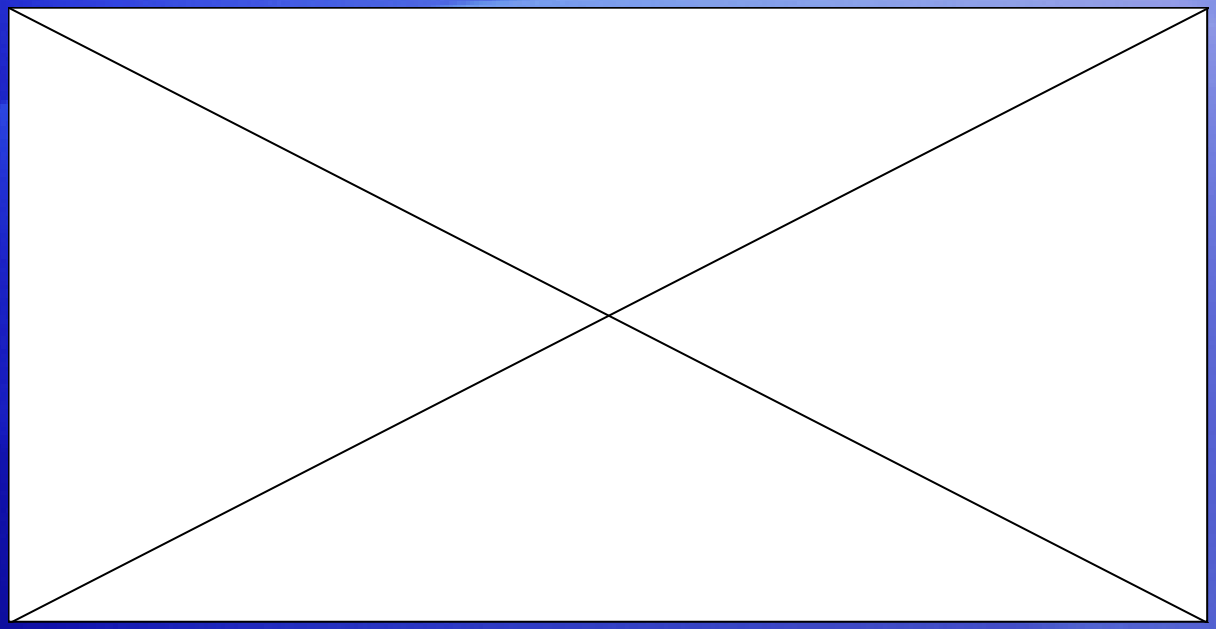


Now you know how much each salesperson sold. But the source data lays out data about salespeople in two countries, Canada and the United States.

So another question you might ask is: What are the sales amounts for each salesperson by country?

To get the answer, you can add the **Country** field to the PivotTable report as a **report filter**. You use a report filter to focus on a subset of data in the report, often a product line, a time span, or a geographic region.

See sales by country

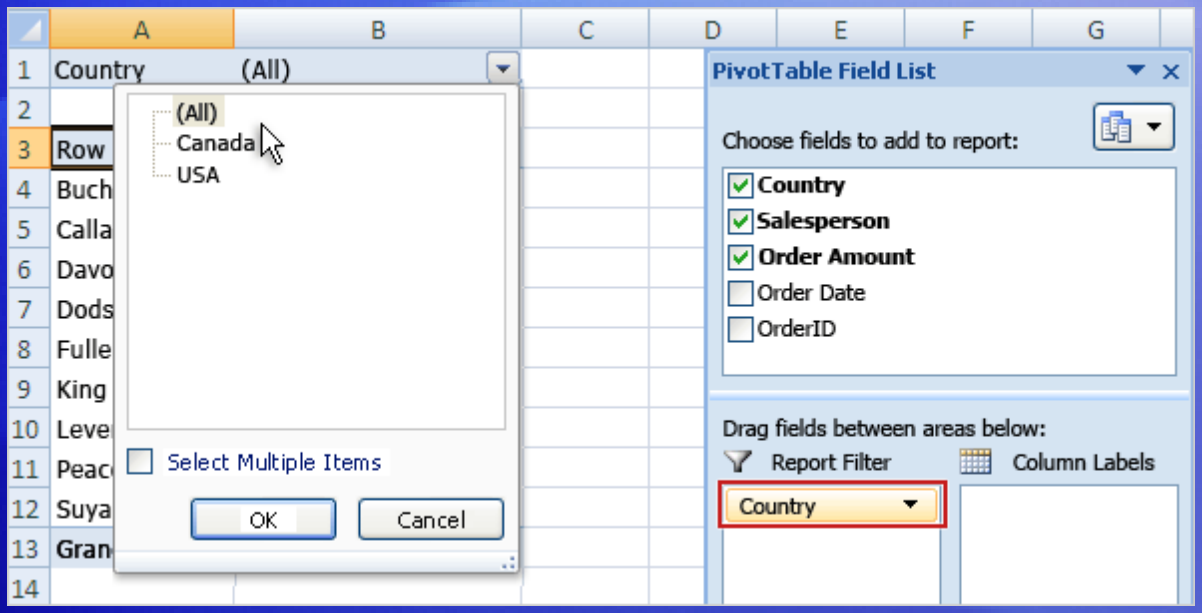


By using the **Country** field as a report filter, you can see a separate report for Canada or the United States, or you can see sales for both countries together.

Animation: Right-click, and click **Play**.

The animation shows how to add the **Country** field as a report filter. Right-click the **Country** field in the **PivotTable Field List**, click **Add to Report Filter**, and take it from there.

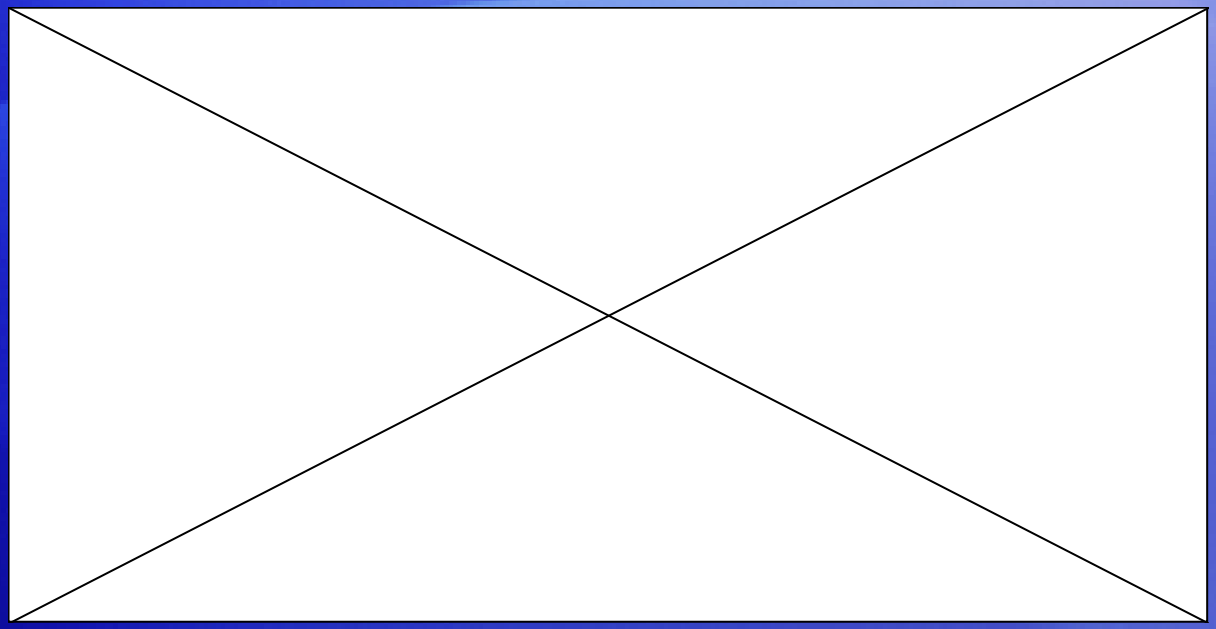
See sales by country



By using the **Country** field as a report filter, you can see a separate report for Canada or the United States, or you can see sales for both countries together.

To do this, right-click the **Country** field in the **PivotTable Field List**, click **Add to Report Filter**, and then take it from there.

See sales by date



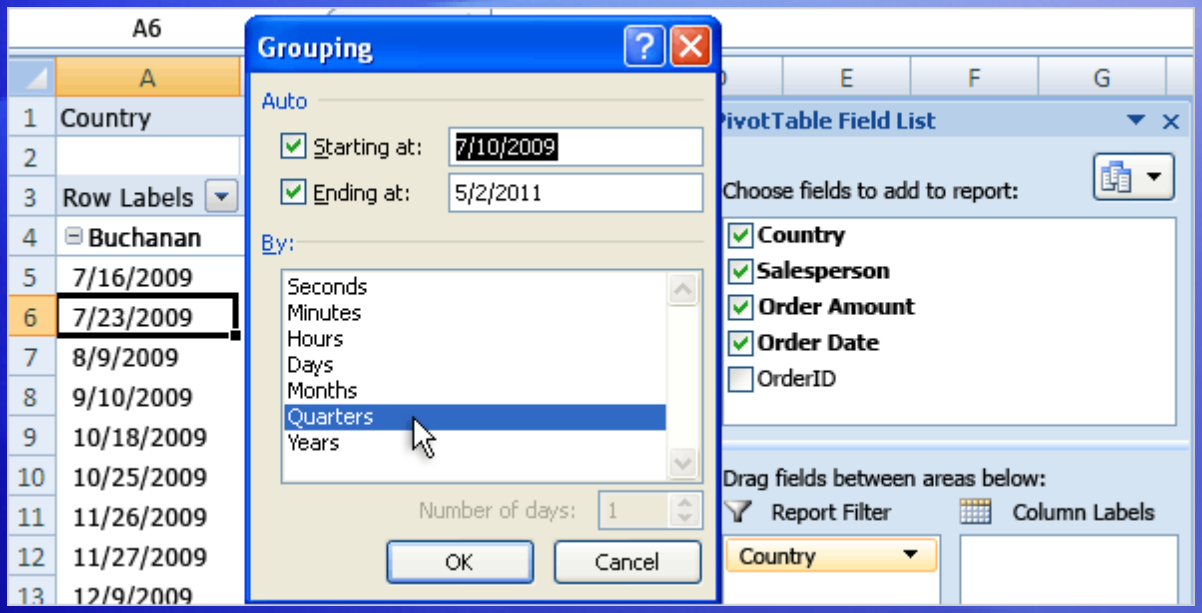
The original source data has a column of Order Date information, so there is an **Order Date** field on the **PivotTable Field List**.

Animation: Right-click, and click **Play**.

This means you can find the sales by date for each salesperson.

View the animation to see how you can add the **Order Date** field to your report and then group the date data to create a more manageable view.

See sales by date

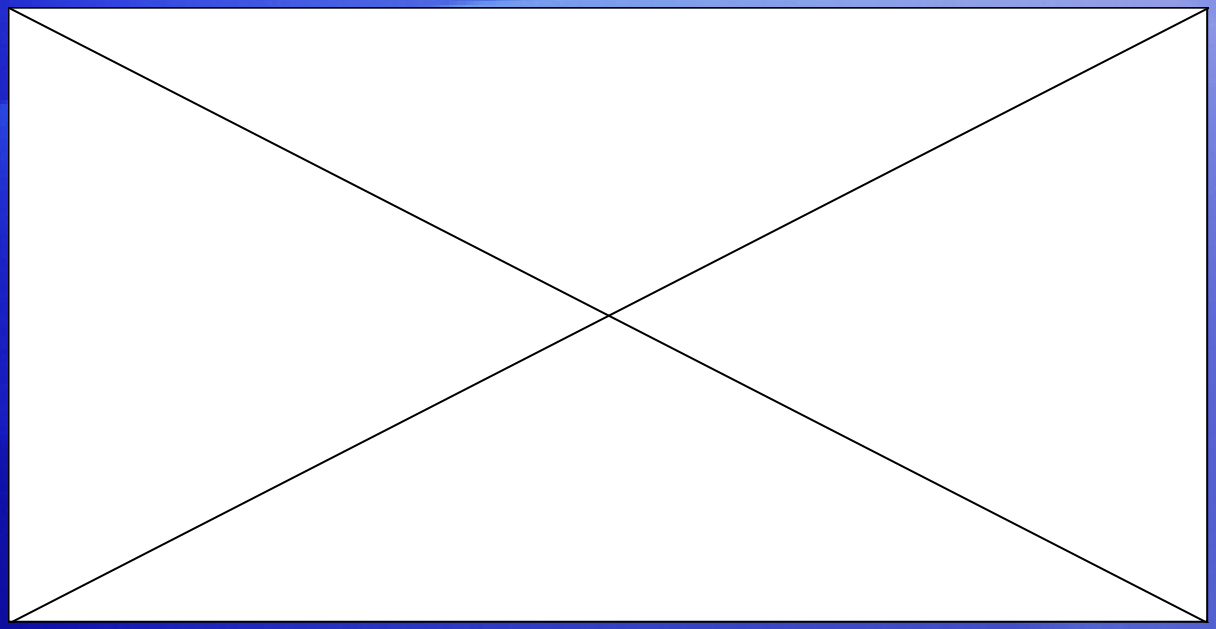


The original source data has a column of Order Date information, so there is an **Order Date** field on the **PivotTable Field List**.

This means you can find the sales by date for each salesperson.

To find out, you'll add the **Order Date** field to your report and then use the **Grouping** dialog box to group the date data and create a more manageable view.

Pivot the report



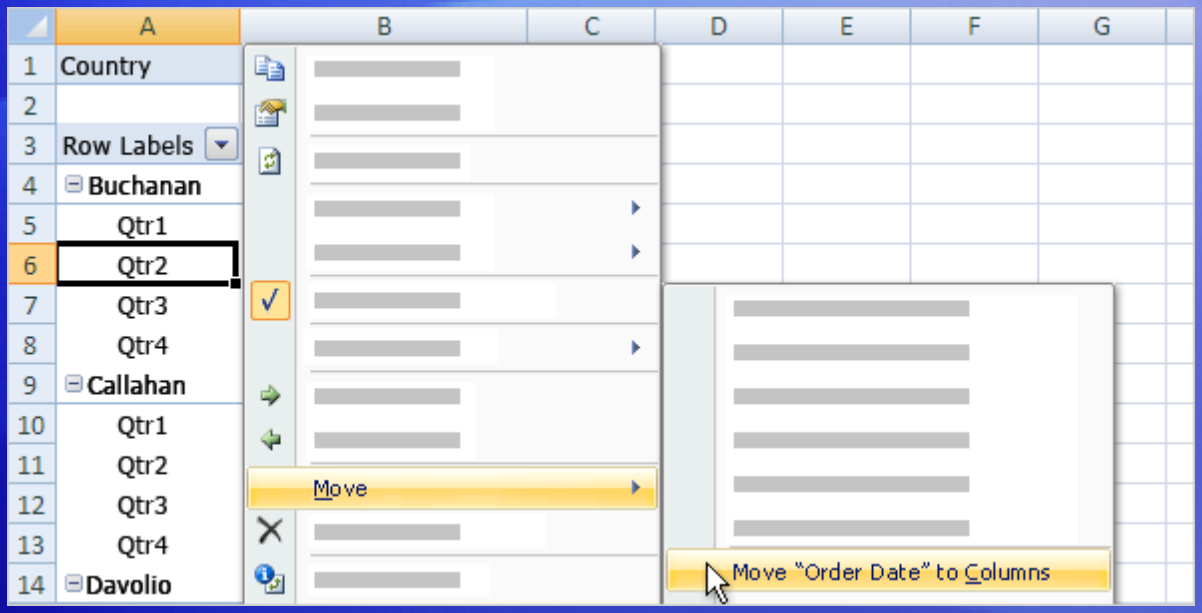
Though the PivotTable report has answered your questions, it takes a little work to read the entire report—you have to scroll down the page to see all the data.

Animation: Right-click, and click **Play**.

So you can **pivot** the report to get a different view that's easier to read.

When you pivot a report, you transpose the vertical or horizontal view of a field, moving rows to the column area or moving columns to the row area. It's easy to do.

Pivot the report



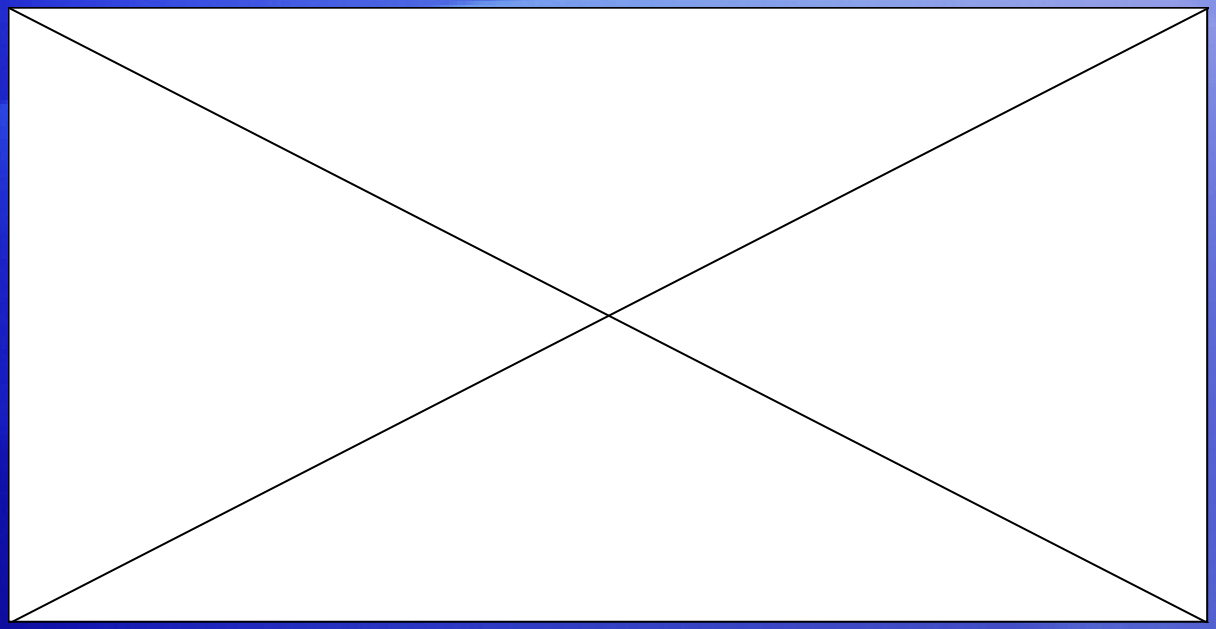
Though the PivotTable report has answered your questions, it takes a little work to read the entire report—you have to scroll down the page to see all the data.

So you can pivot the report to get a different view that's easier to read.

When you pivot a report, you transpose the vertical or horizontal view of a field, moving rows to the column area or moving columns to the row area. It's easy to do.

Get started with PivotTable reports

Where did drag-and-drop go?



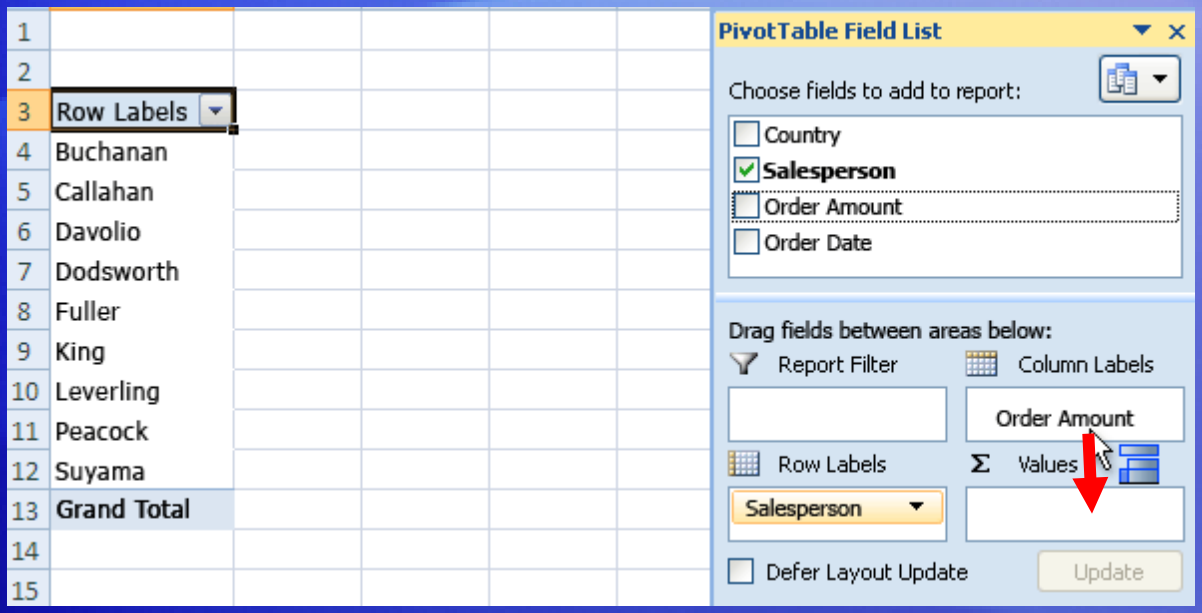
If you prefer to build a PivotTable report by using the drag-and-drop method, as you could in previous versions of Excel, there's still a way to do that.

Animation: Right-click, and click **Play**.

There are four boxes at the bottom of the **PivotTable Field List**, called **Report Filter**, **Row Labels**, **Column Labels**, and **Values**.

As the animation shows, you can drag fields to these boxes to create your report.

Where did drag-and-drop go?



If you prefer to build a PivotTable report by using the drag-and-drop method, as you could in previous versions of Excel, there's still a way to do that.

There are four boxes at the bottom of the **PivotTable Field List**: **Report Filter**, **Row Labels**, **Column Labels**, and **Values**. You can drag fields to these boxes to designate how the fields are used in the report.

The picture shows how you can drag the **Order Amount** field from the **Column Labels** to the **Values** box to add that field to the Values area of the report.

Suggestions for practice

1. Create the PivotTable report layout area.
2. Create a PivotTable report.
3. Change a heading name.
4. Sort the report.
5. Add a field to the report.
6. Add a report filter.
7. Pivot the report.
8. Add currency formatting to the report.

Online practice (requires Excel 2007)

Test question 1

After you build a PivotTable report, you can’t change the layout. (Pick one answer.)

1. True.
2. False.

Test question 1: Answer

False.

You can make changes as you go, or just start over.

Test question 2

What are PivotTable fields? (Pick one answer.)

1. Columns from the source data.
2. The area where you pivot data.
3. The PivotTable report layout area.

Test question 2: Answer

Columns from the source data.

Column headings from the source data become the names of the fields that you can use to build the PivotTable report. Each field summarizes multiple rows of information from the source data.

Test question 3

In the PivotTable Field List, you can tell which fields are already displayed on the report. (Pick one answer.)

1. True.
2. False.

Test question 3: Answer

True.

Fields used on the report have a check mark beside them, and the names are in bold type.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Word 2007 Training

Create your first document

Course contents

- Overview: New to Word?
- Lesson: Meet the document

The lesson includes a list of suggested tasks and a set of test questions.

Overview: New to Word?

Do you need to use Word 2007, but you're not quite sure how to get started?

Take this course to learn the basics of creating your first document.

You'll find out how to type where you want to on a page, fix spelling errors, change spacing and page margins, and save your work.

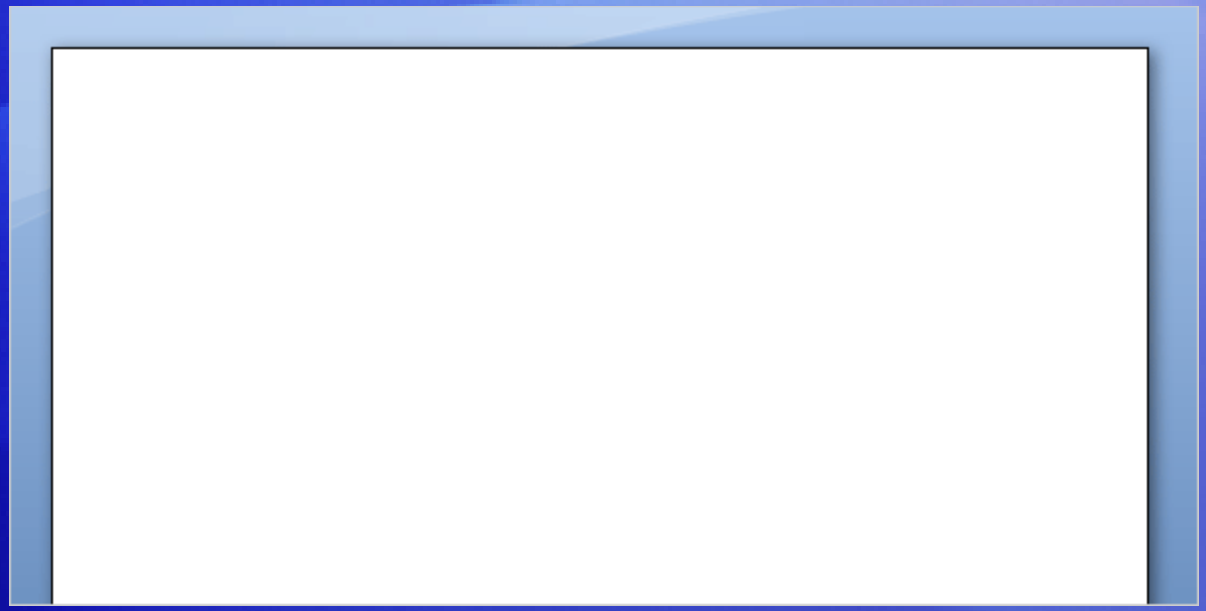
Course goals

- Create and save a document.
- Accept or reject suggested revisions for spelling and grammar as you type.
- Change page margins.
- Adjust spacing by deleting any extra spaces between words or extra lines between paragraphs.

Lesson

Meet the document

Meet the document



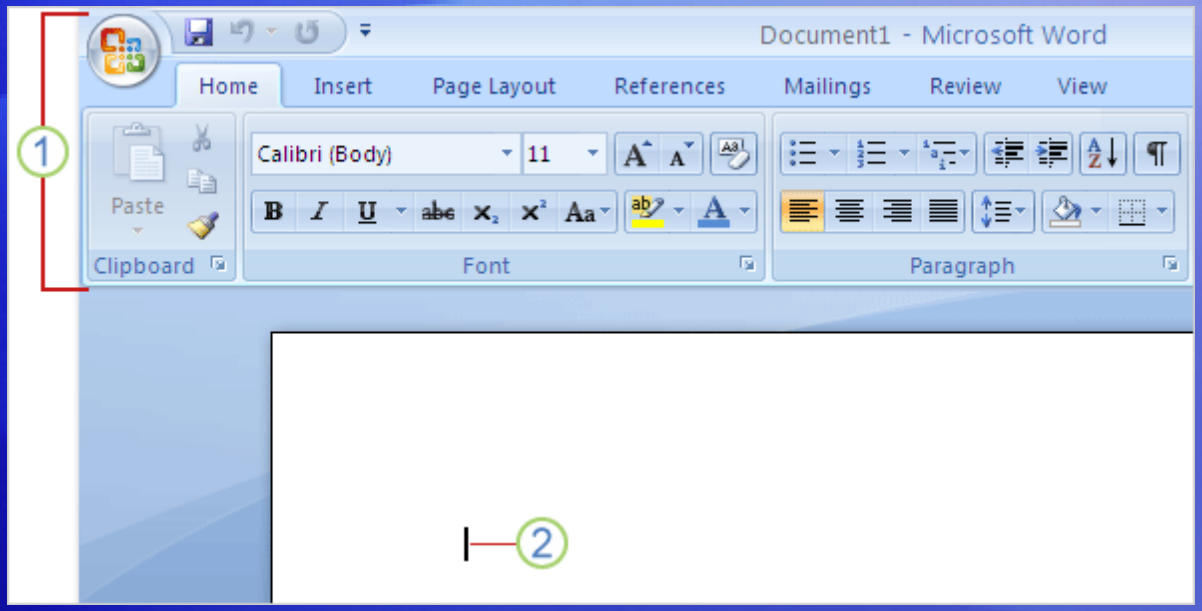
When you open Word, you see a **blank document**.

It looks like a sheet of paper and takes up most of the screen space.

You need to get to work, but being new to Word, you may wonder how to get started.

Let’s begin by helping you get comfortable with some Word basics.

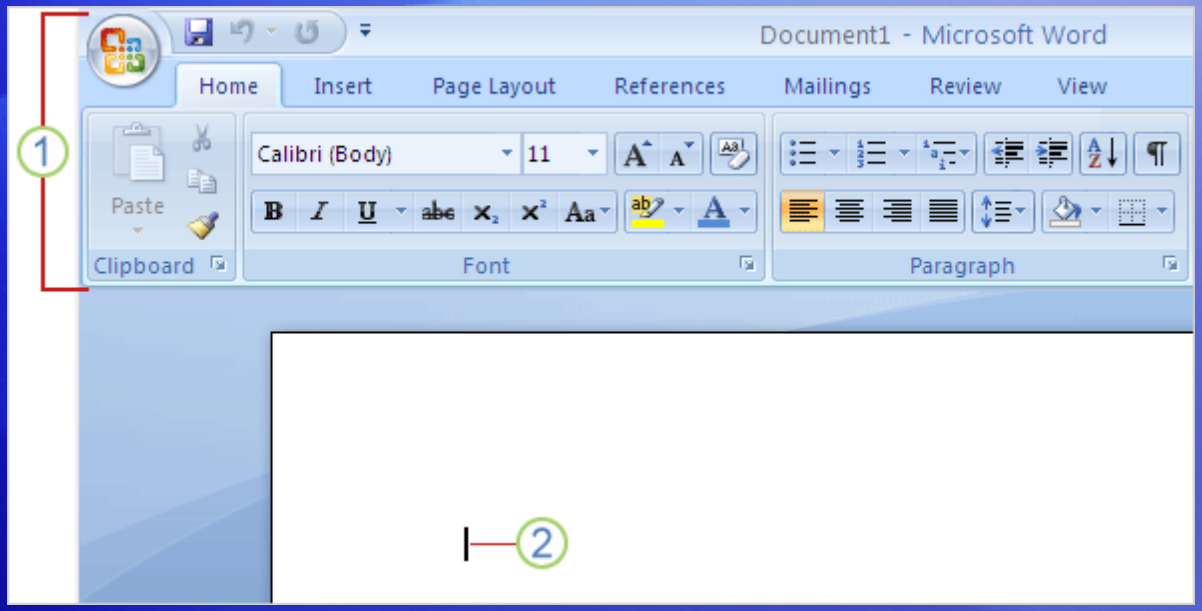
Just start typing



Start with the **Ribbon** and the **cursor**.

1. Above the document, the Ribbon spans the top of Word. You use buttons and commands on the Ribbon to tell Word what you want to do.
2. Word waits for you to start typing. The cursor, a blinking vertical line in the upper-left corner of the page, shows where the content you type appears on the page.

Just start typing

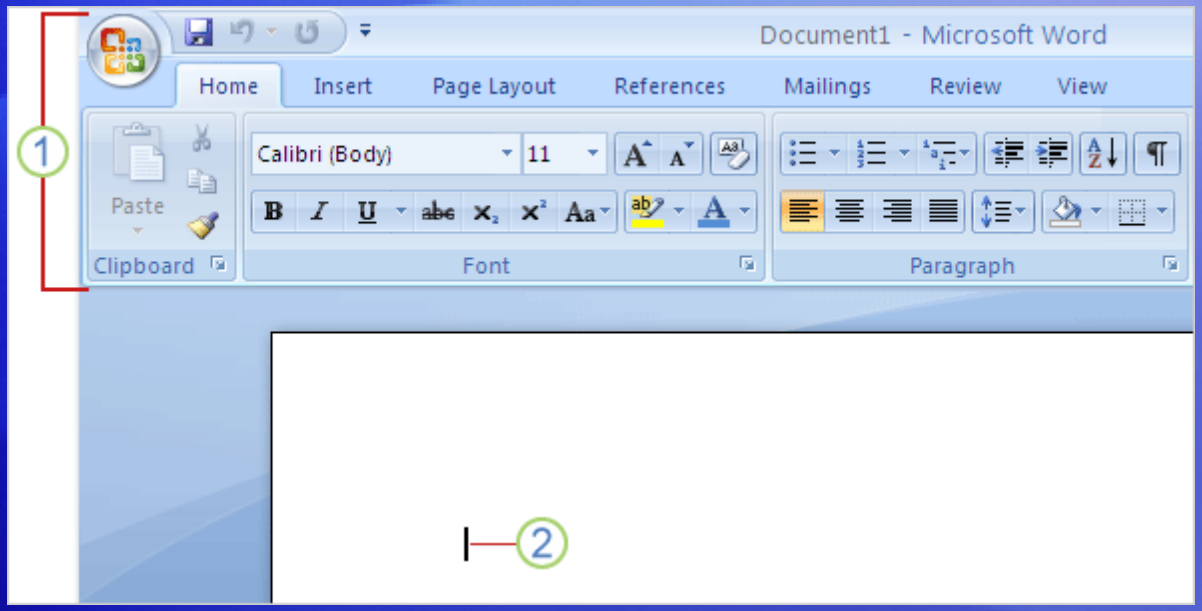


Start with the **Ribbon** and the **cursor**.

If you'd like to start typing further down the page instead of at the top, press the ENTER key on your keyboard until the cursor is where you want to type.

If you want to indent the first line you type, press the TAB key on your keyboard before you start to type. This will move the cursor one-half inch to the right.

Just start typing

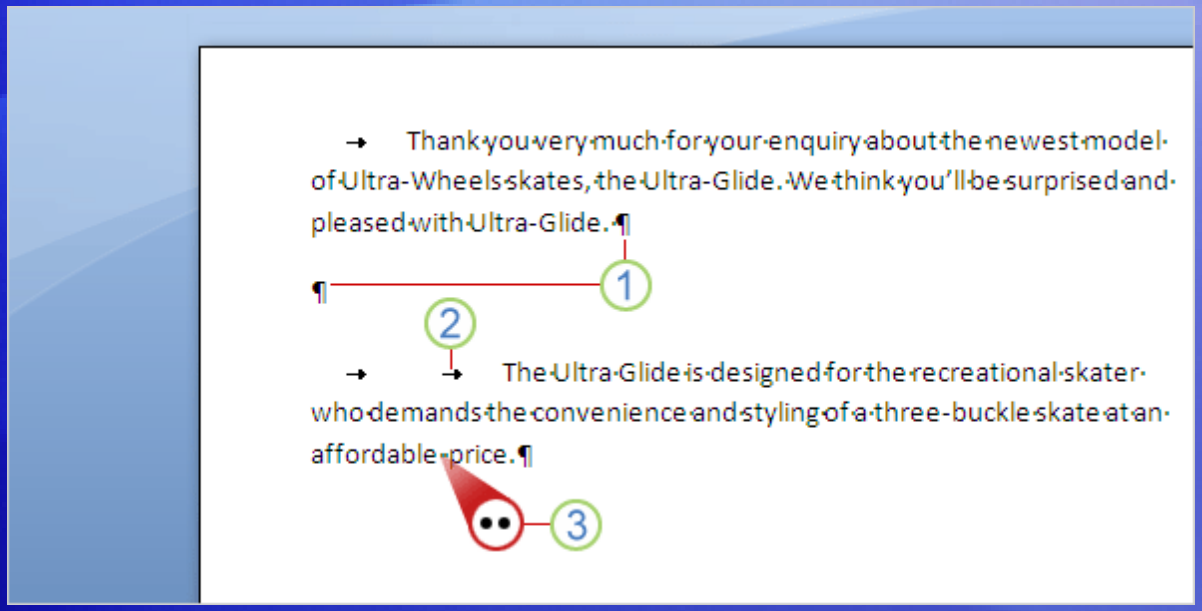


Start with the **Ribbon** and the **cursor**.

As you type, the cursor moves to the right. When you get to the end of a line on the right side of the page, just continue to type. Word will move on to the next line for you as you type.

To start a new paragraph, press ENTER.

What’s that?



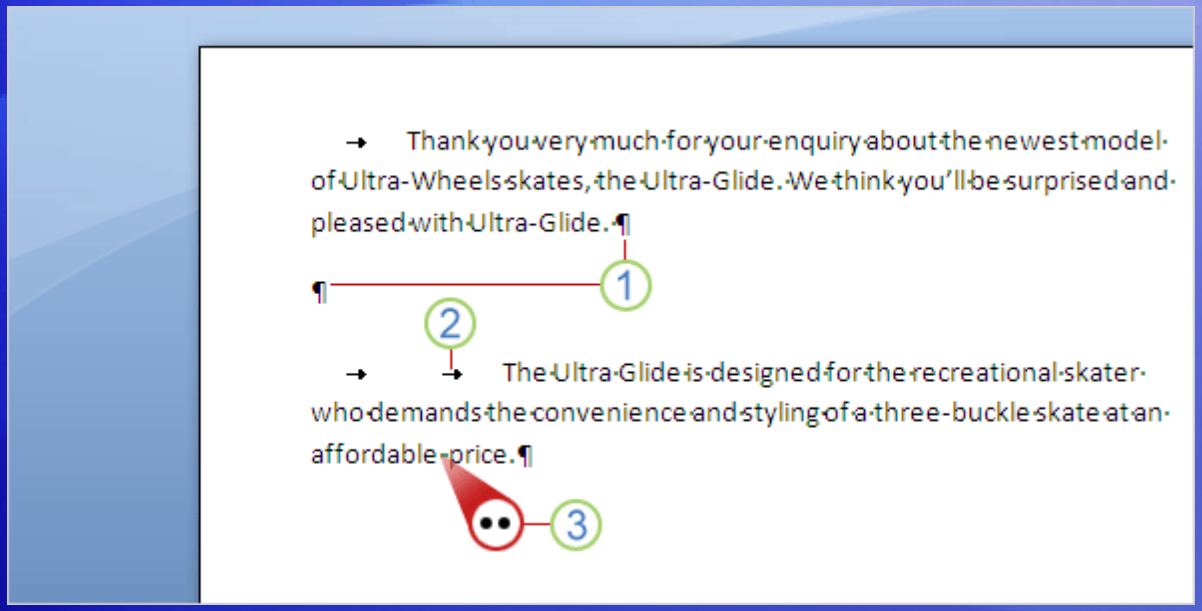
Imagine that you’ve typed a few paragraphs.

They seem far apart, and the second paragraph starts farther to the right than the first.

You can see what’s going on by looking at the formatting marks Word automatically inserts as you type.

These marks are always in documents, but they are invisible until you display them.

What’s that?

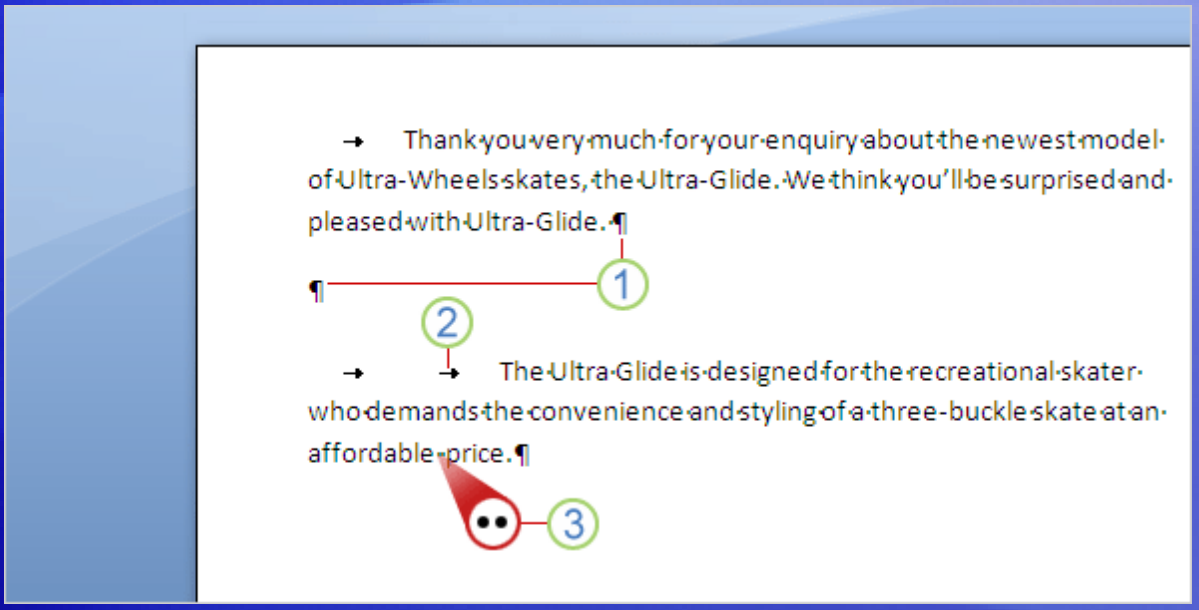


To see formatting marks, use the Ribbon, at the top of the window.

On the **Home** tab, in the **Paragraph** group, click the **Show/Hide** button ¶. Click the button again to hide formatting marks.

These marks aren’t just for show. You can get rid of extra spacing by deleting extra marks.

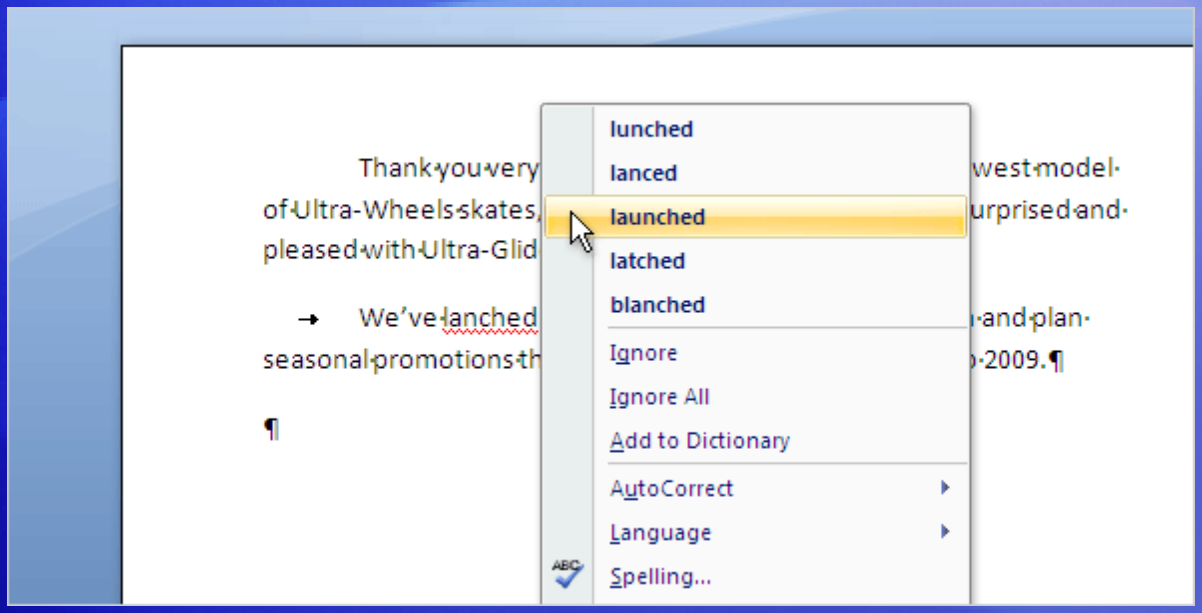
What’s that?



So what are formatting marks, and what do they mean? The picture shows a few examples.

1. Extra paragraph mark: ENTER was pressed twice.
2. Extra tab mark: TAB was pressed twice, making the second paragraph indented more than the first.
3. Extra space between words: The SPACEBAR was pressed twice instead of once.

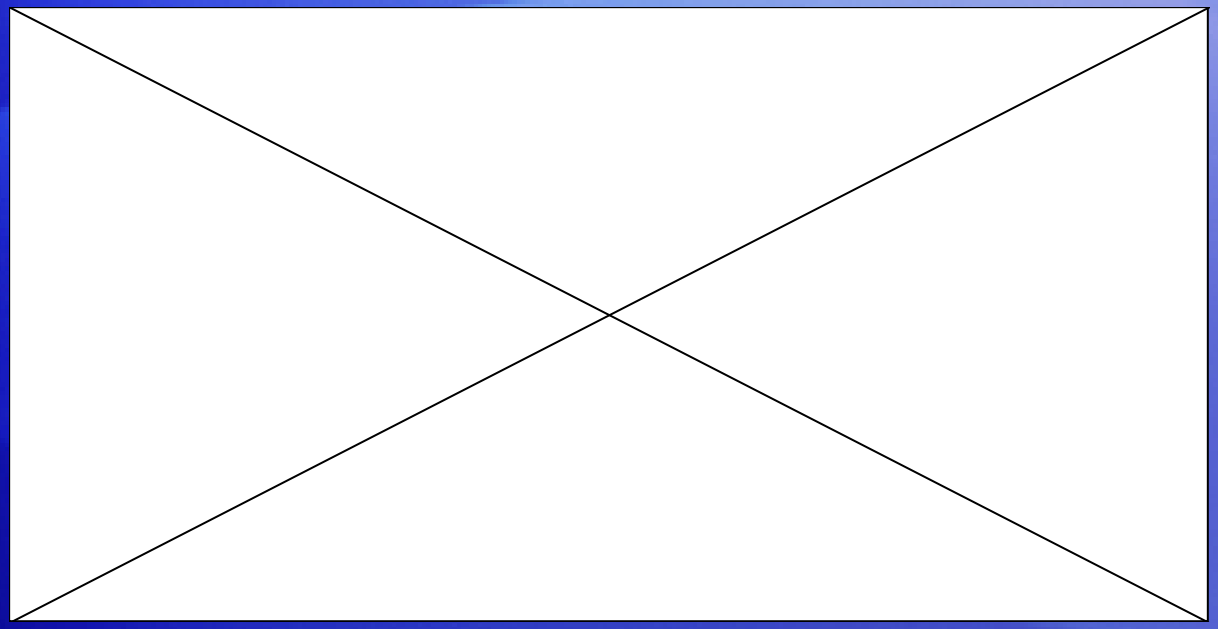
What are those underlines in my document?



As you type, Word might on occasion insert a wavy red, green, or blue underline beneath text.

- **Red:** Indicates either a possible spelling error or that Word doesn't recognize a word, such as a proper name or place.
- **Green:** Word thinks grammar should be revised.
- **Blue:** A word is spelled correctly but does not seem to be the correct word for the sentence.

What are those underlines in my document?

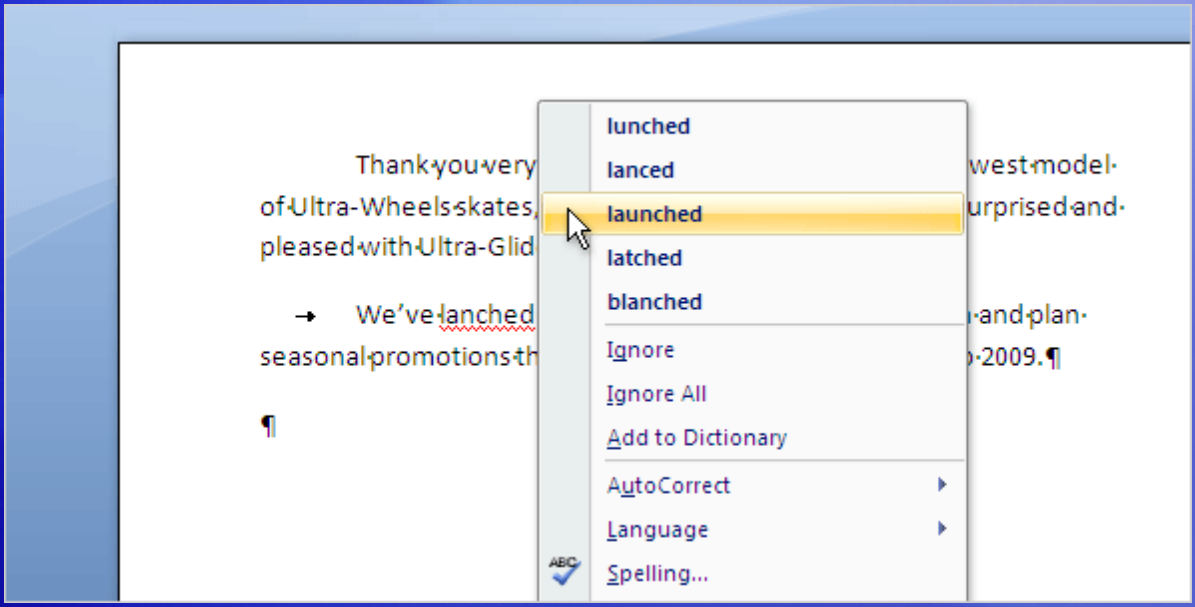


The animation shows what you can do about the wavy underlines.

Animation: Right-click, and click **Play**.

Right-click an underlined word to see suggested revisions (every once in a while Word may not have any alternate spellings). Click a revision to replace the word in the document and get rid of the underlines.

What are those underlines in my document?

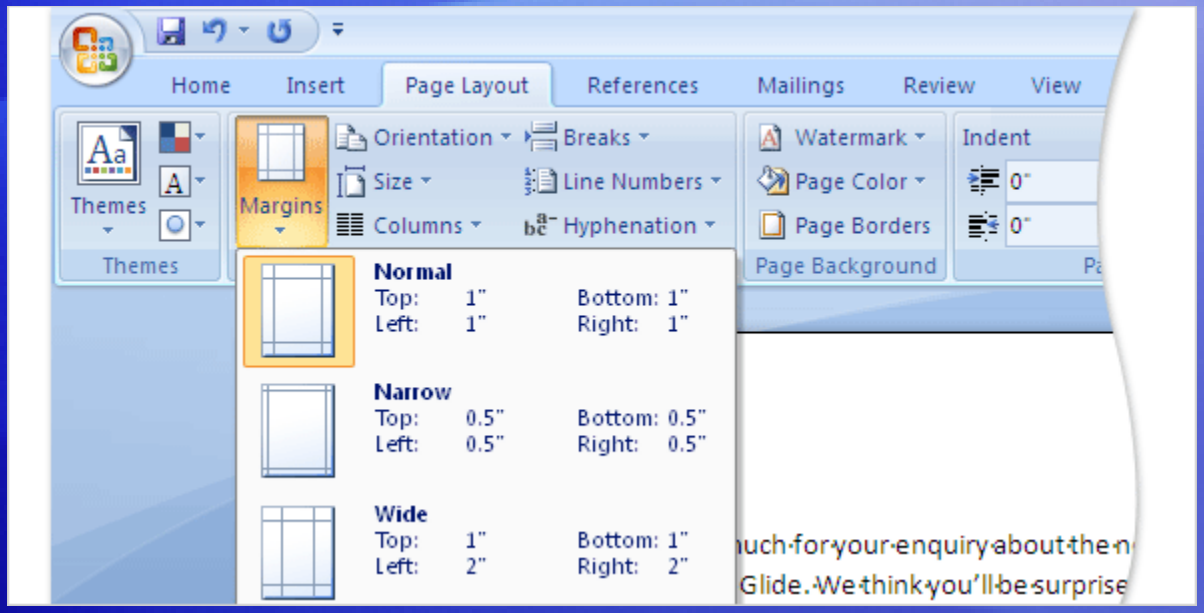


The picture shows an example of what you can do about the wavy underlines, in this case, red for spelling.

Right-click the underlined word to see suggested revisions (every once in a while Word may not have any alternate spellings).

Click a revision to replace the word in the document and get rid of the underlines.

Change page margins



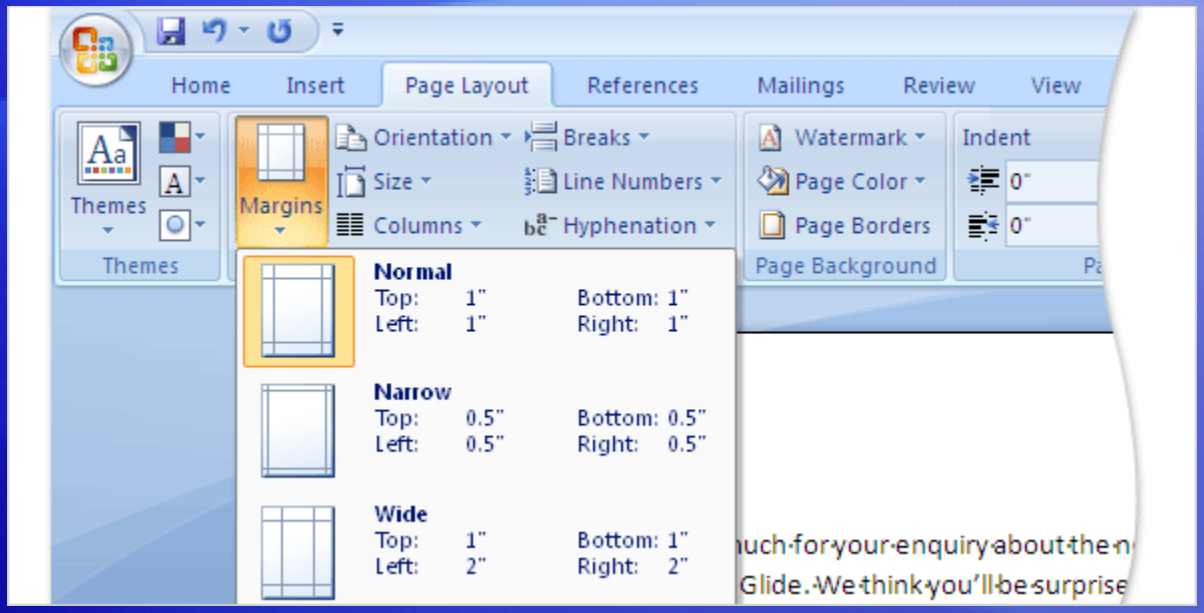
Page margins are the blank spaces around the edges of the page.

There is a 1-inch (2.54-cm) page margin at the top, bottom, left, and right sides of the page.

But if you want different margins, you should know how to change them, which you can at any time.

When you type a very brief letter, for example, or a recipe, an invitation, or a poem, you might like different margins.

Change page margins

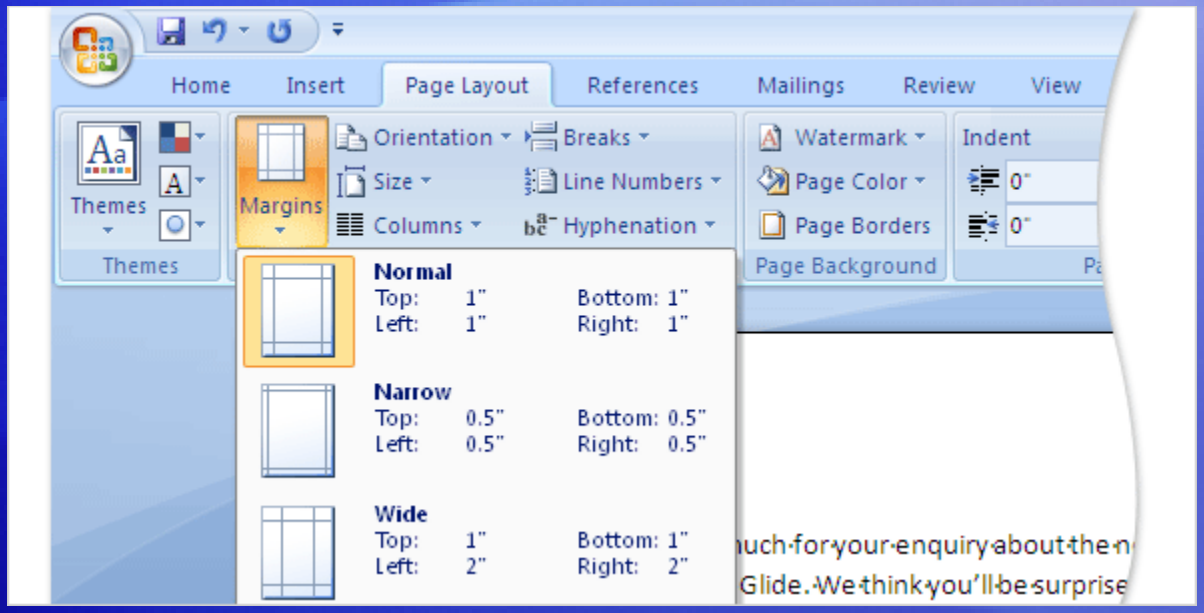


To change margins, use the Ribbon at the top of the window.

Click the **Page Layout** tab. In the **Page Setup** group, click **Margins**.

You'll see different margin sizes, shown in little pictures (icons), along with the measurements for each of the margins.

Change page margins

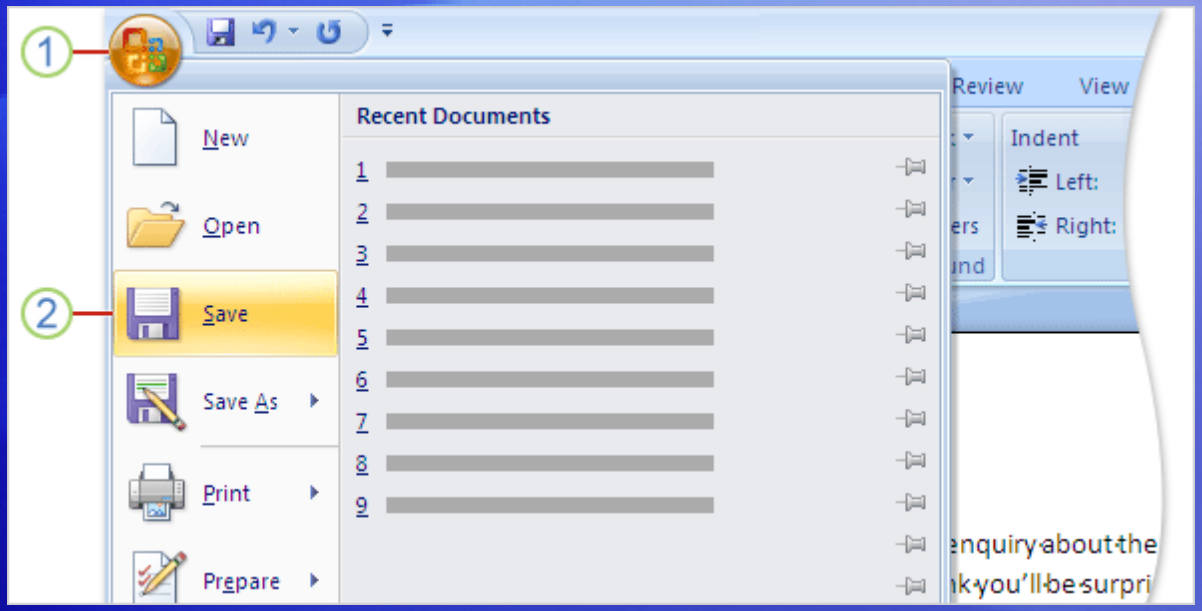


The first margin in the list is **Normal**, the current margin.

To get narrower margins, click **Narrow**. If you want the left and right margins to be much wider, click **Wide**.

When you click the margin type that you want, your entire document automatically changes to the margin type you selected.

Save your work

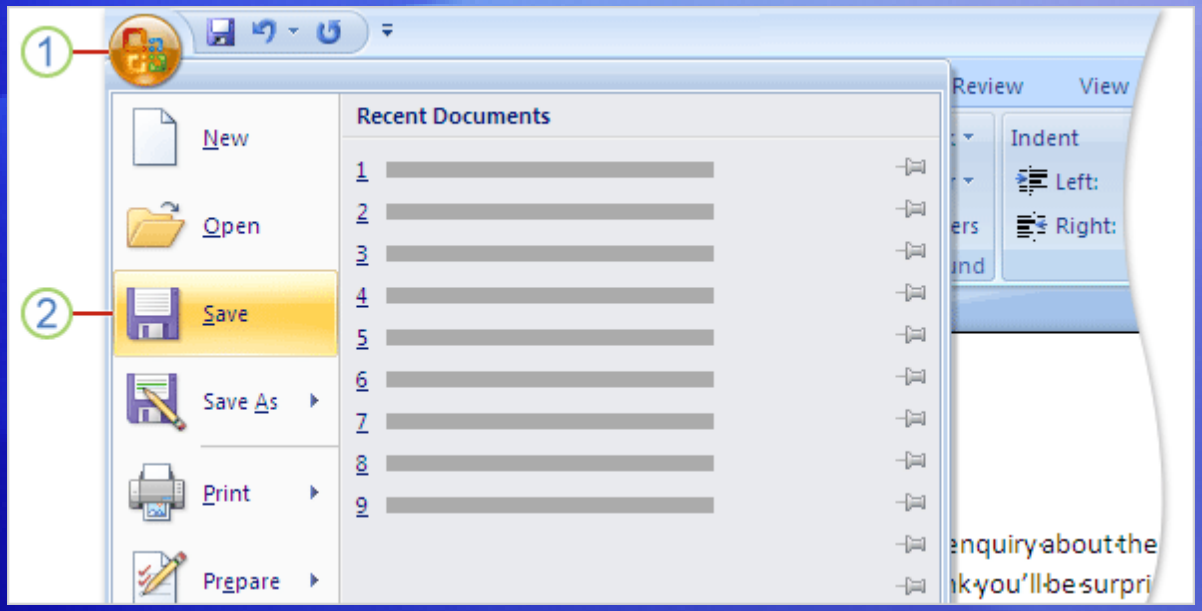


By now you may have a finely tuned sentence or several paragraphs that you'd regret losing if your cat jumped on your keyboard, or if a power failure shut your computer off.

To keep your work, you must save it. It's never too early.

1. Click the **Microsoft Office Button** in the upper-left corner of the window.
2. Click **Save**. A dialog box opens, where you tell Word where you want to store the document on your computer and what you want to call it.

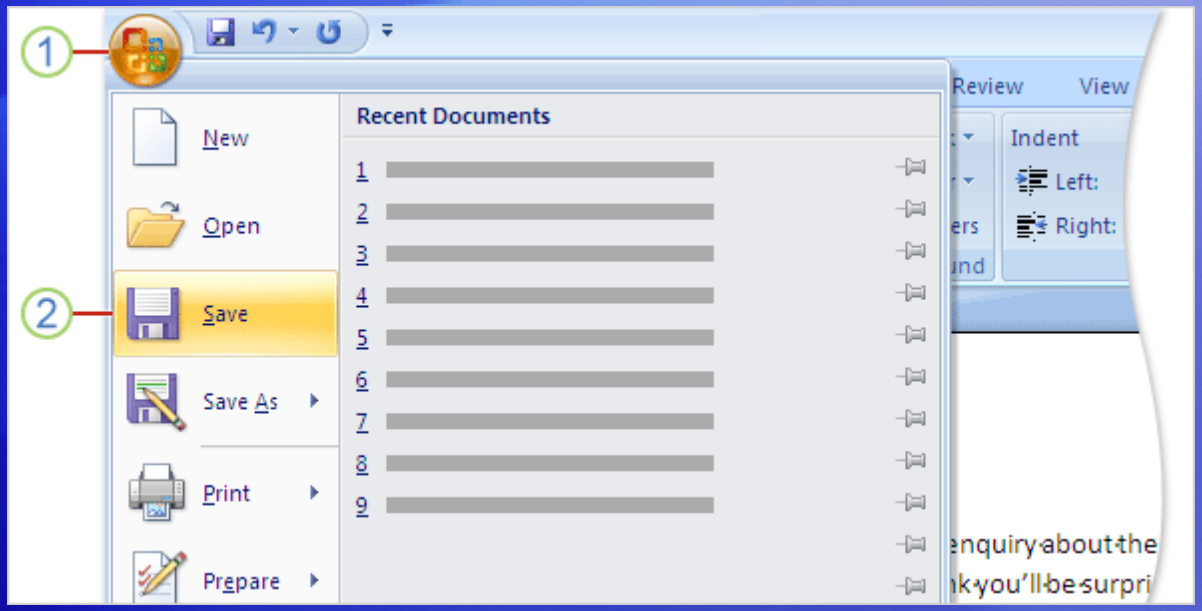
Save your work



After you save your document, and you continue to type, save your work as you go.

Every once in a while, click the **Save** button on the Quick Access Toolbar in the upper-left corner of the window.

Save your work



After you save your document, and you continue to type, save your work as you go.

When you are through with the document and have saved your work, close the file. Click the **Microsoft Office Button**, and then click **Close**.

Suggestions for practice

1. Turn formatting marks on.
2. Do some typing in your document.
3. Work with revision marks.
4. Change page margins.
5. Save your document.

Online practice (requires Word 2007)

Test question 1

When should you save your document? (Pick one answer.)

1. Soon after you begin working.
2. When you’re through typing it.
3. It doesn’t matter.

Test question 1: Answer

Soon after you begin working.

It takes just a second to lose your work. Get in the habit of saving early, and saving often.

Test question 2

Word puts a red underline beneath text. The word must be misspelled. (Pick one answer.)

1. True.
2. False.

Test question 2: Answer

False.

Word enters wavy red underlines beneath misspelled words. But Word does not have every word in its dictionary. Some words, such as proper names, may get an underline because Word does not recognize the word.

Test question 3

Word inserts a blue underline in your document. What's going on? (Pick one answer.)

1. There's a grammatical error.
2. A word is correctly spelled but is used incorrectly in a sentence.
3. A proper name is misspelled.

Test question 3: Answer

A word is correctly spelled but used incorrectly in a sentence.

You'll see blue, for example, if you type "too", but the word should be "to."

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Word 2007 Training

Decorate documents with backgrounds, borders, and text effects

Course contents

- Overview: Less plain, more polished
- Lesson 1: Add a watermark or background
- Lesson 2: Add borders, shading, and styles
- Lesson 3: Use special text effects

Each lesson includes a list of suggested tasks and a set of test questions.

Overview: Less plain, more polished

Your document is complete, but it's begging for color, polish, and sparkle, all of which you can achieve by using decorative elements in Word 2007.

For example, add defining borders to pages and pictures, use colorful backgrounds for Web documents, and communicate information using a page watermark.

This course shows you these snazzy techniques, and more.

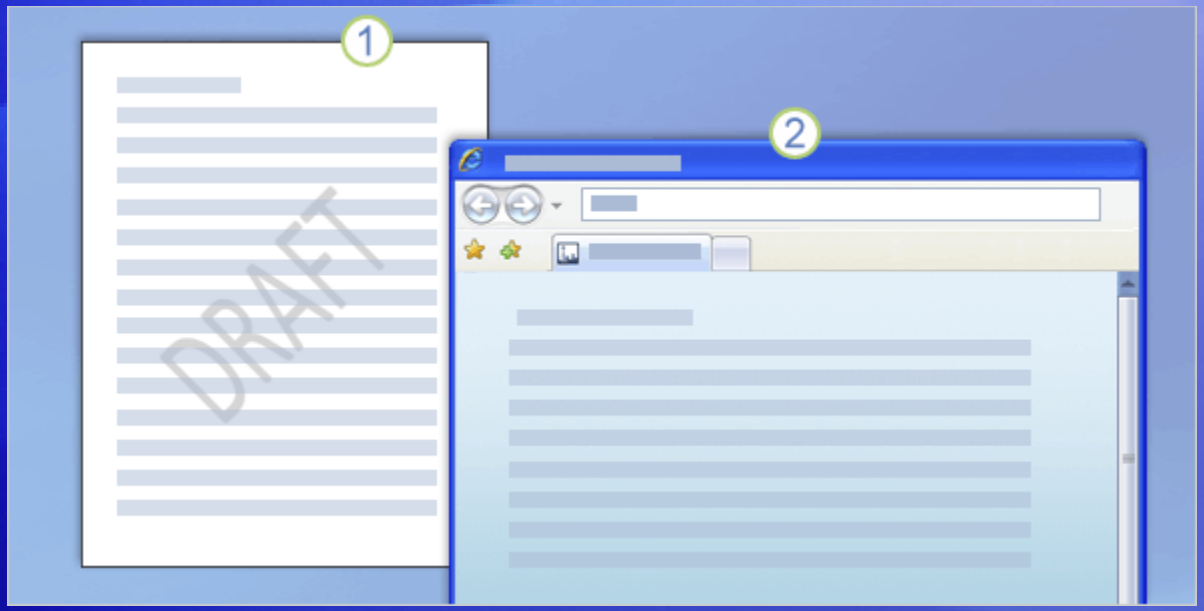
Course goals

- Add a custom watermark to printed documents.
- Add a colorful background to Web-based documents.
- Add defining borders to pages, paragraphs, pictures, or tables.
- Use shading to emphasize headings or paragraphs.
- Give color and snap to shapes and tables.
- Make headings more professional with text effects and WordArt.

Lesson 1

Add a watermark or background

Add a watermark or background



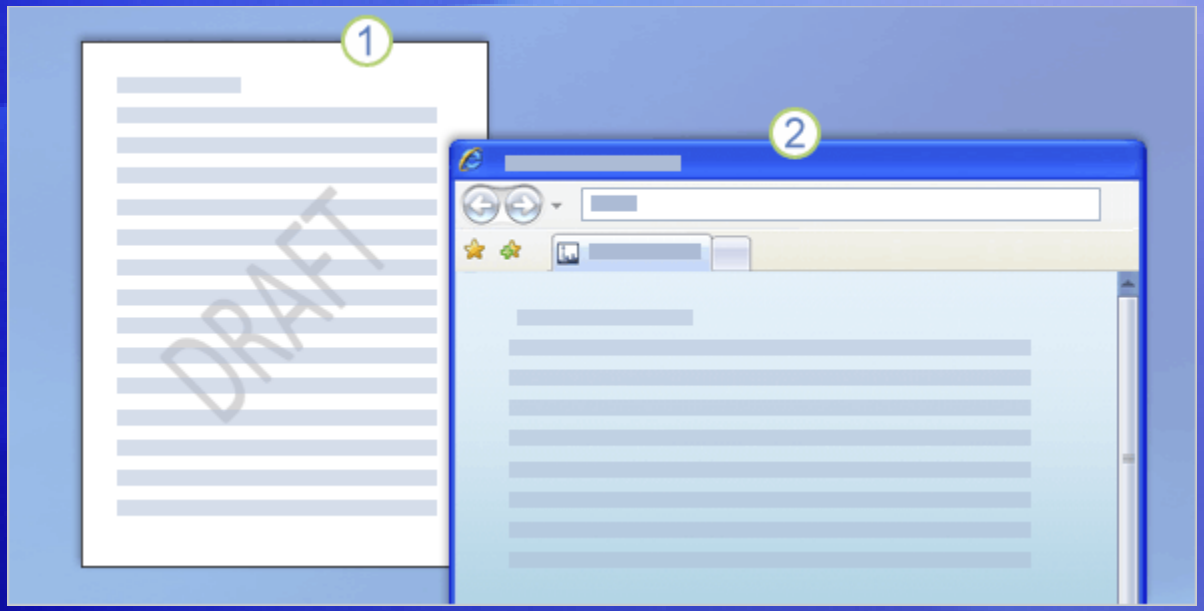
Do you want to visually convey that a document is draft only? Or that the information is strictly confidential?

You can do that with a watermark.

Example 1 shows what a watermark is. The watermark tells people something about the document.

Watermarks are semitransparent in color, so they sit behind and don't divert people's attention from the document's content. They are for documents that will be printed.

Add a watermark or background



Another sort of background, shown in example 2, is purely for decoration and is intended for documents you'd post to a Web site.

You can add all sorts of colorful backgrounds, including solid colors, gradients, patterns, textures, and even pictures.

The goal is to liven up the page — but you don't want to make it hard to read.

Add a watermark to a printed document

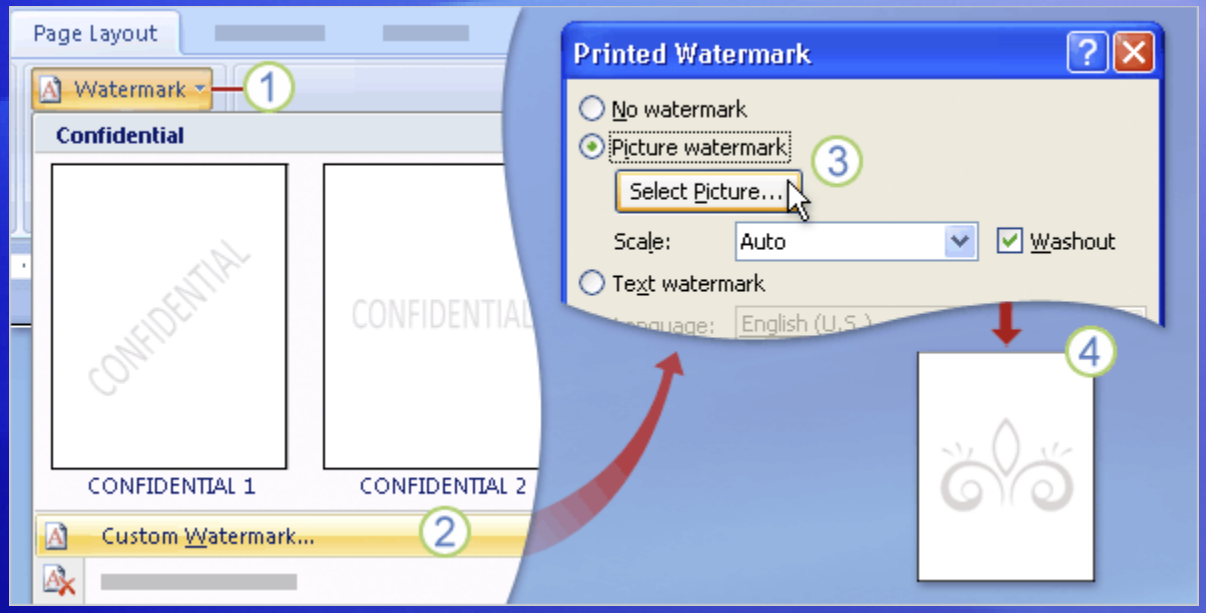
Here are examples of watermarks.

The ones with text are typical of what's available in the watermark gallery in Word 2007.

Once the watermark's inserted, you can see it in Print Layout view, in print preview, or in the printed document.

As this indicates, watermarks are intended for printed documents — they will not show up in the Web Layout view of the document, which is the view used if you post the document to a Web site.

Add a picture watermark

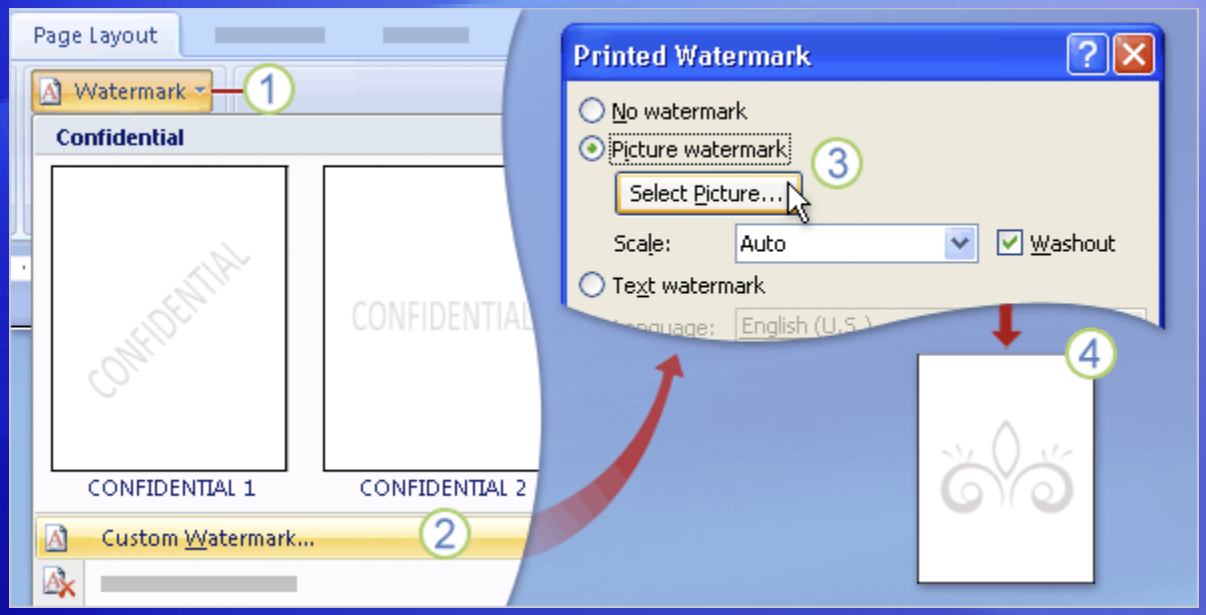


For a custom watermark, you can use either text or a picture.

These steps show how you'd create a picture watermark.

1. On the **Page Layout** tab, click **Watermark** to open the gallery.
2. Click **Custom Watermark**, at the bottom of the gallery.

Add a picture watermark



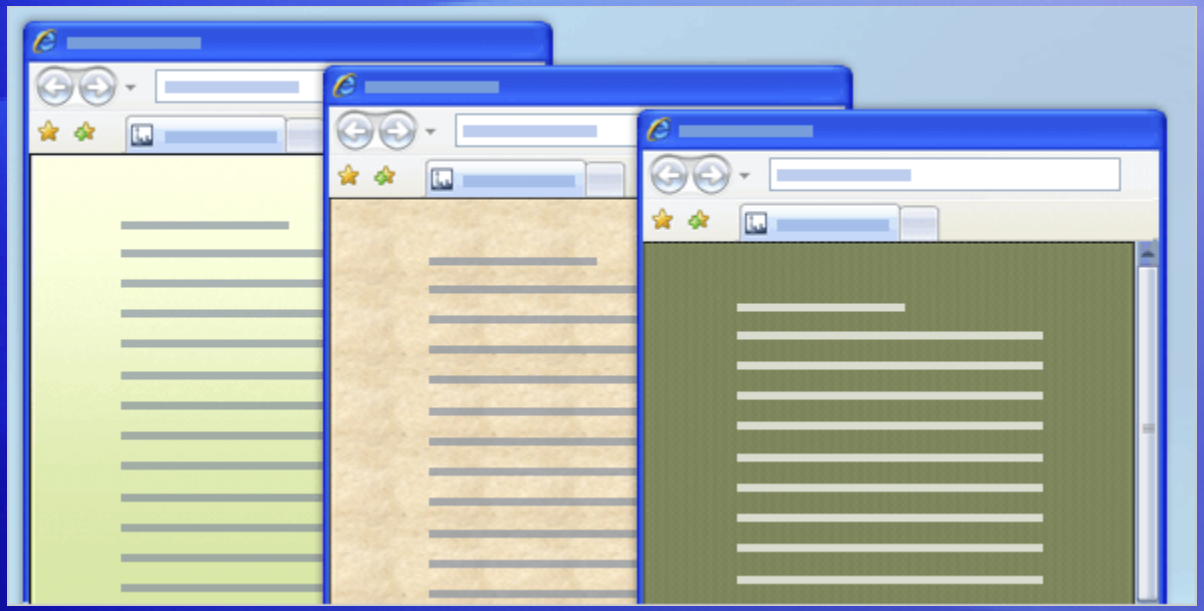
For a custom watermark, you can use either text or a picture.

These steps show how you'd create a picture watermark.

3. Click **Picture watermark**, and select your picture. Use any image on your computer, or clip art in the Microsoft Clip Organizer.

4. Your result might look something like the example shown.

Add a background to a Web document

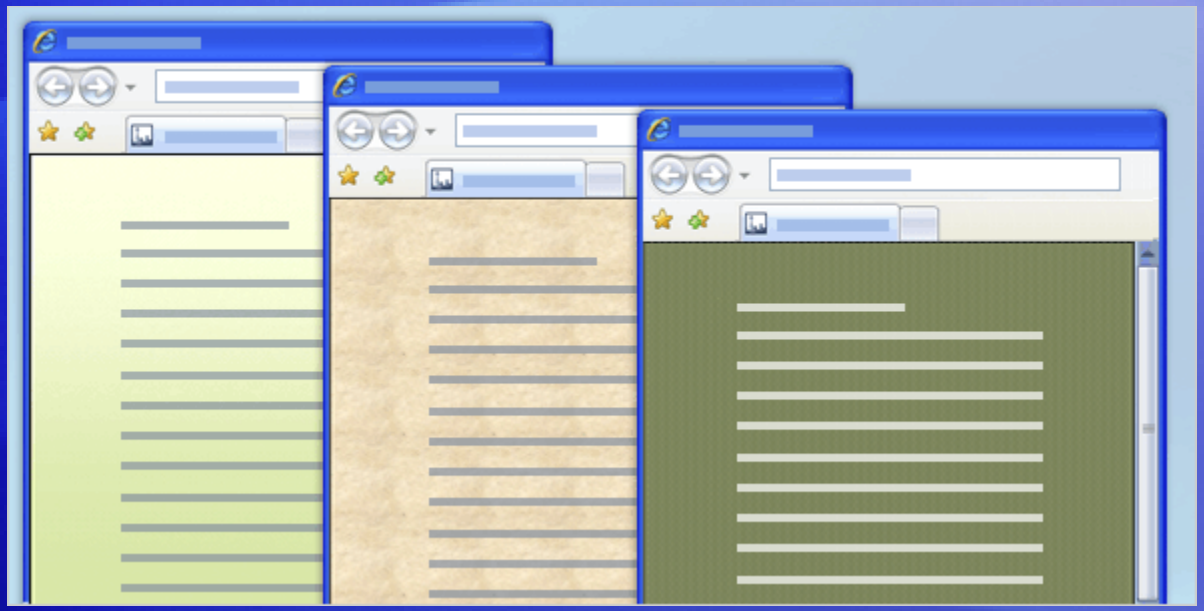


Use a colorful background to add boldness or flavor to Web documents.

You add a background from the **Page Layout** tab, by clicking **Page Color**.

From there, you can apply a solid color or click **Fill Effects** to choose a gradient, textured, or patterned background, as shown here. Or, you can apply a picture from your computer.

Add a background to a Web document



Use a colorful background to add boldness or flavor to Web documents.

Important: Don’t overpower your text with the background you choose. You want it to complement the text, not make it unreadable.

Suggestions for practice

1. Add a text watermark.
2. Add a picture watermark.
3. Save a watermark to the gallery.
4. Add a background to a Web document.
5. Bonus: Set up Word to print backgrounds

Online practice (requires Word 2007)

Test 1, question 1

What's the main purpose of a watermark? (Pick one answer.)

1. Authenticate your printed document as the original.
2. Add a dappled, water-like finish to your printed document.
3. Communicate useful information or add visual interest in printed documents, without overpowering the main text.

Test 1, question 1: Answer

Communicate useful information or add visual interest in printed documents, without overpowering the main text.

You can add a text watermark such as “Confidential,” “Draft,” or any designator you choose. You can also add a picture watermark. Both sit behind your text so that they don’t obscure it.

Test 1, question 2

You have to be in Print Layout view to see or customize a watermark in a document. (Pick one answer.)

1. True.
2. False.

Test 1, question 2: Answer

True.

Test 1, question 3

You want to add a background to a Web document. Which command do you click on the Page Layout tab? (Pick one answer.)

1. Watermark.
2. Page Color.
3. Page Background.

Test 1, question 3: Answer

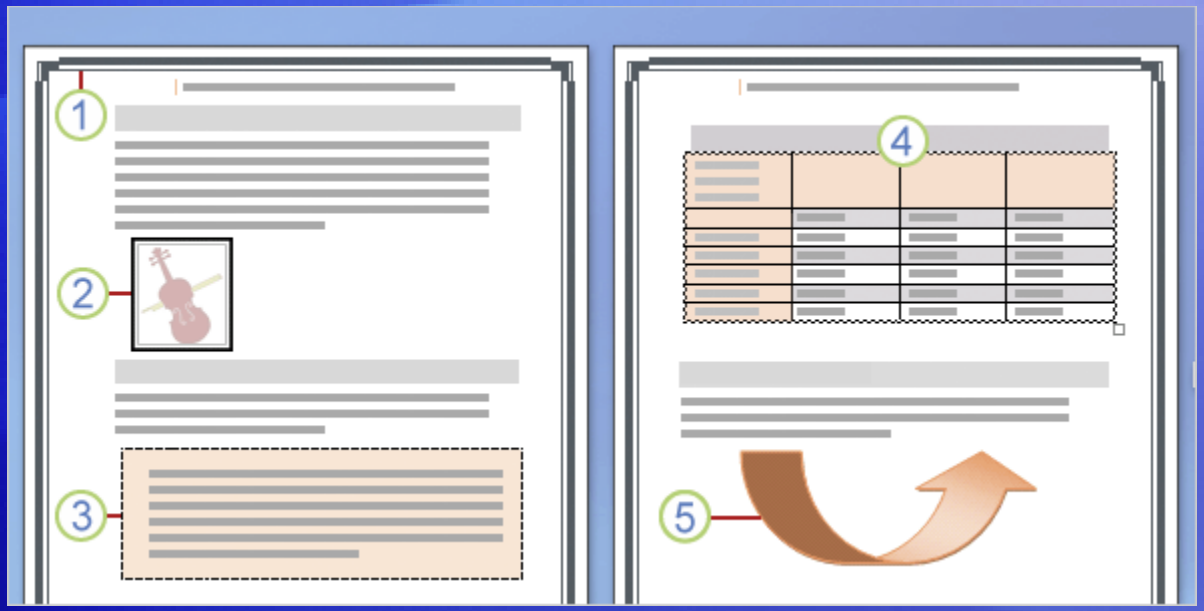
Page Color.

From here, you can apply a solid color or click Fill Effects to choose a gradient, textured, or patterned background, or you can apply a picture from your computer.

Lesson 2

Add borders, shading, and styles

Add borders, shading, and styles



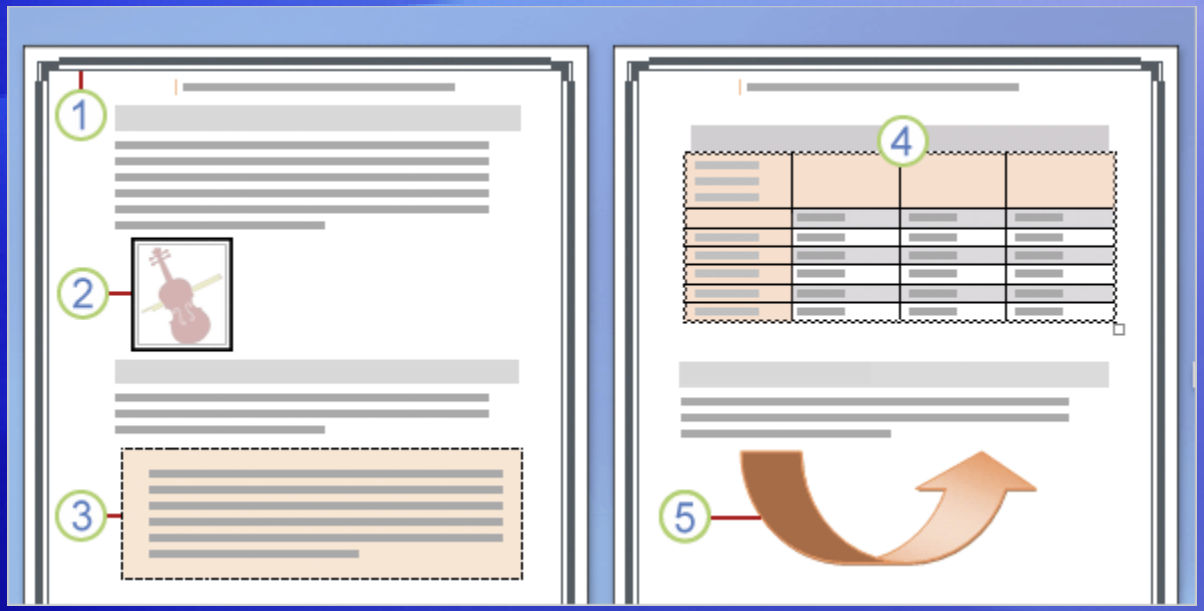
Borders, shading, and decorative effects aren't just for holiday newsletters.

Word gives you many ways to spruce up your documents all year round.

1. Apply page borders for results ranging from playful to business-sharp.
2. For pictures, add new style effects, such as shadows and reflections, or simple borders.
3. Emphasize whole paragraphs with shading and borders.

Decorate documents with
backgrounds, borders, and text effects

Add borders, shading, and styles



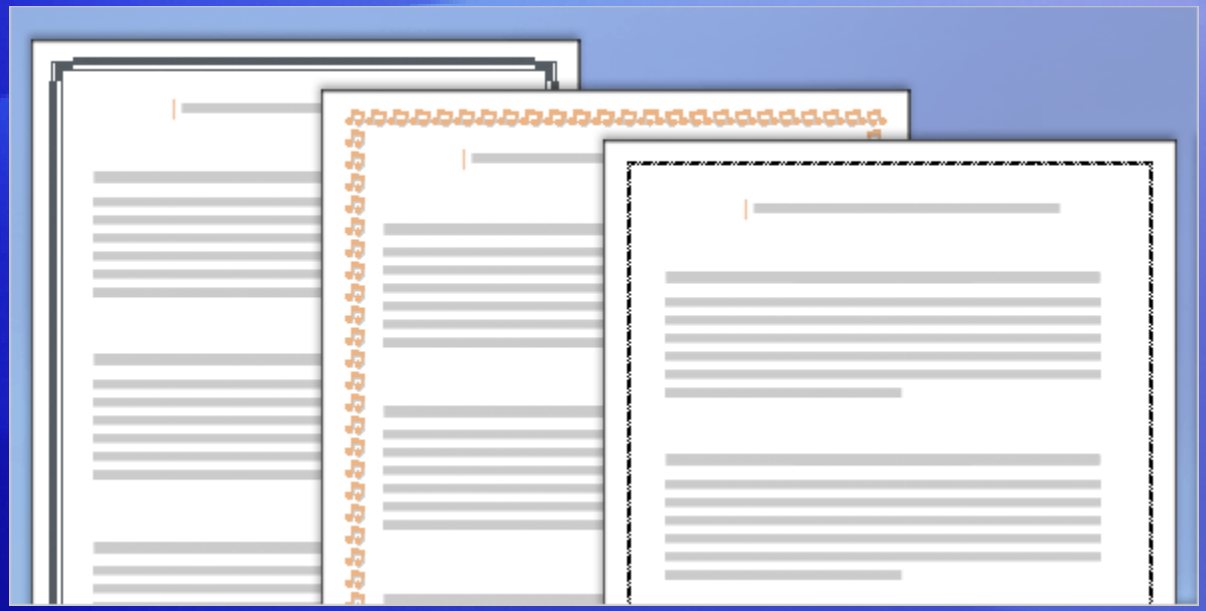
Borders, shading, and decorative effects aren't just for holiday newsletters.

Word gives you many ways to spruce up your documents all year round.

4. Choose from new table styles to instantly add color and formatting.
5. Give flair to shapes with new styles and fill effects.

Decorate documents with
backgrounds, borders, and text effects

Page borders



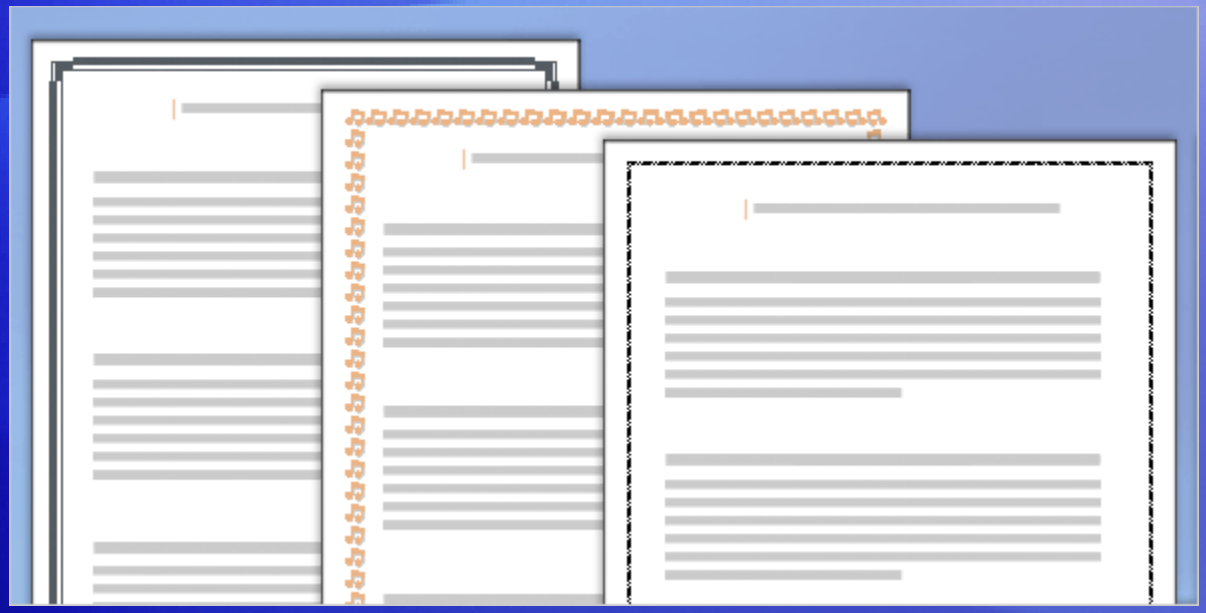
You can add full or partial borders to a page.

Word provides a variety of built-in page borders, from businesslike to fancy.

You can choose:

- The type of border, from simple box to shadowed to 3-D to a custom style of your own design.
- The line style, color, and thickness.
- The artistic style.

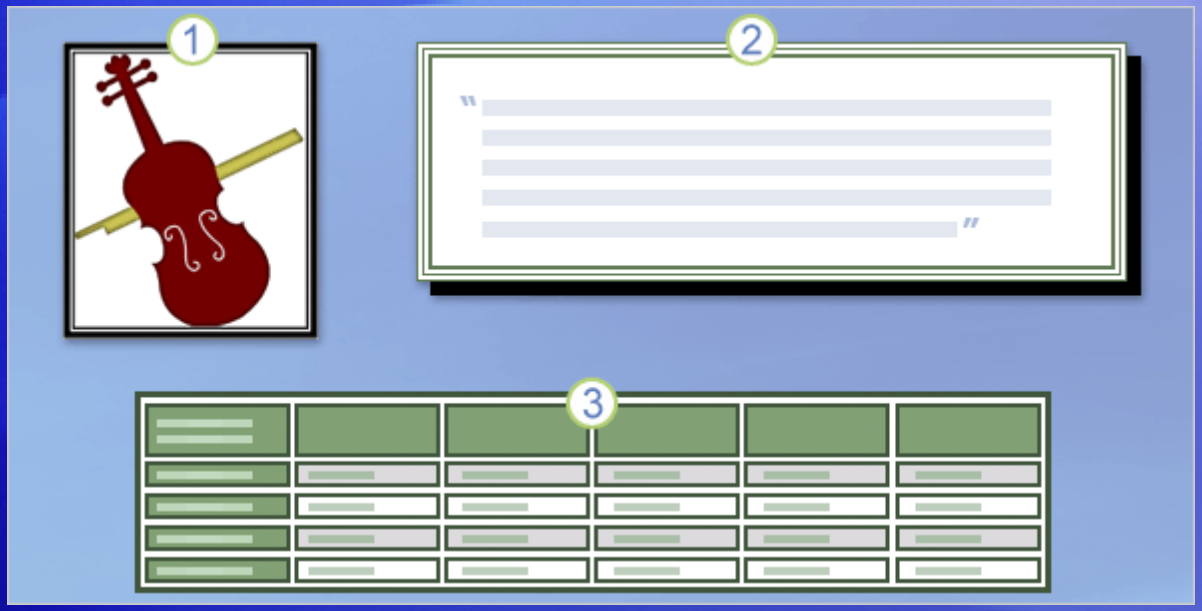
Page borders



You apply a page border from the **Page Layout** tab, using the **Page Border** command.

And you can preview your border design, so it's easy to see how your chosen effect will look.

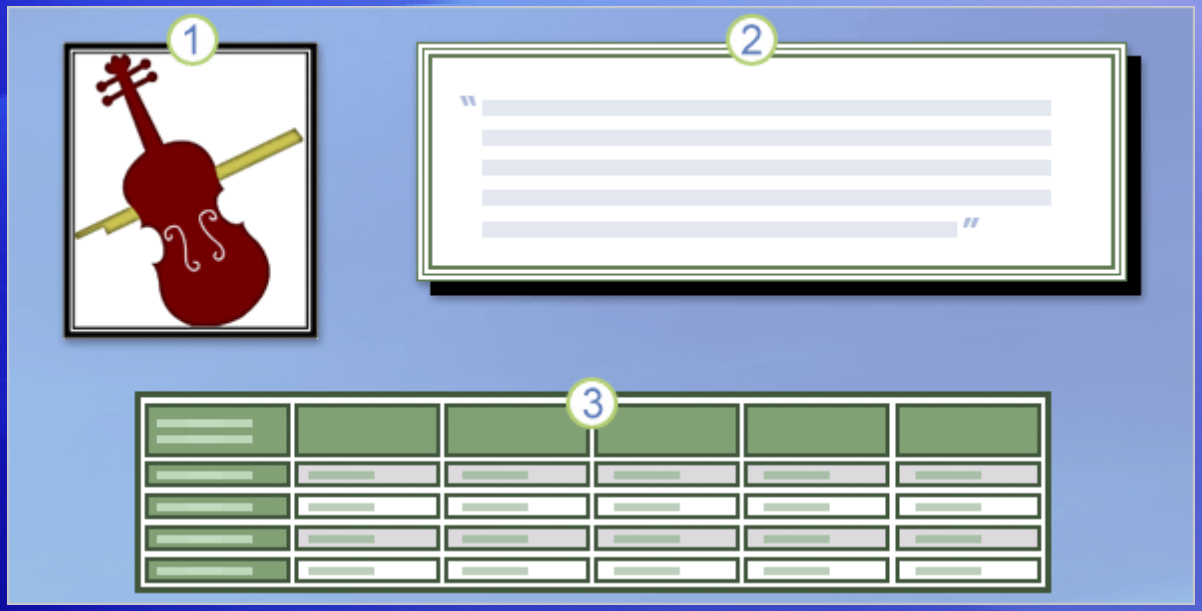
Borders for pictures, text, and tables



Try borders around various elements within a document, such as the ones shown here.

1. Use a border to make a picture stand out.
2. A border can nicely offset an important quotation.
3. Borders can be very effective in tables. Apply them to every cell if you want that look.

Borders for pictures, text, and tables

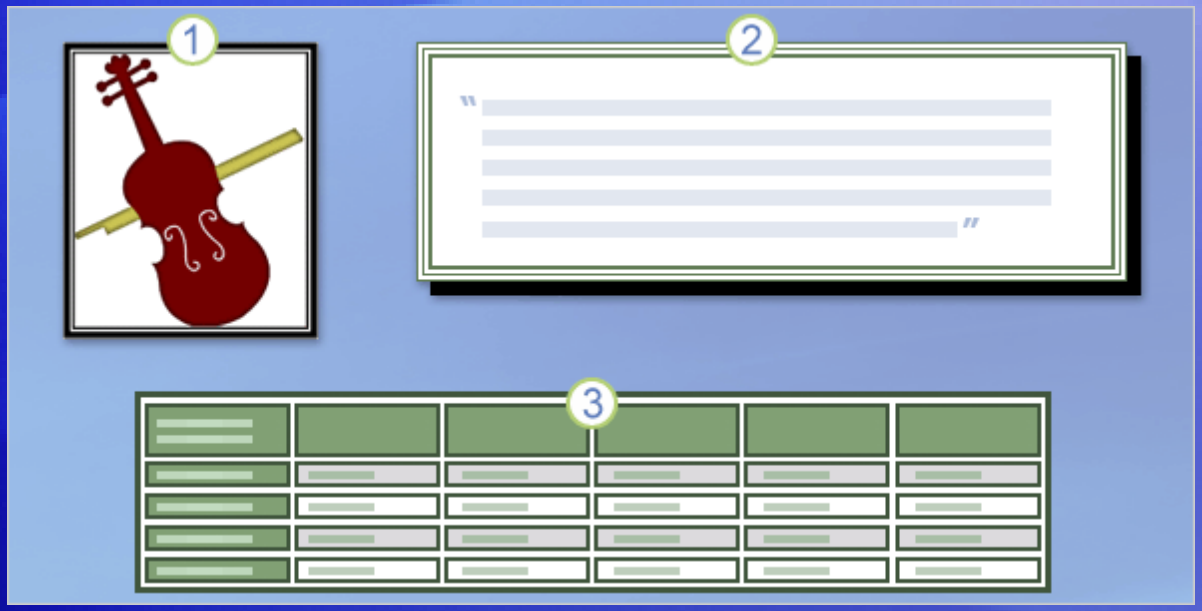


The methods for adding borders vary depending on what you're adding a border to.

For a picture, Word 2007 offers a whole new set of picture styles that include borders as well as effects such as reflections and shading.

You find these styles by selecting the picture and then working with the **Picture Tools** on the Ribbon.

Borders for pictures, text, and tables



The methods for adding borders vary depending on what you're adding a border to.

For other graphics, such as tables, and for text, you'll find border options similar to those you'd use for page borders.

These are opened from the **Page Layout** tab.

Shading

Use shading to emphasize text. These examples give an idea.

1. Make a heading stand out.
2. Use a quotation style and apply a shading background and border to it.
3. Set off a list.

Decorate documents with
backgrounds, borders, and text effects

Shading

Use shading to emphasize text. These examples give an idea.

You find shading options in the same place as border options: Start on the **Page Layout** tab, and click **Page Borders**.

Quick styles for tables

PER MARKET SEGMENT					
	1995	1996	1997	1998	1999
Acoustic	30.00%	30.00%	26.00%	26.00%	24.00%
Electric	18.96%	17.00%	15.00%	12.00%	9.00%
Keyboards	14.00%	15.00%	17.00%	25.00%	35.00%
Speakers	6.00%	8.00%	10.00%	15.00%	25.00%

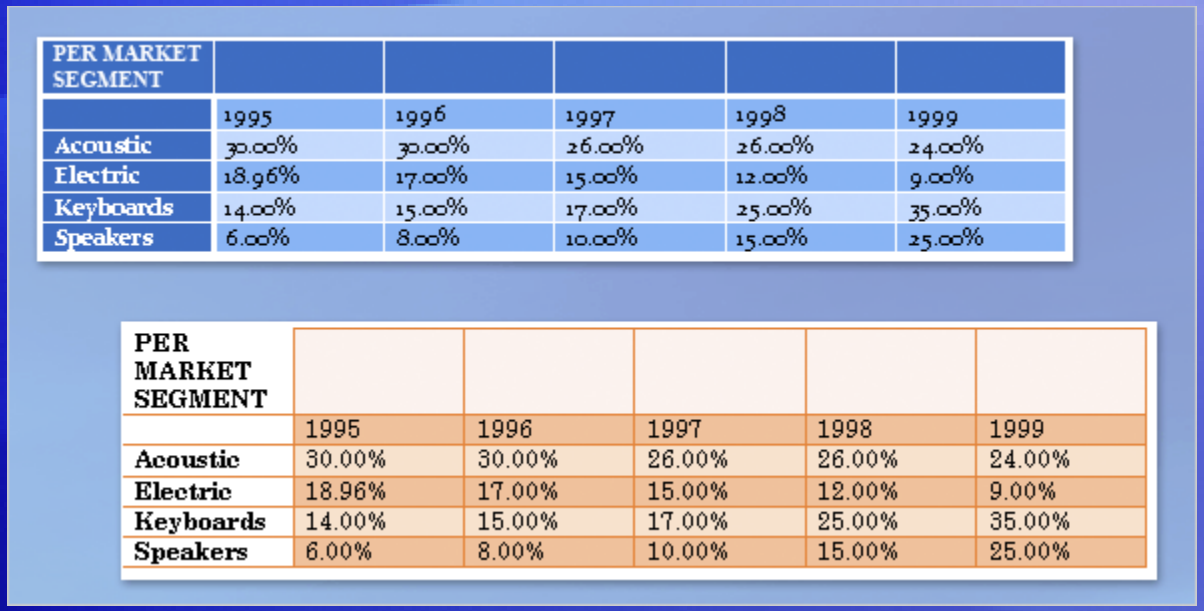
PER MARKET SEGMENT					
	1995	1996	1997	1998	1999
Acoustic	30.00%	30.00%	26.00%	26.00%	24.00%
Electric	18.96%	17.00%	15.00%	12.00%	9.00%
Keyboards	14.00%	15.00%	17.00%	25.00%	35.00%
Speakers	6.00%	8.00%	10.00%	15.00%	25.00%

If you want to give coordinated colors and shading to a table, use one of the new table styles.

These each have a unique format and use of color, for a professional result.

It's more efficient to use a table style than to try to add shading and borders row by row or cell by cell.

Quick styles for tables



PER MARKET SEGMENT					
	1995	1996	1997	1998	1999
Acoustic	30.00%	30.00%	26.00%	26.00%	24.00%
Electric	18.96%	17.00%	15.00%	12.00%	9.00%
Keyboards	14.00%	15.00%	17.00%	25.00%	35.00%
Speakers	6.00%	8.00%	10.00%	15.00%	25.00%

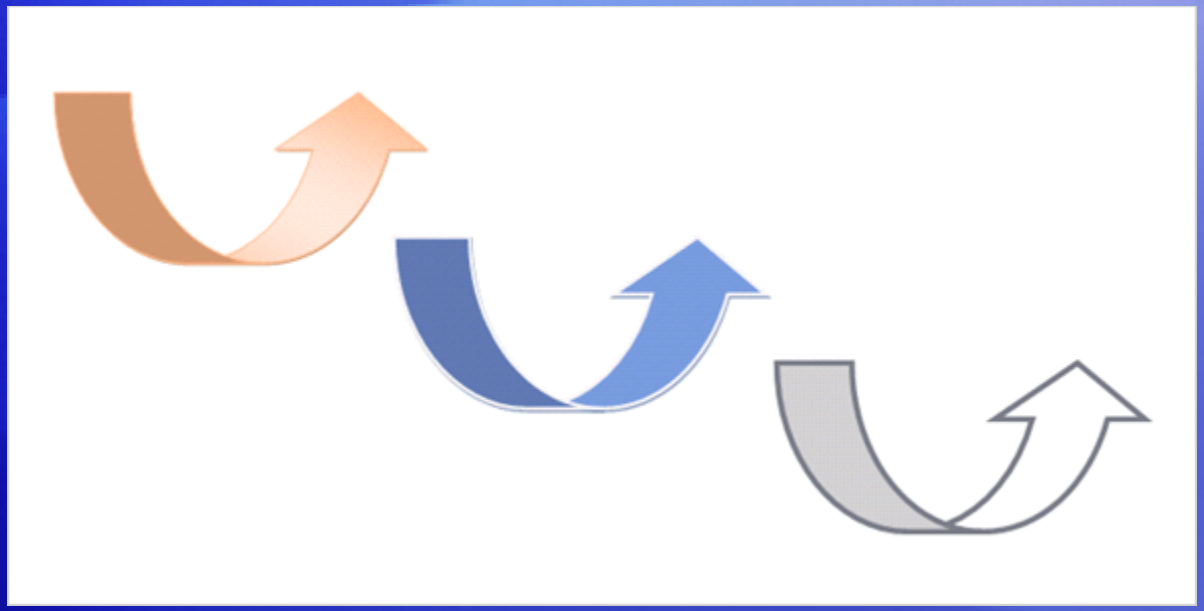
PER MARKET SEGMENT					
	1995	1996	1997	1998	1999
Acoustic	30.00%	30.00%	26.00%	26.00%	24.00%
Electric	18.96%	17.00%	15.00%	12.00%	9.00%
Keyboards	14.00%	15.00%	17.00%	25.00%	35.00%
Speakers	6.00%	8.00%	10.00%	15.00%	25.00%

The picture shows two examples of table styles.

Each draws upon one set of colors, available in a theme called Oriel.

You apply a table style by selecting the table in the document and working with **Table Tools** on the Ribbon.

Quick styles for shapes

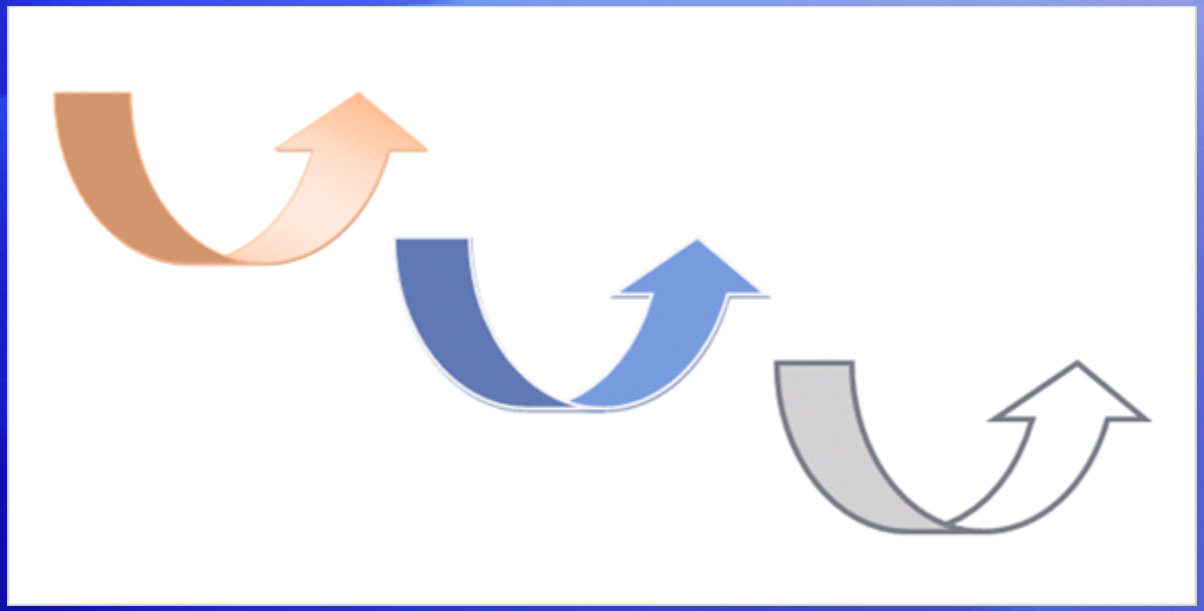


Shapes, such as the arrows shown here, have new styling options in Word 2007.

As with tables, whole packages of finished styles are available to give color and instant finish to circles, arrows, text boxes, and myriad other shapes.

The arrows here have three different styles applied.

Quick styles for shapes



Shapes have their own tools, as tables and pictures do.

You first select the shape, and then work with the **Drawing Tools** to select a style — which comes complete with border, look, and type of fill.

You can tinker as you wish with the fill and border.

Suggestions for practice 2

1. Add a page border.
2. Apply a border to a picture.
3. Shade a heading.
4. Apply a table style.
5. Add borders to the table.
6. Add a gradient fill and a style to a shape.
7. Use a theme to change the document's overall look.

Online practice (requires Word 2007)

Test 2, question 1

To add borders or shading to a page or to text, you start from which Ribbon tab? (Pick one answer.)

1. The **Format** tab under **Drawing Tools**.
2. The **Insert** tab.
3. The **Page Layout** tab.

Test 2, question 1: Answer

The **Page Layout** tab.

On this tab, click **Page Borders** to open the **Borders and Shading** dialog box. Choose the tab that has what you want: **Borders**, for text or a paragraph; **Page Borders**, for a whole page or section; and **Shading**, for text or a paragraph.

Test 2, question 2

What's the quickest way to add visual formatting to a table? (Pick one answer.)

1. Use the **Shading** and **Borders** buttons within **Table Tools** to format individual rows and columns.

2. Apply a table style.

Test 2, question 2: Answer

Apply a table style.

Select the table. The **Table Tools** appear, with the **Design** tab. There, choose from the array of coordinated **Table Styles** complete with borders, shading, colors, and other formatting.

Test 2, question 3

You have a circle shape in your document that you want to apply a gradient fill to. What's the first step? (Pick one answer.)

1. Click the **Insert** tab.
2. Select the circle.
3. Click the **Shape Fill** button.

Test 2, question 3: Answer

Select the circle.

Selecting the circle makes the **Drawing Tools** appear, which you can use to apply the look you want.

Lesson 3

Use special text effects

Use special text effects

How do you emphasize text?

Word offers some formatting choices for text that offer more visual impact than the old standbys, bold and italic.

They include:

- A dropped capital letter, used at the start of a document or beginning of a new chapter.
- Text effects such as emboss, engrave, and shadow.
- WordArt formatting for bold flash.

Create a drop cap

An ancient illuminated text, the start of a fairy tale, the large first letter that sometimes begins a chapter.

In modern typography, that's referred to as a **drop cap**.

The steps are simple: You select the letter you want to turn into a drop cap, and click **Drop Cap** on the **Insert** tab.

The drop cap sits in a text box, and you can apply any text formatting to it. The picture shows examples of different fonts you might use.

Create a drop cap

You can turn only a single letter into a drop cap.

Even if you select a block of text, only the first letter is affected.

Also, only the first letter of a paragraph can become a drop cap.

Special font effects

While font style and color do a lot to give impact to text, you can add a little more to the look with different effects.

The picture shows examples.

1. An embossing effect makes the text look raised off the page.
2. An outline effect, removes the solid color fill in the text.
3. An engraving effect makes text look pressed into the page.

Special font effects

These three effects, plus **shadowing** (not shown) can be used to make a simple heading look more like a logo.

They have more impact on bigger font sizes, sometimes they're enhanced by bold or italic formatting, and they're best used sparingly.

Add WordArt

WordArt is not for the faint of heart.

Where text effects operate on subtlety, WordArt is big and flashy, and treats text almost like a graphic.

Create WordArt by typing the text you want to style in a WordArt editing dialog box (opened from the **Insert** tab).

Once WordArt is applied, you treat the affected text somewhat like a picture. You click to select it, which makes **WordArt Tools** available, with several formatting options on the **Format** tab.

Suggestions for practice 3

1. Add a high-impact font effect.
2. Try out tips for ways to access font options.
3. Apply a drop cap effect.
4. Insert WordArt.
5. Format the WordArt with a curve, shadow, and color.

Online practice (requires Word 2007)

Test 3, question 1

Which of these is the best practice for using text effects such as WordArt? (Pick one answer.)

1. Be sparing.
2. Variety makes the biggest impact.

Test 3, question 1: Answer

Be sparing.

Text effects have the most impact when you limit them.

Test 3, question 2

What's a good way to access font options? (Pick one answer.)

1. On the **Home** tab, in **Font**, click the **More** arrow to open the **Font** dialog box.
2. Select and right-click the text. Then click **Font** on the shortcut menu to open the Font dialog box.
3. Select text you want to change, and watch for the Mini toolbar that appears. Point to it and click anything you want there.
4. All of the above.

Test 3, question 2: Answer

All of the above.

Test 3, question 3

You want to change the font in the WordArt you just applied. Where do you start? (Pick one answer.)

1. Click **WordArt** on the **Insert** tab.

2. Highlight the WordArt text, and choose a different font in the **Font** dialog box.

3. Click to select the WordArt text (so it has a dashed border), and then click the **Format** tab under **WordArt Tools**.

Test 3, question 3: Answer

Click to select the WordArt text (so it has a dashed border), and then click the **Format** tab under **WordArt Tools**.

This tab appears only when you have selected the WordArt. You can apply shadows and 3-D effects, change the curvature of the shape, change the text or font, apply word wrapping, and other things.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Word 2007 Training

Get up to speed

Course contents

- Overview: Have you heard the word?
- Lesson 1: Get to know the Ribbon
- Lesson 2: Find everyday commands
- Lesson 3: A new file format

The first two lessons include a list of suggested tasks, and all include a set of test questions.

Overview: Have you heard the word?

Word 2007 is out. It’s exciting, and it’s designed to be better and more productive than the version you’re used to.

But it may look a little unfamiliar. So this course will help get you up to speed.

Find out how to get the best out of the new and easier version of Word, and see how to do the everyday things you’ve always done.

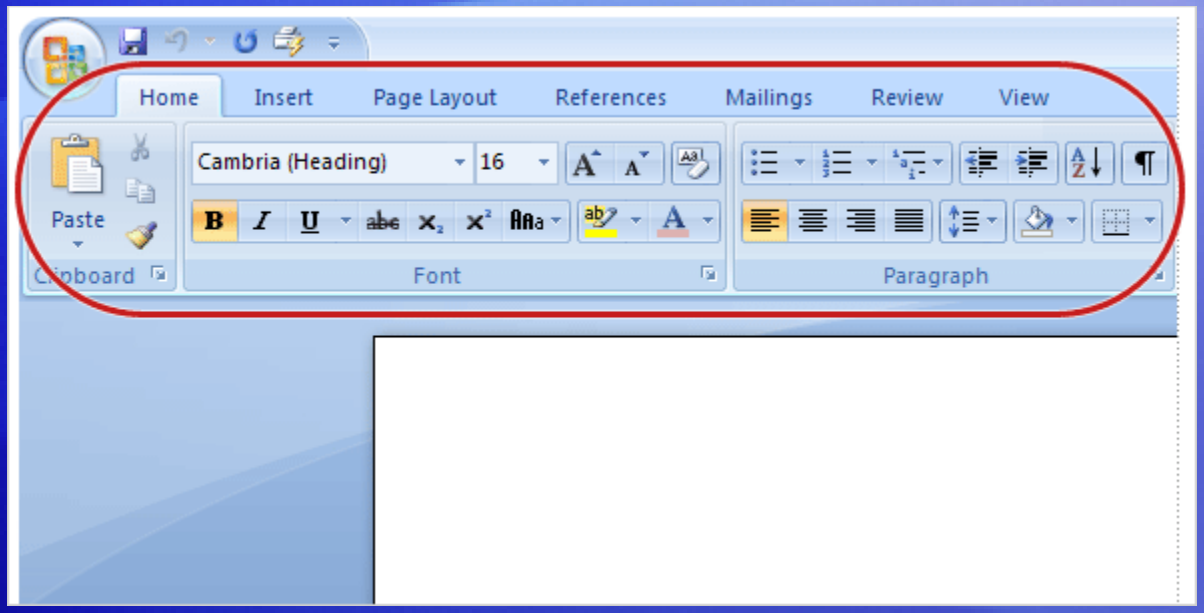
Course goals

- Work with the Ribbon — the new feature that makes Word easier to use than ever before.
- Find the everyday, common commands you need to do your job.
- Use the new Word file format in the way that’s best for you.

Lesson 1

Get to know the Ribbon

Get to know the Ribbon



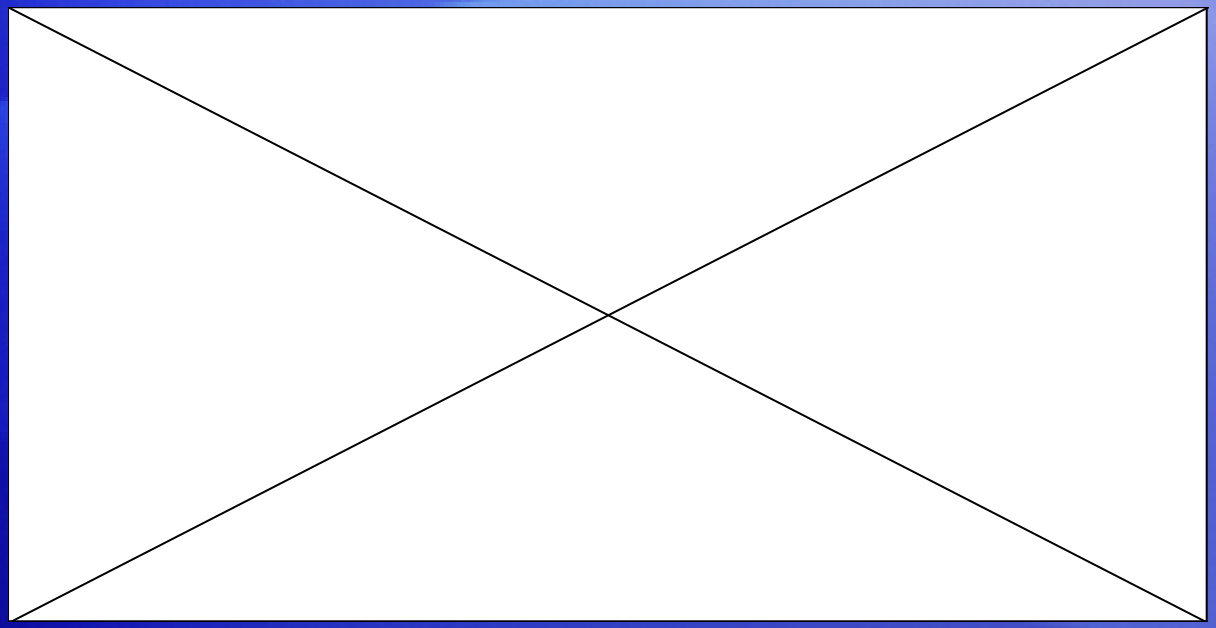
When you first open Word 2007, you may be surprised by its new look.

Most of the changes are in the Ribbon, the area that spans the top of Word.

The Ribbon brings the most popular commands to the forefront, so you don't have to hunt in various parts of the program for things you do all the time.

Why the change? To make your work easier and faster.

The Ribbon in action



The Ribbon’s ease of use and convenience are best understood when seen in action.

Animation: Right-click, and click **Play**.

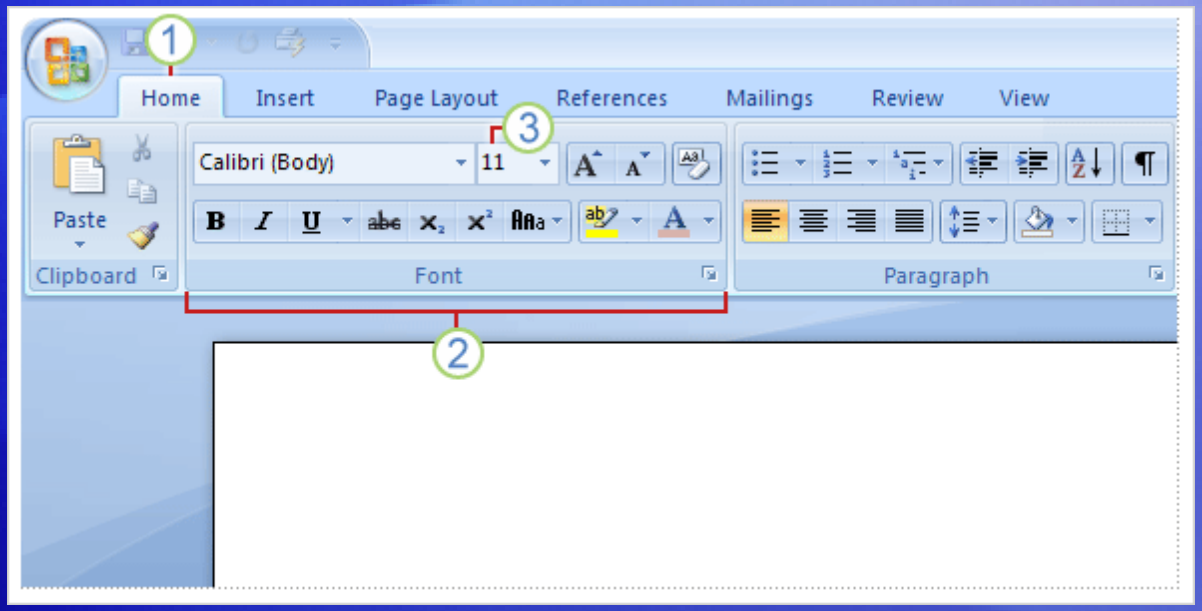
Play the animation to see how to cut and paste text, change text formatting, and alter the page background color, all using the Ribbon.

Use the Ribbon for common actions

The Ribbon offers ease of use and convenience, with all common actions shown in one place.

For example, you can cut and paste text by using commands on the **Home** tab; change text formatting by using a **Style**; and alter the page background color on the **Page Layout** tab.

What's on the Ribbon?

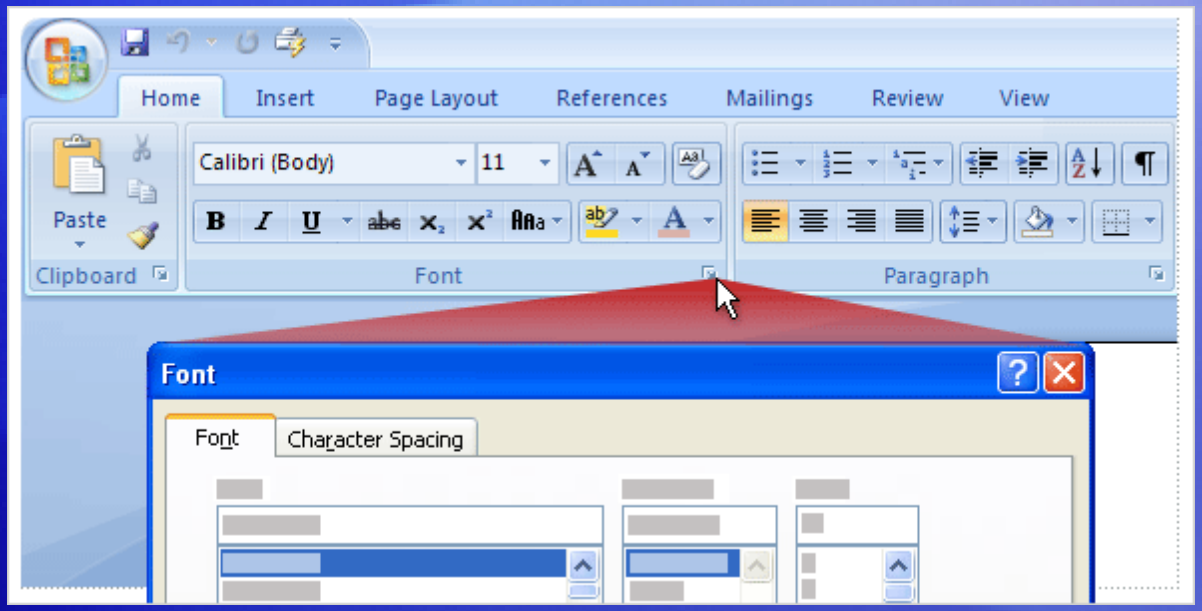


Getting familiar with the three parts of the Ribbon will help you understand how to use it.

They are tabs, groups, and commands.

1. **Tabs:** The Ribbon has seven basic ones across the top. Each represents an activity area.
2. **Groups:** Each tab has several groups that show related items together.
3. **Commands:** A command is a button, a menu, or a box where you can enter information.

Dialog Box Launchers in groups



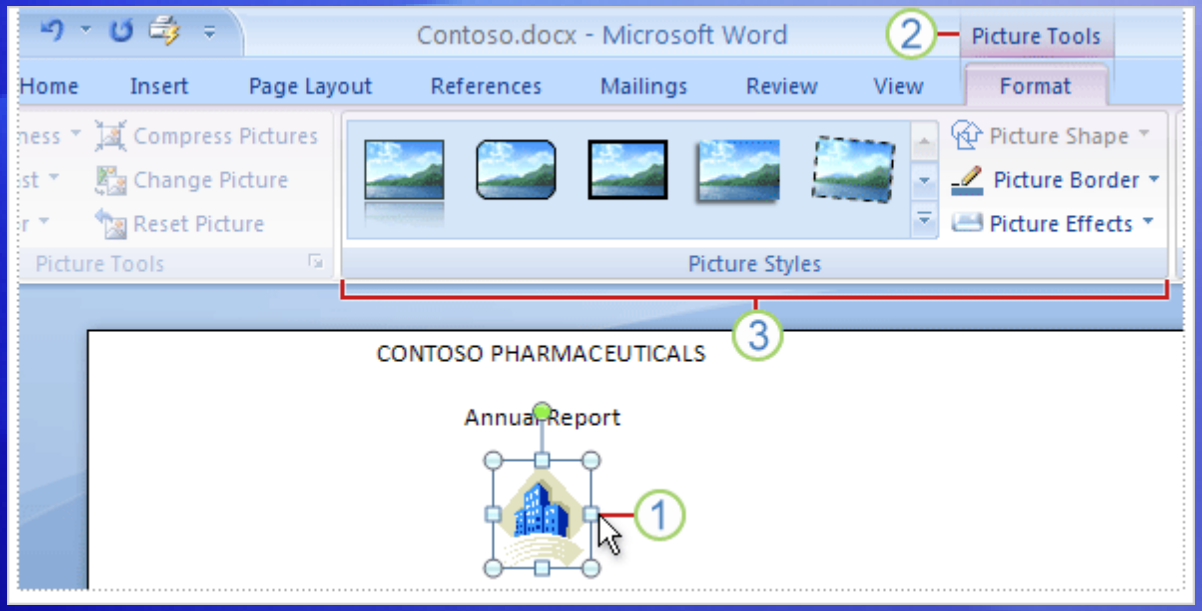
At first glance, you may not see a certain command from a previous version.

Fret not.

Some groups have a small diagonal arrow in the lower-right corner called the **Dialog Box Launcher** .

Click it to see more options related to that group. They'll appear in a familiar-looking dialog box or task pane that you recognize from a previous version of Word.

Additional tabs appear

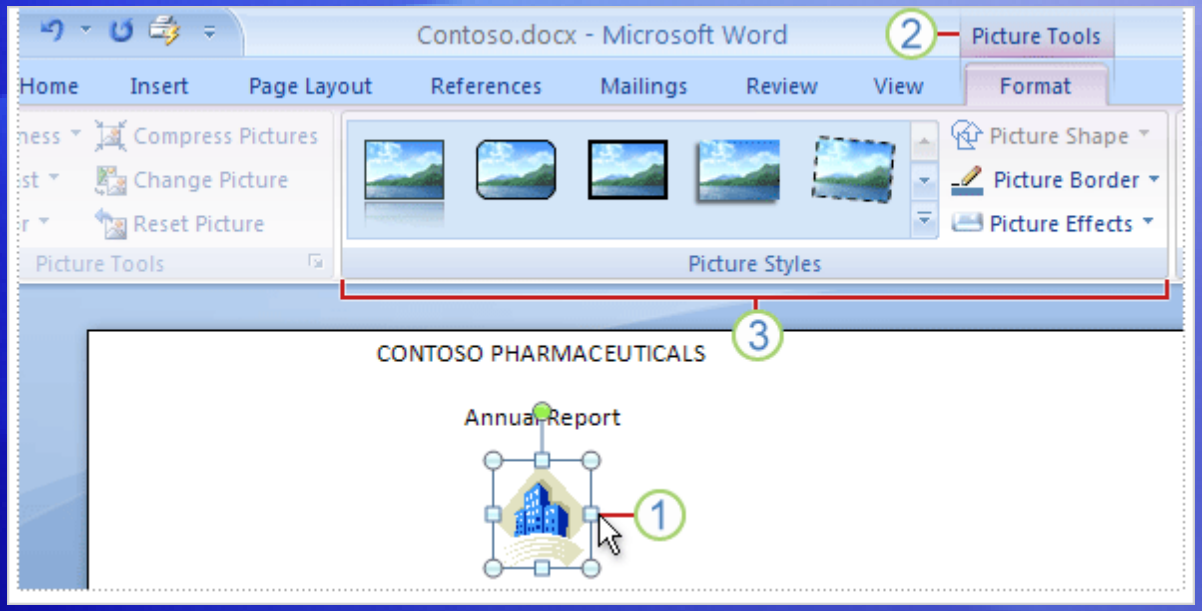


In the new version of Word, certain tabs appear only when you need them.

Say you insert a picture and want to do more with it, like crop it or change how text wraps around it.

Where are those commands found?

Additional tabs appear

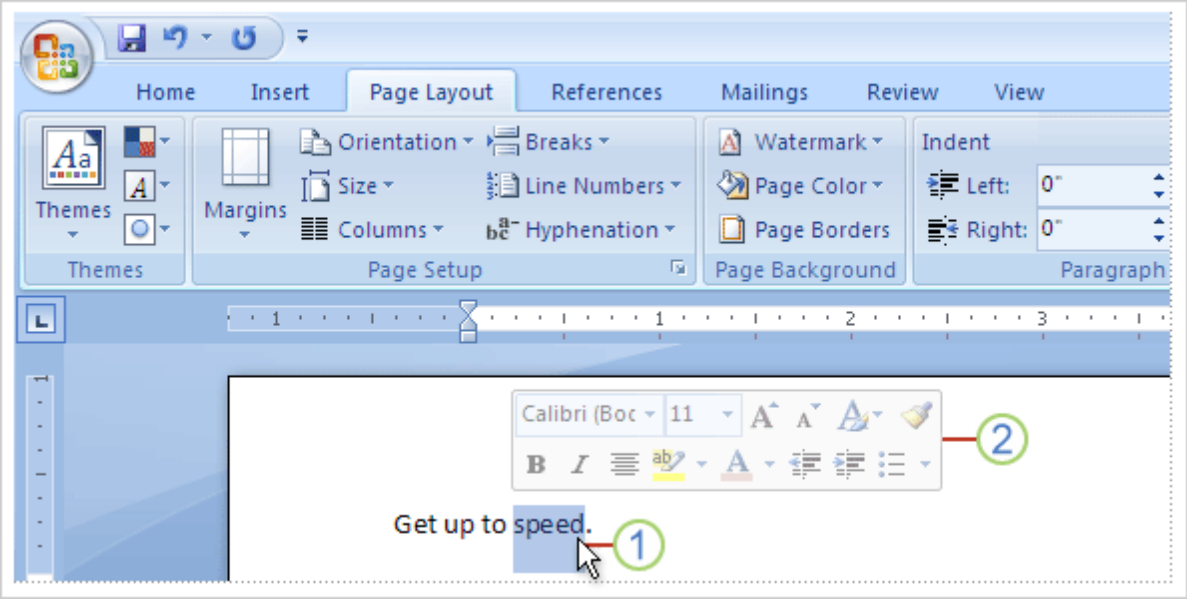


In the new version of Word, certain tabs appear only when you need them.

You don't need to hunt for them. Instead:

1. Select the picture.
2. The **Picture Tools** appear. Click the **Format** tab.
3. Additional groups and commands appear for working with pictures, like the **Picture Styles** group.

The Mini toolbar

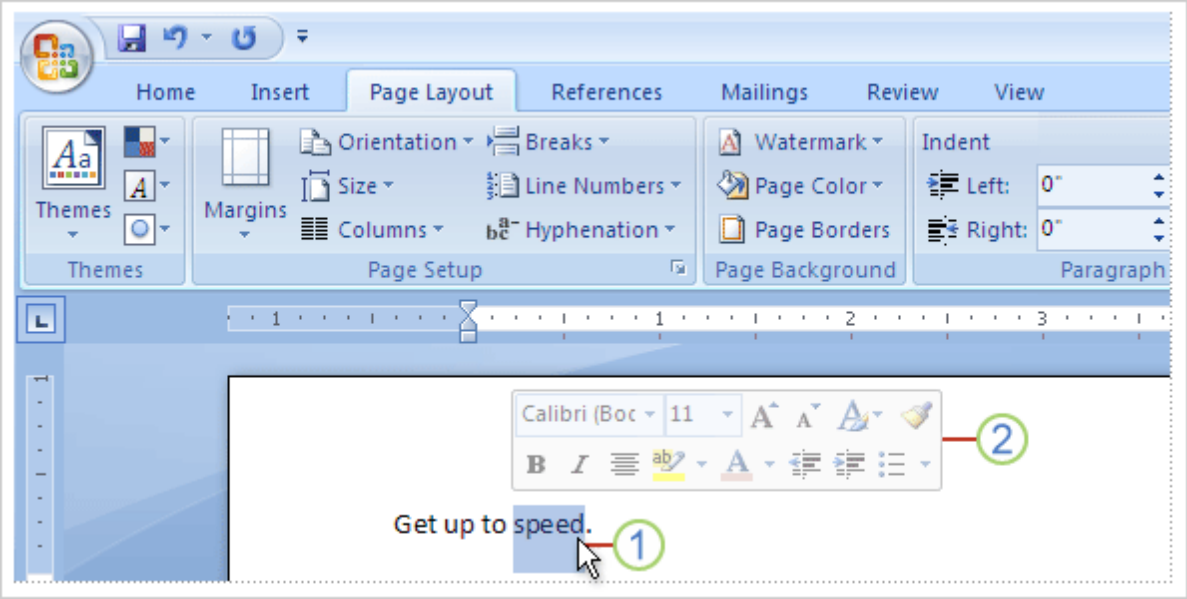


Some formatting commands are so useful that you want them available no matter what you're doing.

Let's say you want to quickly format some text, but you're working on the **Page Layout** tab.

You could click the **Home** tab to see the formatting options, but there's a faster way.

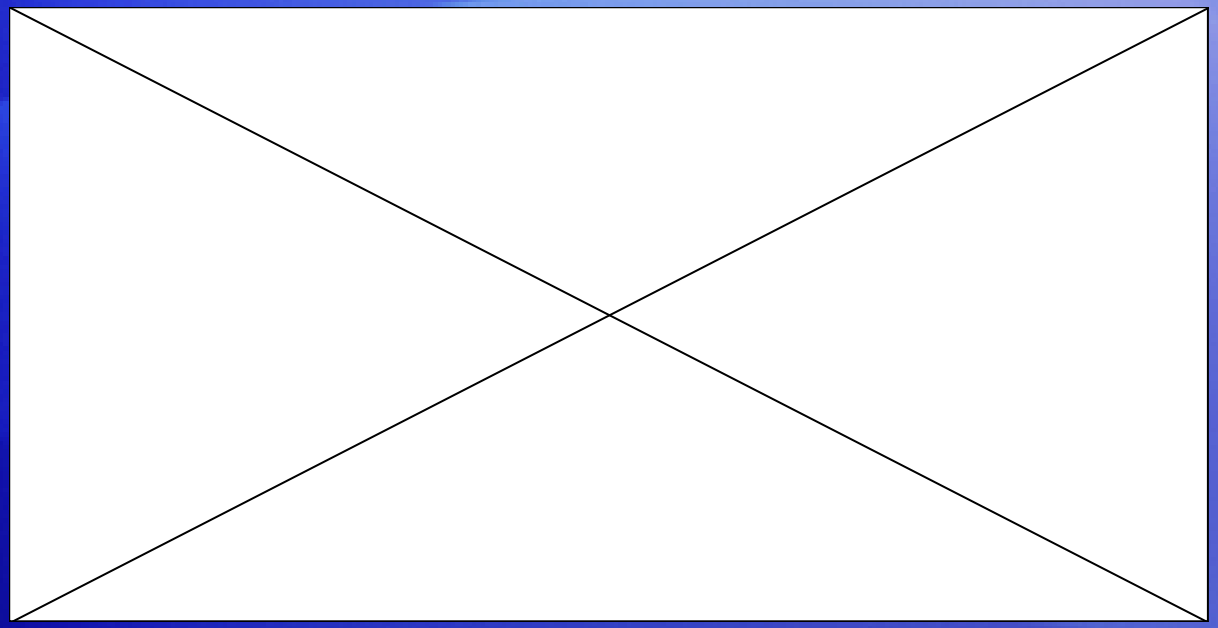
The Mini toolbar



Some formatting commands are so useful that you want them available no matter what you're doing.

1. Select your text by dragging with your mouse, and then point at the selection.
2. The Mini toolbar will appear in a faded fashion. If you point to the Mini toolbar, it will become solid, and you can click a formatting option on it.

The Quick Access Toolbar



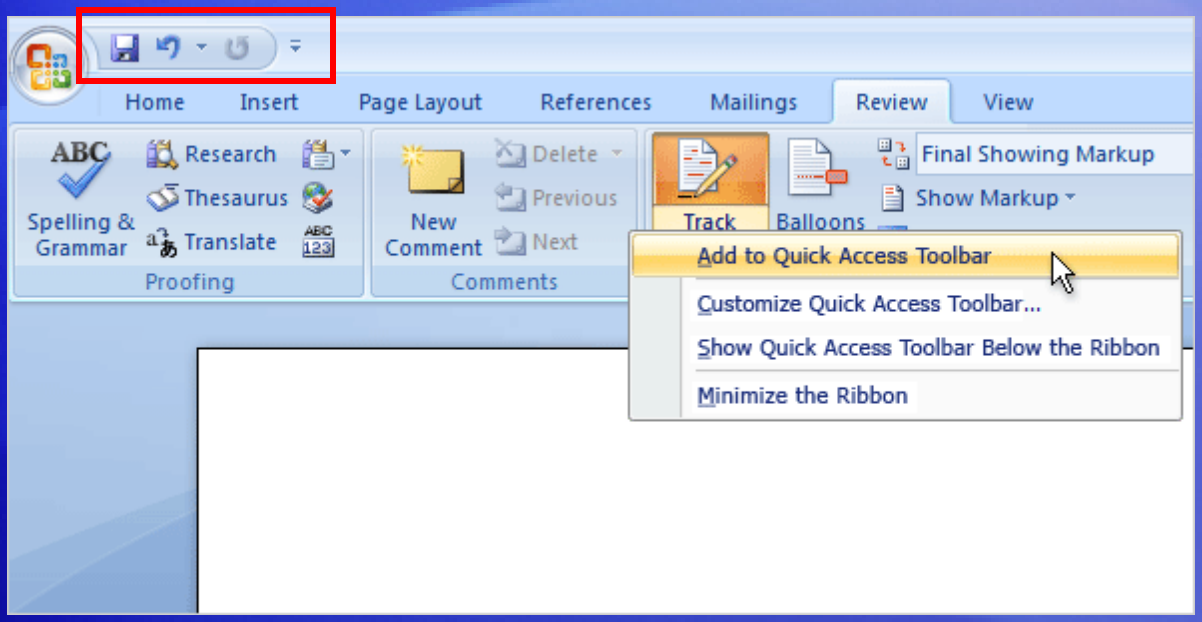
The Quick Access Toolbar is the small area to the upper left of the Ribbon.

It contains the things that you use over and over every day: **Save**, **Undo**, and **Repeat**.

Animation: Right-click, and click **Play**.

You can also add your favorite commands to the Quick Access Toolbar so that they're available no matter which tab you're on.

The Quick Access Toolbar



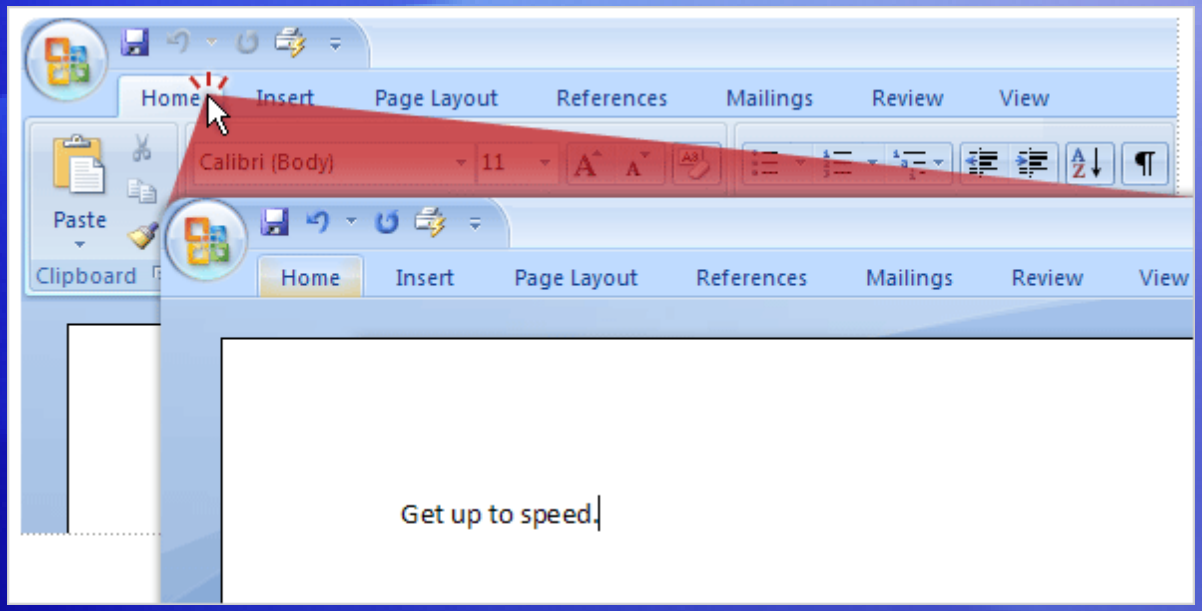
The Quick Access Toolbar is the small area to the upper left of the Ribbon.

It contains the things that you use over and over every day: **Save**, **Undo**, and **Repeat**.

The picture show how you can add your favorite other commands to the Quick Access Toolbar so that they're available no matter which tab you're on.

You can also remove buttons from the Quick Access Toolbar.

Temporarily hide the Ribbon

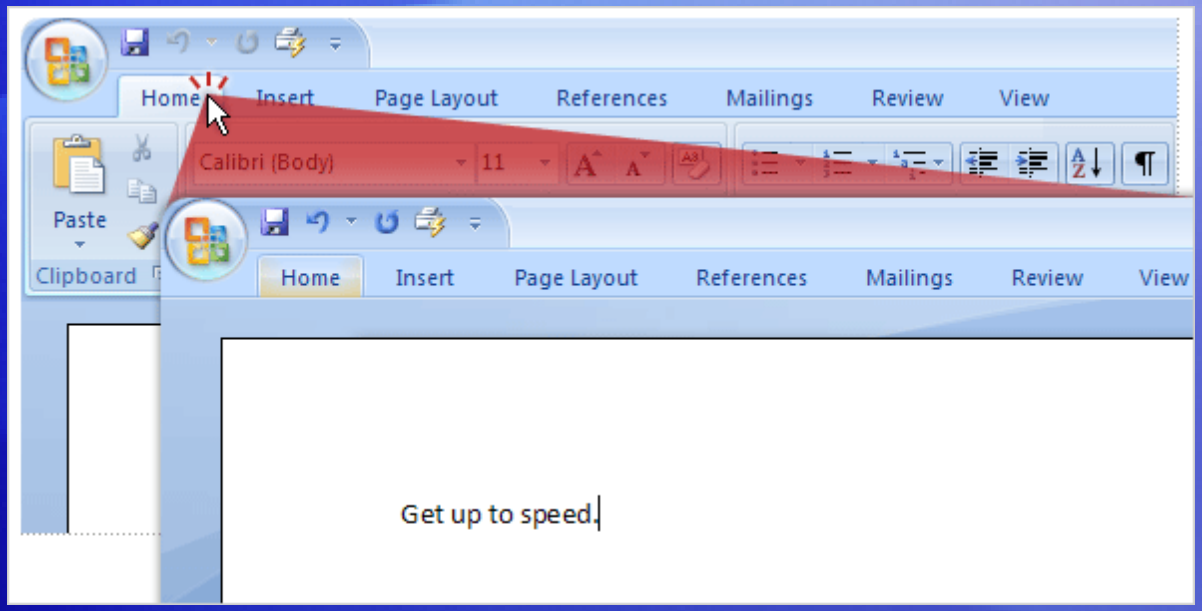


The Ribbon makes everything nicely centralized and easy to find.

But sometimes you don't need to find things. You just want to work on your document, and you'd like more room to do that.

In that case, it's just as easy to hide the Ribbon temporarily as it is to use it.

Temporarily hide the Ribbon

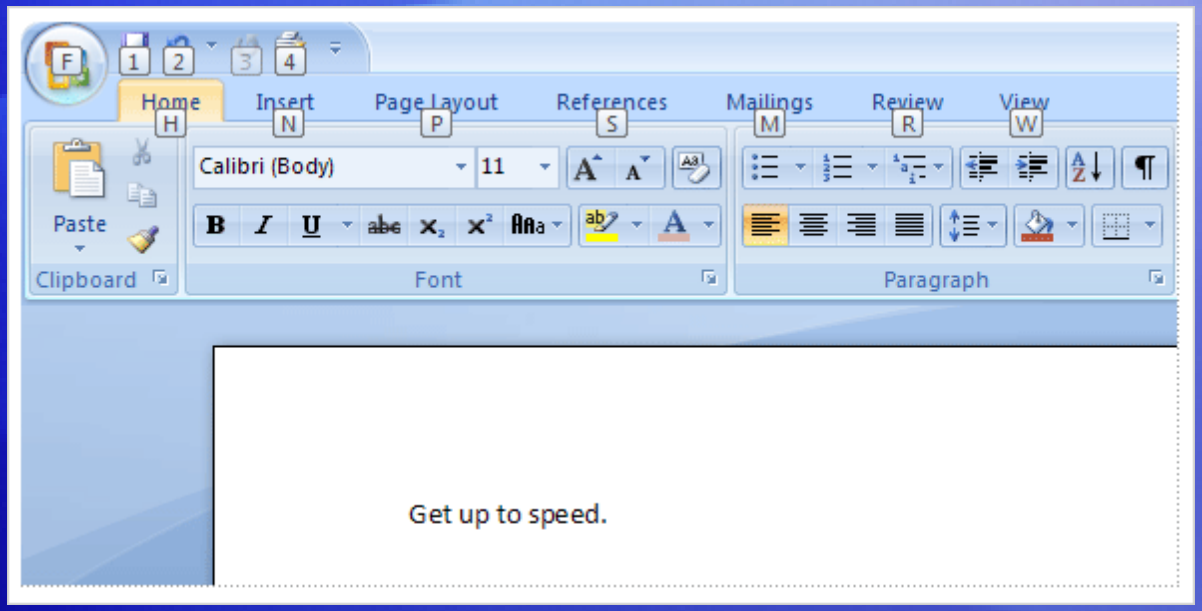


The Ribbon makes everything nicely centralized and easy to find.

Here's how:

1. Double-click the active tab. The groups disappear so that you have more room.
2. To see all the commands again, double-click the active tab again to bring back the groups.

Use the keyboard



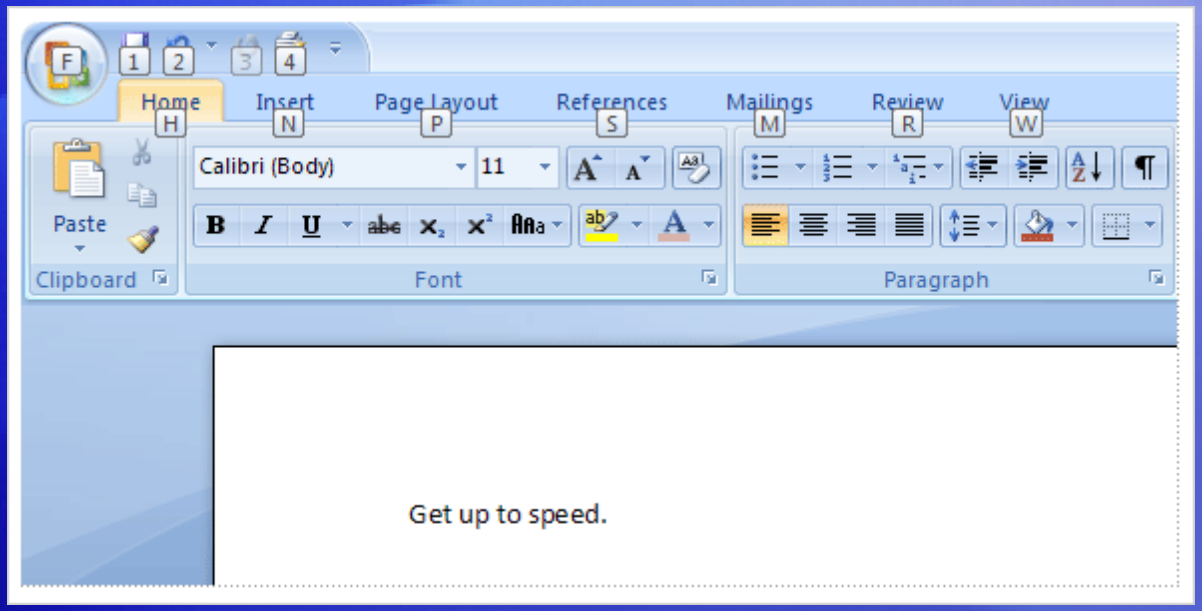
Okay, keyboard people, these slides are for you.

The Ribbon design comes with new shortcuts.

This change brings two big advantages over previous versions of Office programs:

- There are shortcuts for every single button on the Ribbon.
- Shortcuts often require fewer keys.

Use the keyboard



The new shortcuts also have a new name: **Key Tips**.

To use Key Tips, start by pressing ALT.

Next:

1. Press the Key Tip for the tab you want to display. For example, press H for the **Home** tab. This makes all the Key Tips for that tab's commands appear.
2. Press the Key Tip for the command you want.

Use the keyboard

What about the old keyboard shortcuts?

- Shortcuts that start with the CTRL key remain the same as in previous versions of Word.
  - Examples include CTRL+C for copy and CTRL+ALT+1 for Heading 1.
- You can still use the old ALT+ shortcuts that accessed menus and commands in previous versions of Word.
  - However, because the old menus are not available, you'll have no screen reminders of what letters to press. So you'll need to know the key sequence by heart in order to use a shortcut.

Suggestions for practice

1. Use the Ribbon.
2. Make additional tabs appear, and then insert a picture and work with the Picture Tools.
3. Work with the Mini toolbar.
4. Use the Quick Access Toolbar.
5. Hide groups and commands.
6. Use keyboard shortcuts.

Online practice (requires Word 2007)

Test 1, question 1

If you click this button in Word 2007, what happens? (Pick one answer.)

1. You temporarily hide the Ribbon so that you have more room for your document.
2. You apply a bigger font size to your text.
3. You see additional options.
4. You add a command to the Quick Access Toolbar.

Test 1, question 1: Answer

You see additional options.

Often a dialog box will appear, and it may look familiar from previous versions of Word.

Test 1, question 2

Where is the Quick Access Toolbar and when should you use it? (Pick one answer.)

1. It is in the upper-left corner of the screen, and you should use it for your favorite commands.

2. It floats above your text, and you should use it when you need to make formatting changes.

3. It is in the upper-left corner of the screen, and you should use it when you need to quickly access a document.

4. It is on the **Home** tab, and you should use it when you need to quickly launch or start a new document.

Test 1, question 2: Answer

It is in the upper-left corner of the screen, and you should use it for your favorite commands.

It’s the small toolbar with the **Save**, **Undo**, and **Repeat** buttons. You can add your favorite commands by right-clicking a command and choosing **Add to Quick Access Toolbar**.

Test 1, question 3

The Mini toolbar will appear if you do which of the following? (Pick one answer.)

1. Double-click the active tab on the Ribbon.
2. Select text.
3. Select text and then point at it.
4. Any of the above.

Test 1, question 3: Answer

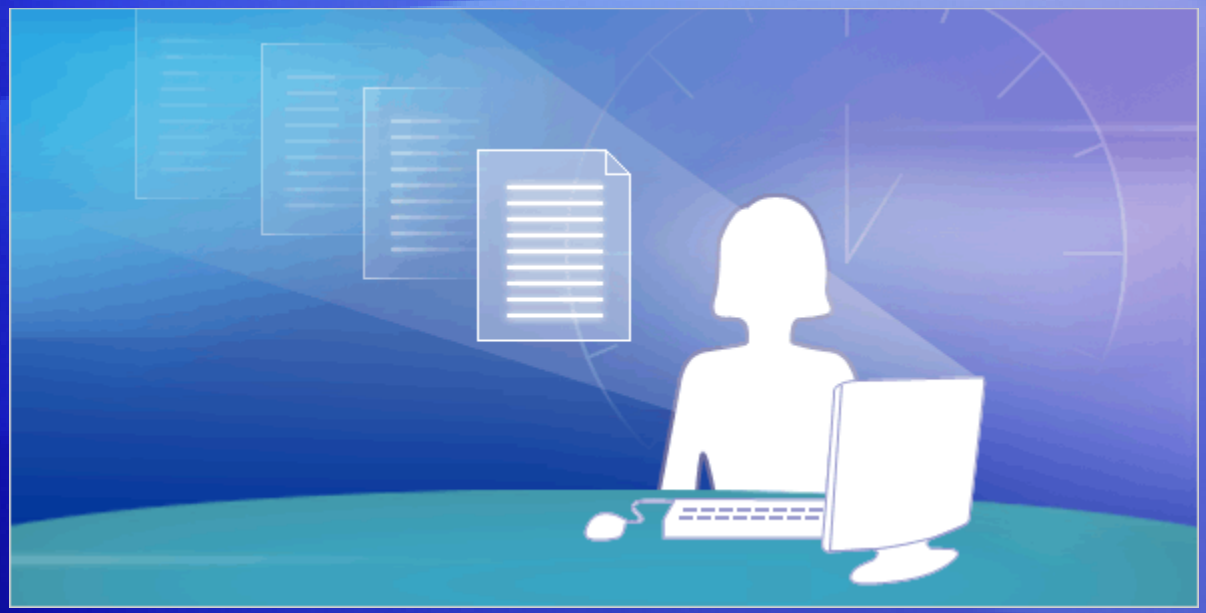
Select the text and then point at it.

It will also appear if you right-click your selected text.

Lesson 2

Find everyday commands

Find everyday commands



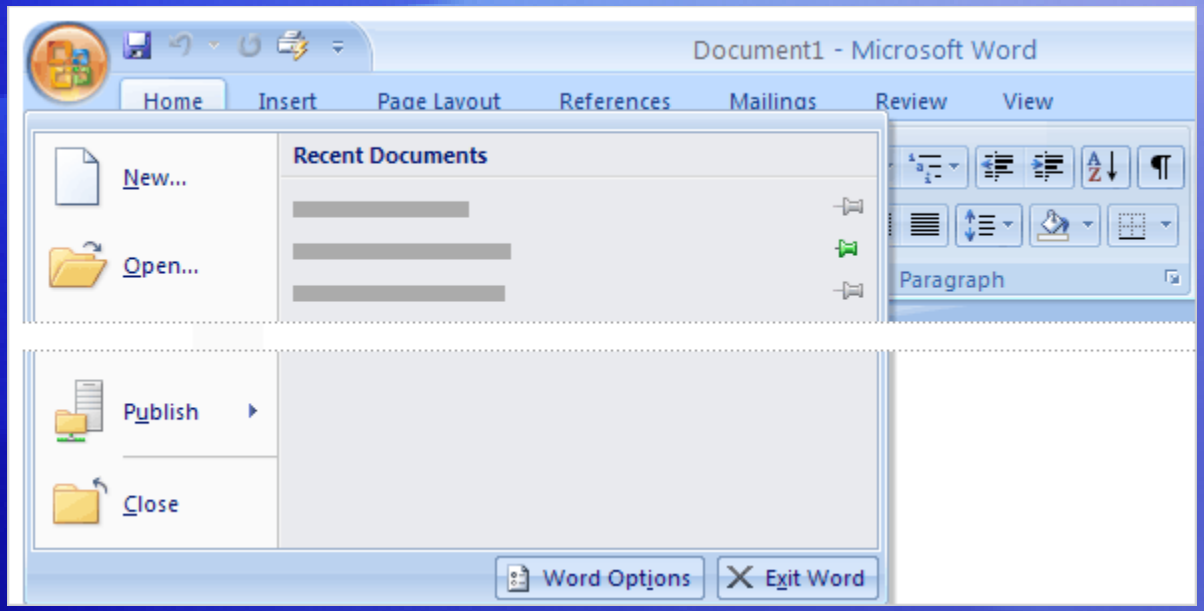
Word 2007 is new, and that's exciting. But you have things to do.

So now it's time to find out the exact locations of the most commonly used commands.

For example, where do you create a document? Where are the bullets, the styles, and the spelling checker? What about printing?

This lesson will show that the new program design puts those commands right where you need them.

Start with the Microsoft Office Button



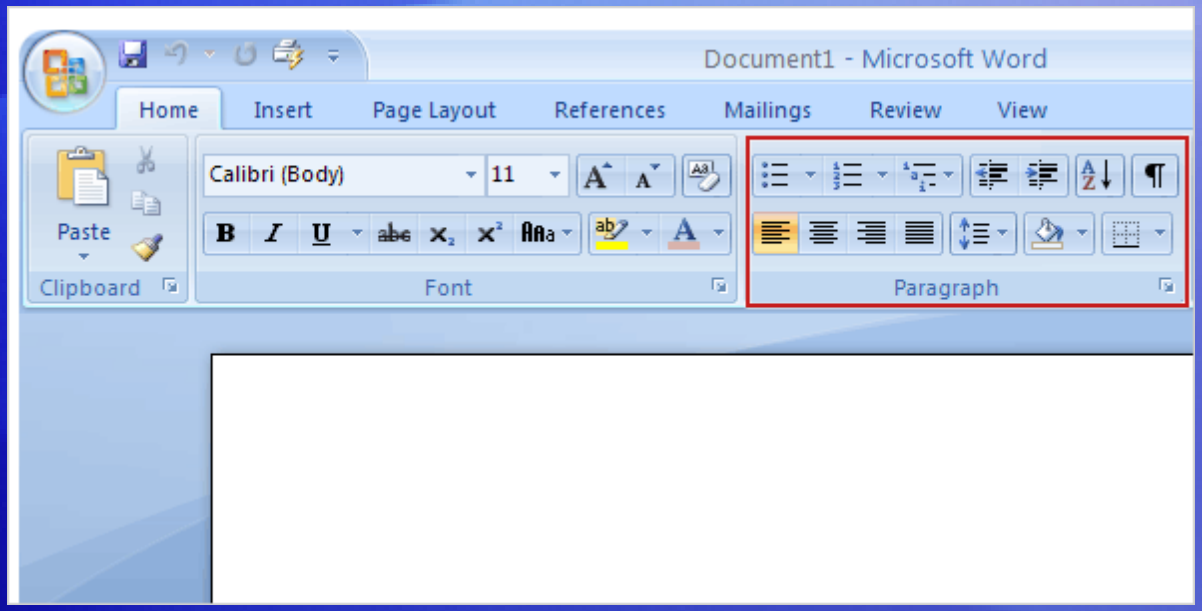
What happened to the **File** menu?

Press the **Microsoft Office Button** to find out.

The **Microsoft Office Button** is now the place to start in Word.

When you press it, a menu appears that you use to create, open, or save a document.

Bullets, numbers, and more

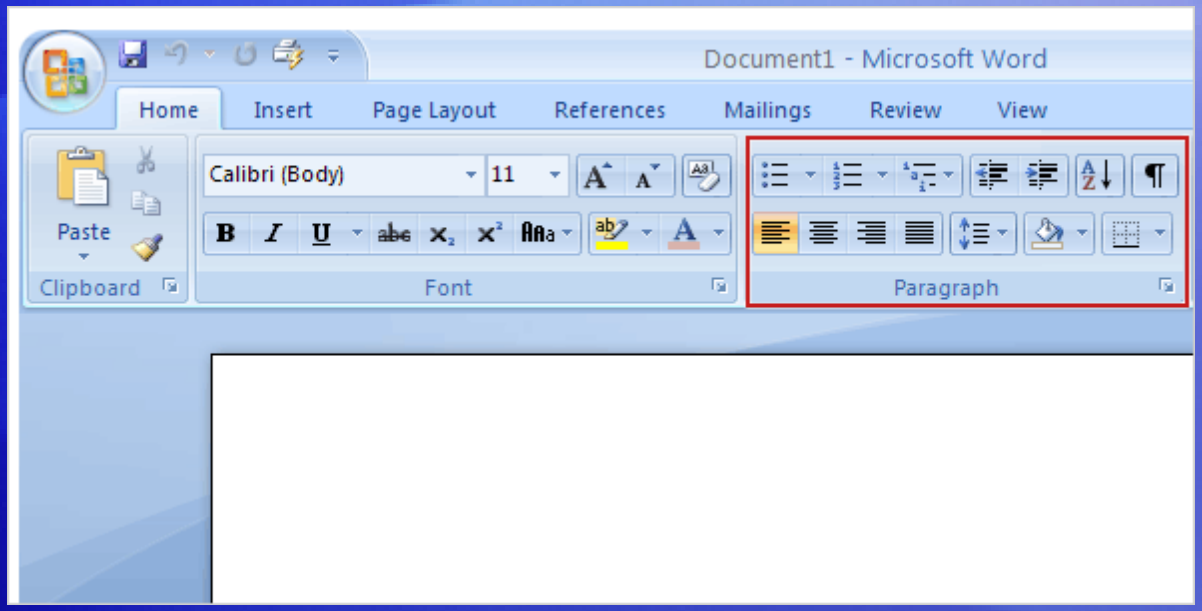


Once you have a document open and have typed your text, you'll no doubt want to format that text.

Many familiar formatting commands are in view on the **Home** tab, in the **Font** group: **Bold**, **Italic**, **Font Size**, and so on.

And there are several more you'll find useful here.

Bullets, numbers, and more

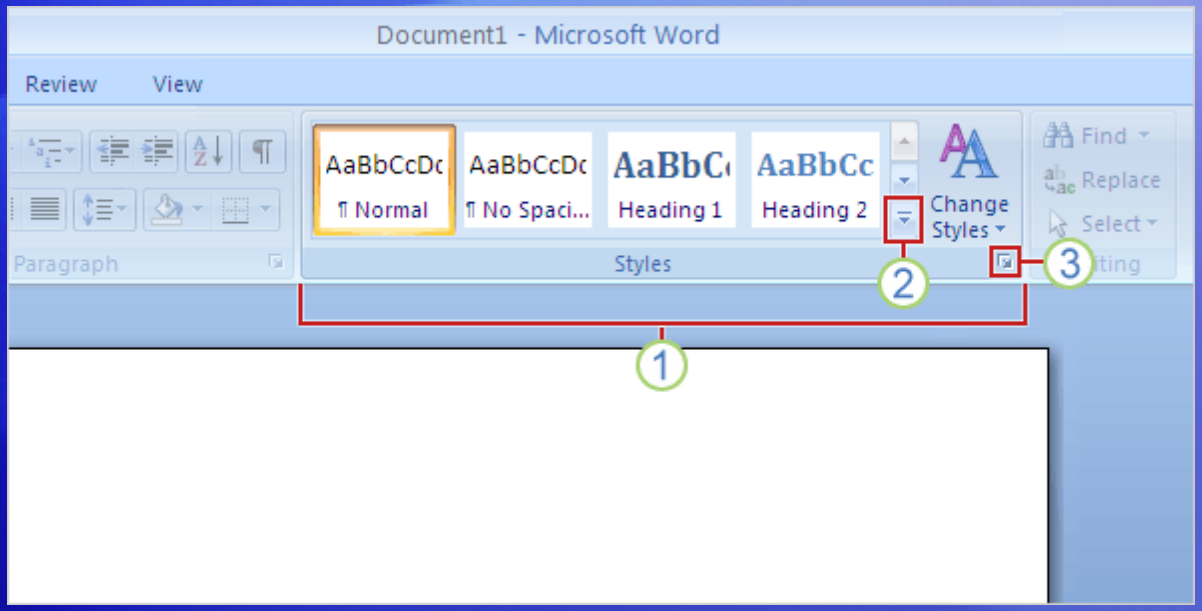


Once you have a document open and have typed your text, you'll no doubt want to format that text.

For example, don't overlook the **Paragraph** group, shown here. It has the ever-popular bulleted lists, numbered lists, and multilevel lists.

Indentation and alignment commands appear here as well.

What about styles?

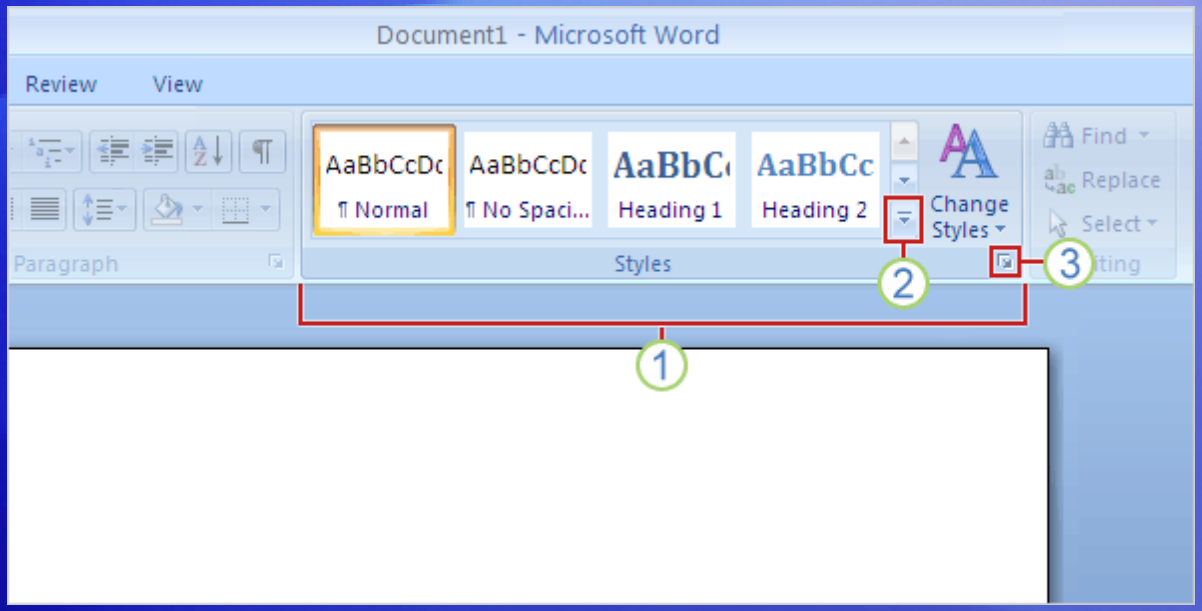


Interested in a more powerful and efficient approach to formatting than just the bold and italic commands?

You'll want to know about styles in the new Word.

You can either choose a ready-made **Quick Style** or apply a style you've made before.

What about styles?

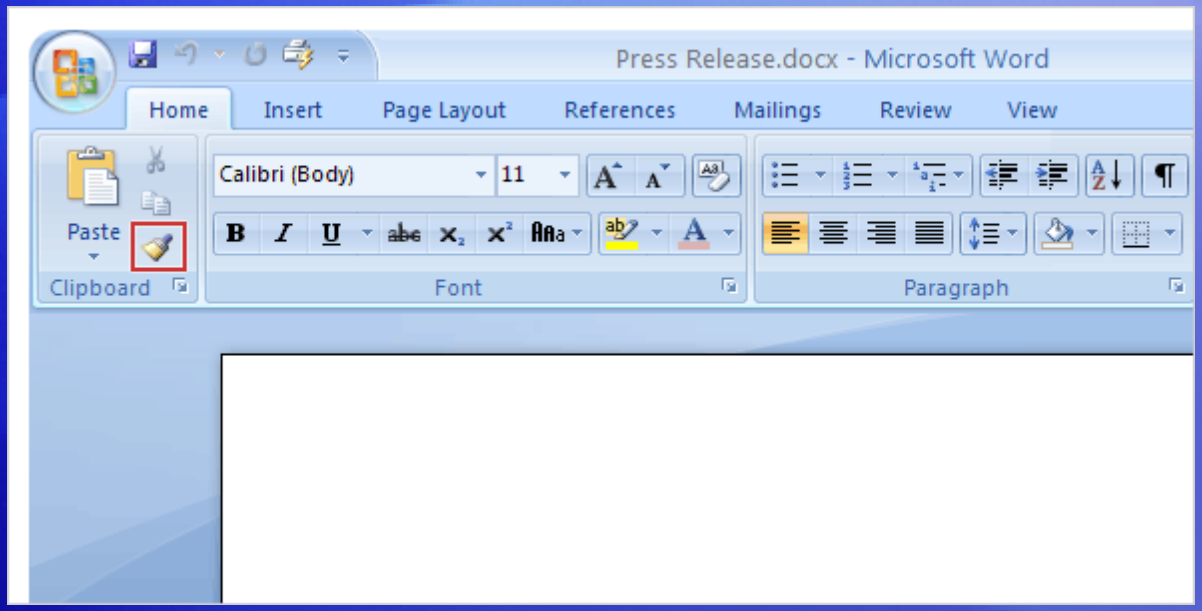


You work with styles on the **Home** tab, in the **Styles** group.

The picture shows how to get the styles you want.

1. **Quick styles** are ready-made, professional-looking styles that are quick and easy to apply. And they have a new look with this version of Word.
2. Click this button to see several more ready-to-use Quick Styles.
3. Click the Dialog Box Launcher to open the **Styles** pane.

The Format Painter



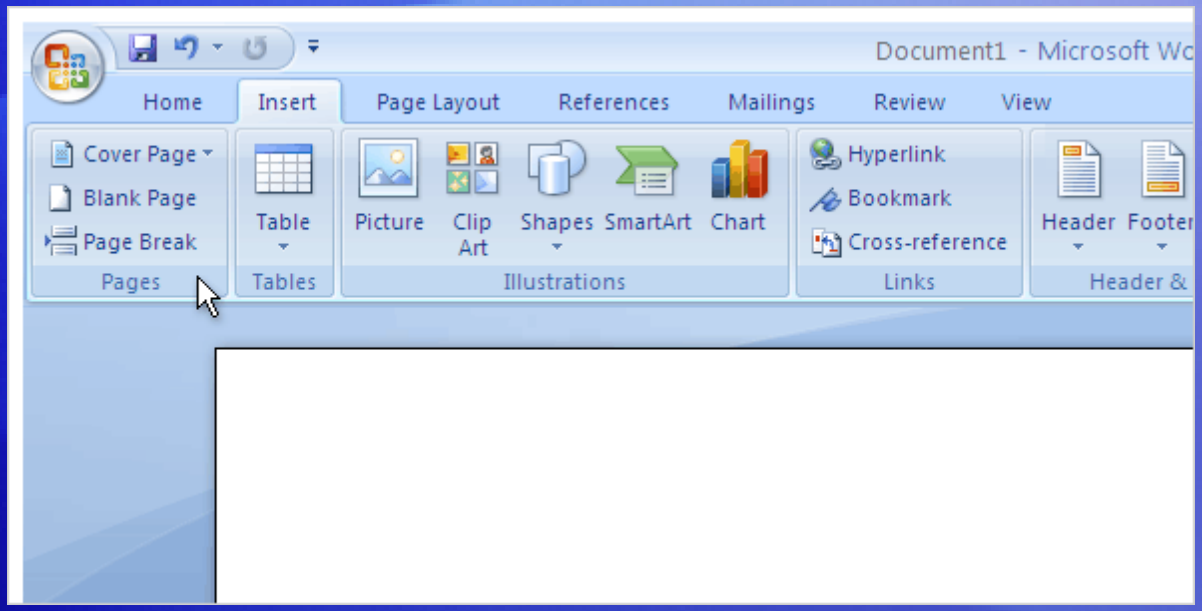
Another high-speed formatting command is **Format Painter**.

It's on the very left of the **Home** tab, in the **Clipboard** group.

In case you're not familiar with the Format Painter, it's a quick way of duplicating formatting from one section of text to another.

To use the Format Painter, place the cursor in the text whose format you want to copy and then click the **Format Painter** button.

Insert pictures, hyperlinks, headers, and footers



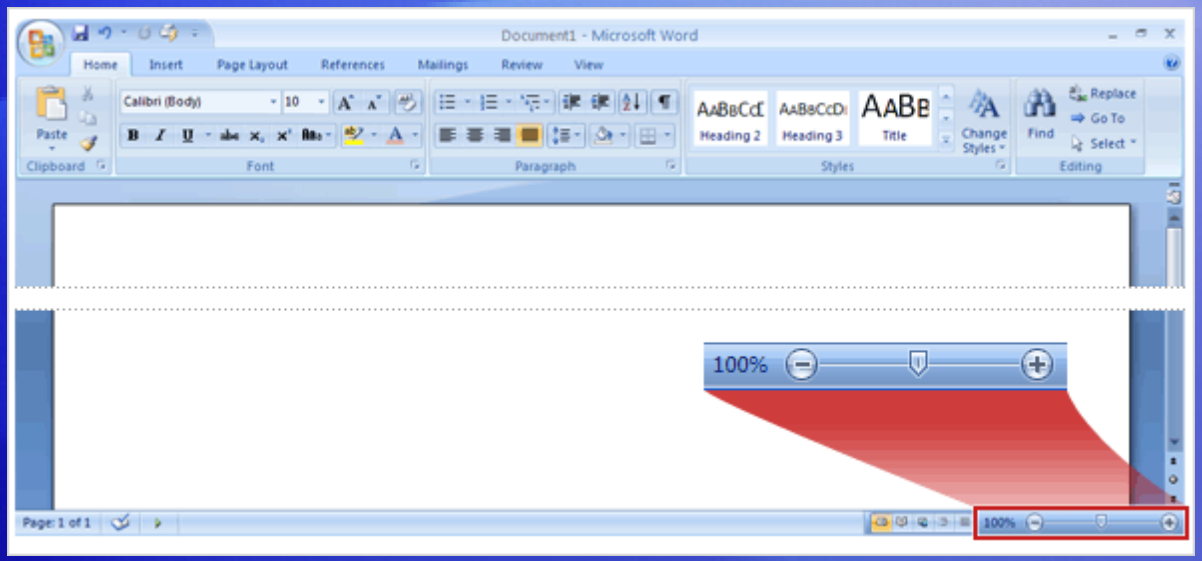
To give your text power and punch, you may want pictures, clip art, charts, or shapes.

The **Insert** tab offers this wealth of added information.

And those aren't the only commands on this tab. You've got **Tables**, **Hyperlink**, **Header**, and **Footer** here too.

That's not all. Not pictured but ready to serve you are page numbers, text boxes, and WordArt.

Zoom

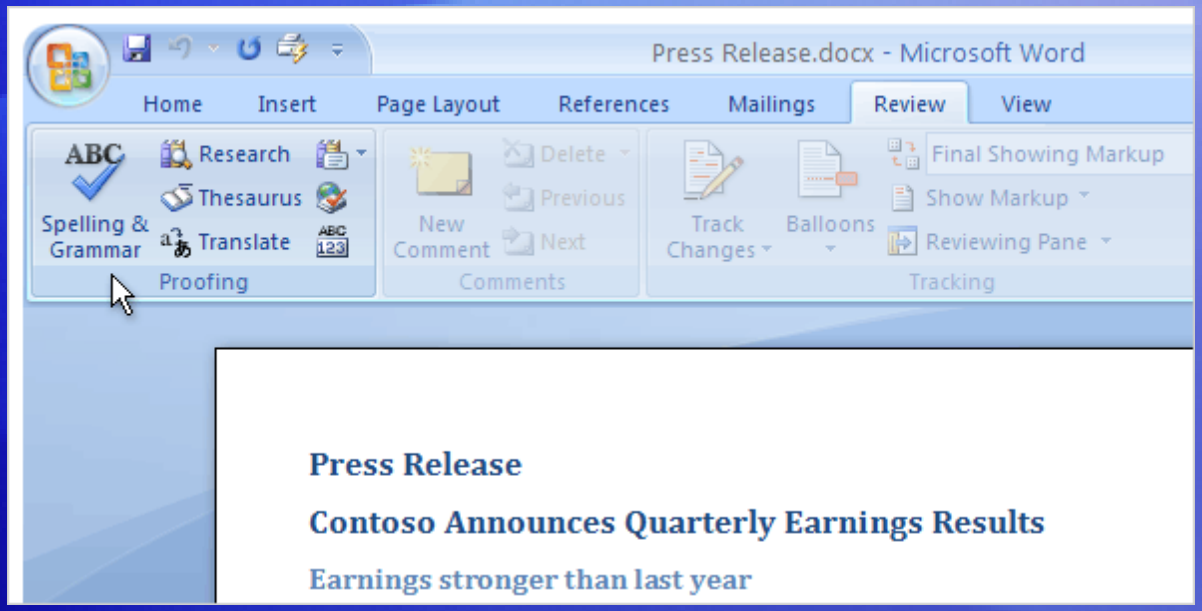


After you insert something, you may need a closer look at the details.

So you'll definitely want to know where to find the zoom control.

Look in the lower-right corner. Drag the slider to the right to zoom in, and drag it to the left to zoom out.

Check your spelling and grammar



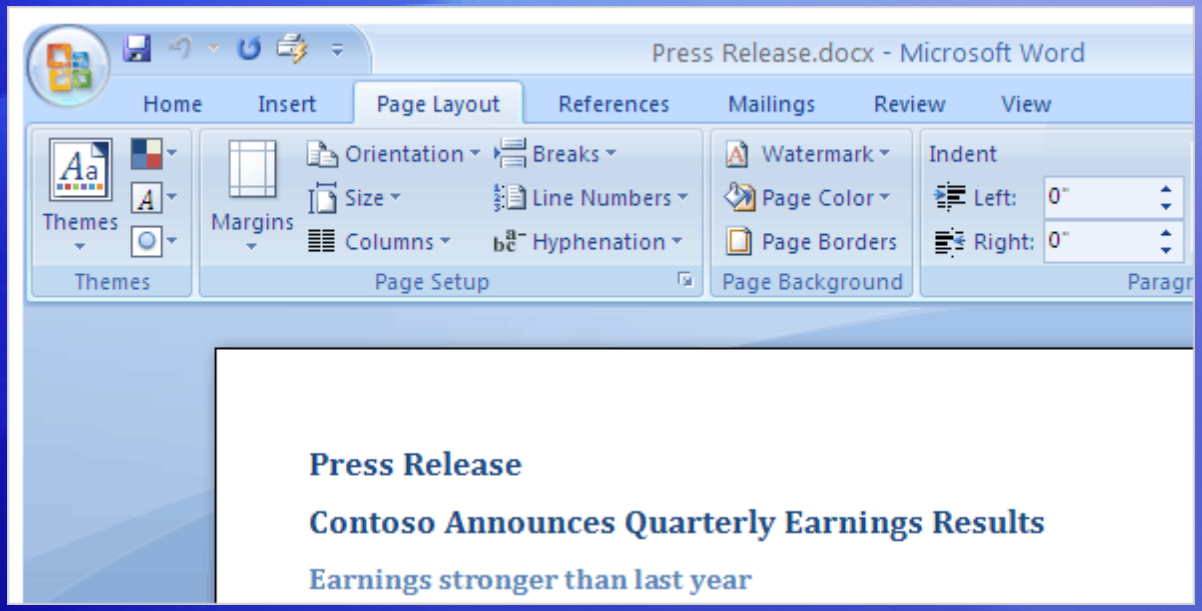
Make no mistake!

When you've done most of the work in your document, you'll want to check spelling and grammar before printing it or sending it in e-mail.

The **Spelling & Grammar** command is on the **Review** tab, because this is part of reviewing your work.

Look toward the far left, in the **Proofing** group.

Ready to print?



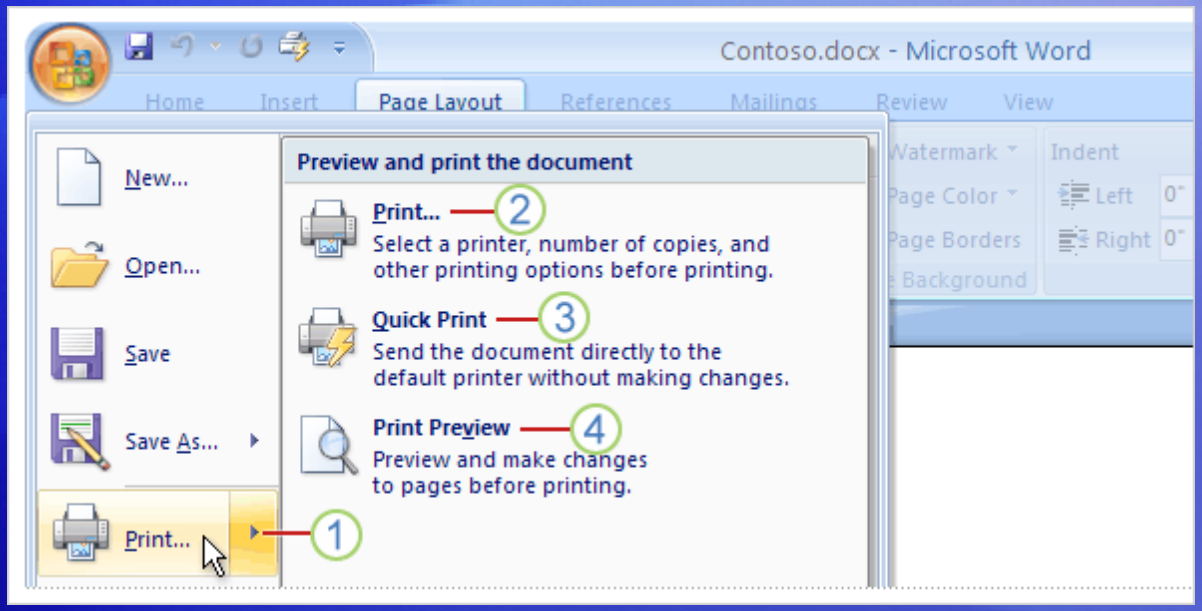
You're ready to print—but are you?

First it's smart to check how your pages are laid out for the printer.

Everything you need is on the **Page Layout** tab.

The **Page Setup** group contains **Size** (8.5 x 11, A4, and so on), **Orientation** (landscape and portrait), and **Margins**.

Yes, ready to print

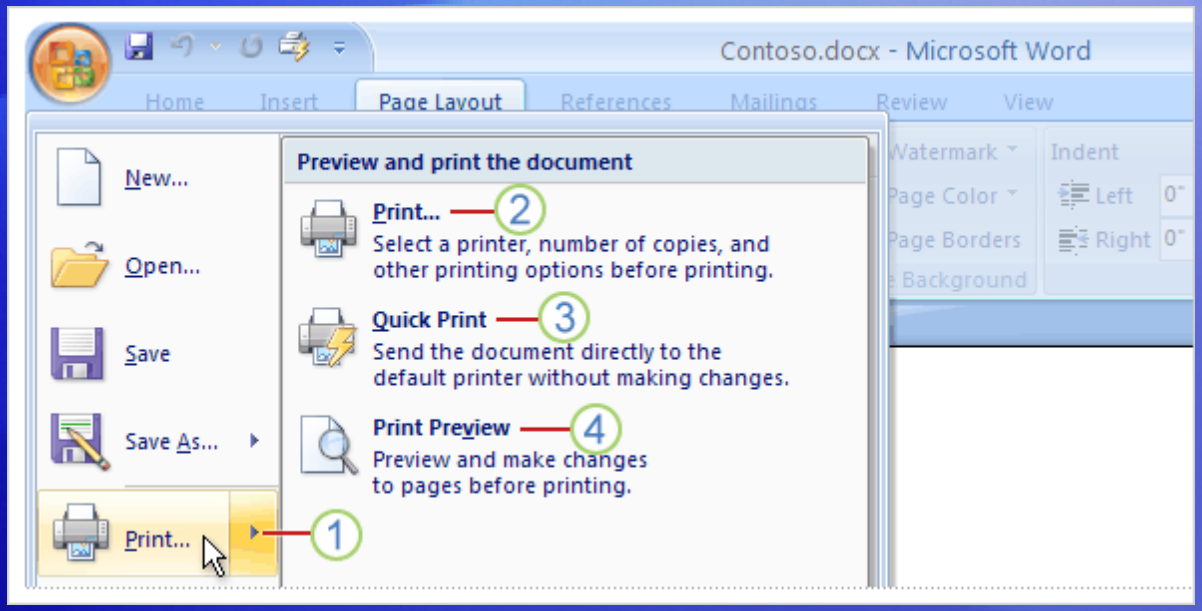


When you're truly ready to print, go back to the **Microsoft Office Button**.

Keep in mind that now you've got options:

1. If you click the **Print** command, you'll get the **Print** dialog box. But point at the arrow on the right of the **Print** command instead, and you'll see three additional commands.

Yes, ready to print

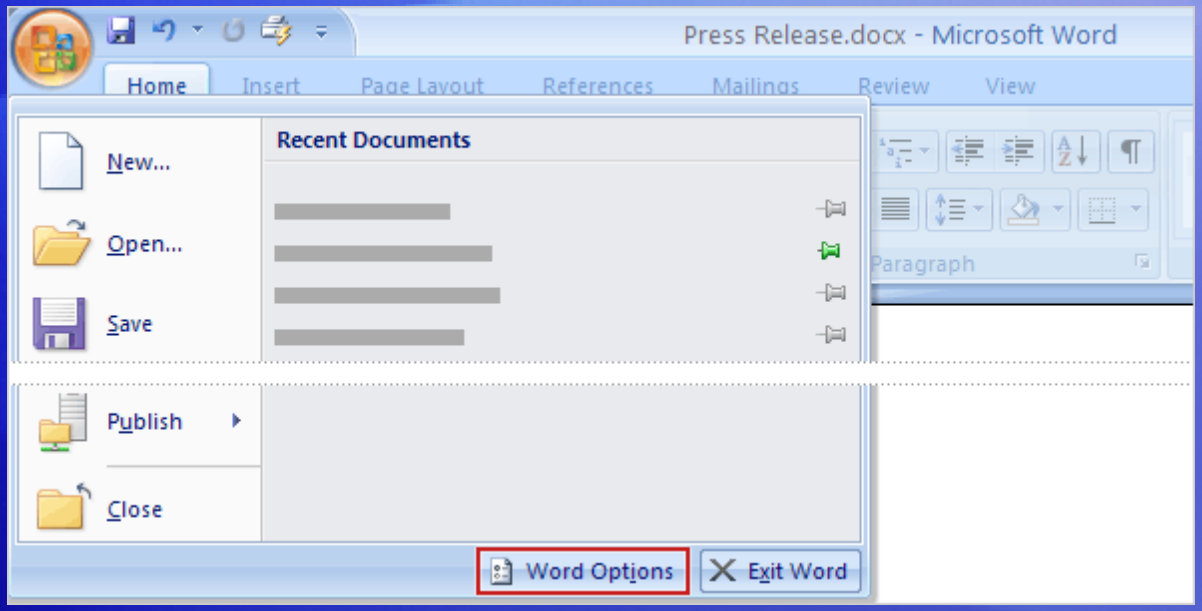


When you're truly ready to print, go back to the **Microsoft Office Button**.

Keep in mind that now you've got options:

2. **Print**
3. **Quick Print**
4. **Print Preview**

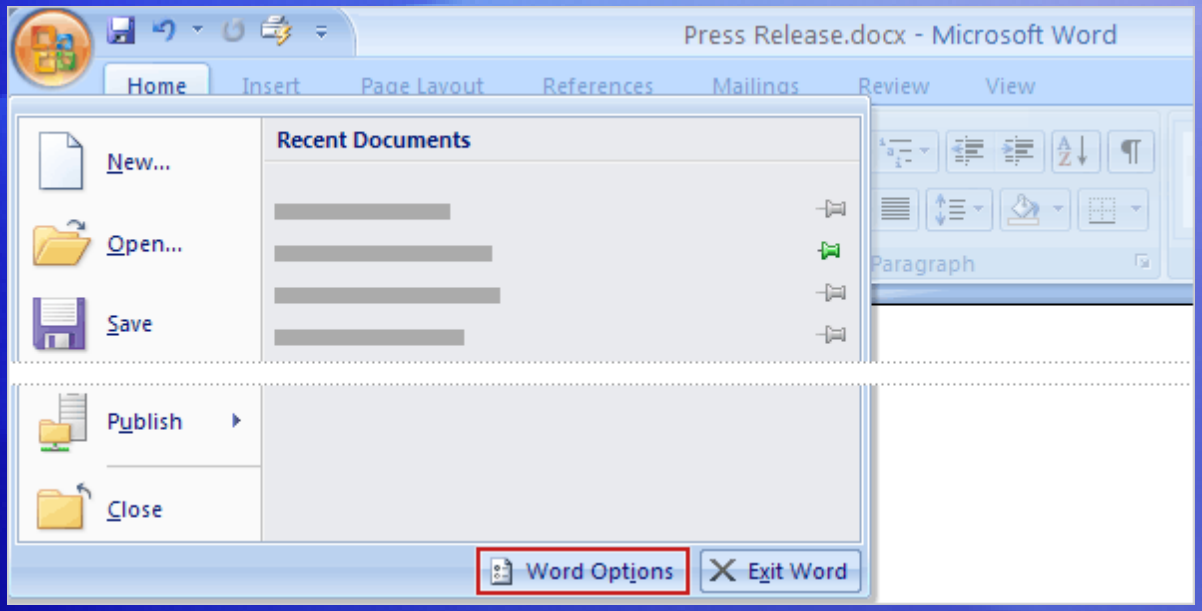
Behind the scenes



All the features you are accustomed to using every day in Word are on the Ribbon and much easier to find than ever before.

So where are the behind-the-scenes settings that aren't about producing documents, but that control how Word works?

Behind the scenes



In previous versions of Word, you clicked **Options** on the **Tools** menu.

Now, all these settings are part of **Word Options**, which you see when you click the **Word Options** button.

It's on the menu that opens when you click the **Microsoft Office Button**.

Suggestions for practice

1. Add a bulleted list.
2. Apply Quick Styles, and then zoom out to see all changes.
3. Change the Quick Style set.
4. Use the Format Painter.
5. Insert a chart by using the **Insert** tab.
6. Make overall changes with the **Page Layout** tab. Then try more tabs.
7. Print in all sorts of ways.

Online practice (requires Word 2007)

Test 2, question 1

You can apply bulleted lists using commands in which group on which tab? (Pick one answer.)

1. In the **Paragraph** group on the **Page Layout** tab.
2. In the **Paragraph** group on the **Home** tab.
3. In the **Symbols** group on the **Insert** tab.
4. In the **Text** group on the **Insert** tab.

Test 2, question 1: Answer

In the **Paragraph** group on the **Home** tab.

This is where you can apply bulleted lists. Tip: You can also apply bulleted lists by using the Mini toolbar.

Test 2, question 2

How do you choose print options in the new version of Word? (Pick one answer.)

1. Click the **Print** button on the Ribbon.
2. Click the **Print** button on the Quick Access Toolbar.
3. Use the **Microsoft Office Button**.
4. Either the first or second option above.

Test 2, question 2: Answer

Use the **Microsoft Office Button**.

This is where you open Print Preview as well.

Test 2, question 3

Which corner has the zoom control? (Pick one answer.)

1. Upper-right.
2. Upper-left.
3. Lower-left.
4. Lower-right.

Test 2, question 3: Answer

Lower-right.

In the lower-right corner is the control you use to zoom in and out. You can also use the **View** menu to see the zoom controls.

Lesson 3

A new file format

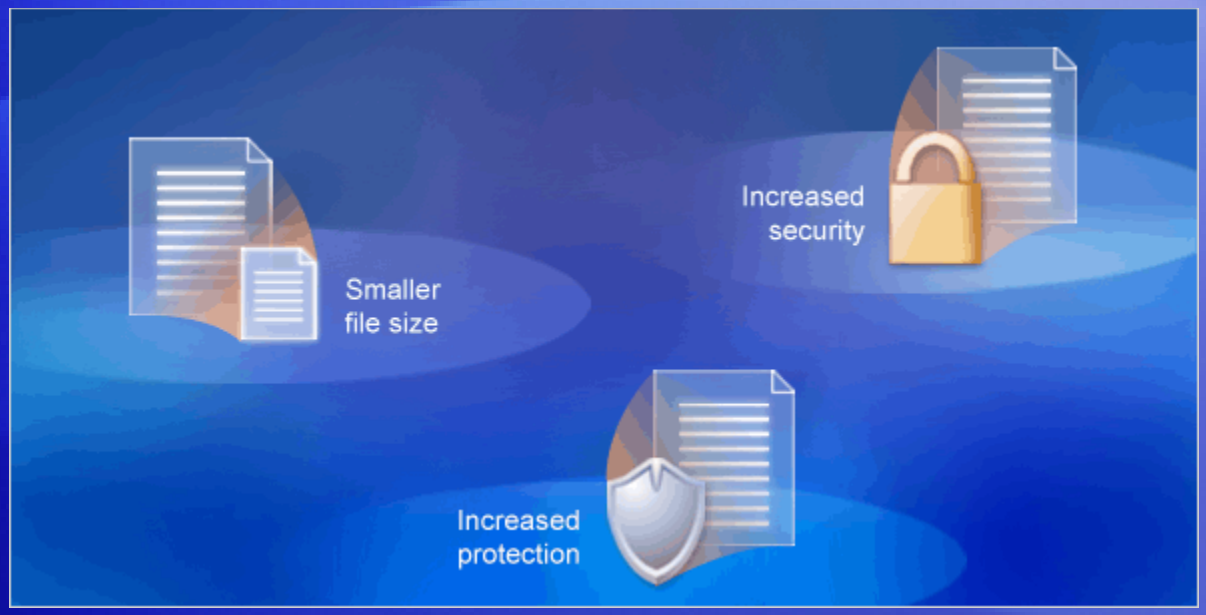
A new file format

One more big change in the new version of Word: an improved **file format**.

What does that mean to you?

The new file format helps keep your file sizes smaller, and it helps keep them safer. There are other advantages, too.

Why the change? XML

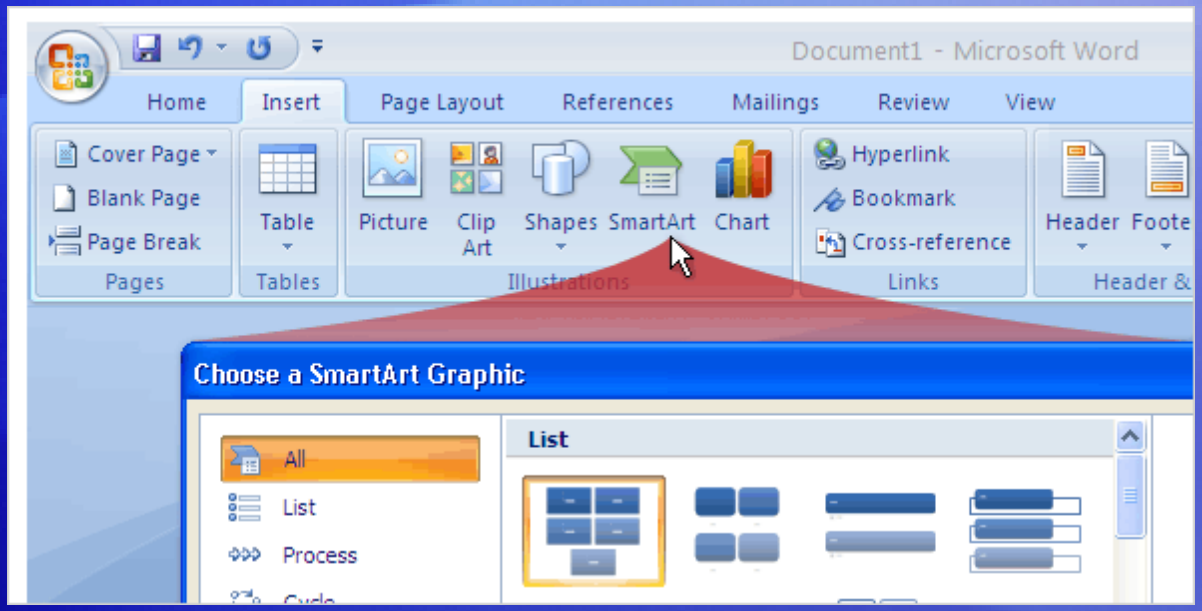


The new Word document file format is based on the new Office Open XML Formats.

The format brings lots of benefits:

- Helps make your documents safer.
- Helps make your document file sizes smaller.
- Helps make your documents less susceptible to damage.

Why the change? New features

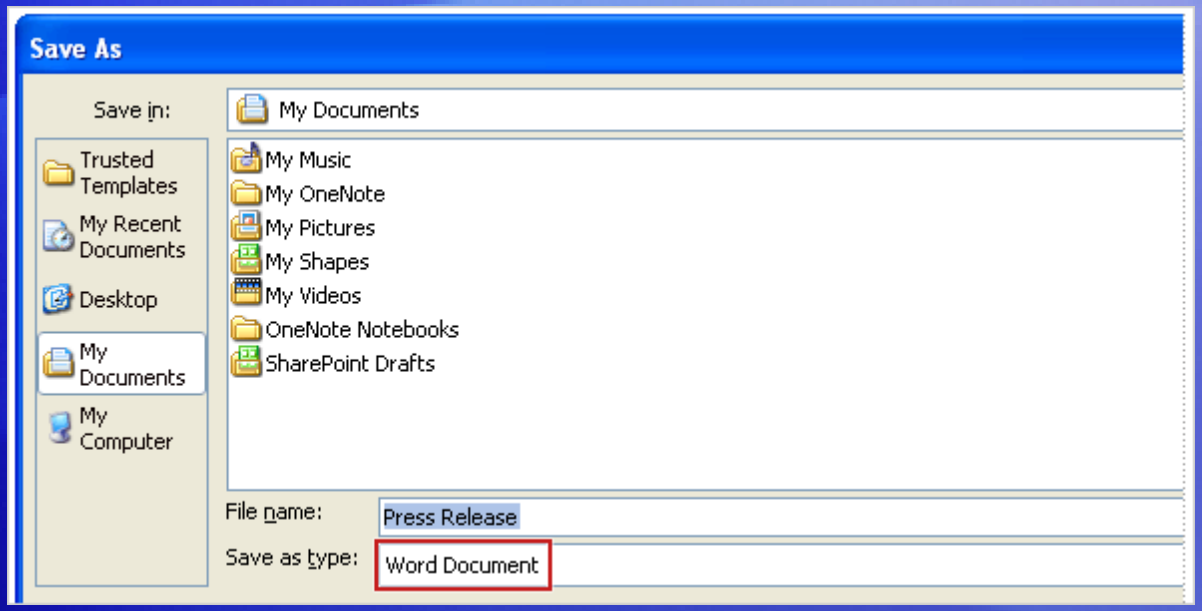


The new file format also gives you the ability to use features that are only available in Word 2007.

One example is the new SmartArt™ graphics feature.

The illustration shows you how to start such a graphic in Word. Notice how many SmartArt graphic designs are available to choose from.

How do I know I’m using the new format?



When you create a new document in Word 2007, and then save the document, the new file format will automatically be chosen for you.

You can make sure of this by looking closely at the **Save As** dialog box. Notice that the **Save as type** box says **Word Document**. This means the new file format is being used.

There’s more than one file format?

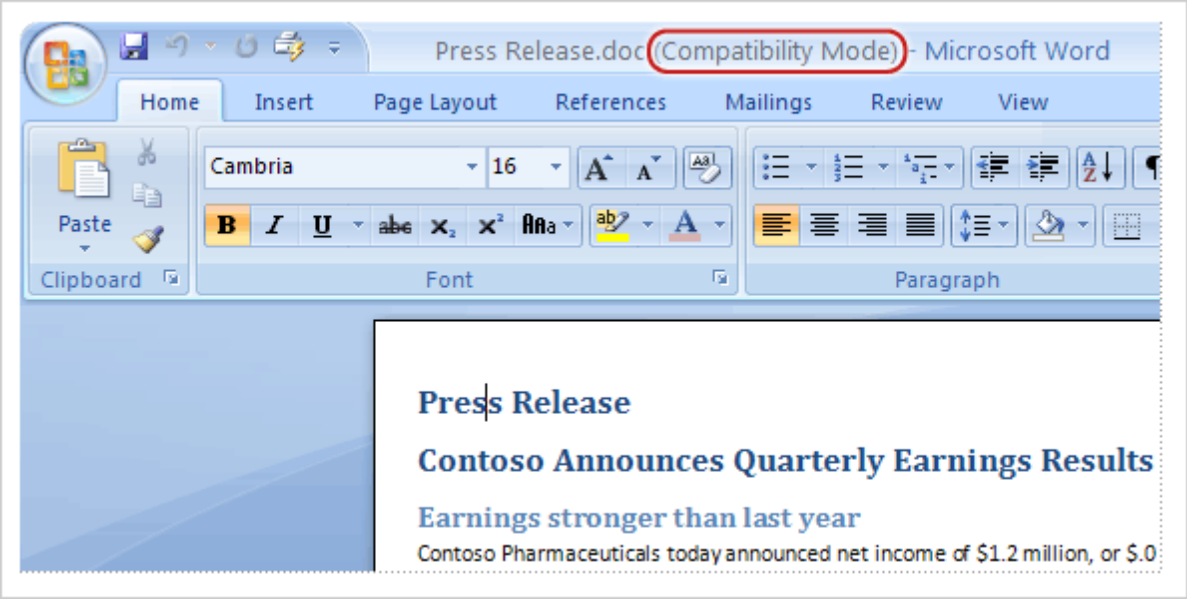
File extension	What it’s used for
.docx	Standard Word document with no macros or code
.dotx	Word template with no macros or code
.docm	Word document that could contain macros or code
.dotm	Word template that could contain macros or code

Previously, there were just two Word file types: documents and templates (.doc and .dot).

With Word 2007 there are four file types: .docx, .dotx, .docm, and .dotm (the “x” stands for XML and the “m” for macro). Take a look at the table for details.

The only outward difference you are likely to see with new Word file formats is if you use macros or code.

What about the documents I already have?

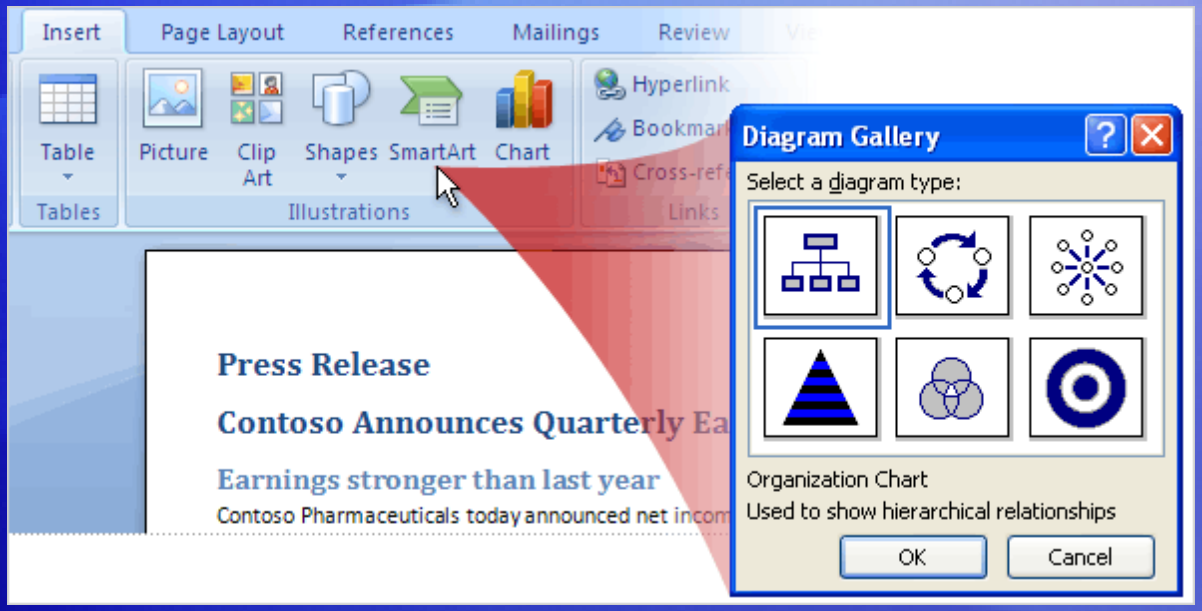


You're probably wondering, "What happens when I open my older documents in the new version of Word?"

Word 2007 can open files created in all previous versions of Word, 1.0 through 2003.

Word opens older documents in **compatibility mode**. You know this because at the top of the document "**(Compatibility Mode)**" appears next to the file name.

Compatibility mode

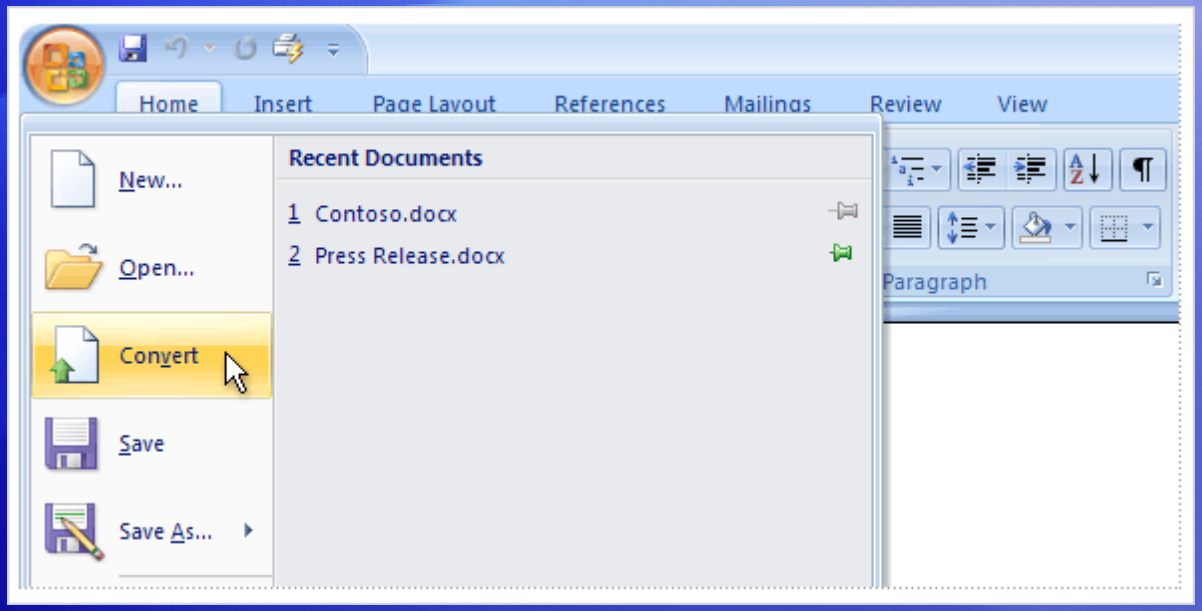


What's compatibility mode all about?

In short, Word is telling you that the document uses an older file format.

Because that file format doesn't understand some of the new features in the new version of Word, those features are either turned off or modified so that they approximate an older version of Word.

Converting your old files



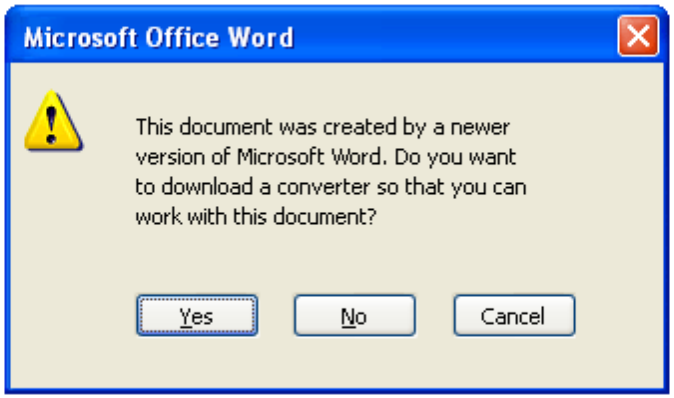
Can you convert an older document to the new file format?

Naturally.

With the document open in Word 2007, you just click the **Microsoft Office Button**, and then click the **Convert** command on the menu.

This conversion offers the benefits of the new format (helps create smaller, more secure files, and so on) and also the new features with their full, undiminished capabilities.

Share documents using a converter

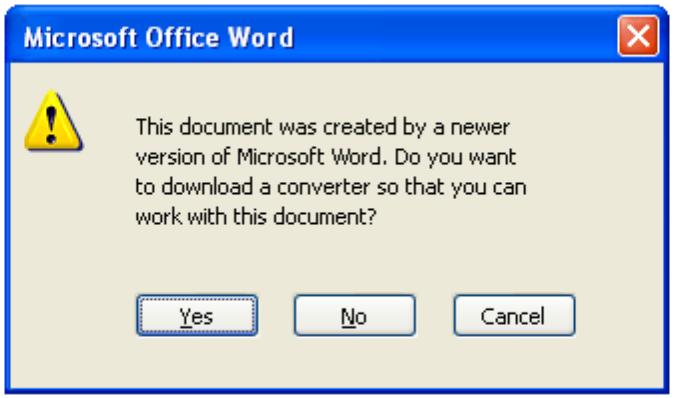


If you'll be sharing documents, there are conversion methods you'll want to know about.

Here's a common scenario that involves a **converter**.

Start by supposing that you're using the new file format, either by creating and saving new documents or by upgrading older documents by using the **Convert** command on the menu that opens from the **Microsoft Office Button**.

Share documents using a converter



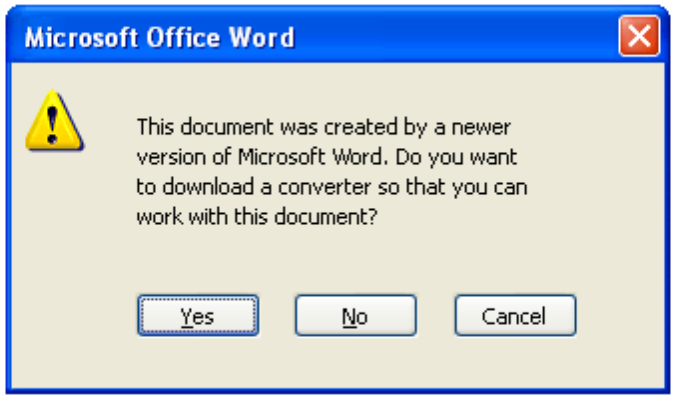
If you'll be sharing documents, there are conversion methods you'll want to know about.

Here's a common scenario that involves a **converter**.

Your friend John has an older version of Word that came with Office 2000. You want to use e-mail to send him your latest document. Will he be able to open it?

Yes. When John clicks the document, the message shown here will ask if he wants to download a converter that will let him open your document.

Share documents using a converter



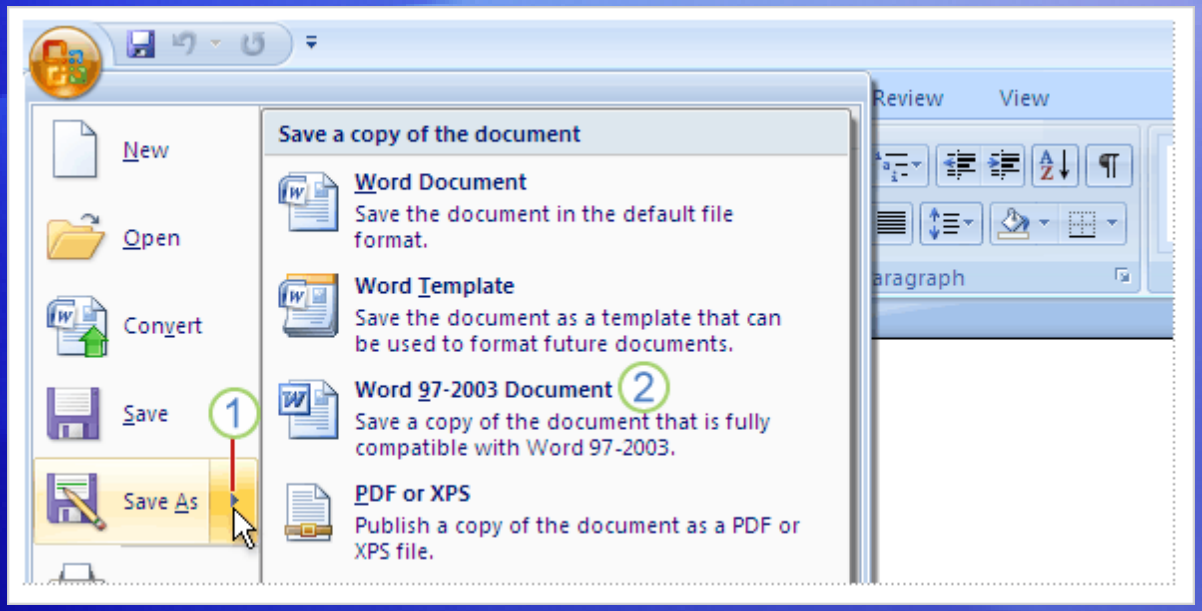
If you'll be sharing documents, there are conversion methods you'll want to know about.

Here's a common scenario that involves a **converter**.

The document John opens won't look *exactly* the same as the one you made, because there are many features in your new version of Word that don't exist in his version.

Still, he can open it, and will be able to work with it and send it back to you.

Share documents by saving with an older format



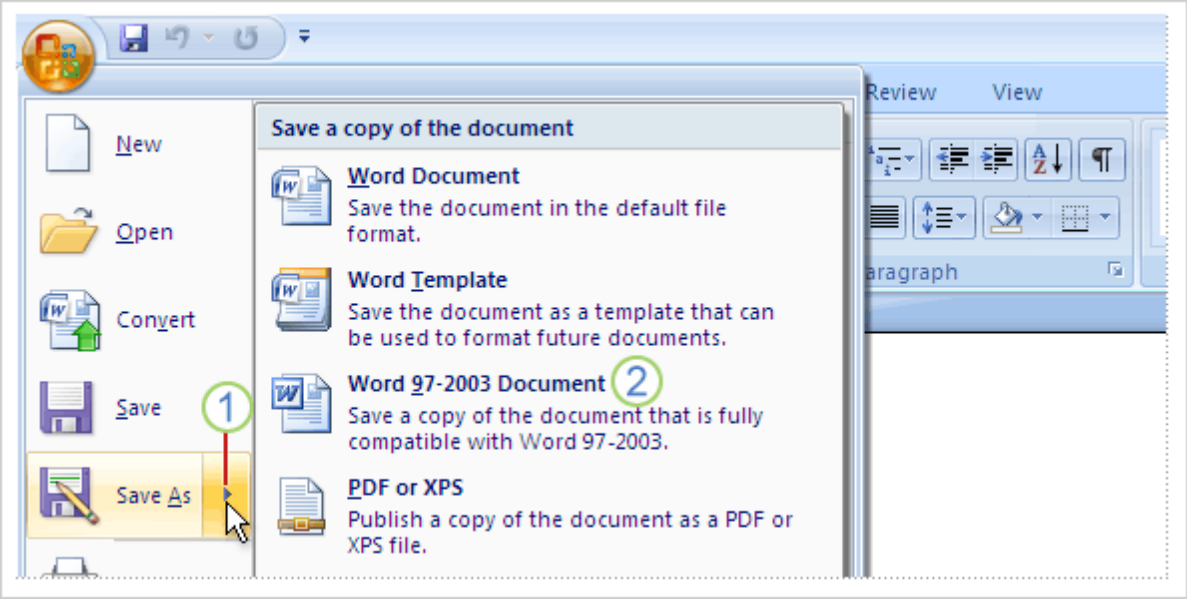
Concerned that John doesn't have his installation of Office 2000 fully updated?

Save your document with an older file format before sending it to him.

Here's how:

1. Click the **Microsoft Office Button**, and on the menu, point to the arrow at the end of the **Save As** command.
2. Click **Word 97-2003 format** in the list of options.

Share documents by saving with an older format



You may get a warning that saving in the older file format will cause certain features to be lost or modified.

For example, if your document contains a new diagram, Word will notify you that the diagram will be combined into a single, uneditable object. That way John can at least see the diagram. But John won't be able to edit it, because his version of Word doesn't understand how to work with this new feature.

Test 3, question 1

In the title bar of your Word document, it says, “Marketing report.doc (Compatibility Mode).” What does this mean? (Pick one answer.)

1. You can work with the document, but you can’t save it.
2. You can’t work with the document, because it’s not compatible.
3. You can work with the document using all the new Word features.
4. You can work in the document, but Word will limit some new features.

Test 3, question 1: Answer

You can work with the document, but Word will limit some new features.

The document is in the older file format and does not understand the new features in Word. So those features are limited or disabled.

Test 3, question 2

Your friend sent you a Word 2000 document in an e-mail message. Can you open it in the new version of Word? (Pick one answer.)

1. Yes, but you'll get a warning telling you to get a converter.
2. Yes, but the document will open in compatibility mode.
3. Yes, if you first turn on compatibility mode with the Quick Access Toolbar.
4. No, only files from Word 2002 and later can be opened in the new version of Word.

Test 3, question 2: Answer

Yes, but the document will open in compatibility mode.

Some features will be limited because you are working with an older file format.

Test 3, question 3

What happens if you click the Convert command on the menu that opens from the Microsoft Office Button? (Pick one answer.)

1. Word upgrades the existing file to the new file format and renames the file from “document.doc” to “Upgraded: document.doc.”

2. Word upgrades the existing file to the new file format and turns on the new features available in the new version of Word.

3. Word limits its features to be compatible with the document’s file format.

4. Word opens the document in a safe, read-only state so that you can view in the new file format.

Test 3, question 3: Answer

Word upgrades the existing file to the new file format and turns on the new features available in the new version of Word.

And if you have Windows configured to show file extensions, you'll see that the extension changes from .doc to .docx.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Word 2007 Training

Headers and footers for document sections

Course contents

- Overview: Documents with different parts
- Lesson: Varying your headers and footers

The lesson includes a list of suggested tasks and a set of test questions.

Overview: Documents with different parts

Your Word 2007 document has several parts. How do you apply headers and footers and vary them so they're appropriate to each part?

If your document has a cover page, for example, you may want no page number to show there. And you'd like the headers for each chapter to contain the title for that chapter only.

In this course, you'll see how to tailor your headers and footers to your content.

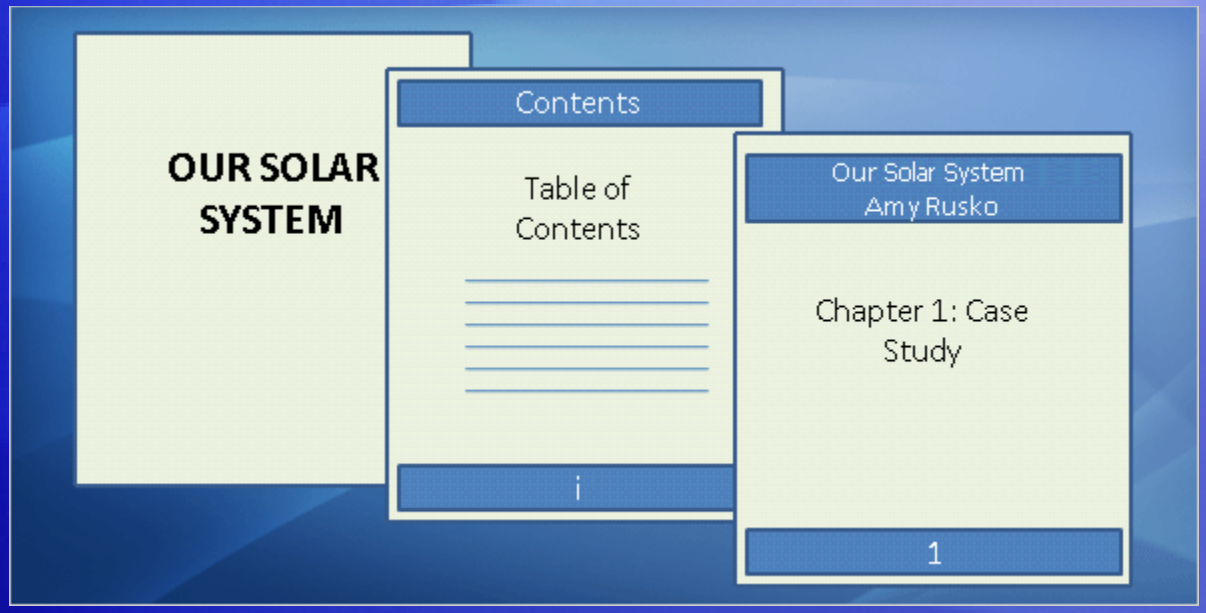
Course goals

- Create document sections by adding section breaks.
- Work within sections to create varied headers and footers.
- Apply a different-first-page setting for headers and footers.
- Create headers and footers for facing pages.

Lesson

Varying your headers and footers

Varying your headers and footers

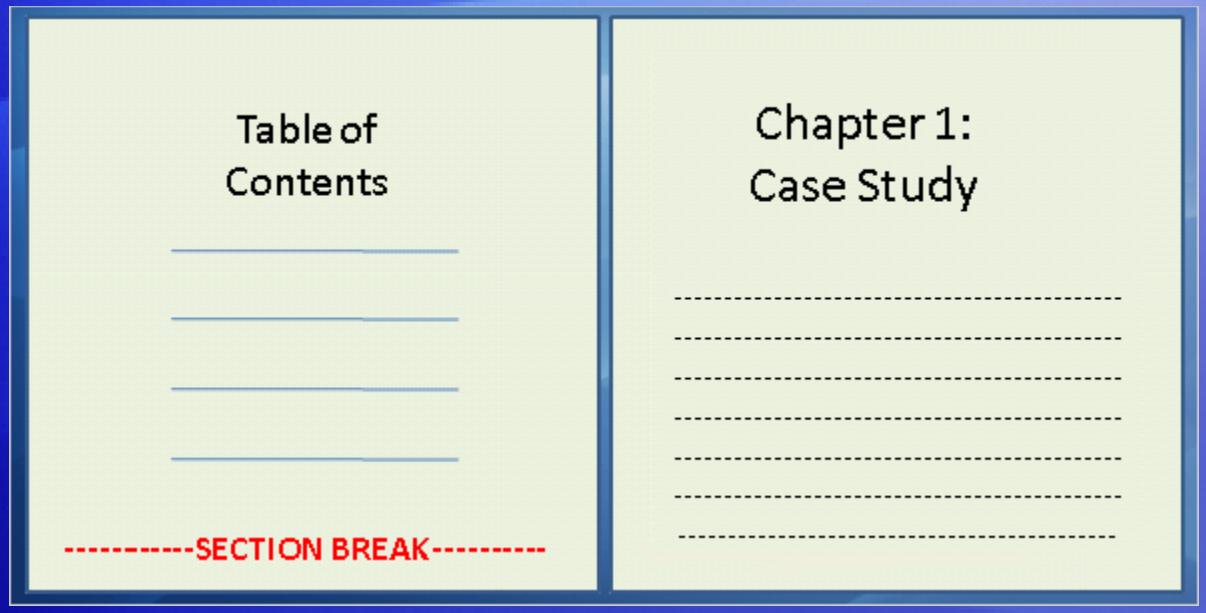


You have a multipart document, and you want to create headers and footers that go with each part.

You already know you can apply a header or footer once and have it appear everywhere.

But for the multipart document, you need more control. How do you get that?

Create different sections

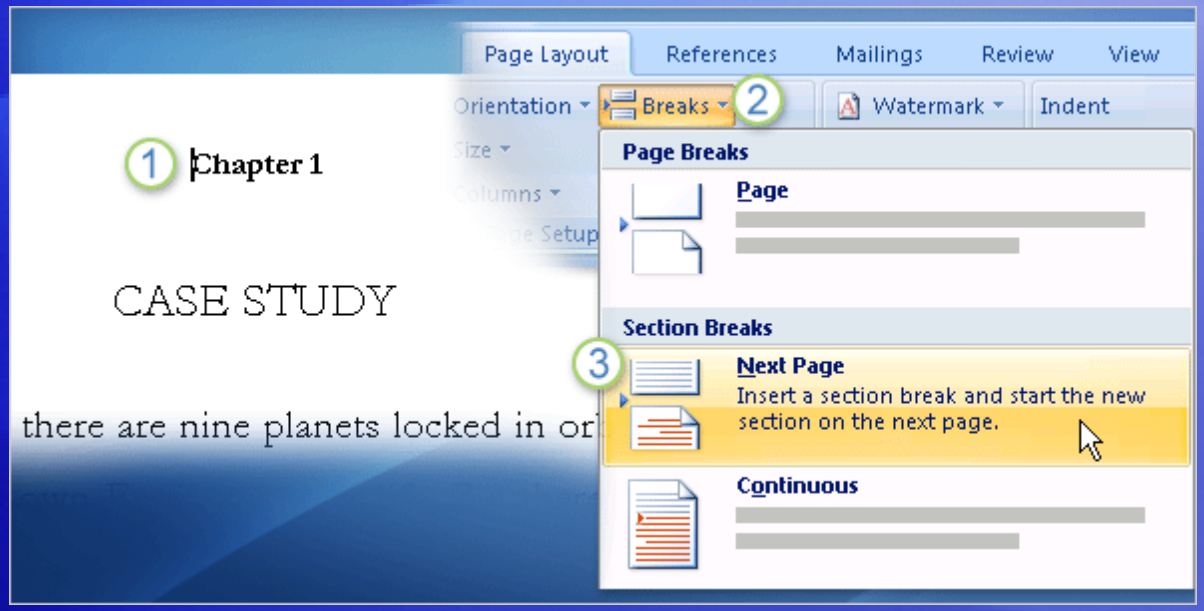


If your document has several parts, and you want unique headers and footers for each part, you first create **section breaks** between the document's parts.

A section break enables you to create a unique page layout for the pages in that section.

With the unique layout established, you can set up the headers and footers the way you want them for that section.

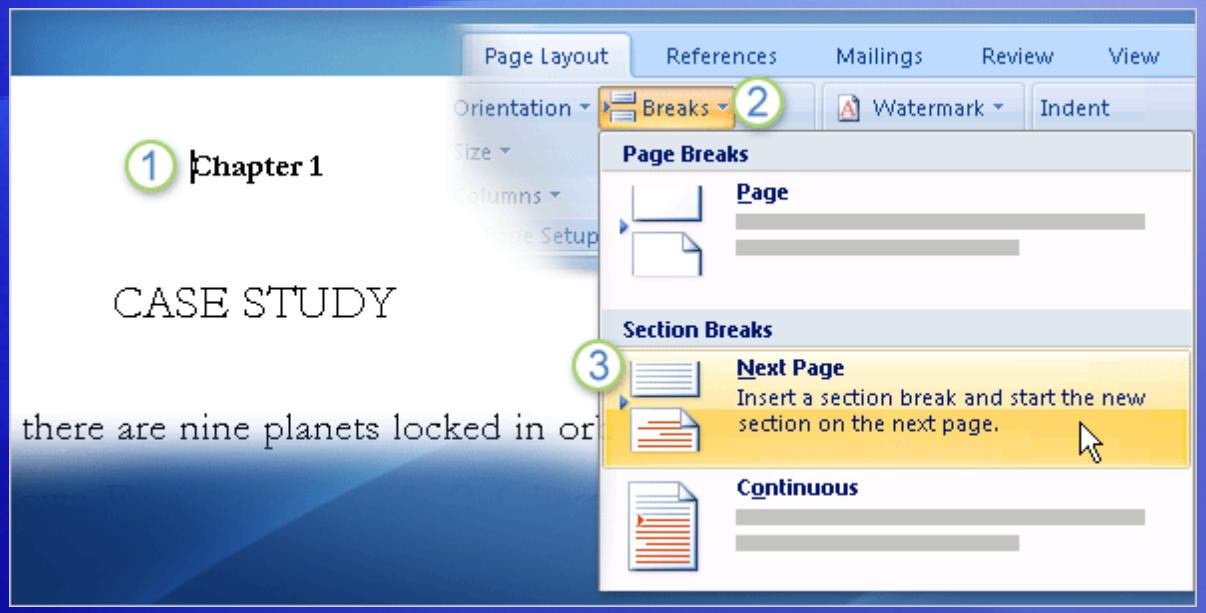
How to create section breaks



You insert section breaks in the main body of the document, not in the header and footer space.

So you'd close the header and footer workspace before doing the steps shown in the picture.

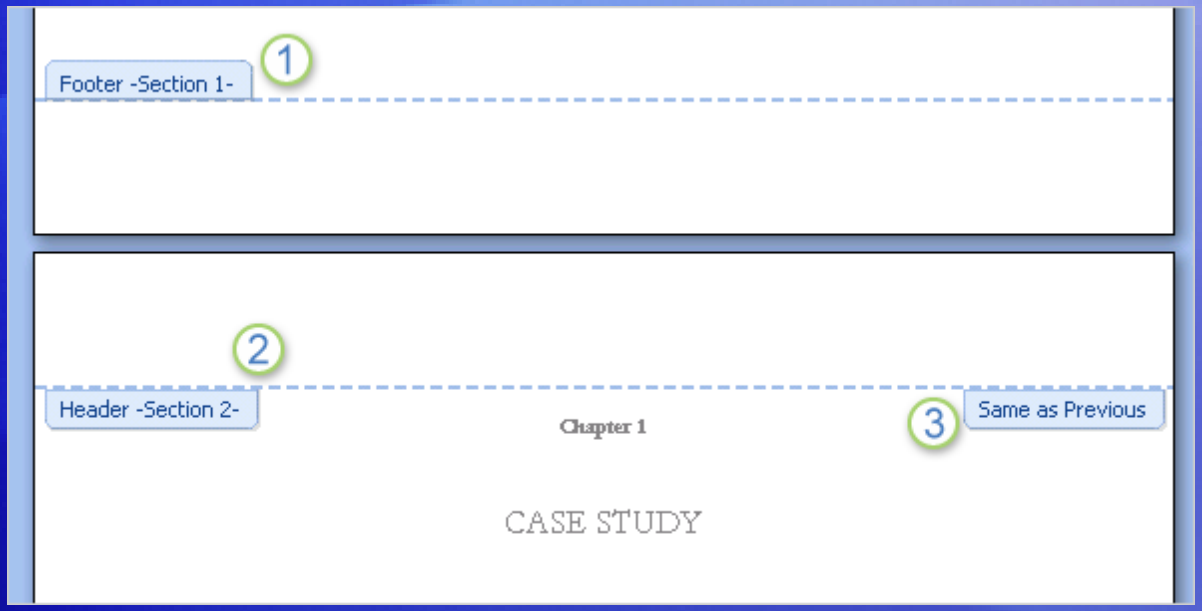
How to create section breaks



You insert section breaks in the main body of the document, not in the header and footer space.

1. Place the cursor where you want a new section to start.
2. On the Ribbon, click the **Page Layout** tab, and click **Breaks**.
3. Under **Section Breaks**, click **Next Page**. Word creates a section break before the position of the cursor.

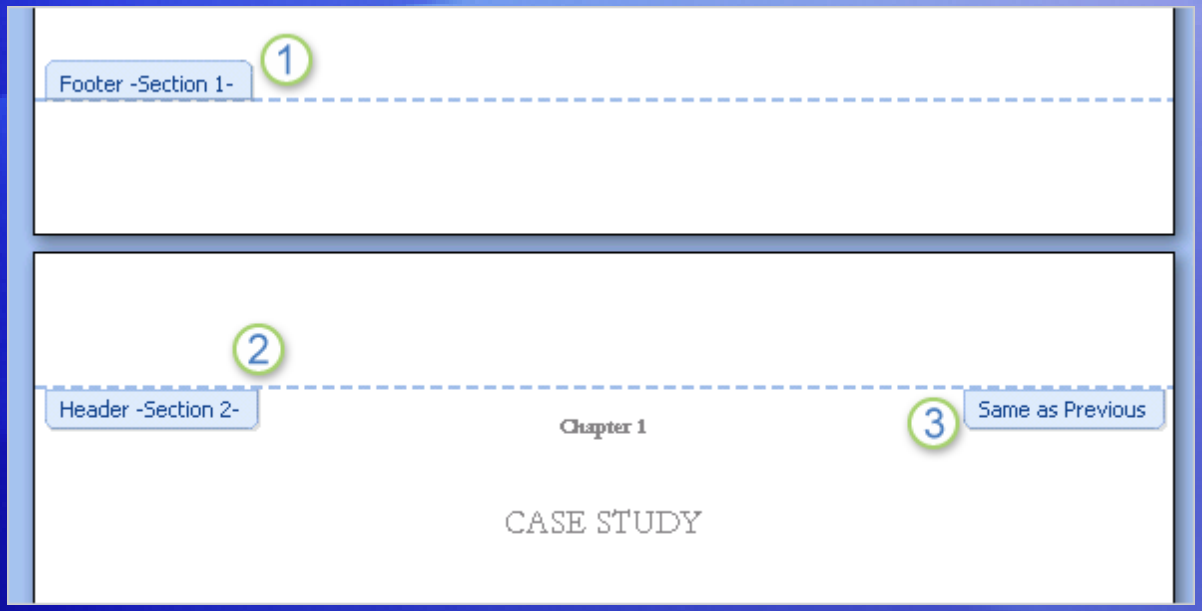
How sections are shown in headers and footers



The section break means that what comes before it is one section, and what's after it is another section.

When you open the header and footer workspace, markers appear there that define the sections and keep you oriented.

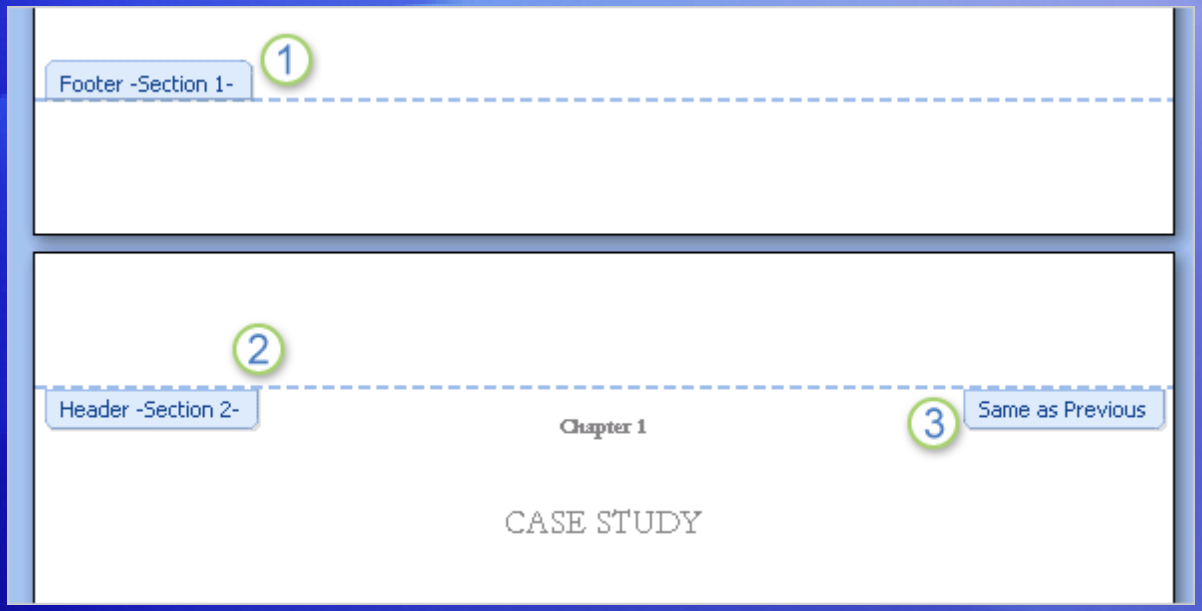
How sections are shown in headers and footers



As the picture shows, the header and footer areas indicate the sections and give each a number.

1. This footer is at the end of section 1.
2. The header below is at the start of section 2.
3. And you'll notice another tab: **Same as Previous**.

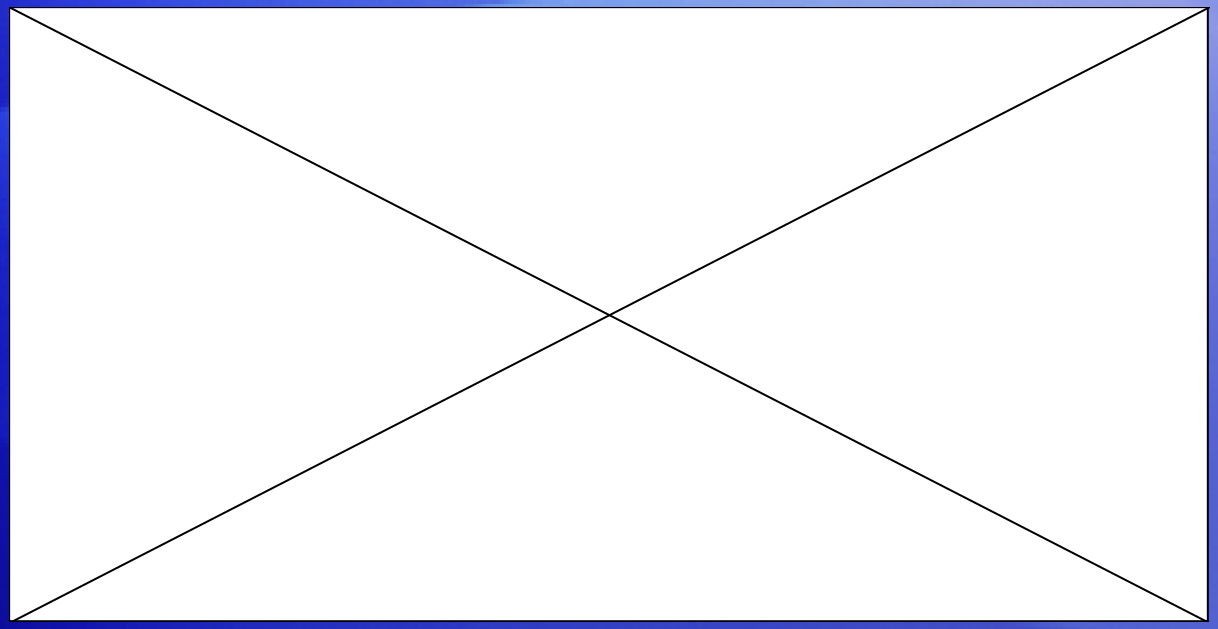
How sections are shown in headers and footers



What does **Same as Previous** mean?

It means that, though you've created distinct sections in the document, you still get the option of having header and footer content carry over between sections.

Create unique text in a header

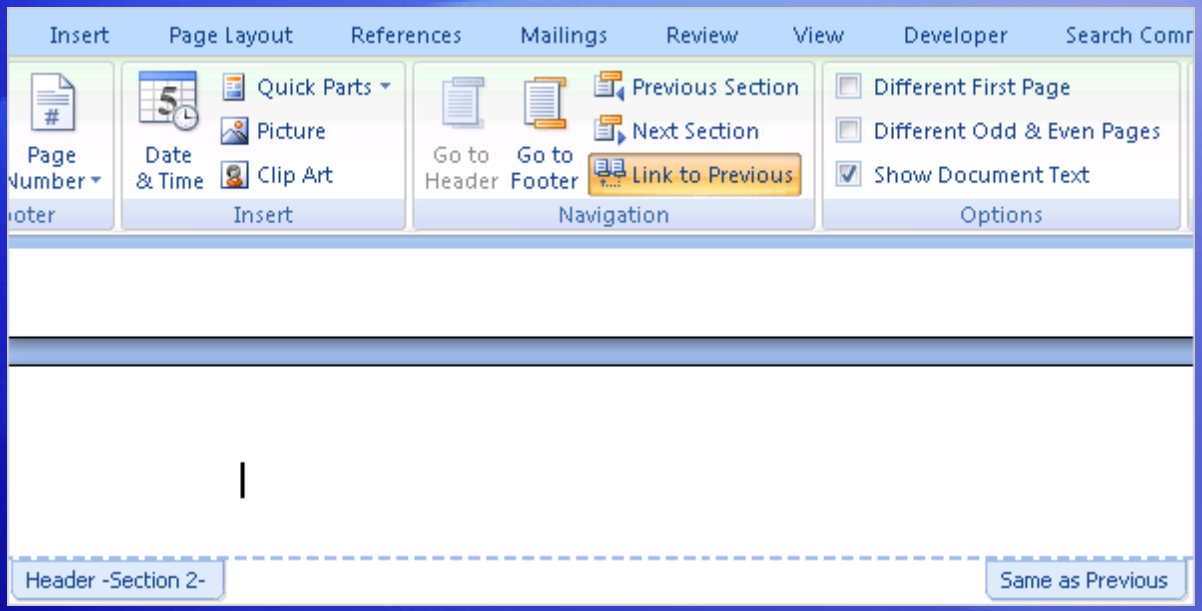


To create unique text in a particular header, you first break the link in the header. This frees the header for content that's unique to the section.

Animation: Right-click, and click **Play**.

First, you place the cursor in the header you want to break the link for. Then, in the **Navigation** group, click **Link to Previous** to turn that setting off.

Create unique text in a header

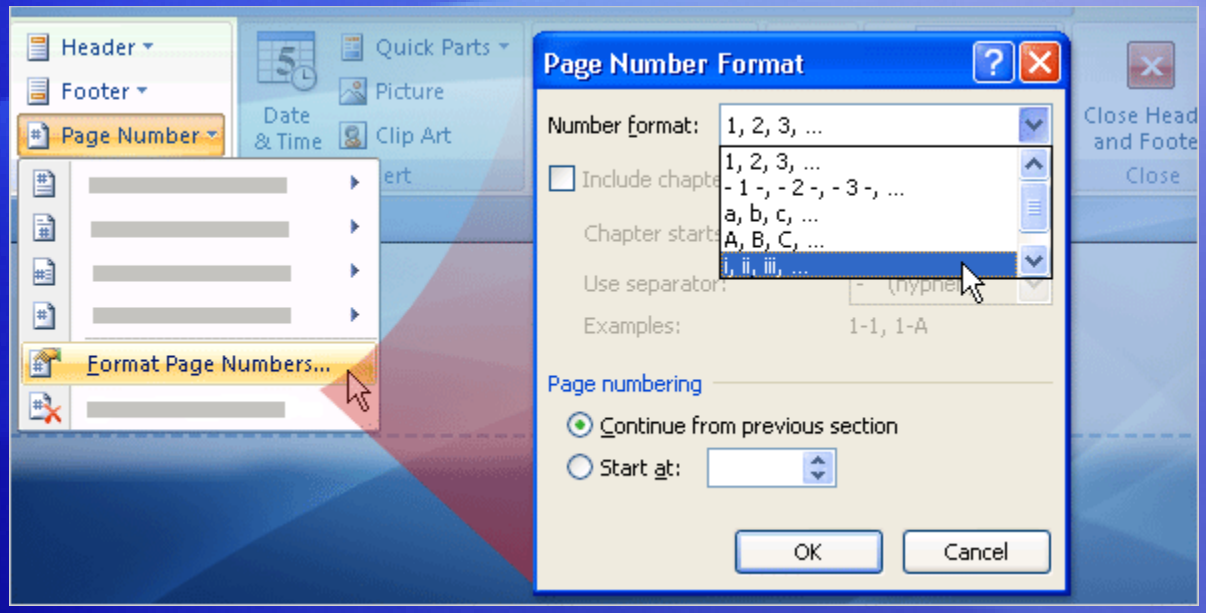


To create unique text in a particular header, you first break the link in the header. This frees the header for content that's unique to the section.

First, you place the cursor in the header you want to break the link for.

Then, in the **Navigation** group, click **Link to Previous** to turn that setting off.

Tips for working with different headers and footers



Keep the following things in mind as you set up unique headers and footers in a document.

- Break links for each document section.
- Break header and footer links separately.
- Mind your page numbering.

Create a different first page

Once you've turned your front matter into its own section, you can subdivide it even further, in case you want nothing in the headers and footers on the cover page.

1. Use the **Different First Page** setting, shown here. Selecting this setting enables the header and footer areas to be different from the rest of the pages in the section. You can do this for any section in the document.

Create a different first page

Once you've turned your front matter into its own section, you can subdivide it even further, in case you want nothing in the headers and footers on the cover page.

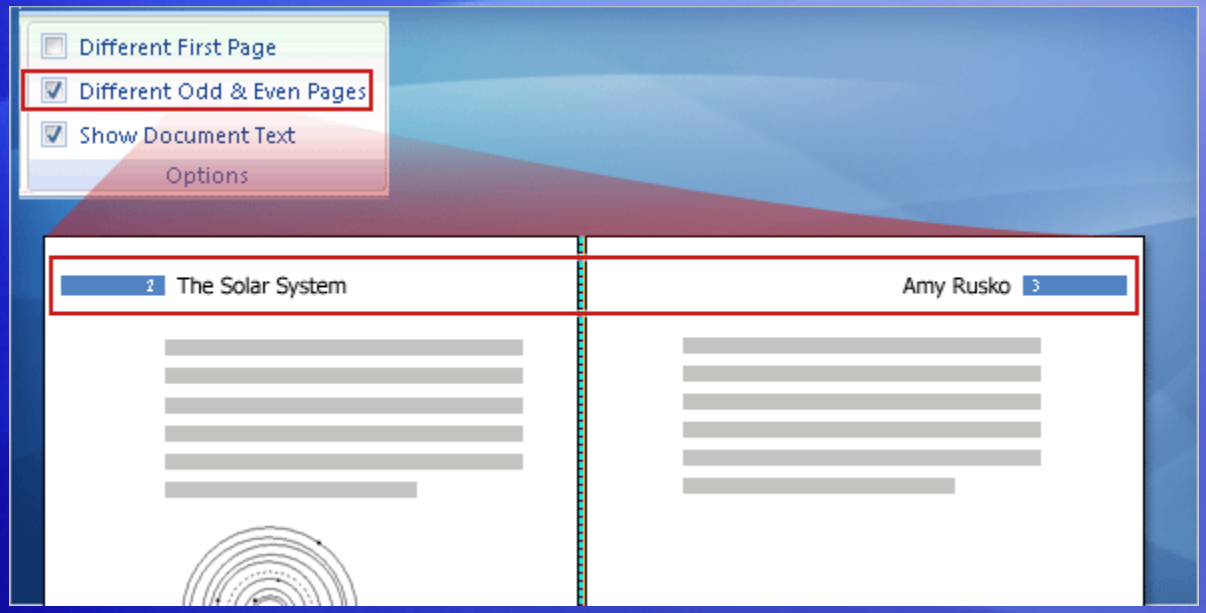
2. The section's header and footer areas will now have text above them saying "First Page Header" and "First Page Footer." (This appears only in the header and footer workspace.)

Tips for creating a different first page

Tips:

- If you want unique headers and footers only on the first page of your document, you can apply the **Different First Page** setting and dispense with creating sections.
- However, if you intend to include sections, create those before applying the **Different First Page** setting. This setting gets carried over into a new section, which is typically not what you'd want.
- Word has predesigned cover pages that you can insert (you find these on the **Insert** tab). These automatically put the **Different First Page** setting into effect.

Different odd and even pages

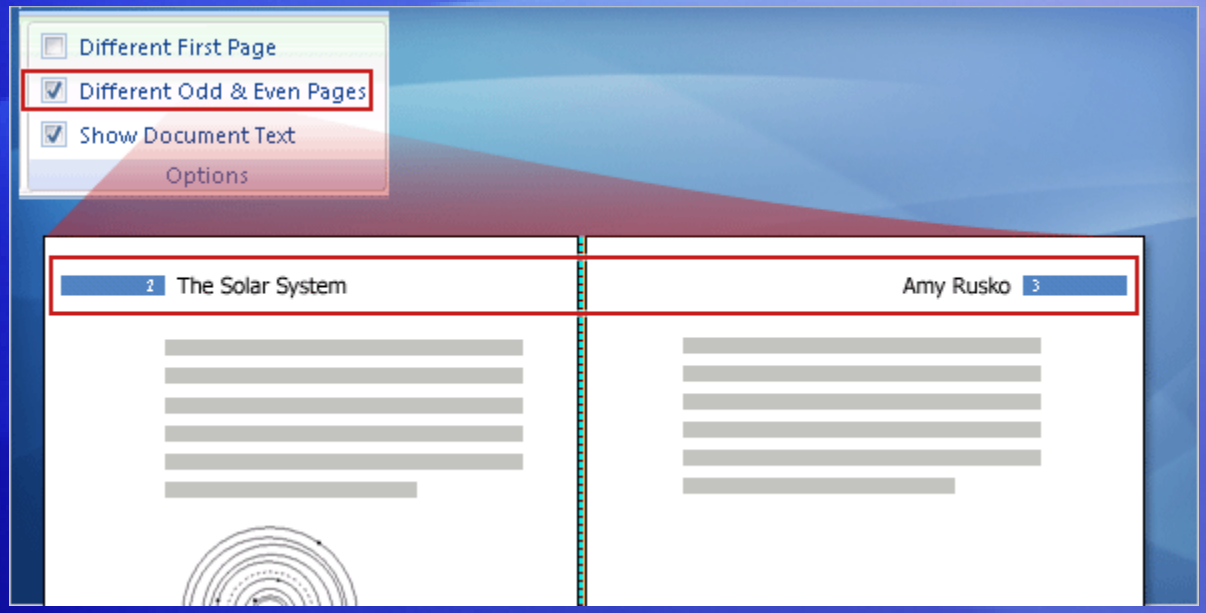


As you use the galleries of designed headers and footers, you'll see that some are set up for odd and even pages, with the content on the outer edge of the page.

To apply headers and footers to odd and even pages, you go through the same process described earlier.

That is, you create document sections, break the links between them, and then add the header and footer content that you want in each section.

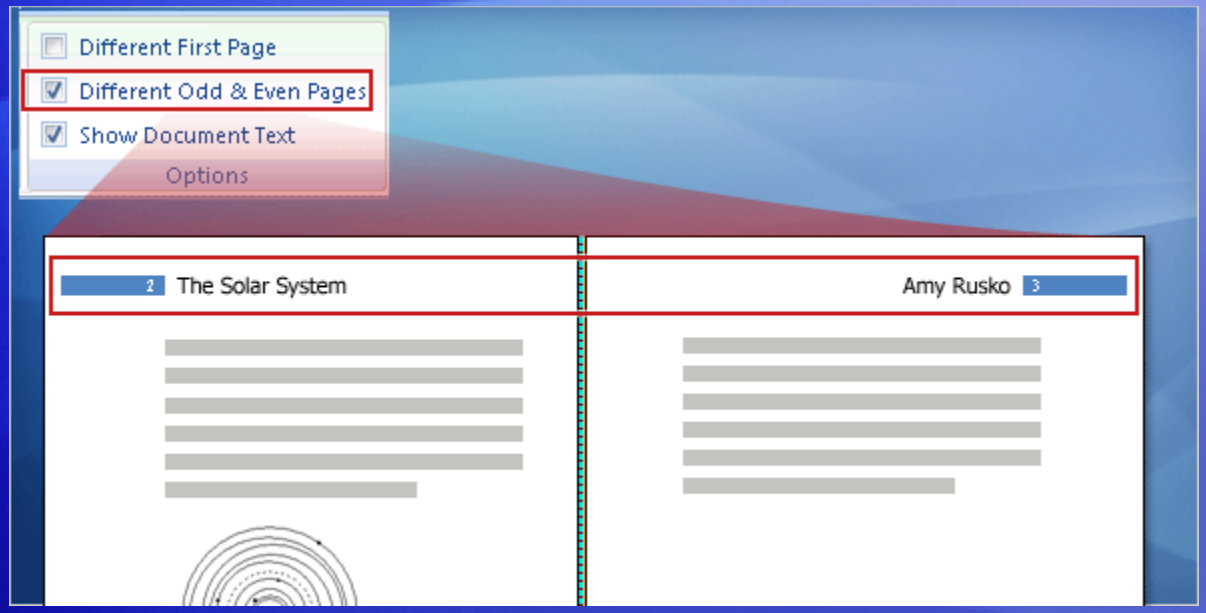
Different odd and even pages



But be sure to note a couple of key points about using this format.

If you want the “odd” or “even” headers or footers to sit at the edges of the margin, as for facing pages, you must turn on the **Different Odd & Even Pages** setting on the **Design** tab before you apply the headers or footers.

Different odd and even pages



But be sure to note a couple of key points about using this format.

And this is a document-wide setting. While you can still create unique header and footer content in document sections, you cannot change the odd, even layout.

Suggestions for practice

1. Create sections in the document.
2. Break the link between sections, and then create a unique header.
3. Create another unique header.
4. Change elements on the cover page.

Online practice (requires Word 2007)

Test question 1

Why use section breaks? (Pick one answer.)

1. They lay the groundwork for layout variations in different areas of your document.
2. They visually break information from page to page.

Test question 1: Answer

They lay the groundwork for layout variations in different areas of your document.

Section breaks create sections, which are distinct parts of a document. Each section contains a unique set of formatting attributes.

Test question 2

A section break means that any header or footer content you create in that section applies only to that section. (Pick one answer.)

1. True.
2. False.

Test question 2: Answer

False.

The section break is just a first step.

Test question 3

There are page numbers throughout your document, in the footer. You don’t want any page numbers on your document’s cover page, however. What do you do? (Pick one answer.)

1. Put the cursor in the footer of the cover page, and use the **Remove Footer** command.

2. On the **Design** tab in **Header & Footer Tools**, click **Different First Page**.

3. Select the page number on the cover page and manually delete it.

Test question 3: Answer

On the **Design** tab in **Header & Footer Tools**, click **Different First Page**.

This makes all the footer content on the cover page disappear, and you can leave it blank or add whatever you want there.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Word 2007 Training

Bullets, numbers, and lists

Course contents

- Overview: Get the basics
- Simple lists
- Multilevel lists

Each lesson includes a list of suggested tasks and a set of test questions.

Overview: Get the basics

Arranging information in lists can make it far easier to understand.

You probably use lists in your documents every day but don't think about them until something gets complicated. Ever tried pasting one list into another, changing the indentation, or swapping bullet styles?

This course will teach you the ins and outs of bullets, numbers, and multilevel lists in Microsoft Office Word 2007.

Course goals

- Create a bulleted or numbered list.
- Change the look of a bulleted or numbered list.
- Combine two separate lists.
- Use a multilevel list.

Lesson 1

Simple lists

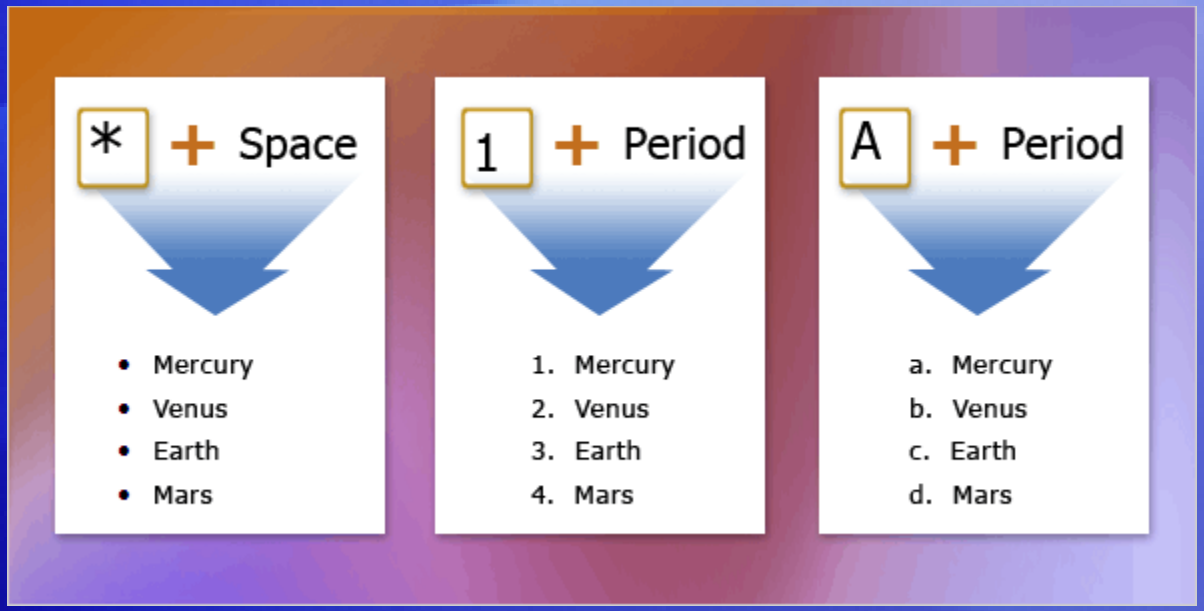
Simple lists

Lists are a useful component of any document, whether you're summarizing information or making it easier to digest.

Numbered lists are essential for showing a sequence of information. If you're not worried about sequence, a bulleted list might be better.

Lists can be **single-level**, with all the items having the same hierarchy and indentation; or **multilevel**, meaning that there's a list within a list.

Create lists as you type

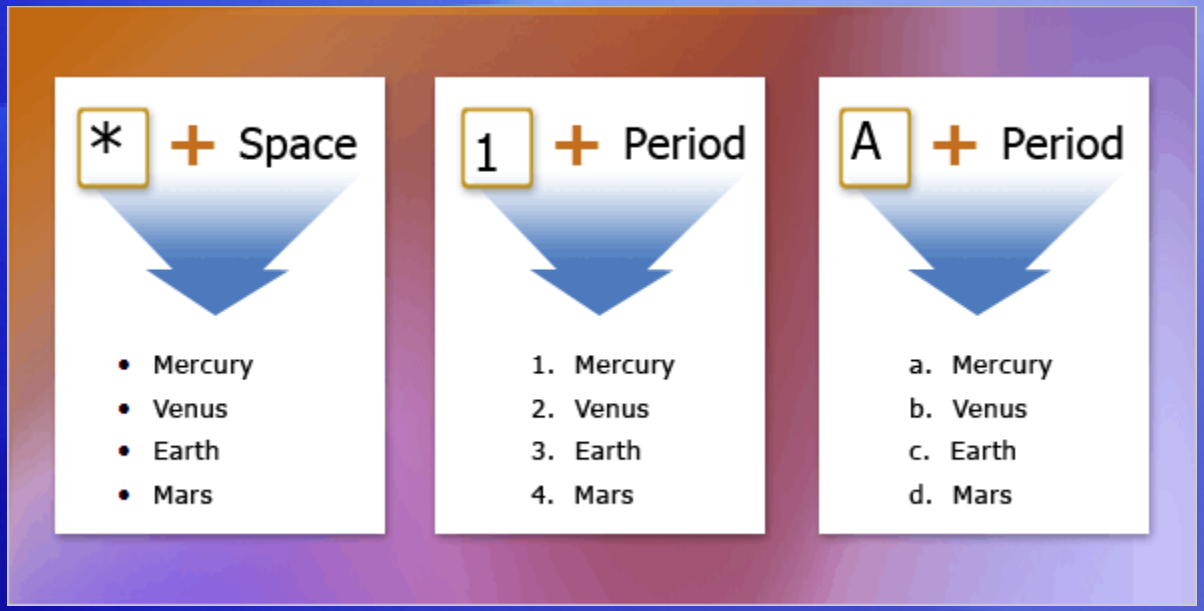


There's more than one way to start a list, but one of the most popular is to create the list automatically as you type.

If you need a bulleted list, just type an asterisk **(*)** followed by a space. The asterisk turns into a bullet, and your list is started.

When you've finished typing the first item in your list, press ENTER, and a new bullet will appear on the next line.

Create lists as you type

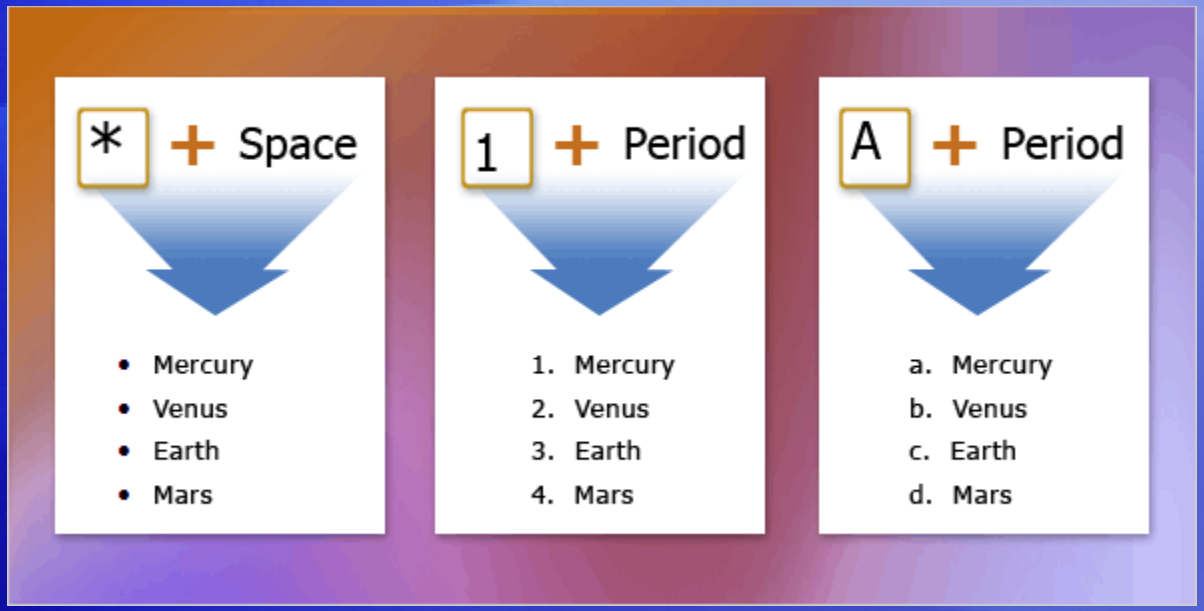


There's more than one way to start a list, but one of the most popular is to create the list automatically as you type.

To automatically create numbered lists, type the number one and a period (**1.**), followed by a space.

This is new for Word 2007; in previous versions, you had to press ENTER before the list started.

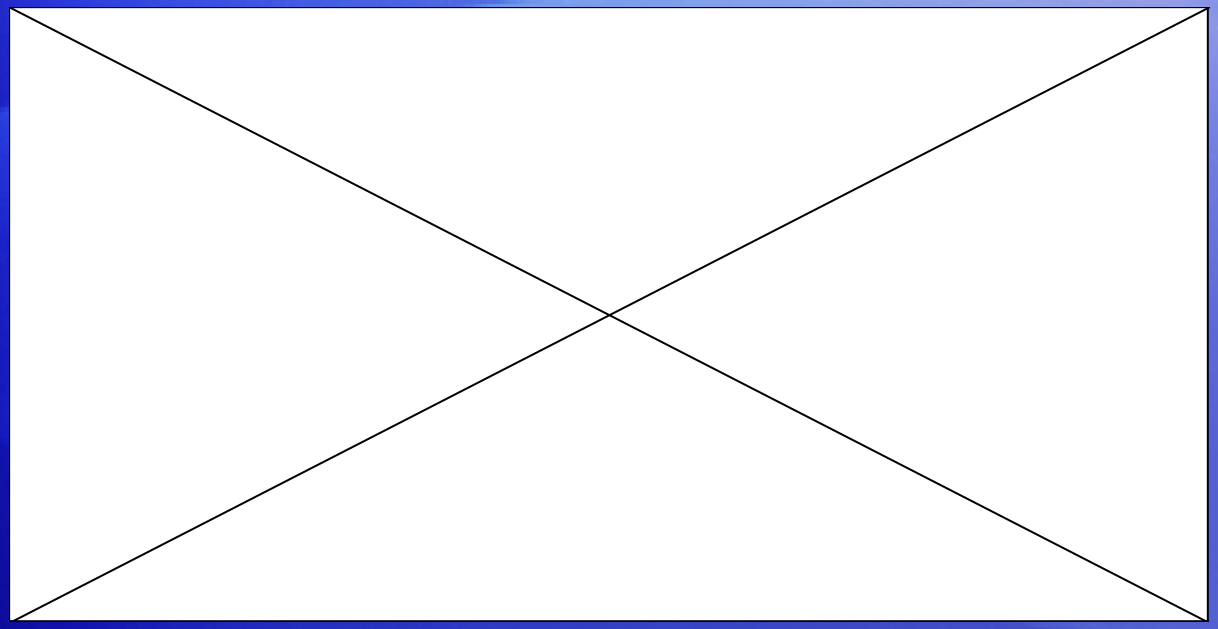
Create lists as you type



There's more than one way to start a list, but one of the most popular is to create the list automatically as you type.

Because lettered lists are just another variety of numbered lists, type the letter a and a period (**a.**), followed by a space, to start a lettered list.

Stopping lists



You've entered the last item in your list. How do you now finish the list and stop the bullets or numbers from appearing?

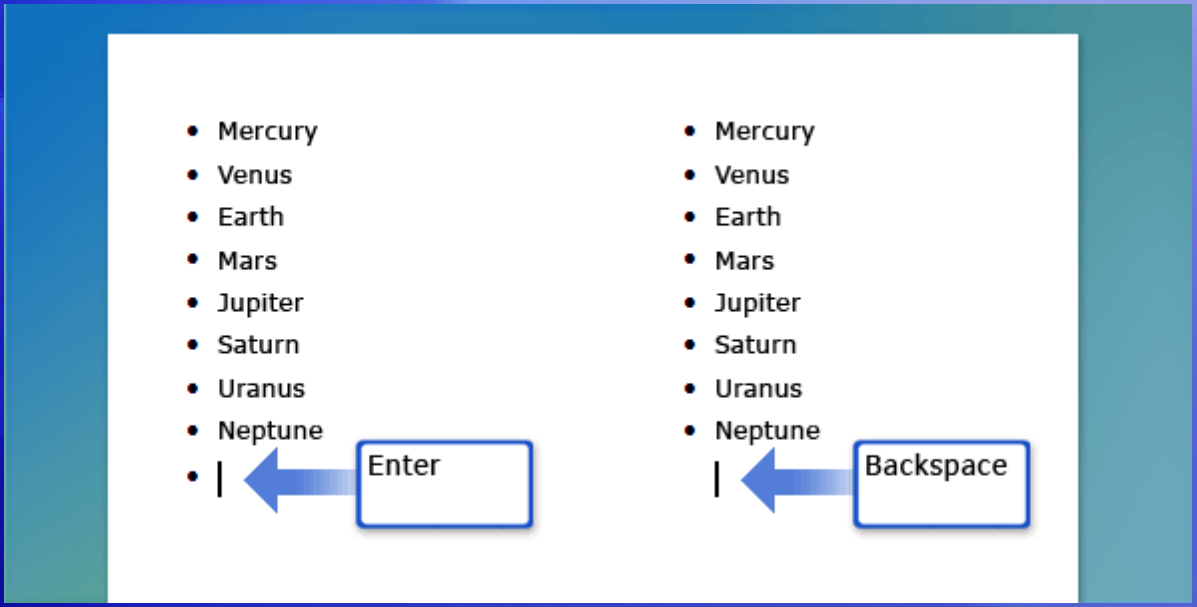
The animation shows the best methods.

Animation: Right-click, and click **Play**.

The easiest way to stop creating a list is to press ENTER twice.

If you need something slightly different, use the BACKSPACE key.

Stopping lists



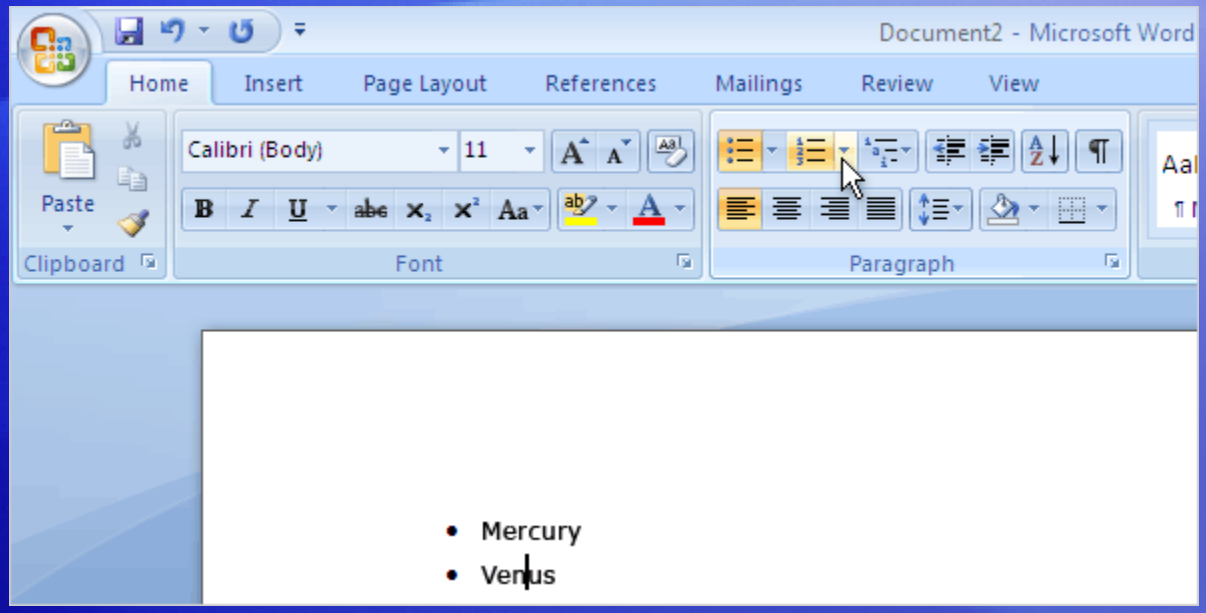
You've entered the last item in your list. How do you now finish the list and stop the bullets or numbers from appearing?

The picture shows the best methods.

The easiest way to stop creating a list is to press ENTER twice, as shown on the left.

If you need something slightly different, for example, text that's indented at the same level as the text or bullet above it, use the BACKSPACE key.

Bullets or numbers?

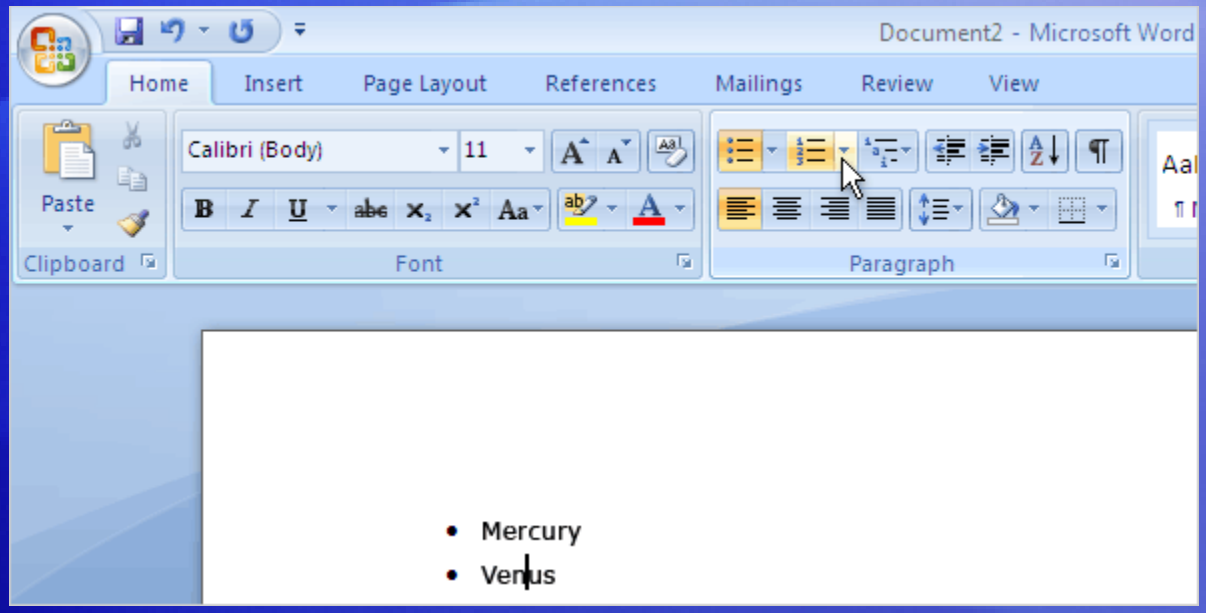


Got the wrong type of list? Started with bullets but now think numbers would be better, or vice versa?

Don't worry, it's easy to switch from one to the other.

Just click somewhere in your list, and then click the **Bullets** or **Numbering** button on the Ribbon.

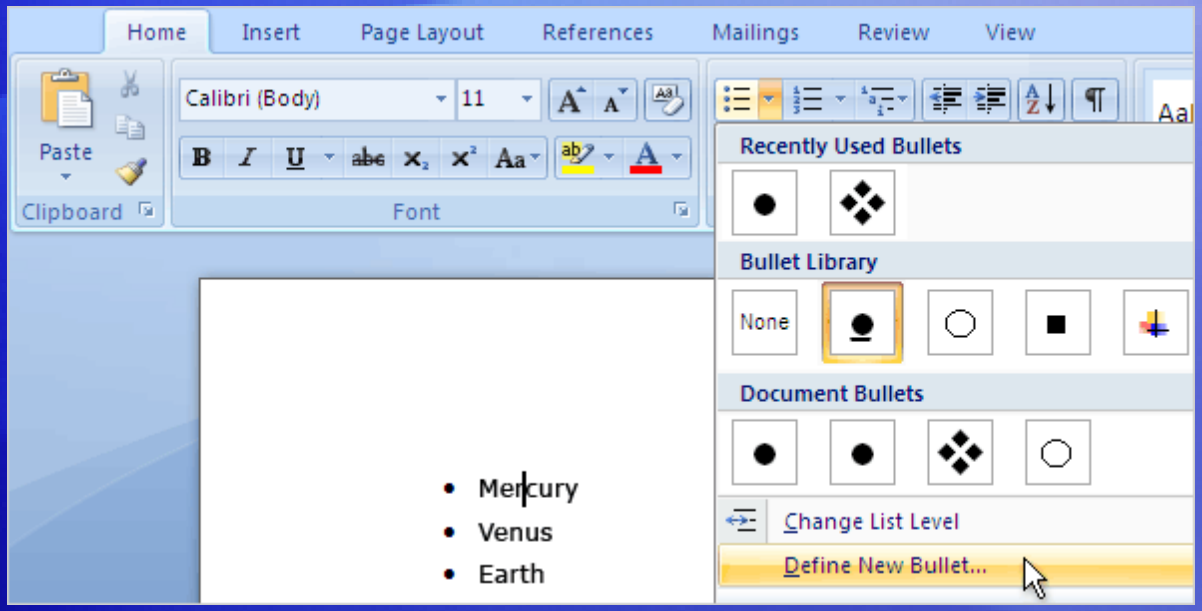
Bullets or numbers?



You can also use these buttons to start new lists.

Either click the button and start typing to create your first list item or select the text you've already typed and click the **Bullets** or **Numbering** button to change each paragraph into a list item.

Change the look of your list

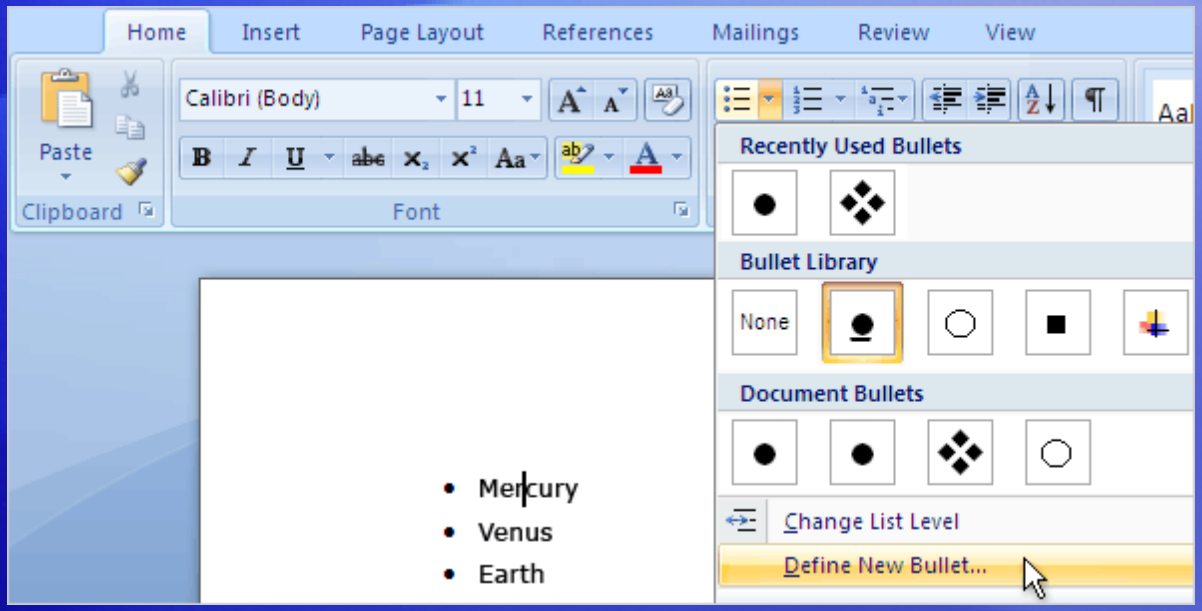


If you have a bulleted list that uses the same boring black circles, there's good news: You can change the bullet design to one of many different built-in designs.

Just click the arrow next to the **Bullets** button to see the **Bullet Library**.

Here's even more good news: If none of those designs appeal to you, you can create your own by clicking **Define New Bullet** at the bottom of the dialog box.

Change the look of your list

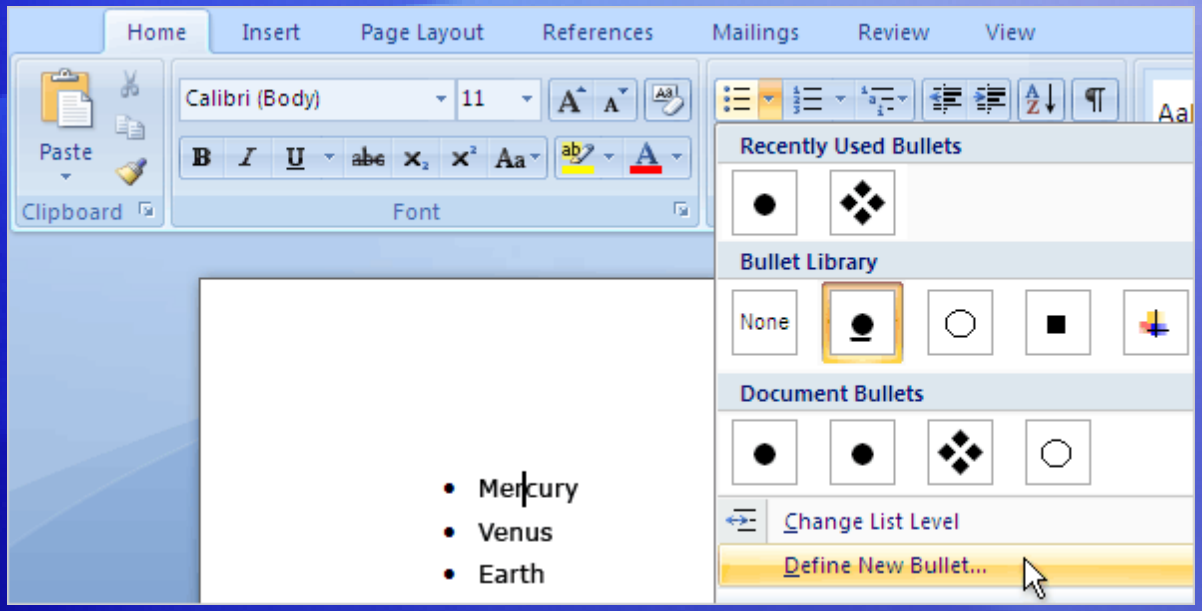


You can design two types of bullet: symbol and picture.

Symbol bullets use a character from a font. For example, Webdings and Wingdings are popular fonts for bullet symbols.

Picture bullets are just that, tiny little pictures.

Change the look of your list

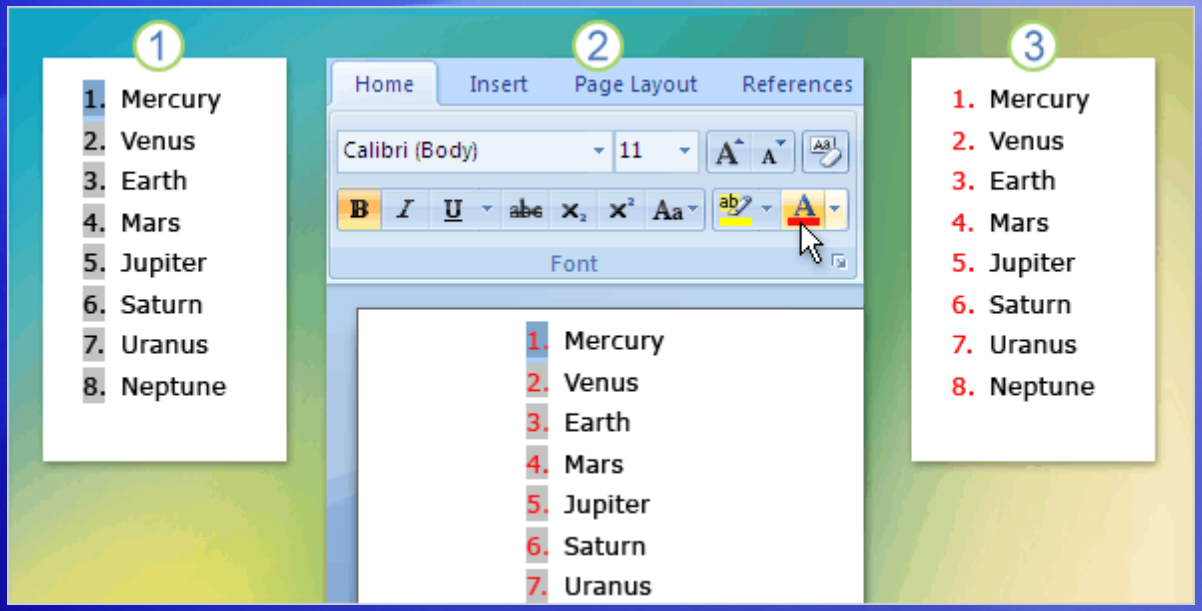


There's a built-in **Numbering Library** too, and you use it in just the same way as the Bullet Library.

You can change font characteristics, such as color, to create your own numbering or symbol bullet style.

After you've added a new design, it will appear in the Bullet or Numbering library from then on unless you remove it by right-clicking it and then clicking **Remove**.

Format a list



It's a little-known secret that in list items, you can format bullets or numbers separately from text.

The picture shows how to change black numbers to red.

1. Click the list numbers to select just them, not the text in the list items.
2. Change the format the way you would any other text, by using commands on the Ribbon.
3. Click away from the list to see the final reformatted list.

Format a list

Here’s a formatting tip:

- If you start a list with a formatting pattern that Word recognizes, Word applies it to each item that follows in your list. For example, if you make the first sentence in a list item bold and then type the rest of the paragraph in normal text, the rest of the list items you type are automatically formatted for you. When you press ENTER at the end of the line and start typing the second item’s text, it’s bold. And after you get to the end of the first sentence, the text goes back to normal text.

The list would look like this:

- **First sentence of first list item is bold.** The following sentence uses normal text.
- **First sentence of second list item is bold.** The following sentence uses normal text.

Working with paragraphs in lists; pasting lists

Suppose you're creating a numbered or bulleted list and you need some of the list items to include subparagraphs, as shown in the picture.

There are several methods for dealing with this scenario; the one you choose depends on the state of your document and your personal preference.

Working with paragraphs in lists; pasting lists

Here are some scenarios:

- If you want to remove an existing bullet or number from a paragraph in a list, and you want to keep the text indented with the rest of the list items, click after the bullet or number you want to delete and press BACKSPACE. If you have subsequent paragraphs, you can indent them by using the TAB key or the **Increase Indent** button .
- If you want to remove an existing bullet or a number from a paragraph in a list and make the text line up with the margin rather than the rest of the list, click the bullet or number you want to remove and click DELETE.

Working with paragraphs in lists; pasting lists

Here are some scenarios:

- You can also create subparagraphs in a list by pressing SHIFT+ENTER, rather than just ENTER, to end each block of text. This is known as a **soft paragraph**; it creates something that looks just like a paragraph break but in fact is just a continuation of the original paragraph on the next line.
- To continue a list after the subparagraphs, type the next number followed by a period; the list will automatically continue. If you use the **Numbering** button, you'll notice that Word does not carry on the numbering from the first list; it starts a new list beginning at number 1 again, and the **AutoCorrect Options** button appears next to the list item. Click the **AutoCorrect Options** button, and then click **Continue Numbering**. The new list item will join your list.

Working with paragraphs in lists; pasting lists

And finally, some information about pasting lists:

- If you paste a list into or at the end of an existing list, Word automatically joins the lists together and the numbering for the two lists is combined. You can change this by clicking the **Paste Options** button that appears just after the pasted text and then choosing **Paste List Without Merging**.

Suggestions for practice

1. Automatically create bulleted, numbered, and lettered lists as you type.
2. Use the Ribbon for bullets and numbering.
3. Craft your own bullets and numbering.

Online practice (requires Word 2007)

Test 1, question 1

What is a single-level list?

1. A list without sublists in any individual item.
2. A list with every bullet or number at the same indentation.
3. A list with only one item.
4. A list that uses just numbers, no bullets.

Test 1, question 1: Answer

A list without sublists in any individual item.

No lists within lists for a single-level list!

Test 1, question 2

What should you type to automatically create a bulleted list that uses a black dot as the bullet design? (Pick one answer.)

1. 1. and a space
2. @ and a space
3. a. and a space
4. * and a space

Test 1, question 2: Answer

* and a space.

Type an asterisk followed by a space, and you’re off.

Test 1, question 3

How should you line up a new paragraph so that the text is indented the same amount as the text in the bulleted list item above? (Pick one answer.)

1. Finish the list, and then use the indents on the ruler to line up the start of the new paragraph.

2. Add a new list item, and then press BACKSPACE to get rid of the bullet.

3. Add a new list item, and then press BACKSPACE twice.

4. Add a new list item, and then press ENTER again.

Test 1, question 3: Answer

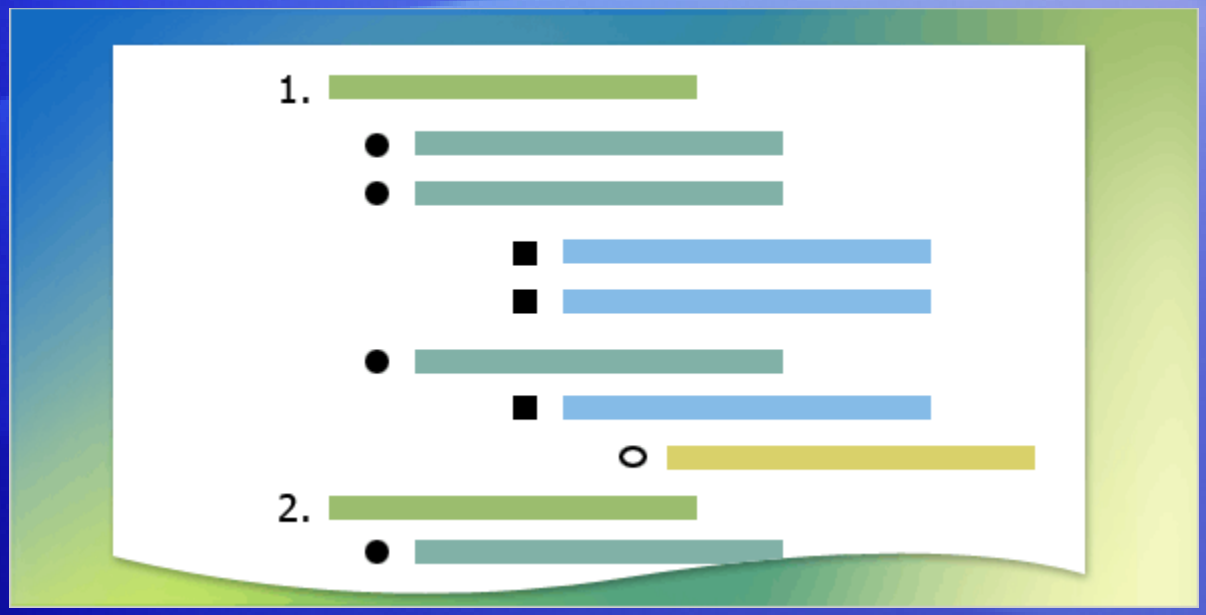
Add a new list item, and then press BACKSPACE to get rid of the bullet.

This is by far the easiest way of achieving the indented paragraph.

Lesson 2

Multilevel lists

Multilevel lists



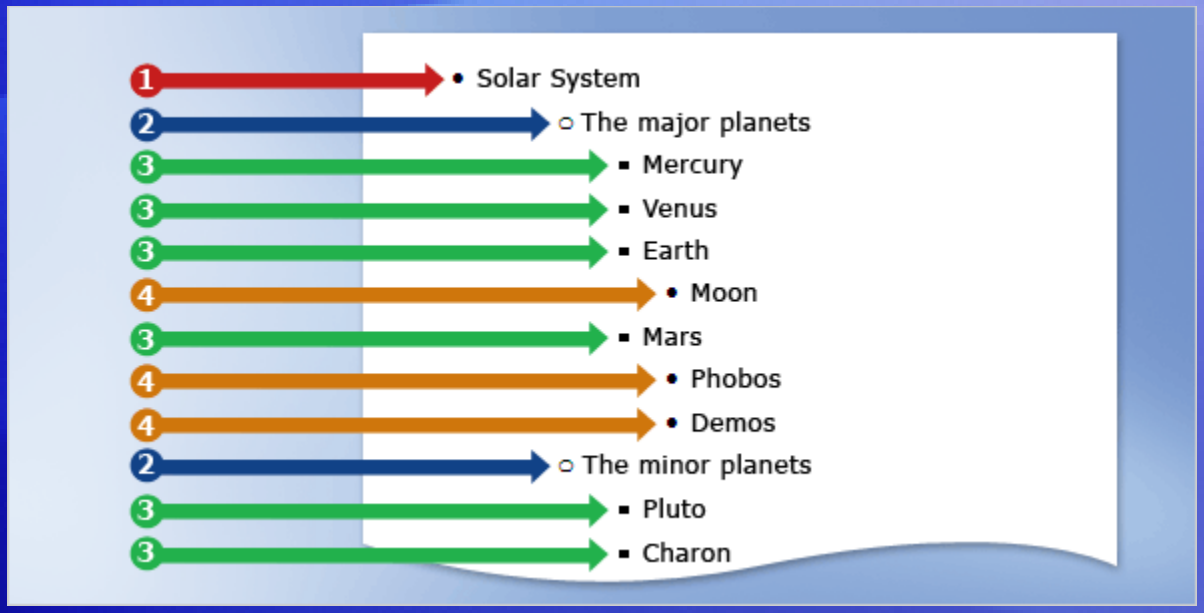
What if some of your list items need to have subsets of information? You need a multilevel list.

A multilevel list has lists within lists, in which you can have many levels, or layers.

A multilevel list, like single-level ones, can be bulleted or numbered — but with the added bonus that you can mix numbers, letters, and bullets.

So, for example, one layer could be bulleted, with a numbered list inside it.

List levels

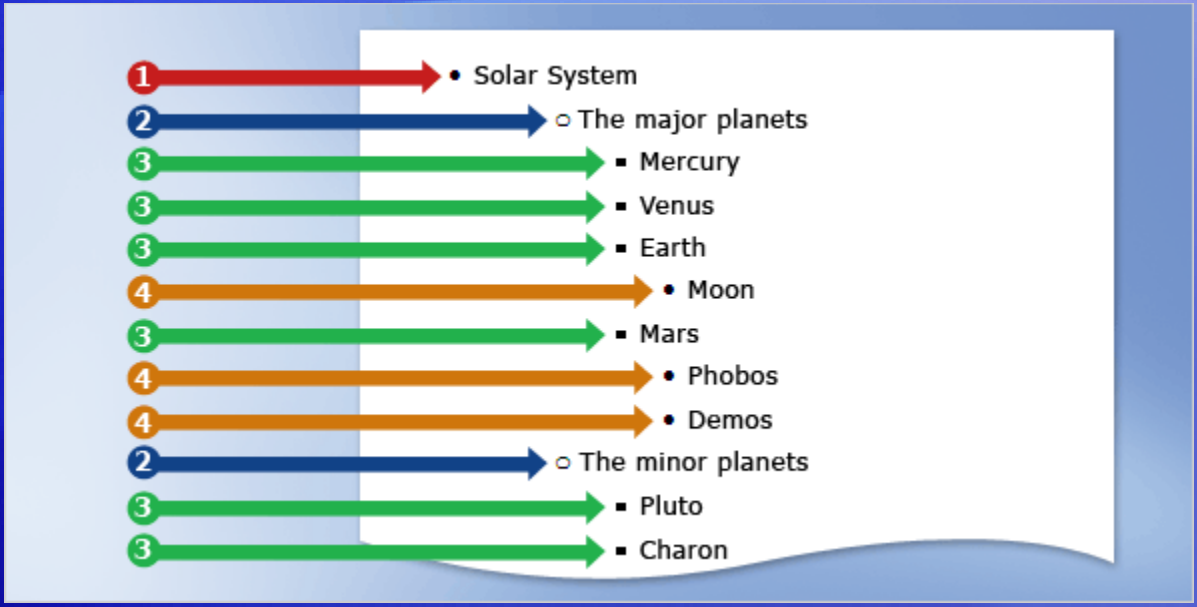


The key to understanding multilevel lists is to understand list levels.

A single-level list has everything at level one, but after you add a list under one item you have list at level two.

Each new list within a list creates a new list level.

List levels

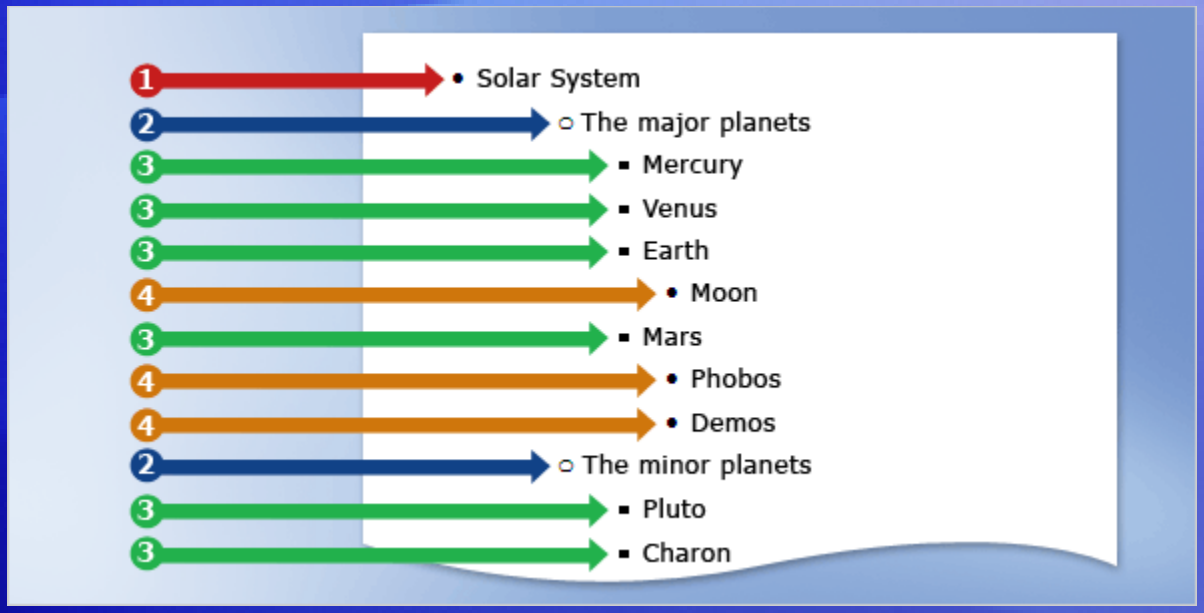


You create a multilevel list by typing or by using the commands on the Ribbon exactly as you did with the single-level lists.

So start with a bullet or number, enter your first item, and then press ENTER.

When you're ready to start the next level, press the **Increase Indent** button , type the first list item of that level, and then press ENTER.

List levels

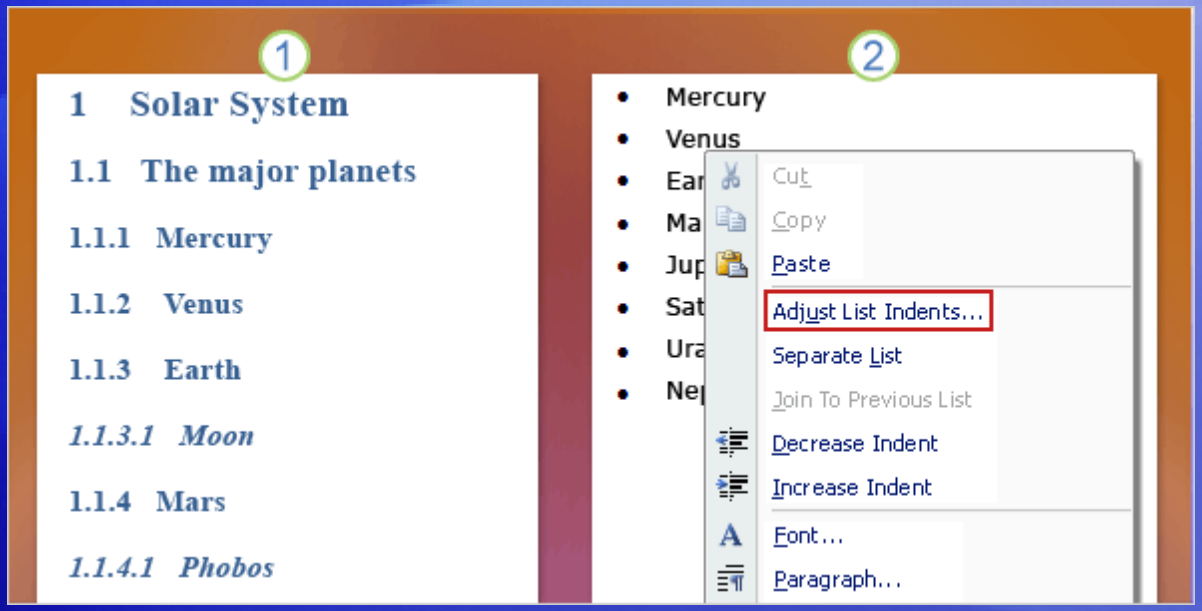


When you're working with different list levels, you can move between the levels using the **Increase Indent** and **Decrease Indent** buttons on the Ribbon.

You can also increase and decrease indents by using keystrokes.

Press TAB to increase the indent, and press SHIFT+TAB to decrease it.

All about indentation

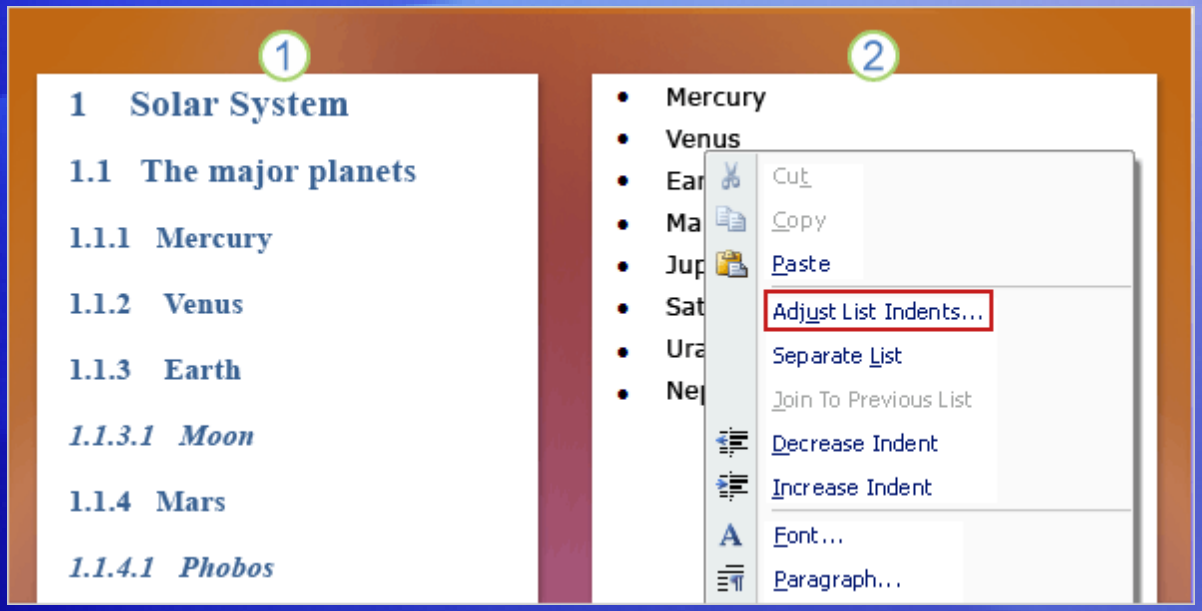


It's natural to think that the list level is determined by the indentation from the left margin.

While that's the default behavior of a lot of lists, some don't have different indents for different levels.

If you want to change the amount a list is indented from the margin, don't use the TAB key or the **Increase Indent** button.

All about indentation

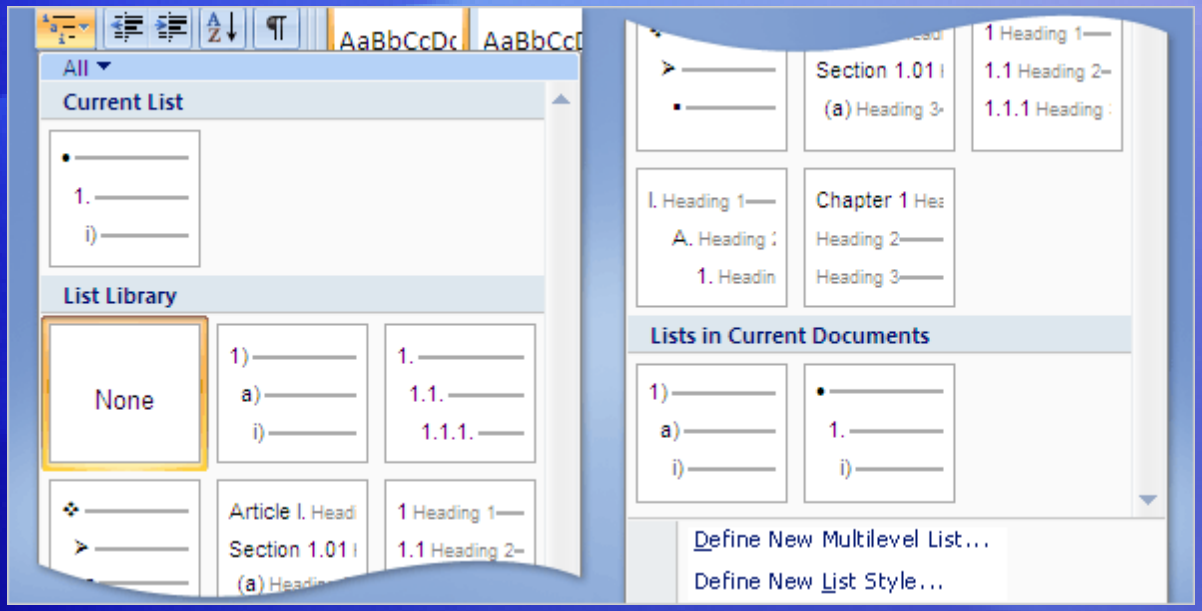


It's natural to think that the list level is determined by the indentation from the left margin.

The picture illustrates what to do instead.

1. Here's a list that does not have different indentation for the different levels.
2. Right-click the list, and then choose **Adjust List Indents**. In the dialog box that appears, you can change the indent of both the bullet or number and the text.

The List Library

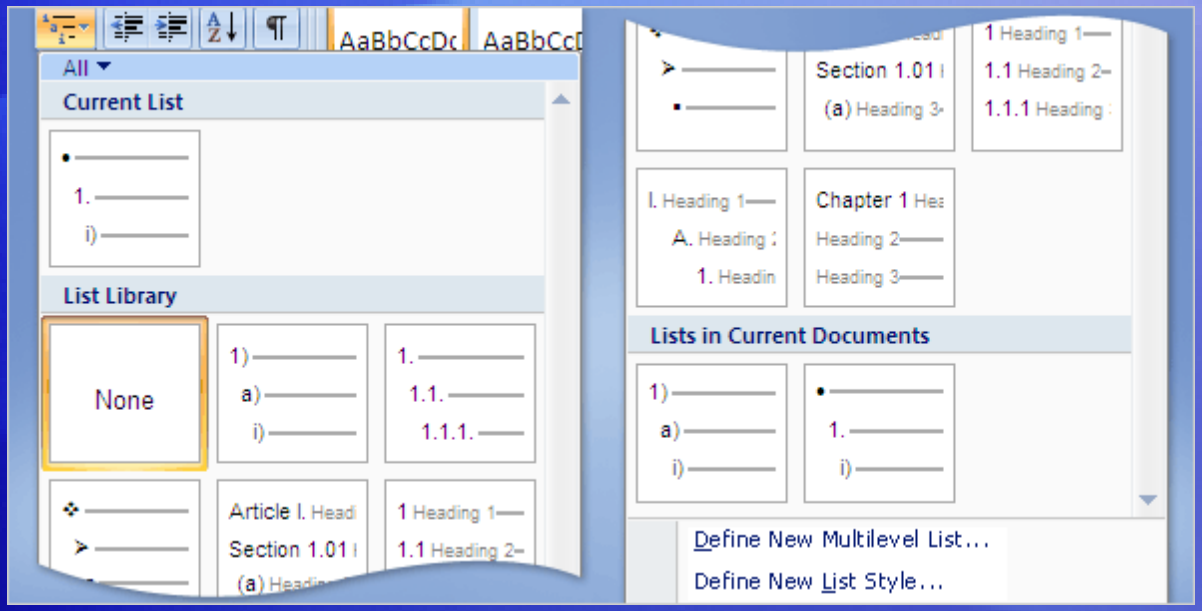


Just as with single-level lists, you can choose your multilevel list design. But multilevel lists have an extra feature: you can choose each level independently or do it all in one go.

Start by clicking the **Multilevel List** button to see the **List Library**. Once again, you can choose a built-in list or design your own.

If you choose to design your own list, click **Define New Multilevel List**. You'll have to set the characteristics you want for each level.

The List Library



As you can see in the picture, there's also an option to define a new list style by using the **Define New List Style** command.

Defining a new list style is a smart thing to do if you think you're going to use the same list design again but may want to make some changes to the design later.

Suggestions for practice

1. Create a multilevel list.
2. Create a list by using keystrokes.
3. Change the formatting and appearance of your list.

Online practice (requires Word 2007)

Test 2, question 1

What is a multilevel list? (Pick one answer.)

1. A list with more than one item in it.
2. A list with both numbers and bullets in it.
3. A list with sublists under individual items in the main list.
4. A document with more than one list in it.

Test 2, question 1: Answer

A list with sublists under individual items in the main list.

In other words, a list within a list.

Test 2, question 2

To move between levels in a list you must use the Increase Indent and Decrease Indent buttons. (Pick one answer.)

1. True.
2. False.

Test 2, question 2: Answer

False.

You can also use TAB and SHIFT+TAB to move between levels.

Test 2, question 3

When changing the design of a multilevel list, you have the following options: (Pick one answer.)

1. Bullets at every level.
2. Numbers at every level.
3. Letters at every level.
4. A mixture of bullets, numbers, and letters.
5. All of the above.

Test 2, question 3: Answer

All of the above.

You can have exactly what you want in a multilevel list.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Word 2007 Training

Mail merge I: Use mail merge for mass mailings

Course contents

- Overview: Mailings en masse
- Lesson 1: How it works
- Lesson 2: Set up your recipient list
- Lesson 3: Perform a complete mail merge

Two of the three lessons include a list of suggested tasks; each includes a set of test questions.

Overview: Mailings en masse

You need to send to each of your employees a letter or e-mail message containing personal tax withholding and salary information.

Creating each item individually would take hours. Enter mail merge.

Using mail merge, you create one document containing the information that’s the same in each copy, and add placeholders for the unique information. Word takes care of the rest.

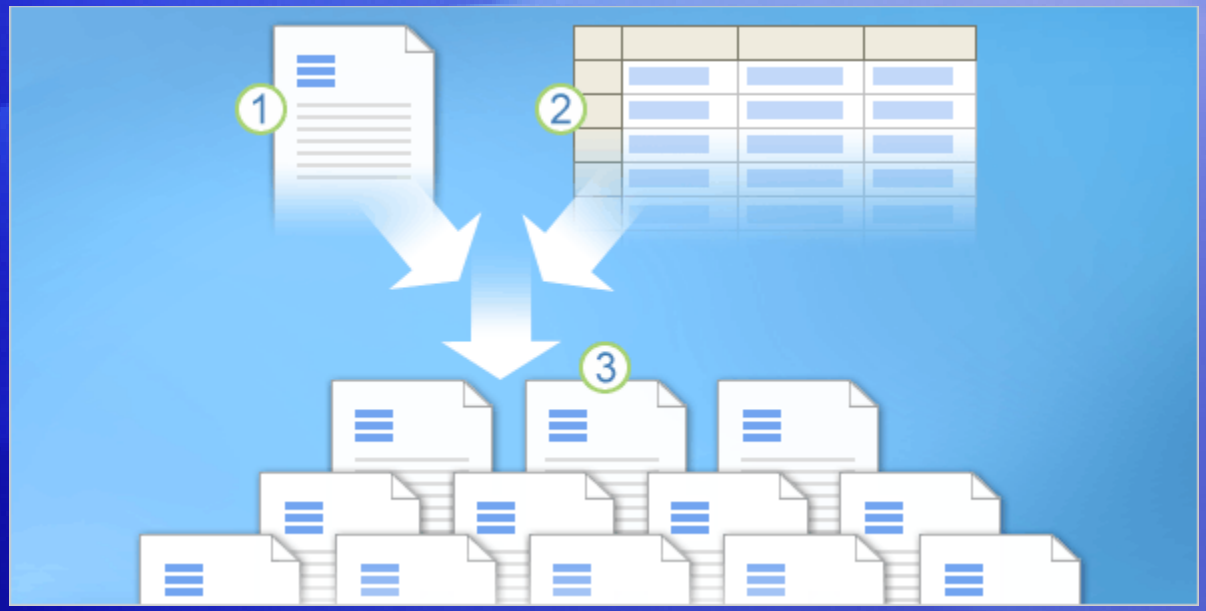
Course goals

- Understand how mail merge works so that you can get the results you want.
- Set up a document for a mass mailing.
- Use the Mail Merge Wizard to perform a basic mail merge.

Lesson 1

How it works

How it works

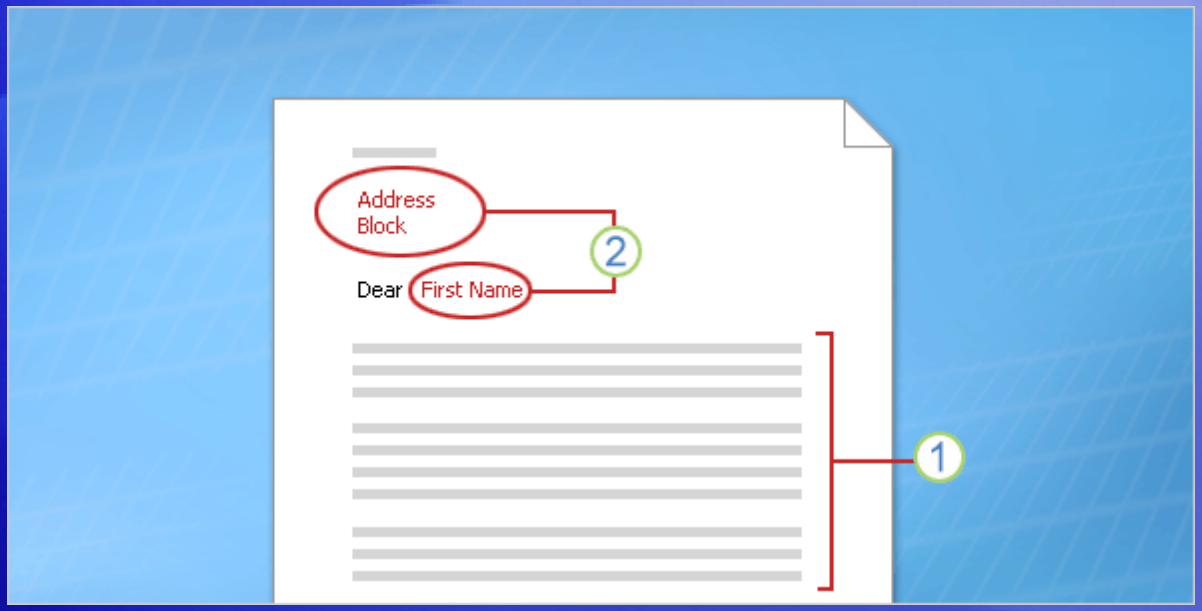


In any mail merge, you'll deal with three different elements.

Understanding these elements will help you get the mail merge results you want and expect.

1. The main document that you start with.
2. Recipient information, such as each person's name and address that you want to merge with the main document.
3. The finished documents, which include the information in the main document plus each recipient's unique information.

Main document

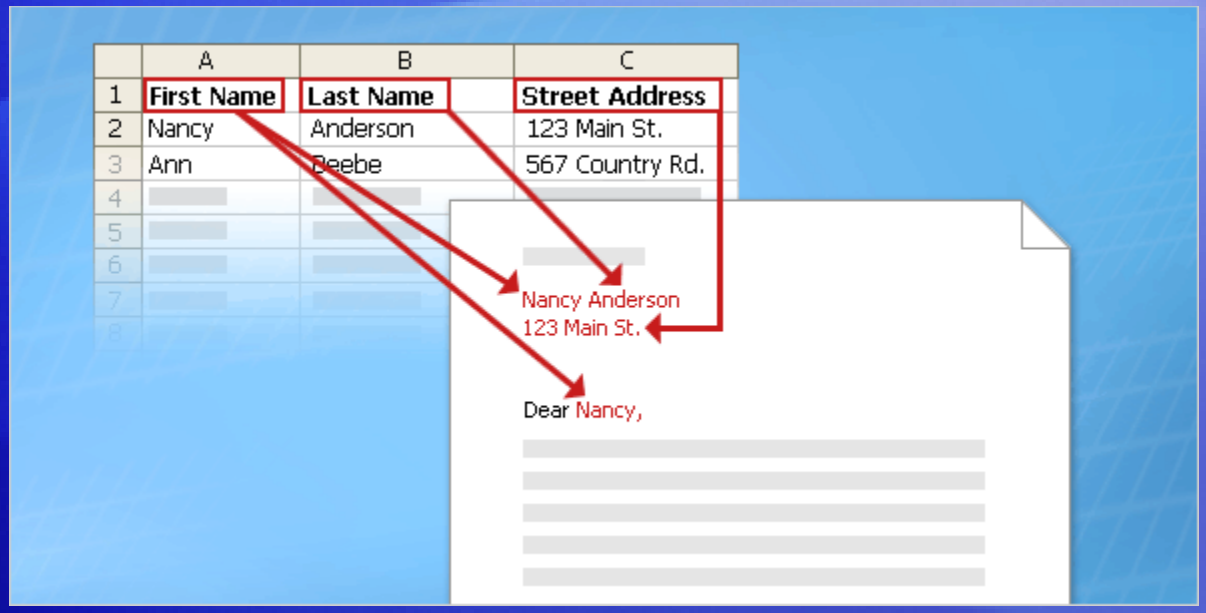


The main document is your starting point. The main document can be a letter, envelope, e-mail, or even a coupon.

It contains the elements shown here.

1. Content that is identical in each copy, such as the main body text of a form letter. You only have to type this text once, regardless of how many letters you intend to print.
2. Placeholders for each recipient's information. For example, in a form letter, the address block and greeting name would be unique in each copy.

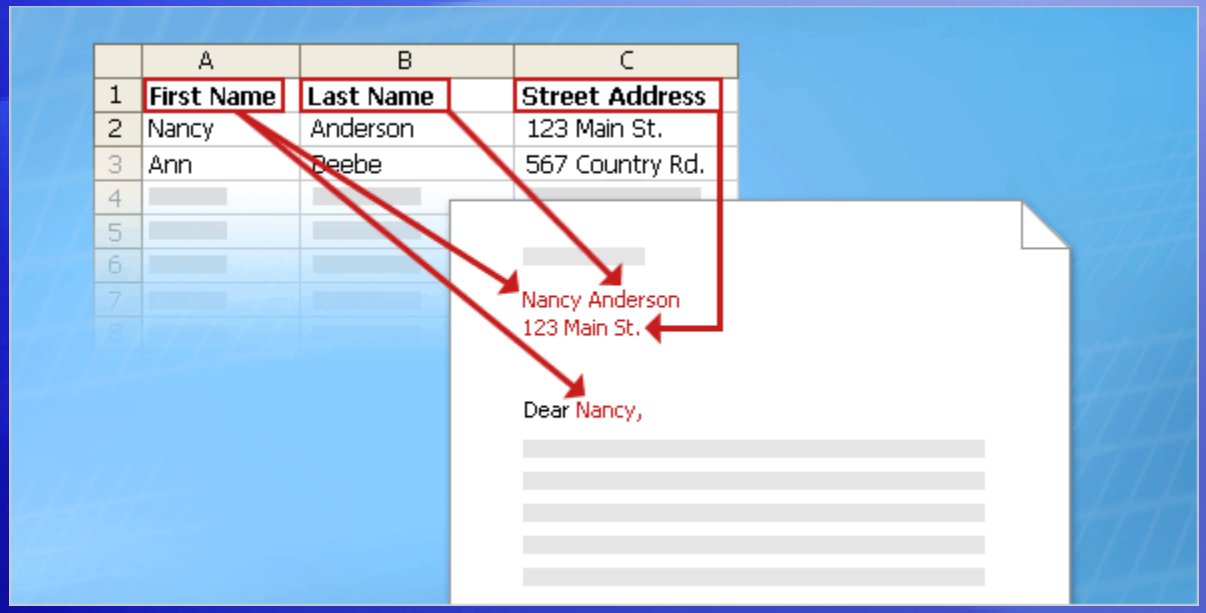
Recipient information



In a mail merge, the recipient's information, which is unique in each merged copy, fills in for the placeholders that you added to the main document.

Recipient information might be: Addresses on envelopes or labels; names in the greeting line of a form letter; salary amounts in e-mail messages that you send to your employees; personal notes about favorite products in postcards that you mail to your best customers; or numbers on redeemable coupons.

Recipient information

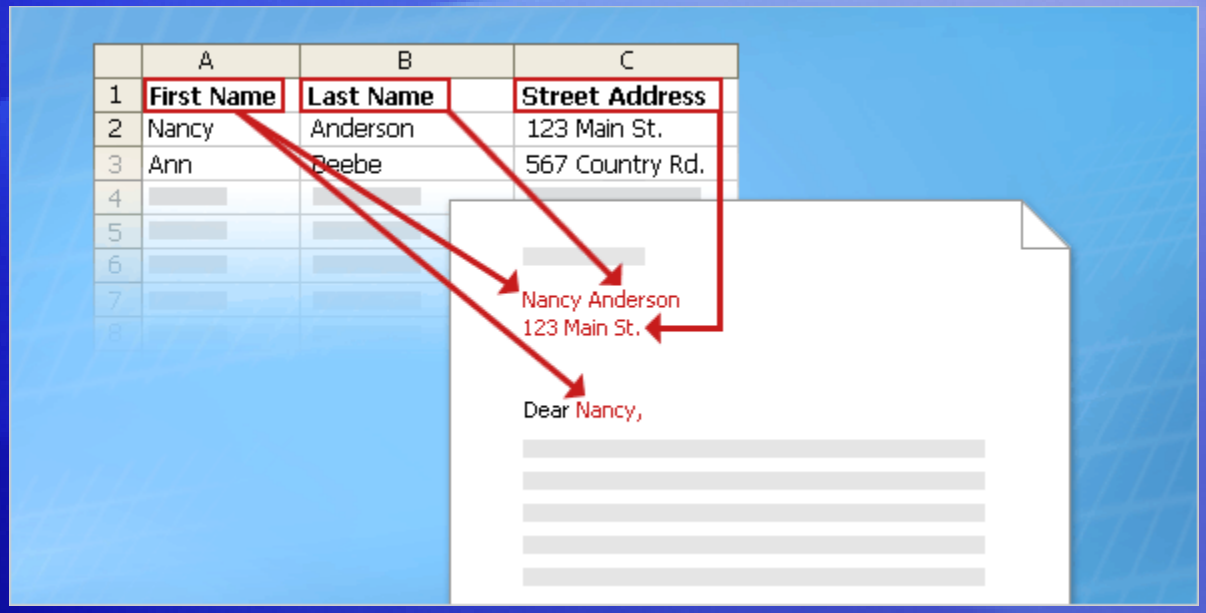


Recipient information must be kept in a **data source**.

"Data source" is an umbrella term that covers a whole category of files you work with all the time.

For example, your Microsoft Office Outlook® contacts list is a data source.

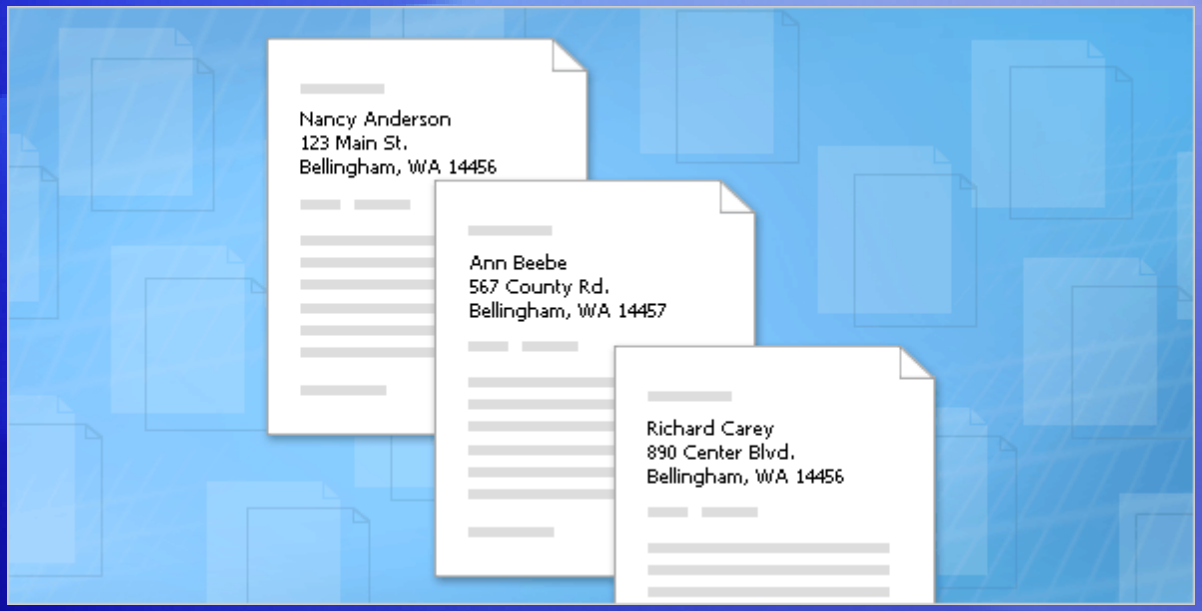
Recipient information



The recipient information is usually listed in columns and rows, as shown in the table in the picture.

The data source file must be structured in a way that makes it possible to link specific information with the placeholders in the main document.

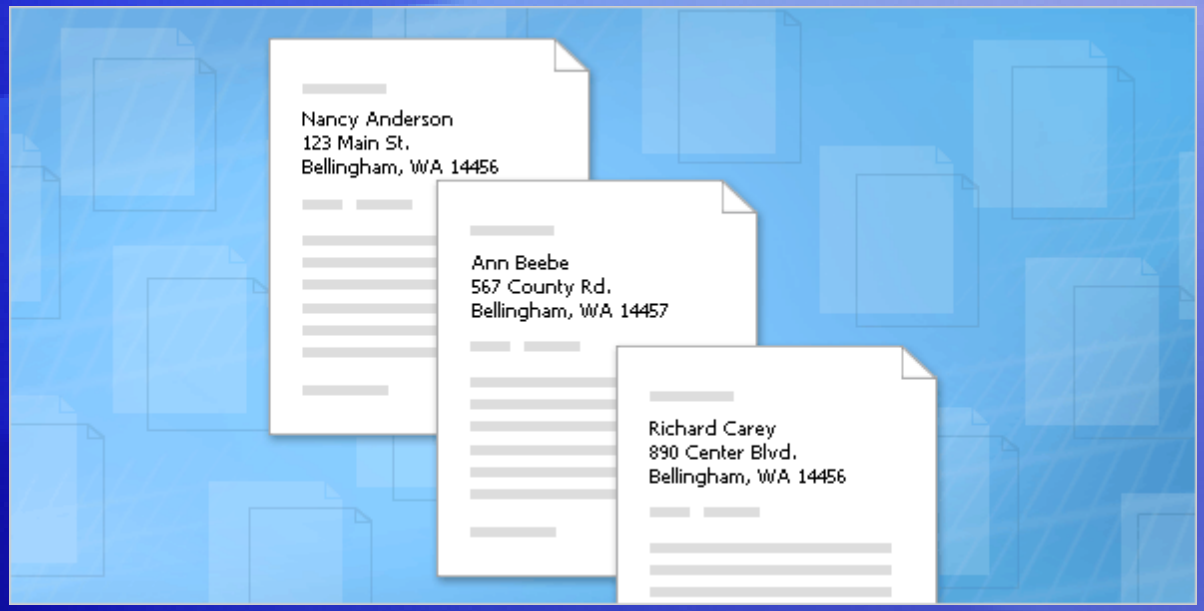
Finished set of documents



When you finish a mail merge, you get what's pictured here.

- The set of individual finished documents, which you can print (for example, letters, labels, envelopes, or coupons) or which you can transmit electronically during the merge process (for example, e-mail messages).

Finished set of documents



When you finish a mail merge, you get what's pictured here.

- The main document. This is the document you used as a starting point, which remains a separate document. It is not automatically saved after the merge.

Test 1, question 1

In a mail merge, what is the main document? (Pick one answer.)

1. The document you start with that contains both text that is identical for each merged letter, envelope, and so on, and placeholders for the unique recipient information.

2. The first document in the set of finished merged documents.

3. A document that contains only the text that is identical in each merged copy.

Test 1, question 1: Answer

The document you start with that contains both text that is identical for each merged letter, envelope, and so on, and placeholders for the unique recipient information.

The main document is your starting document, where you add all the text that will be the same in every copy as well as placeholders that indicate what the unique recipient information will be and where it will appear.

Test 1, question 2

The main document with the text and placeholders is automatically saved after the merge is complete. (Pick one answer.)

1. True.
2. False.

Test 1, question 2: Answer

False.

You should save the main document, so that you can use it again to complete a new merge.

Test 1, question 3

Why does the unique recipient information you use in a mail merge have to be stored in a data source file? (Pick one answer.)

1. Data source files are a special type of file that only works with mail merge.

2. Data source files organize information in a way that lets you match specific pieces of that information with specific placeholders in the main document.

3. Data source files are designed to hold a lot of information.

Test 1, question 3: Answer

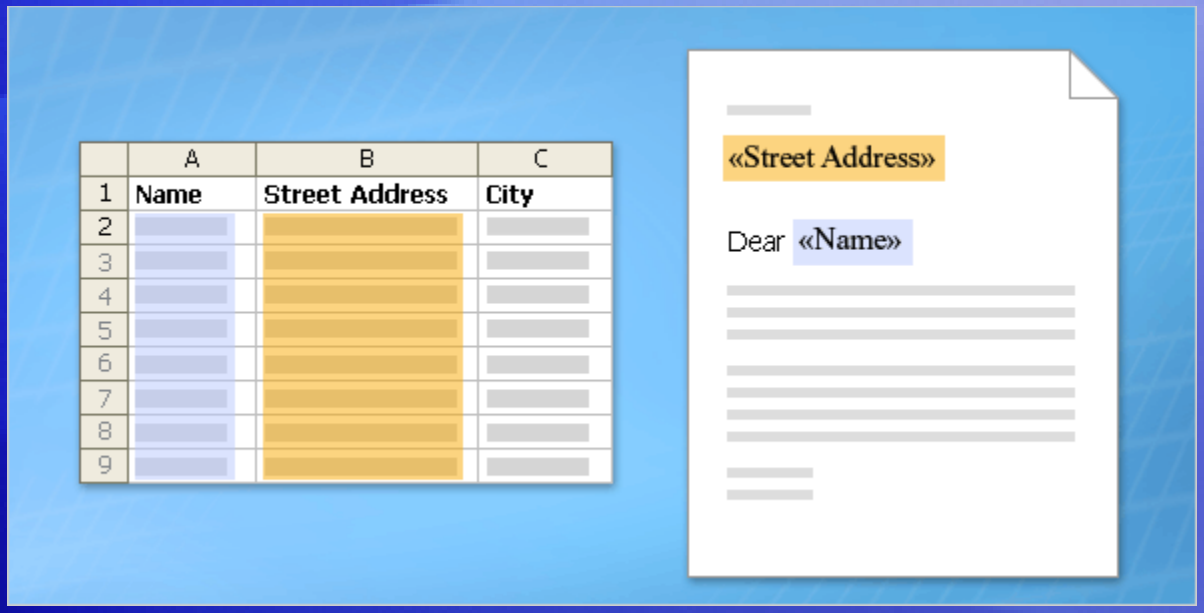
Data source files organize information in a way that lets you match specific pieces of that information with specific placeholders in the main document.

It’s the structured way that information is organized in the files that makes it possible for you to put information from one cell in that file into one unique document.

Lesson 2

Set up your recipient list

Set up your recipient list



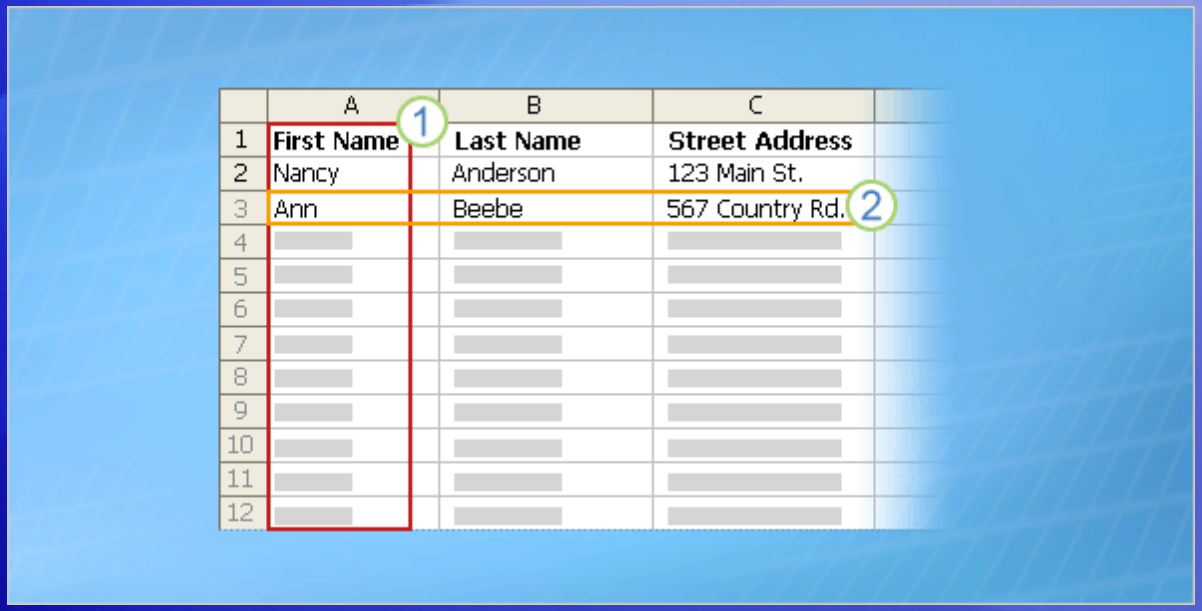
You know what the basic elements of a mail merge are.

Now you'll learn how to set up your main document and connect it to the recipient list.

The recipient list, along with the placeholders that you add to your Word document or envelope, is the heart and soul of mail merge.

They work together to get unique information into the final individually merged copies.

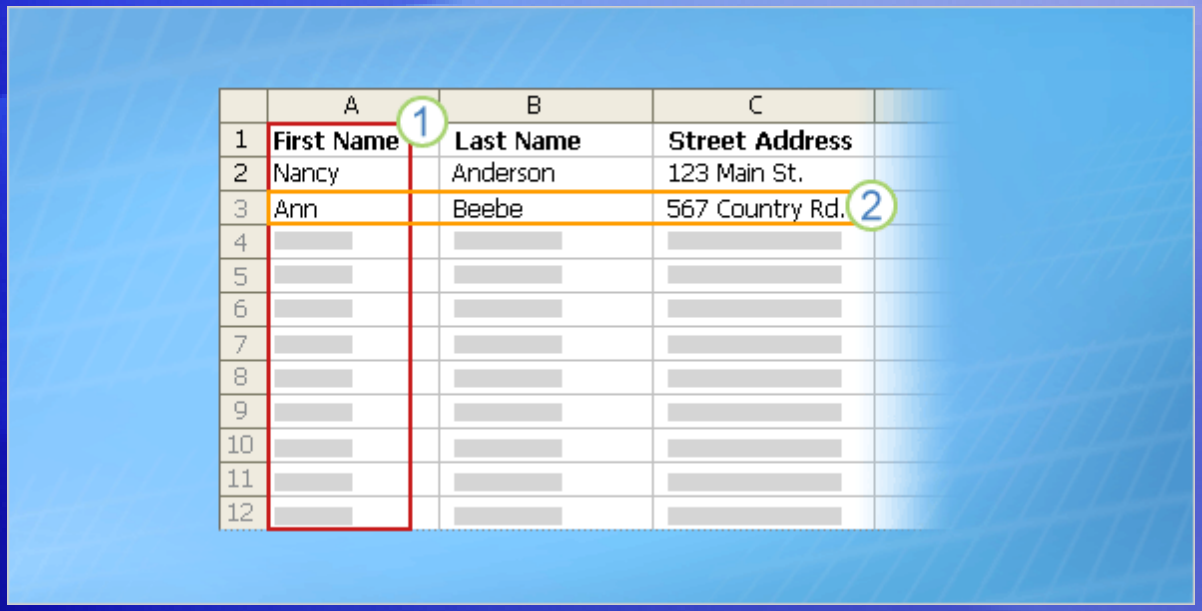
More about the recipient list



A recipient list can be any file that organizes recipient information into columns and rows. You can create it using lots of different programs, such as Excel, Access, or Outlook.

1. The columns in a list represent a category or type of information. Each column is identified by a column heading. For example, in a customer list you might have columns for Name, Last Name, and Street Address.

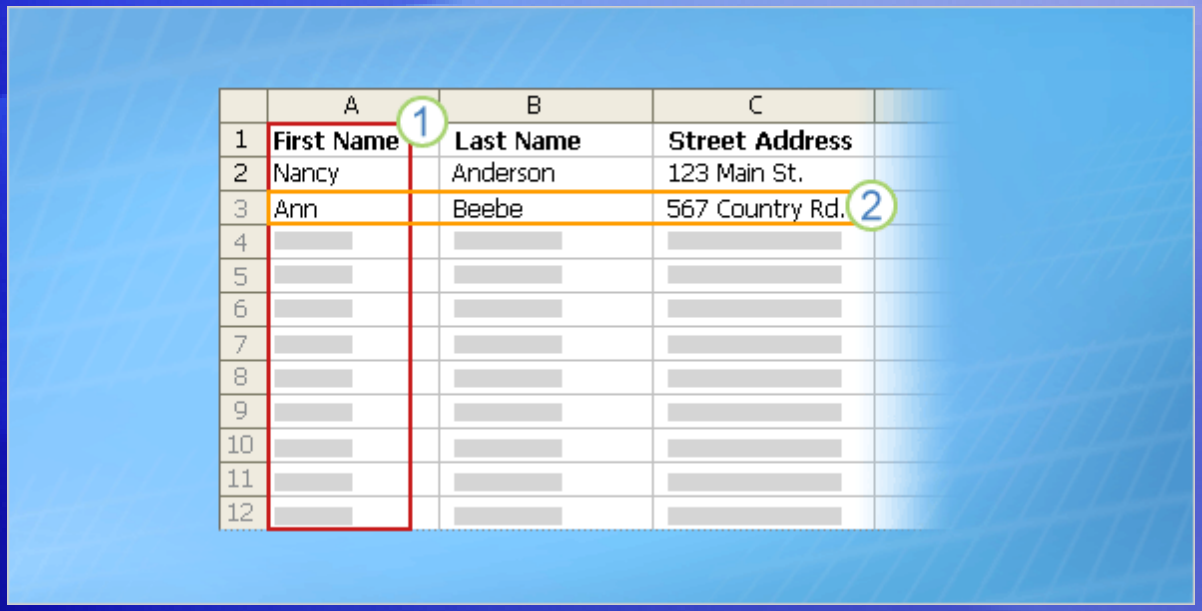
More about the recipient list



A recipient list can be any file that organizes recipient information into columns and rows. You can create it using lots of different programs, such as Excel, Access, or Outlook.

2 Each row in a list represents one recipient's complete information. In the customer list, for example, one row contains all the information about one customer: the customer's name, address, and so on.

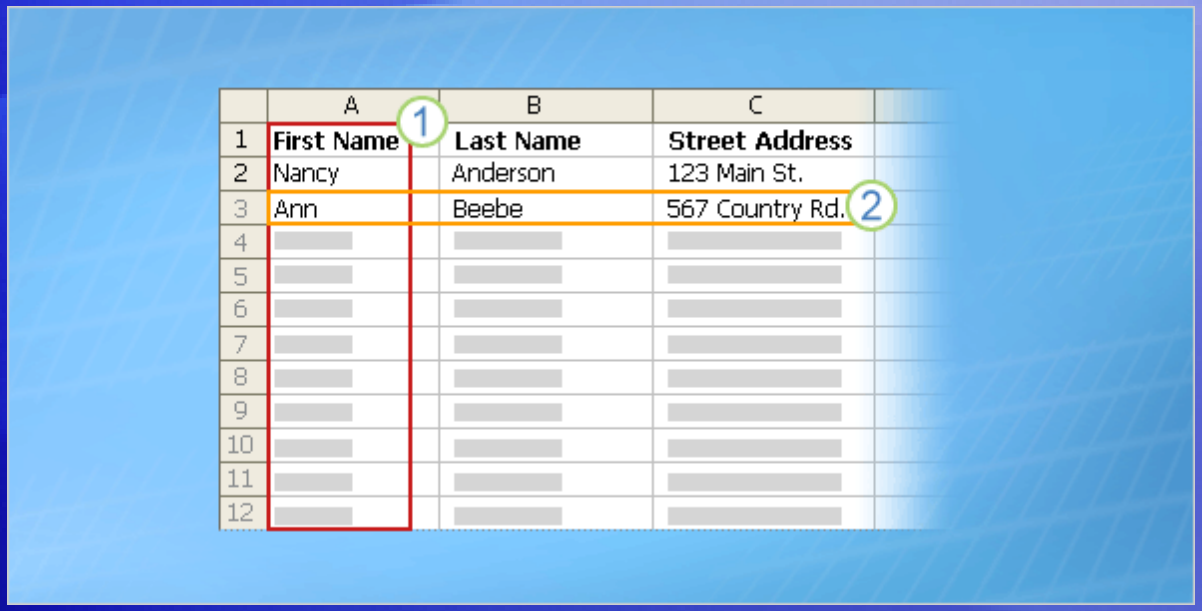
More about the recipient list



It's these columns and rows that make it possible to get unique recipient information into documents during a mail merge.

From the main document, you connect to the list and then you can add any column heading as a placeholder into the main document. (Officially, these placeholders are called fields. More on fields in a moment.)

More about the recipient list



It's these columns and rows that make it possible to get unique recipient information into documents during a mail merge.

When the mail merge is complete, there will be a finished document for each person that contains information from the entries in one row of the recipient list.

Where the recipient list comes from

In many cases, the recipient list that you want to use will already exist.

For example, you might have access to a file with a list of the following.

- Customer or contact names, addresses, and more.
- The products or services your company offers.
- Information about your employees.

Where the recipient list comes from

If the list exists, you can just connect it during the mail merge.

But don’t worry if you don’t have a list yet. The mail merge process includes a step where you can create a recipient list from scratch. More on this in the next lesson.

Fields

After you connect to the recipient list, you can specify the information that you want to include in the mail merge by using **fields**.

A field is a set of codes that instructs Word to insert information into a document automatically.

Informally, you can think of fields as placeholders.

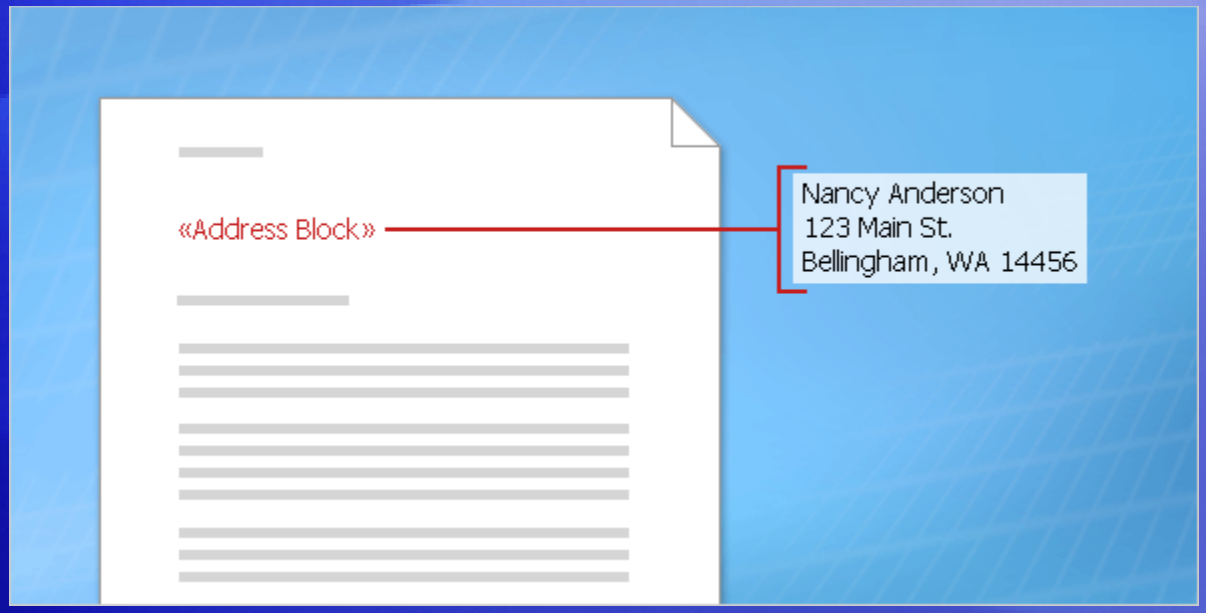
Fields

In a mass mailing, the fields you use are called **merge fields**, and they are the placeholders for the unique information that comes directly from a recipient list.

For example, in the illustration, merge fields have been added for information stored in the Address and Name columns of a recipient list.

Notice that they're surrounded by chevrons (**« »**) in a document.

Merge fields

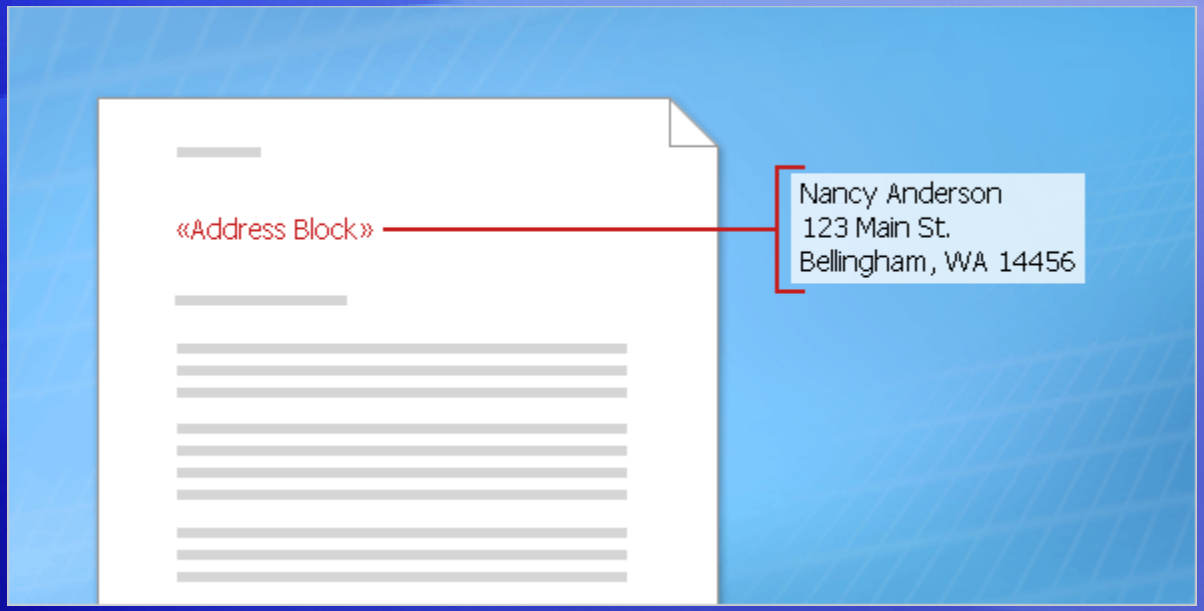


You can create a merge field by combining other fields, or group fields and then use spaces, line breaks, and punctuation marks as you would normally in a sentence.

For example, you might want to create a courtesy title before the surname or full name and set up fields in your document like this:

«Title» «Last Name»
«Street Address»
«City», «State» «Postal Code»

Merge fields



You can also control how recipient information looks in the merged documents by formatting the fields.

For example, you might want names to be bold or colored red.

In the main document, select the field, including the surrounding chevrons (**« »**). On the **Home** tab, click any command in the **Font** group or the **Paragraph** group, and choose the formatting options you want.

Suggestions for practice

1. Divide the data in the **Name** column into two columns.
2. Create a Personal Note column.
3. Save the Excel worksheet.

Online practice (requires Excel 2007)

Test 2, question 1

What is the relationship between your recipient list and the fields you insert into the main document? (Pick one answer.)

1. There is no relationship.
2. Fields are equivalent to the columns in the recipient list.
3. Each field represents one cell in the recipient list.

Test 2, question 1: Answer

Fields are equivalent to the columns in the recipient list.

Adding a field to the main document means that information stored in the corresponding column in your list will appear in the merged documents.

Test 2, question 2

How can you distinguish a field from other text in a main document? (Pick one answer.)

1. Fields are always formatted as bold text.
2. Fields are italicized.
3. Fields are surrounded by chevrons (**« »**).

Test 2, question 2: Answer

Fields are surrounded by chevrons (« »).

Test 2, question 3

You must have an existing recipient list in order to perform a mail merge. (Pick one answer.)

1. True.
2. False.

Test 2, question 3: Answer

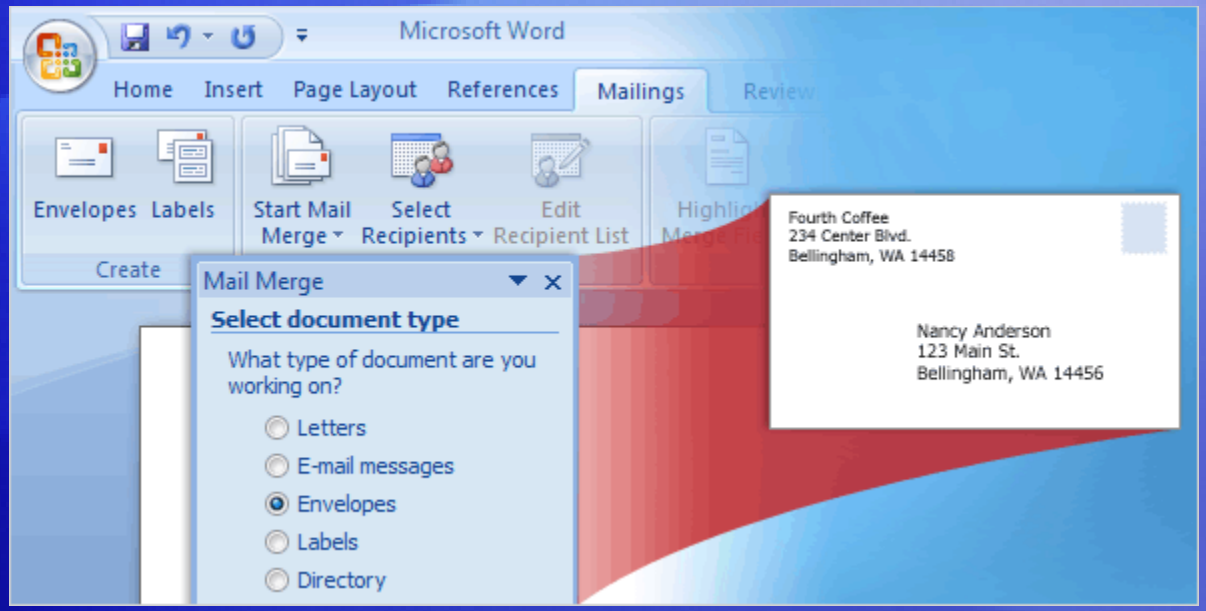
False.

You can create this list as part of the mail merge process. If you have only a few people for the mail merge, it may be easiest to type the list during the process.

Lesson 3

Perform a complete mail merge

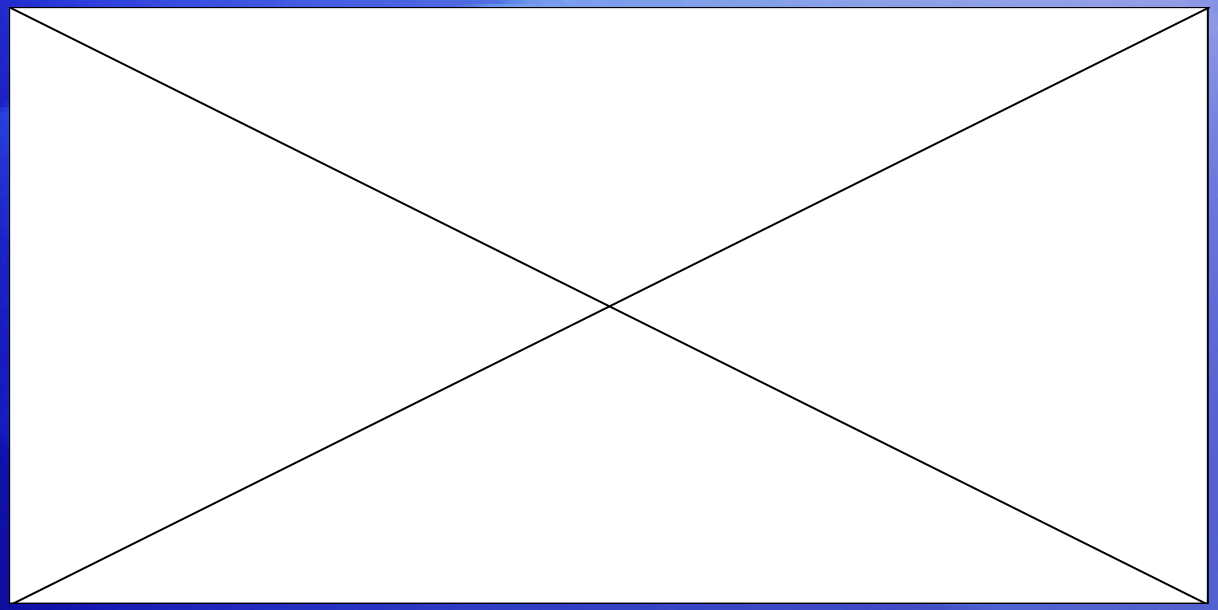
Perform a complete mail merge



Now you'll walk through the process of performing a mail merge by using the Mail Merge Wizard.

At the end of this lesson you will learn about another way to perform a mail merge.

Open the Mail Merge Wizard

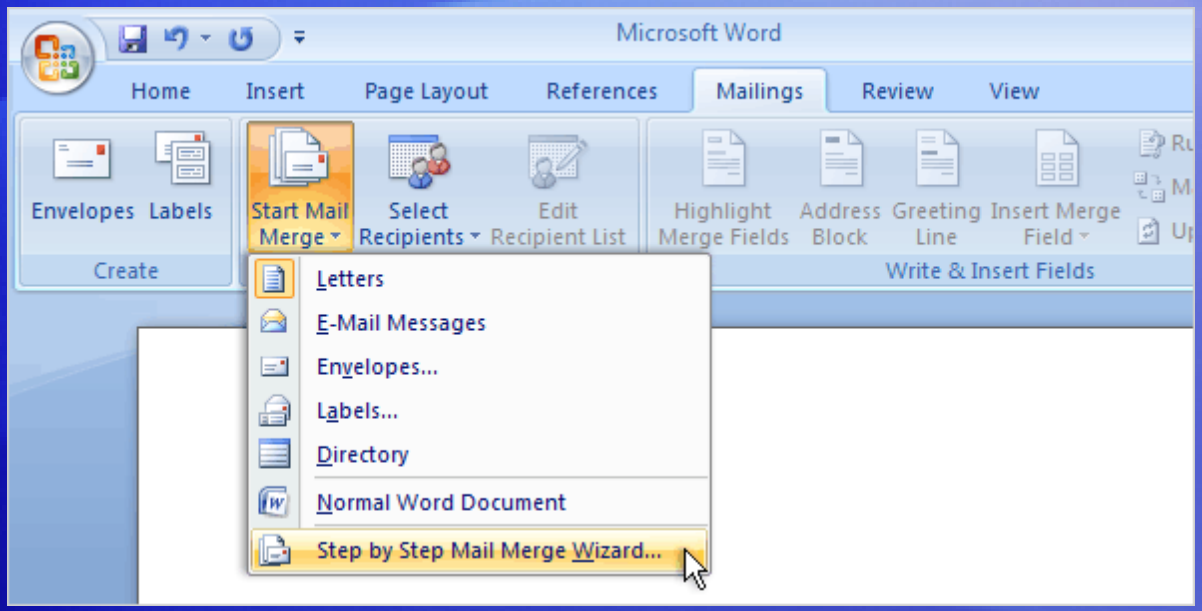


To perform a mail merge, click **Start Mail Merge** on the **Mailings** tab, and then click **Step by Step Mail Merge Wizard**.

Animation: Right-click, and click **Play**.

The wizard opens on the right of the window in a task pane. Follow the prompts and click **Next** at the bottom of the pane to step through the wizard (or **Previous** if you need to go back to an earlier step).

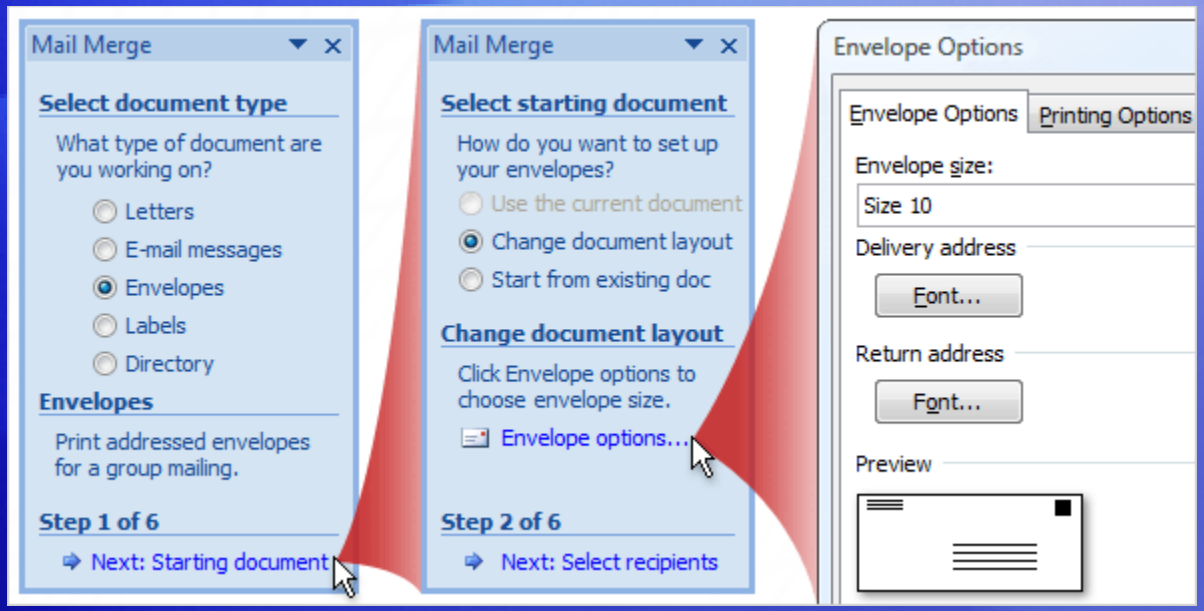
Open the Mail Merge Wizard



To perform a mail merge, click **Start Mail Merge** on the **Mailings** tab, and then click **Step by Step Mail Merge Wizard**, as shown here.

The wizard opens on the right of the window in a task pane. Follow the prompts and click **Next** at the bottom of the pane to step through the wizard (or **Previous** if you need to go back to an earlier step).

Set up the main document

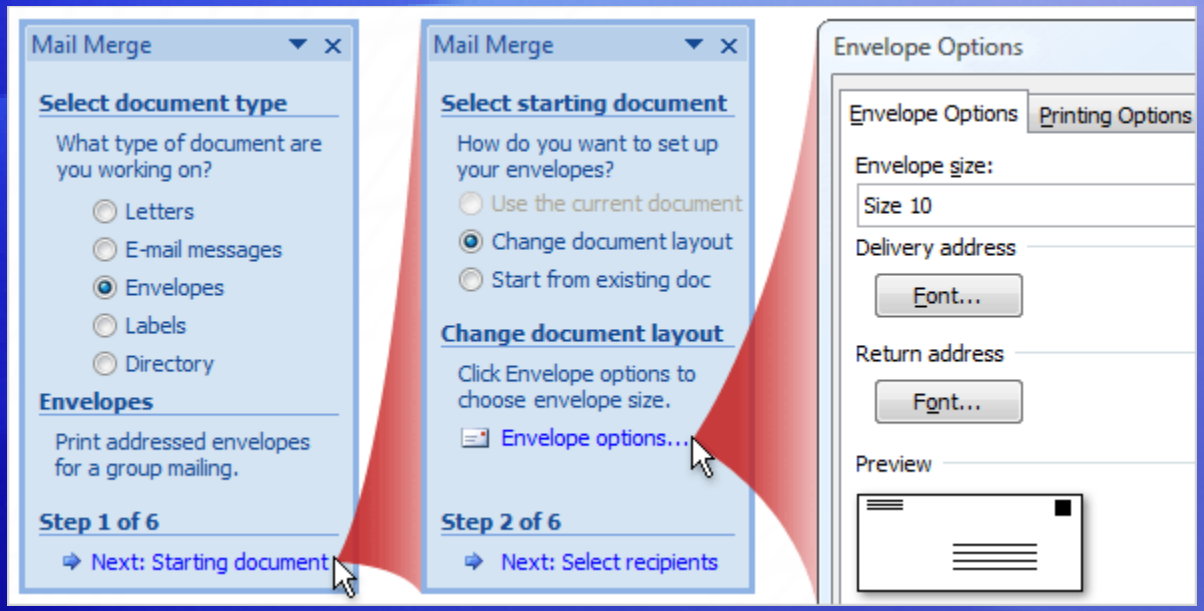


The second step in the wizard is to set up the starting document.

You may be sending a direct mail letter, or an e-mail message, or perhaps you want to start with envelopes and labels.

Or you may want to create a directory to store listings of data, such as customer names and addresses, product information, and personnel contact data.

Set up the main document

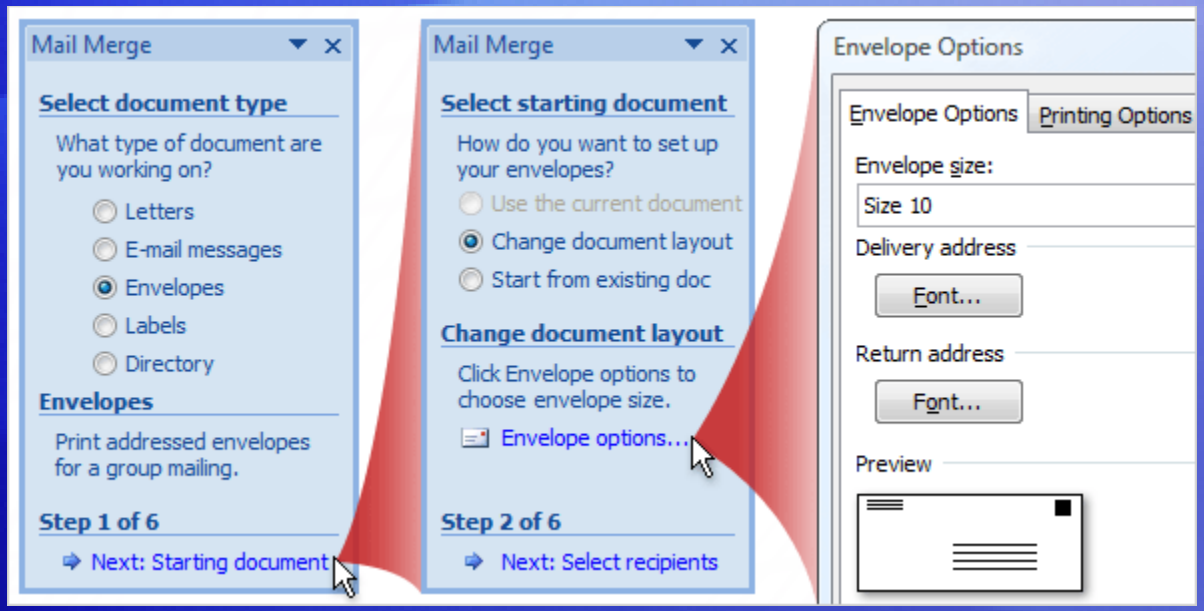


The options in the wizard vary according to the type of document selected in the first step.

You selected envelopes, which has these options.

Change document layout. This option is selected because a blank document was open when you started the wizard. You want to change the open blank document to an envelope document. Click **Envelope options** and choose the envelope size and other options you want, and then the envelope document replaces the blank document.

Set up the main document

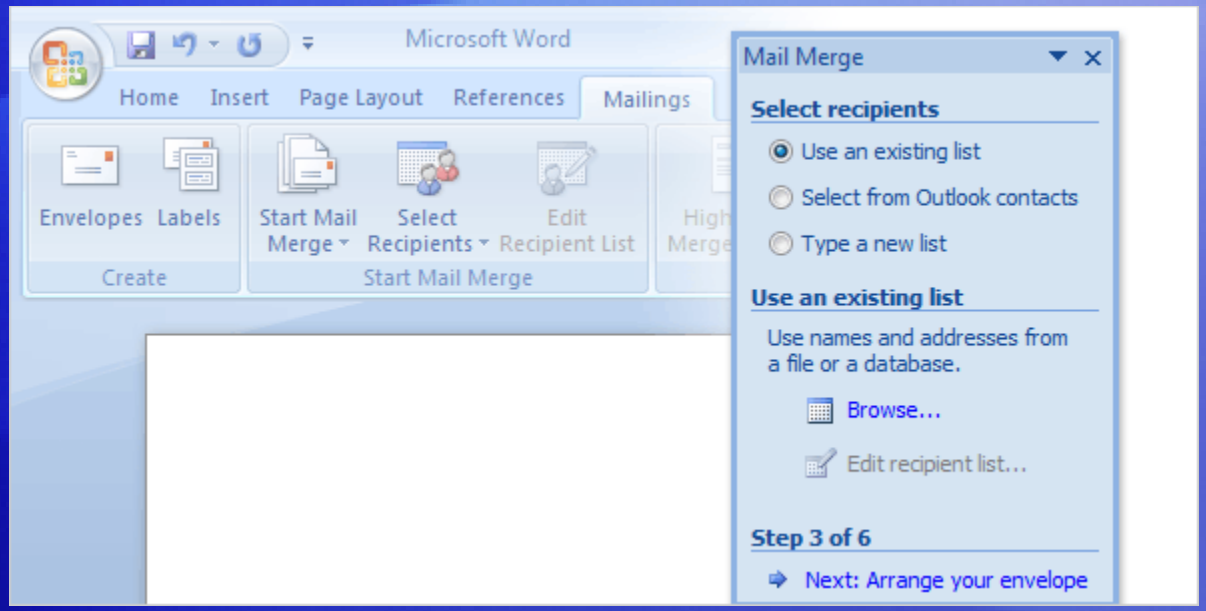


The options in the wizard vary according to the type of document selected in the first step.

You selected envelopes, which has these options.

Start from existing document. If you have a previously saved envelope that you want to use for the mail merge, but your screen currently has a blank document open, select this option to replace the blank document with your envelope.

Connect to the recipient list



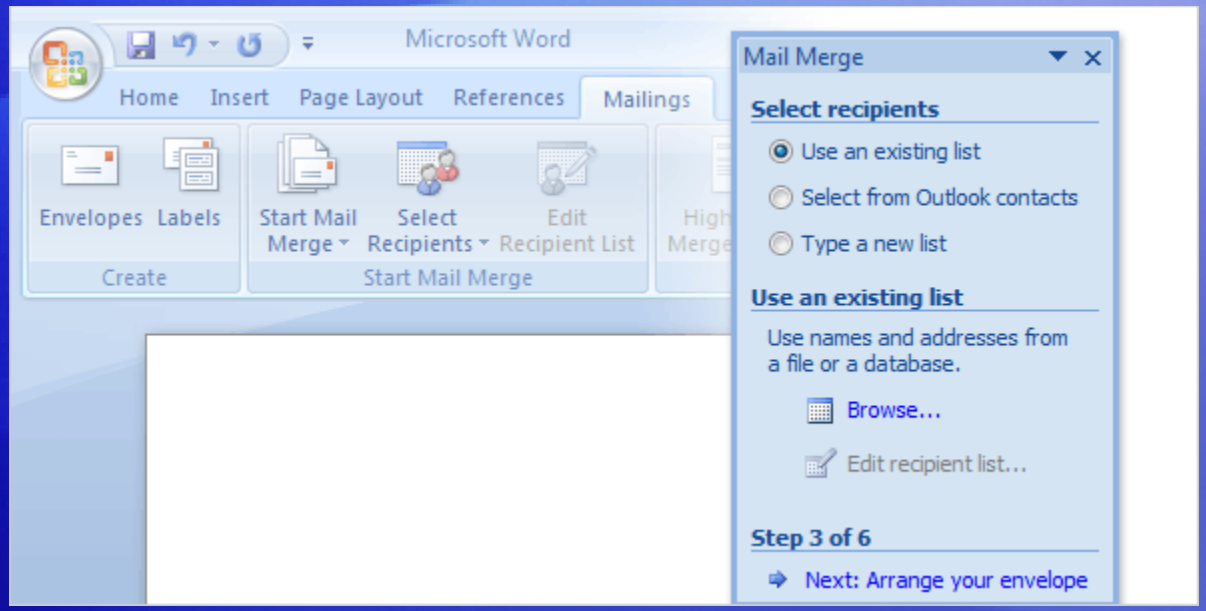
In Step 3, you connect to the recipient list that you want to merge into your documents.

You have three options.

Use an existing list. If you already have a recipient list that contains the information you want to merge, select this option.

Then, click **Browse** in the wizard to locate and open that file.

Connect to the recipient list



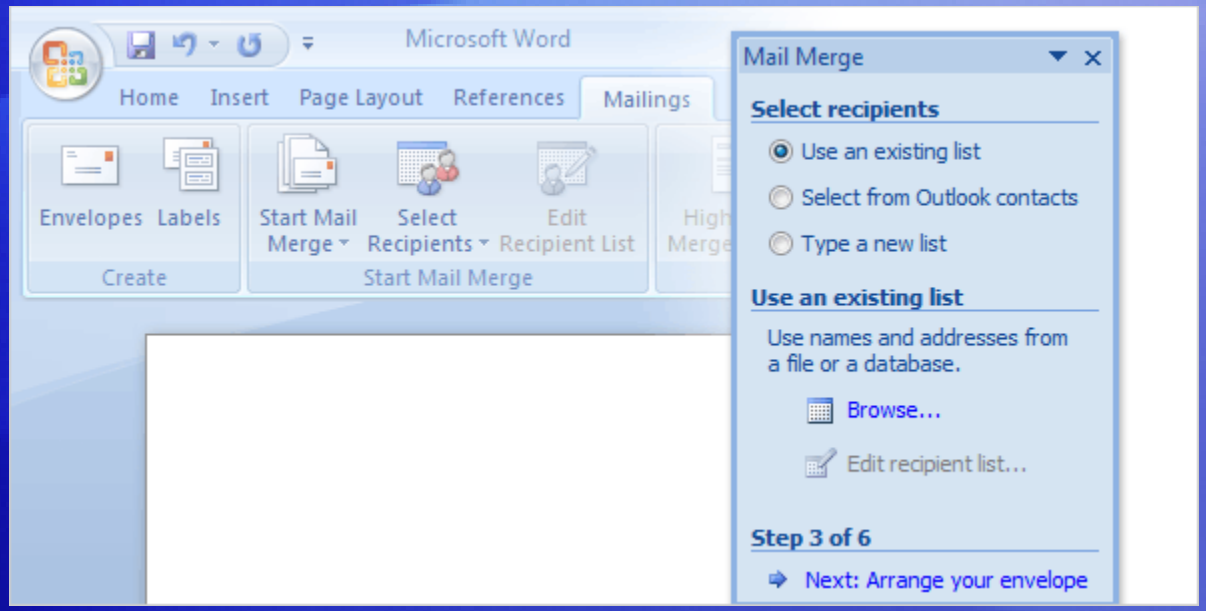
In Step 3, you connect to the recipient list that you want to merge into your documents.

You have three options.

Select from Outlook contacts. If you want to use your Outlook contacts list as your recipient list, select this option.

Then, click **Choose Contacts Folder** to locate and open the correct contacts list.

Connect to the recipient list



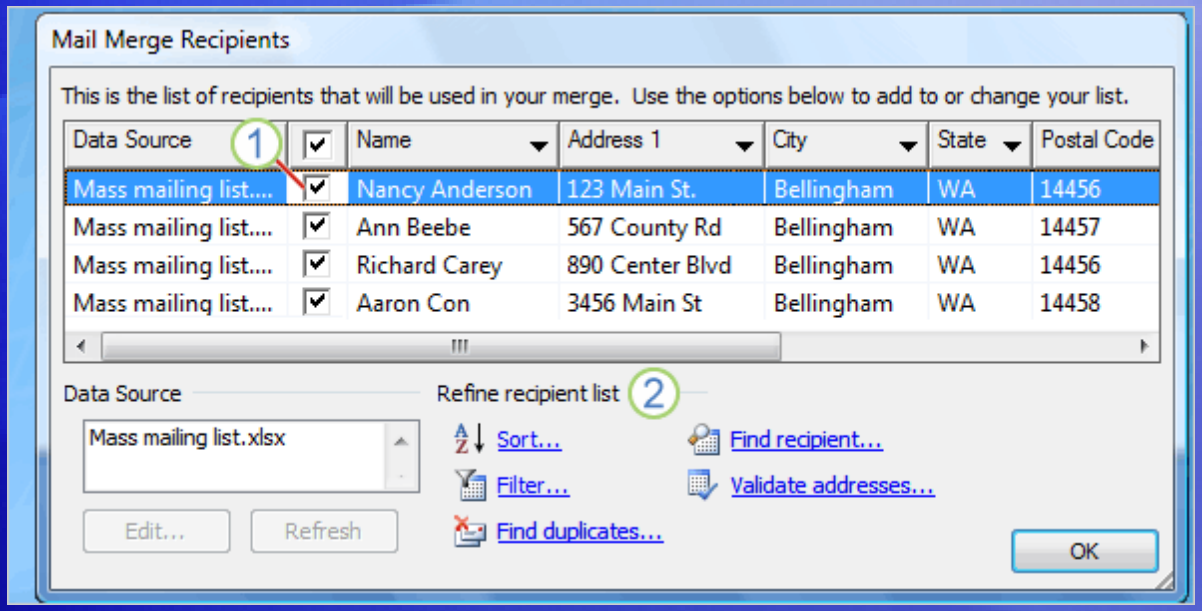
In Step 3, you connect to the recipient list that you want to merge into your documents.

You have three options.

Type a new list. If you don't have an appropriate recipient list and want to create one, select this option. The new list is saved as a mailing database (.mdb) file in the **My Data Sources** folder, which is located in your Documents or My Documents folder.

You can reuse the file for future mail merges.

Choose the recipients for your mailing

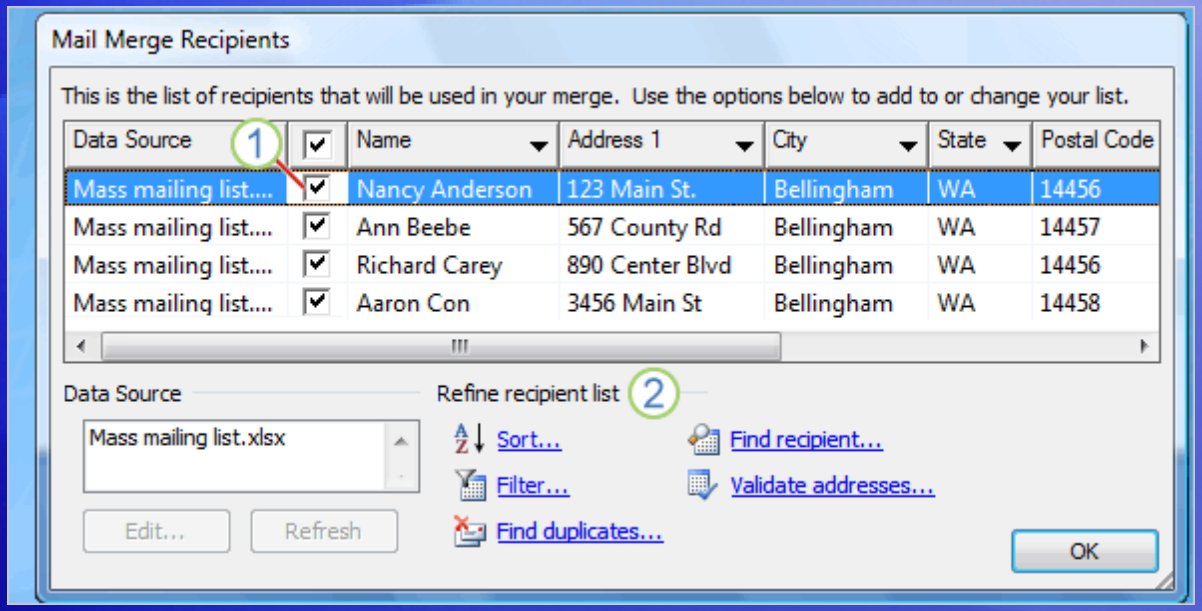


After you connect to the recipient list, you choose the recipients that you want to include in your mailing.

For example, you might want to send a form letter to only those customers in your file with a specific postal code.

Or, you might want to create a directory that includes only one product line.

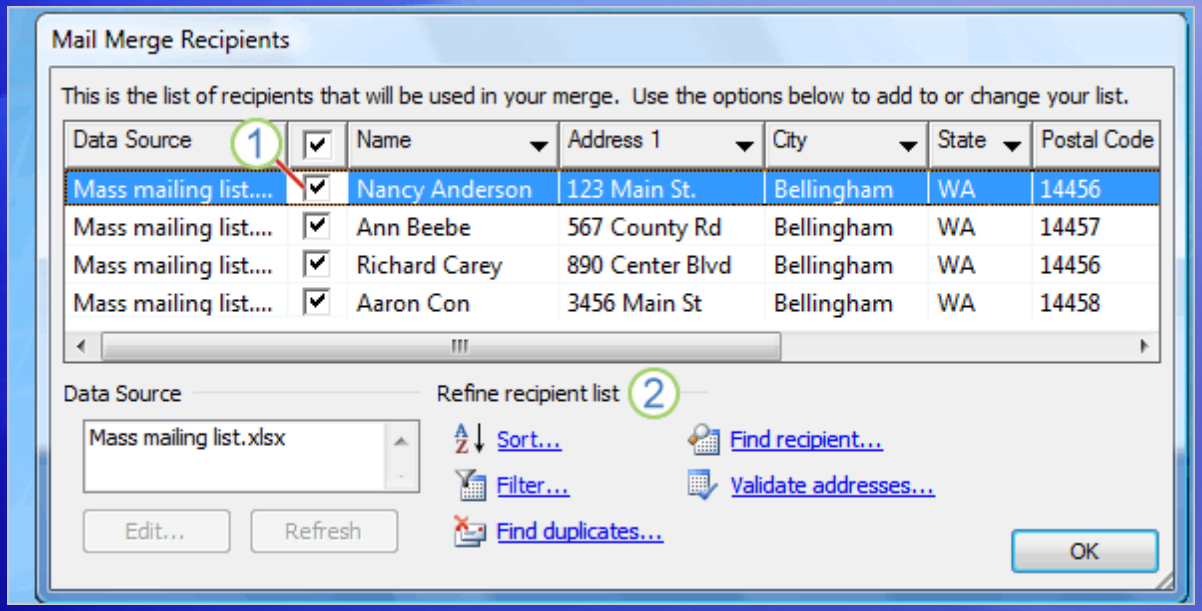
Choose the recipients for your mailing



You do all this in the **Mail Merge Recipients** dialog box, which opens automatically after you connect to or create a recipient list.

1. All the recipients have a check mark next to their name and are included in the mailing by default.

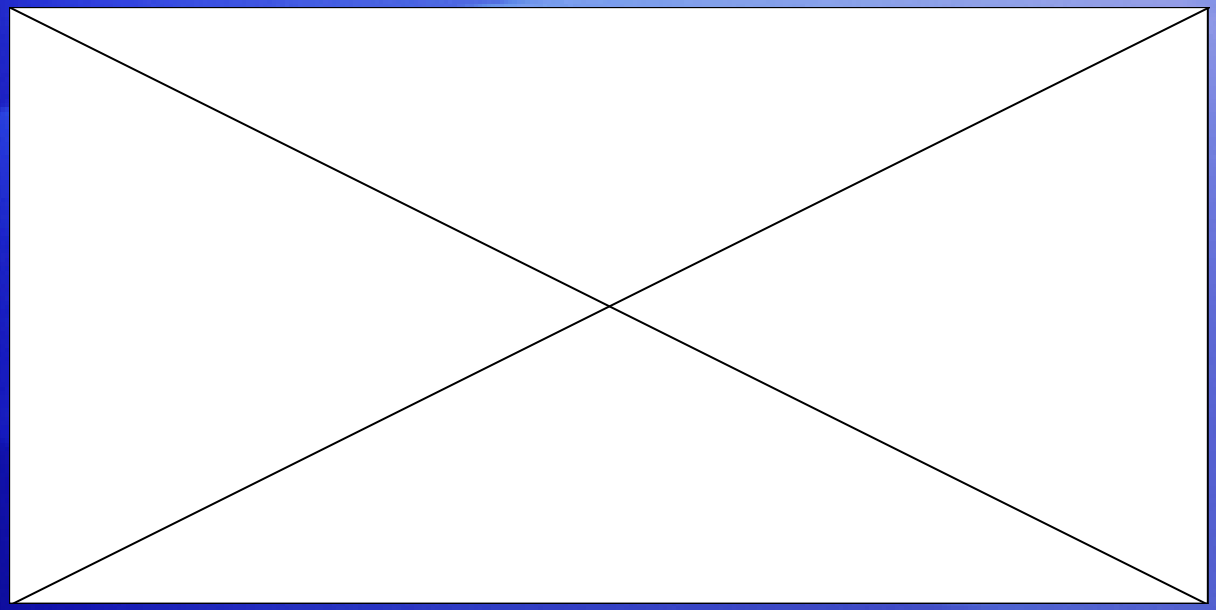
Choose the recipients for your mailing



You do all this in the **Mail Merge Recipients** dialog box, which opens automatically after you connect to or create a recipient list.

2 Refine the recipient list by clicking **Sort…** to choose the column name that you want to view and arrange (either ascending or descending); or clicking **Filter…** to enter the fields and values of the recipients that you want to view.

Arrange the main document



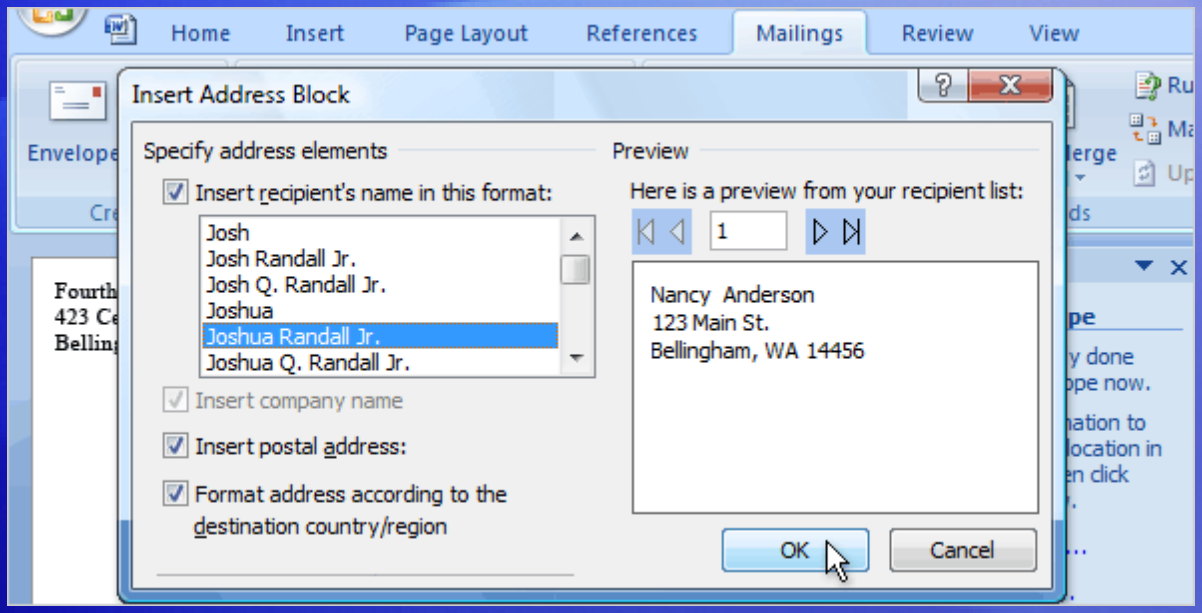
Next, you **arrange** the main document, which means putting content into it.

Animation: Right-click, and click **Play**.

That content consists of information that stays the same in each merged copy, and placeholders (fields) for the recipient information in each merged copy.

The animation shows how to arrange an envelope.

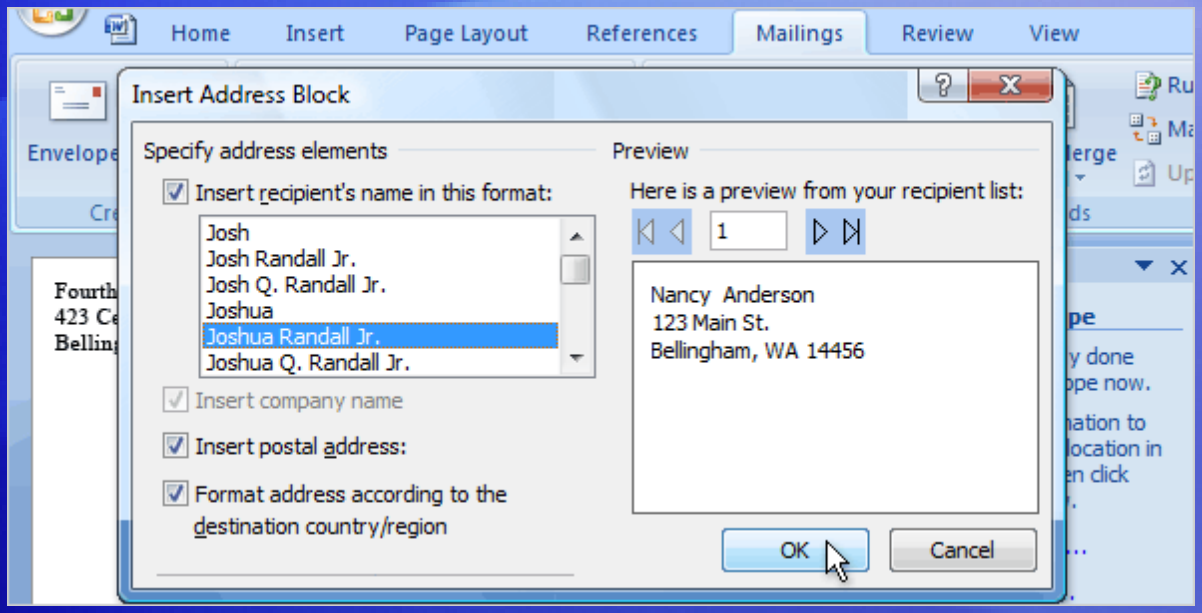
Arrange the main document



Next, you **arrange** the main document, which means putting content into it: the information that stays the same in each merged copy, and placeholders for the recipient data in each merged copy.

For an envelope, the information that stays the same in each merged copy is the return address that you type in the upper left corner. The placeholders are the addresses of each recipient.

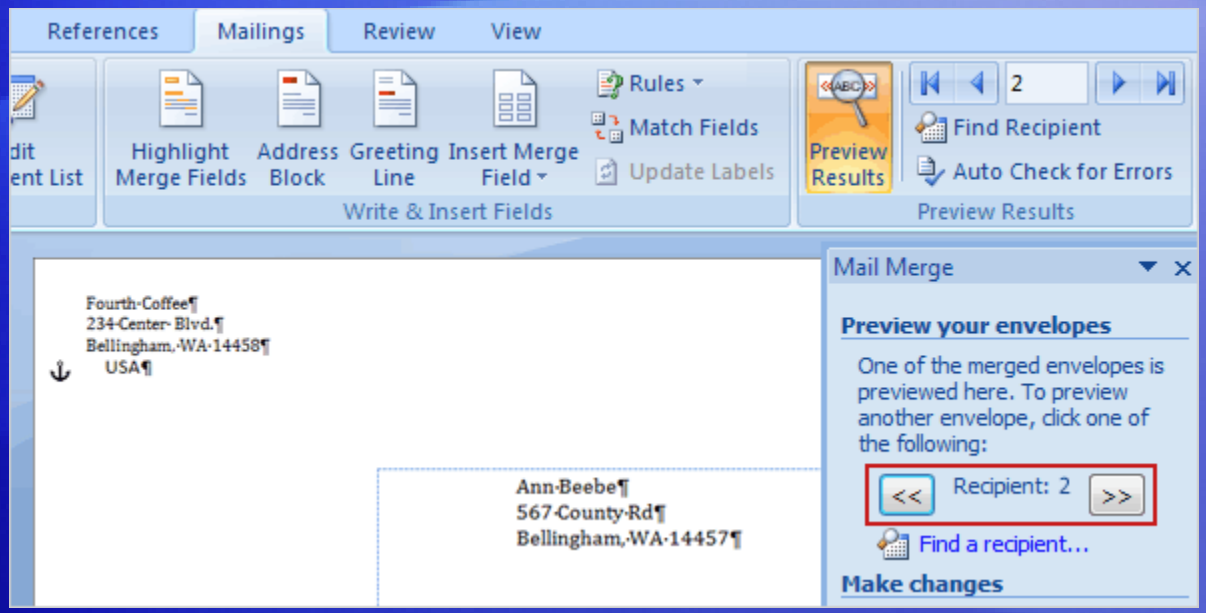
Arrange the main document



The quickest way to add a delivery address is to click **Address block** in the wizard.

It adds a pre-designed «AddressBlock» field to the envelope, which includes First Name, Last Name, Street Address, City, State, and Postal Code.

Preview



After you've added all the content and fields to the main document, you're ready to preview how the merged documents will look.

When you click **Next** at the bottom of the wizard to move to the next step, the first merged document automatically appears.

Preview

Depending on how the first document looks, you have several choices:

- If things don’t look right, click **Previous** at the bottom of the wizard. By returning to the previous step, you can add, delete, or match fields, or make other corrections so that the information is displayed correctly.
- If things look good, click the double right arrow button

at the top of the wizard to page through a few more of the merged documents, as shown in the picture.

Preview

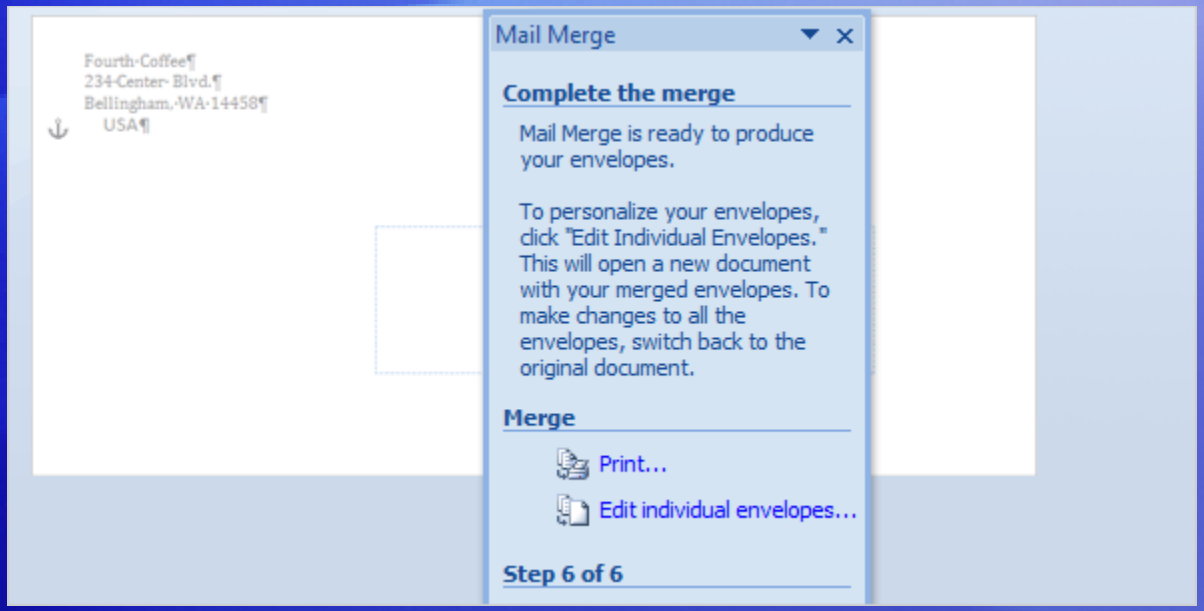
Depending on how the first document looks, you have several choices:

- If you want to view the merged document for a particular recipient, click **Find a recipient** to search for that person. As you page through the documents, you can exclude any person from the merge by clicking **Exclude this recipient**.

  Note that you're excluding a recipient only from the final merge results, not deleting anything from the recipient list.

- If you realize that the merge includes some recipients you don't actually want to include, click **Edit recipient list** to open the **Mail Merge Recipients** dialog box. As described previously, you can use this dialog box to narrow down the recipient list.

Complete the merge



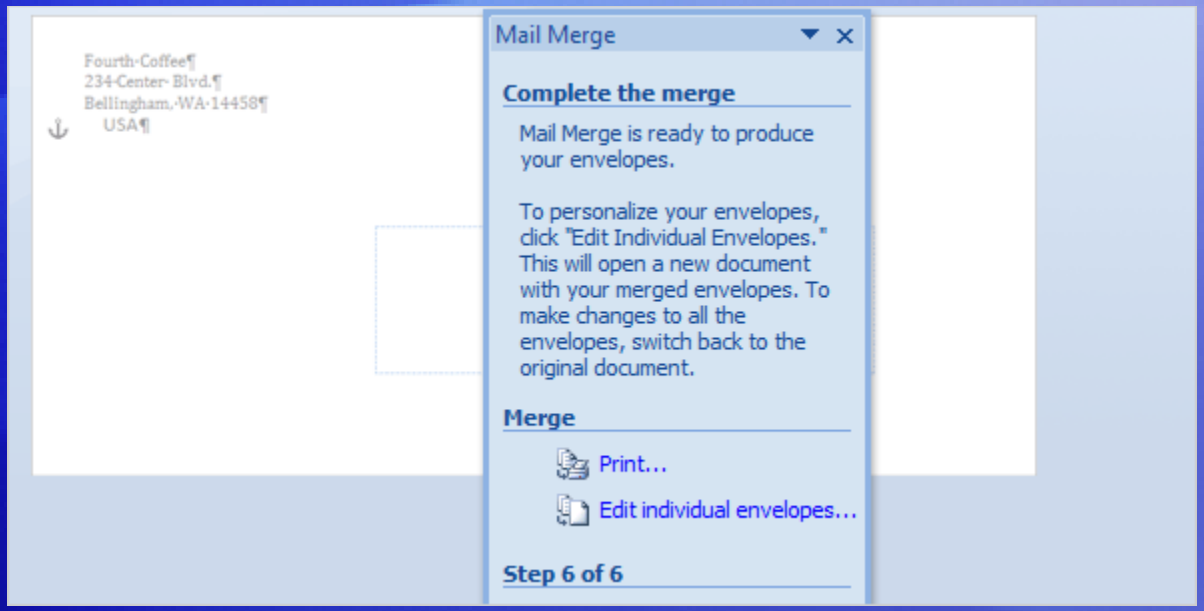
When you're satisfied with previews of the merged documents, you're ready to print the final results.

Click **Print** to open the **Merge to Printer** dialog box.

Last minute changes?

If you still want one more chance to review the results, or if you want to customize selected envelopes, click **Edit individual envelopes** in the wizard.

Complete the merge



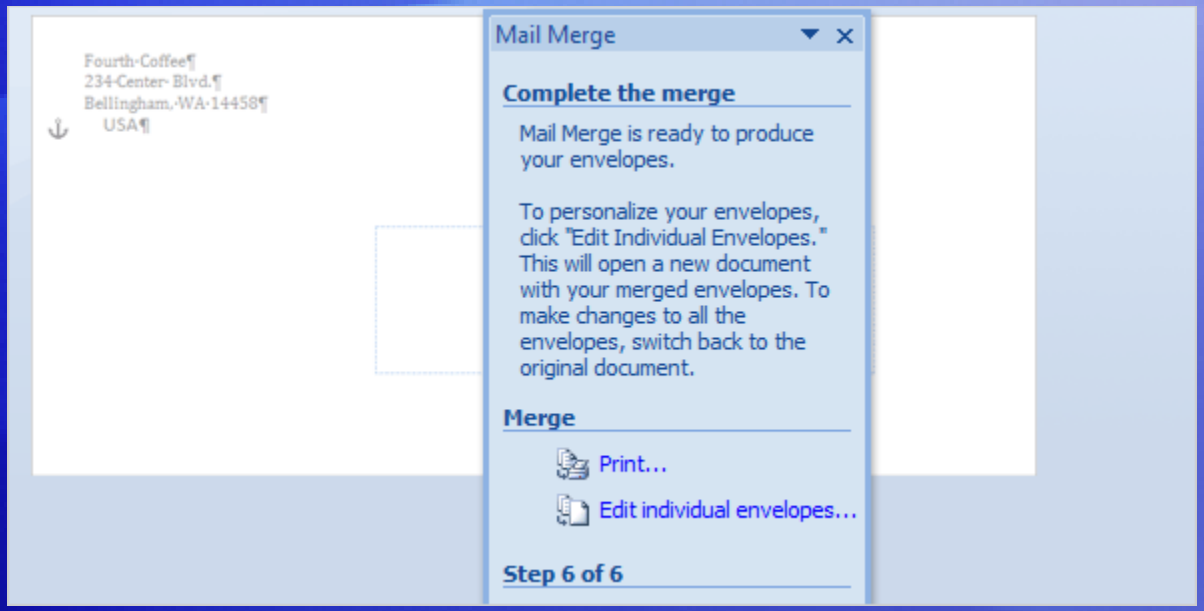
When you're satisfied with previews of the merged documents, you're ready to print the final results.

Click **Print** to open the **Merge to Printer** dialog box.

This creates a separate comprehensive merge that contains all the envelopes in a new Word document.

After you review or modify the envelopes in this comprehensive document, you can print them immediately.

Complete the merge



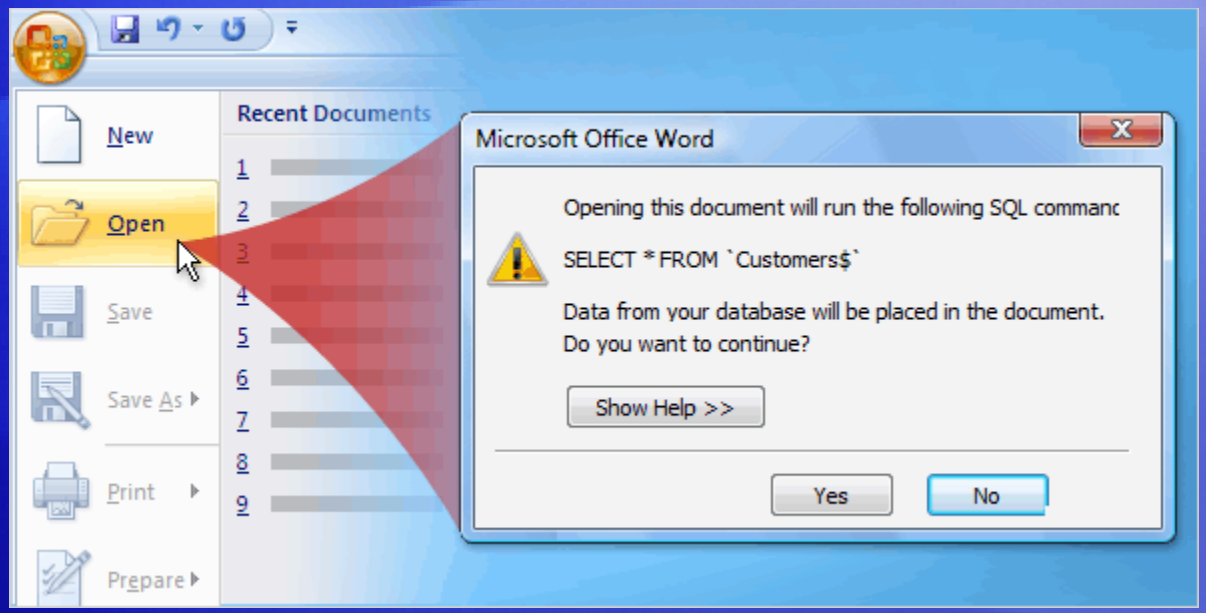
When you're satisfied with previews of the merged documents, you're ready to print the final results.

Click **Print** to open the **Merge to Printer** dialog box.

Or, just save the document and print the envelopes later. If you want to keep the changes you made to individual envelopes, make sure you save this document.

This comprehensive document is separate from the main document and will be larger in size.

Cancel or resume a merge

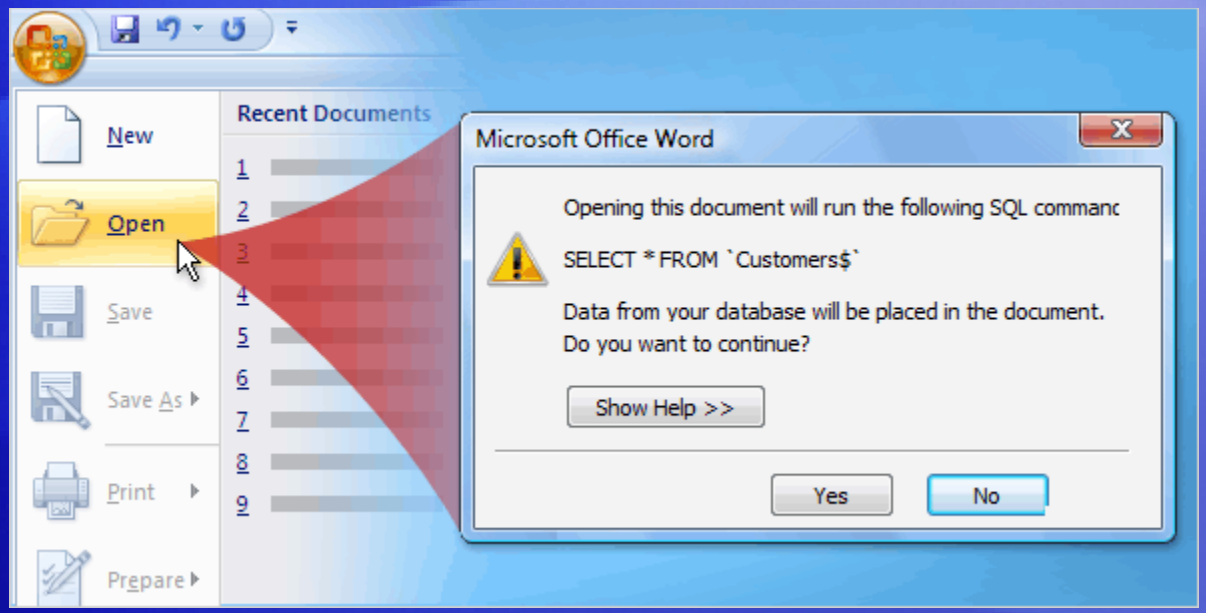


You can cancel your mail merge at any time before completing it.

To do this, close the document and choose not to save the changes. The document will be deleted along with the connection to the recipient list.

But if you just need to stop working on the merge and want to come back to it later, save the main document.

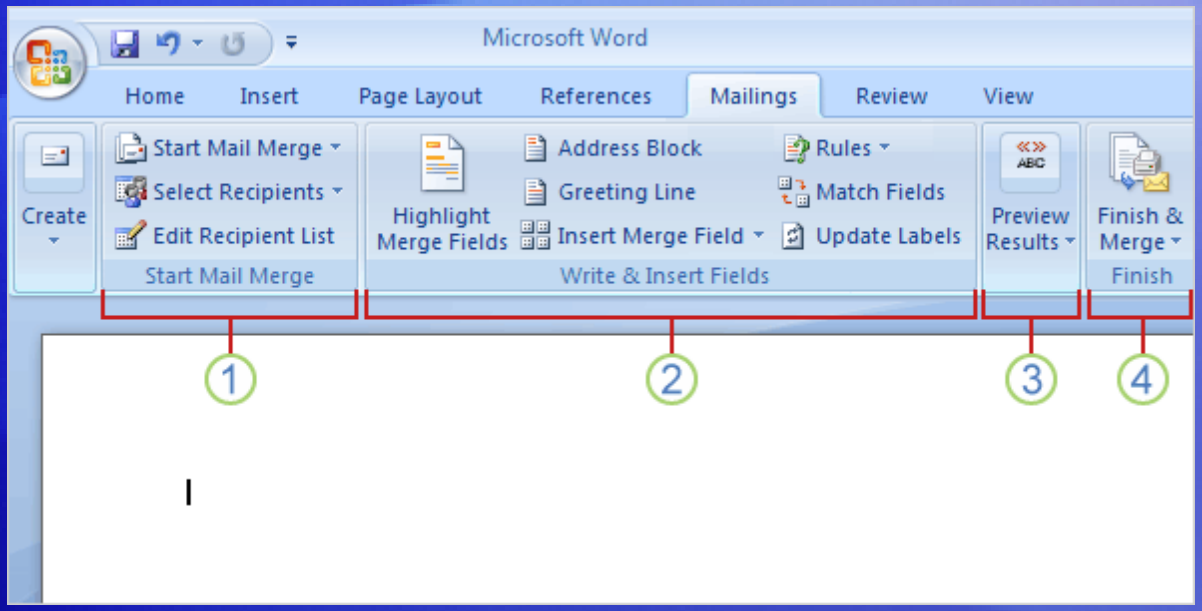
Cancel or resume a merge



You can cancel your mail merge at any time before completing it.

When you open the document again, Word will ask if you want to keep the connection to the recipient list. Click **Yes** to resume the merge.

Introducing mail merges using the Ribbon

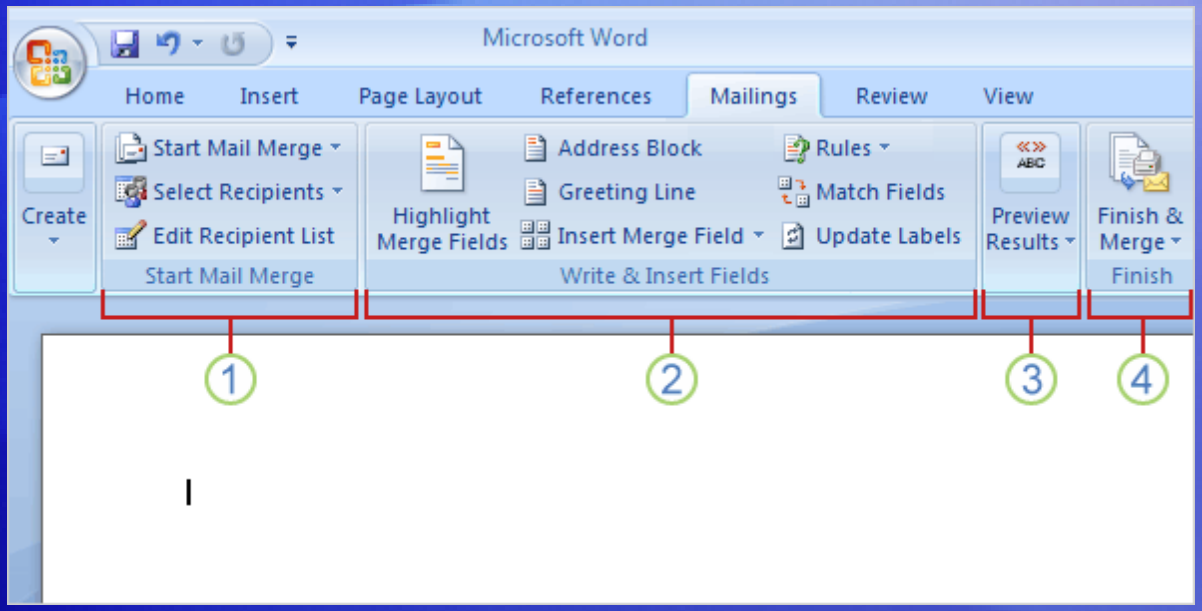


Did you notice that the commands in the **Mailings** tab become available as you step through the wizard?

The Ribbon is also a handy way to do a mail merge and the process is very similar to the steps in the wizard.

Using the Ribbon, you'll have access to more features, such as automatic checking, which looks for errors before you complete the merge.

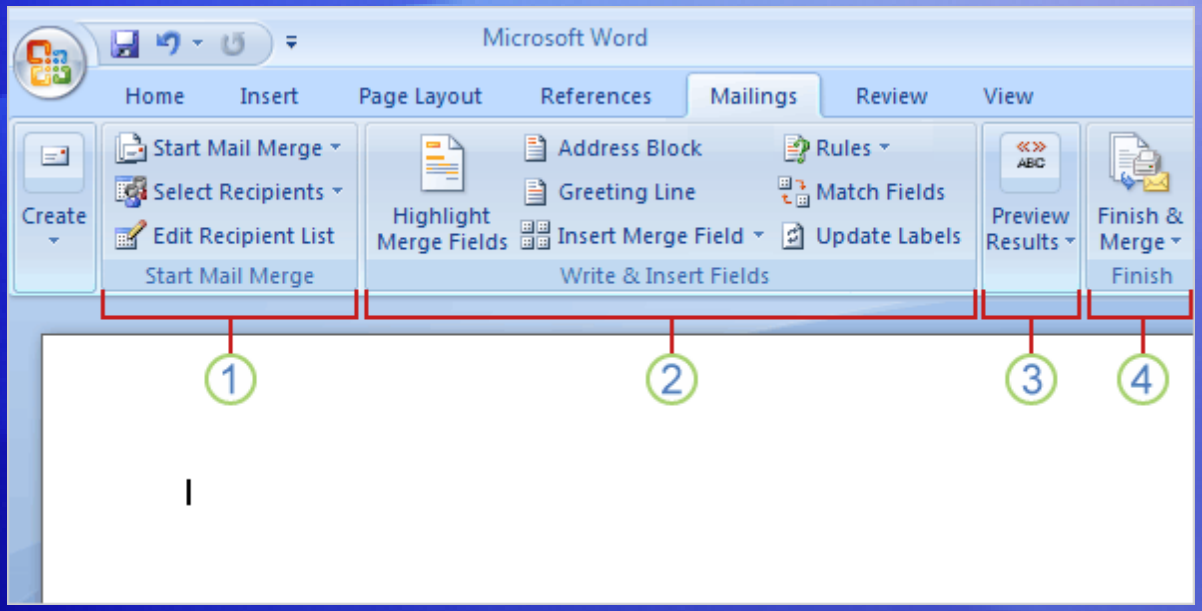
Introducing mail merges using the Ribbon



The commands you use on the **Mailings** tab are in these four groups.

1. **Start Mail Merge**. This is beginning point where you pick a document type and then select, create, or edit the recipient list.
2. **Write & Insert Fields**. Here's where you can insert the merge fields, match your fields, and use **Rules** to perform actions in your documents.

Introducing mail merges using the Ribbon



The commands you use on the **Mailings** tab are in these four groups.

3. **Preview Results**. Besides viewing the individual merged documents, you can use an automatic error checking feature.

4. **Finish**. Complete the merge and combine your individual documents into one comprehensive document, or print them out, or send them electronically.

Suggestions for practice

1. Open the Mail Merge Wizard and set up the main document.
2. Connect to your recipient list and choose the people you want to send mail to.
3. Type content and insert fields.
4. Preview and match fields.
5. Complete the merge.

Online practice (requires Word 2007)

Test 3, question 1

How do you open the Mail Merge Wizard? (Pick one answer.)

1. Click the **Microsoft Office Button**, and then **Word Options**.
2. On the **Mailings** tab, click **Start Mail Merge**.
3. On the **Insert** tab, click **Quick Parts**.

Test 3, question 1: Answer

On the **Mailings** tab, click **Start Mail Merge**.

Test 3, question 2

How do you exclude a person from a mail merge? (Pick one answer.)

1. Delete all the information in the recipient list for that person.
2. Delete the document addressed to that person when you preview the merge.
3. Use the check boxes in the **Mail Merge Recipients** dialog box.

Test 3, question 2: Answer

Use the check boxes in the **Mail Merge Recipients** dialog box.

The **Mail Merge Recipients** dialog box is where you can designate the people that will be included in the final merge.

Test 3, question 3

After you choose to preview your documents, the merge is complete and you can't make changes. (Pick one answer.)

1. True.
2. False.

Test 3, question 3: Answer

False.

Preview gives you a chance to look at your merged documents before the merge is complete.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Word 2007 Training

Reuse text and other document parts: Introducing building blocks

Course contents

- Overview: What you need is built in
- Lesson 1: Get acquainted with building blocks
- Lesson 2: Swap, format, and remove document building blocks
- Lesson 3: Find and organize document building blocks

Each lesson includes a list of suggested tasks and a set of test questions.

Overview: What you need is built in

Document parts, such as headers and footers, cover pages, and boilerplate text, are central to building any professional-looking document.

In Word 2007, you can choose from many built-in document parts and use them again and again, whenever you need them.

With these building blocks, you'll never again struggle to build a cover page or any other critical part of your document at the last minute.

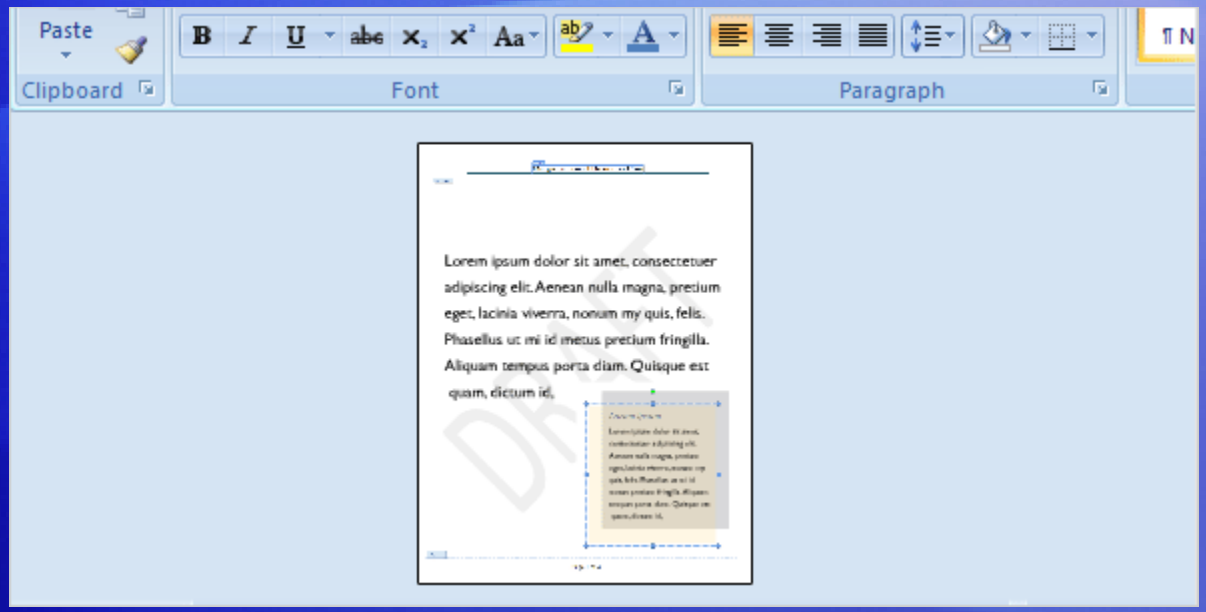
Course goals

- Locate and identify document parts in Word 2007.
- Create a document part and add it to a gallery.
- Create boilerplate text and add it to a gallery.
- Make formatting changes to a document part.
- Swap one document part for another.
- Find a document part to add to your document.

Lesson 1

Get acquainted with building blocks

Get acquainted with building blocks

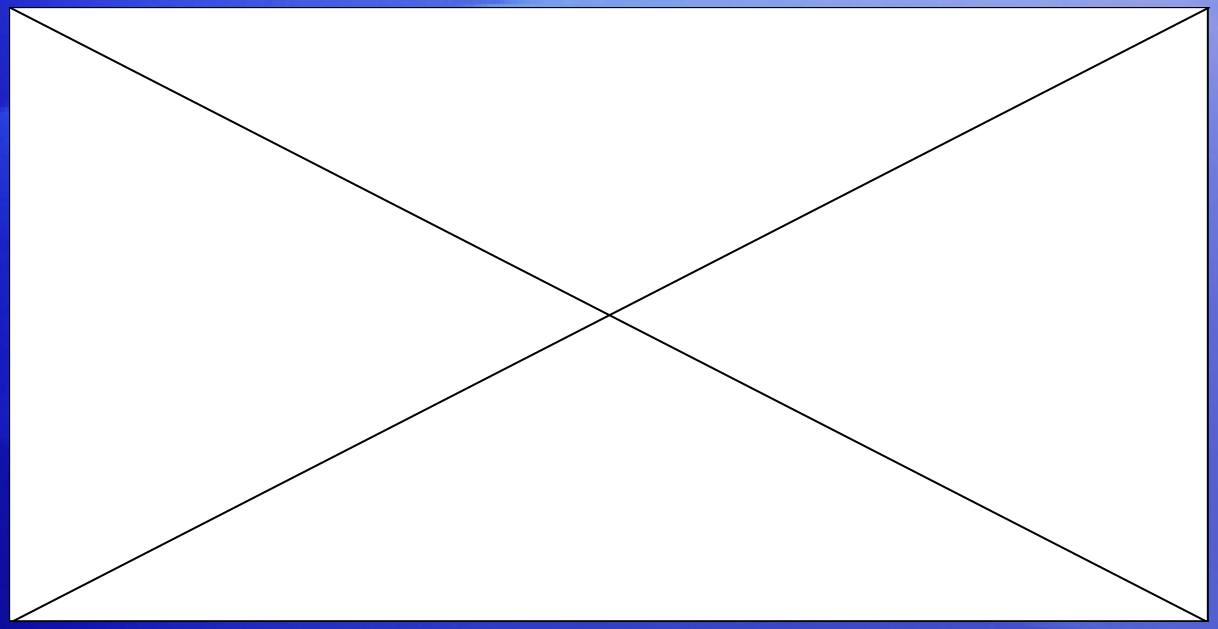


We've all been faced with the drama of a blank page and a deadline, knowing what needs to be in the document but not knowing how to get the parts there quickly and with polish.

Word 2007 extends some of the familiar document parts — such as headers and footers, cover pages, and tables of contents — with galleries of well-designed and formatted parts that you can insert in your document with just a click or two.

Reuse text and other document parts:
Introducing building blocks

Get acquainted with building blocks

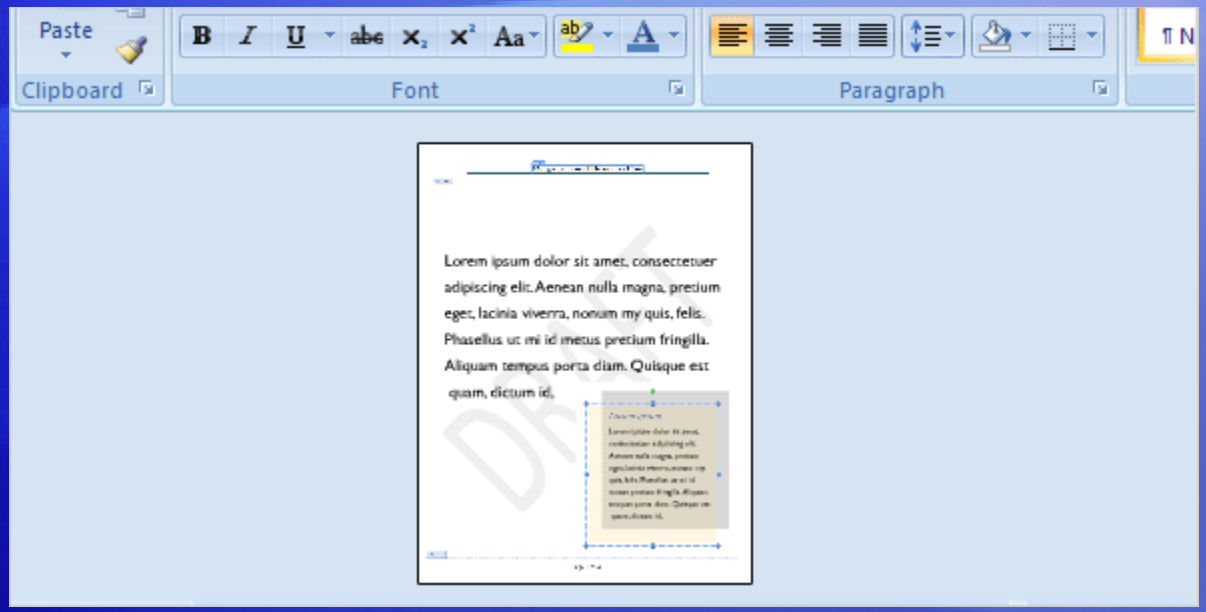


Because the document parts you've known have changed so much in Word 2007, let's call these newly enhanced document parts **building blocks**.

Animation: Right-click, and click **Play**.

You can think of a completed Word document as a file made up of regular content, such as plain text, pages, and photos or other document objects, and other optional building blocks that you can add to complete your document.

Get acquainted with building blocks

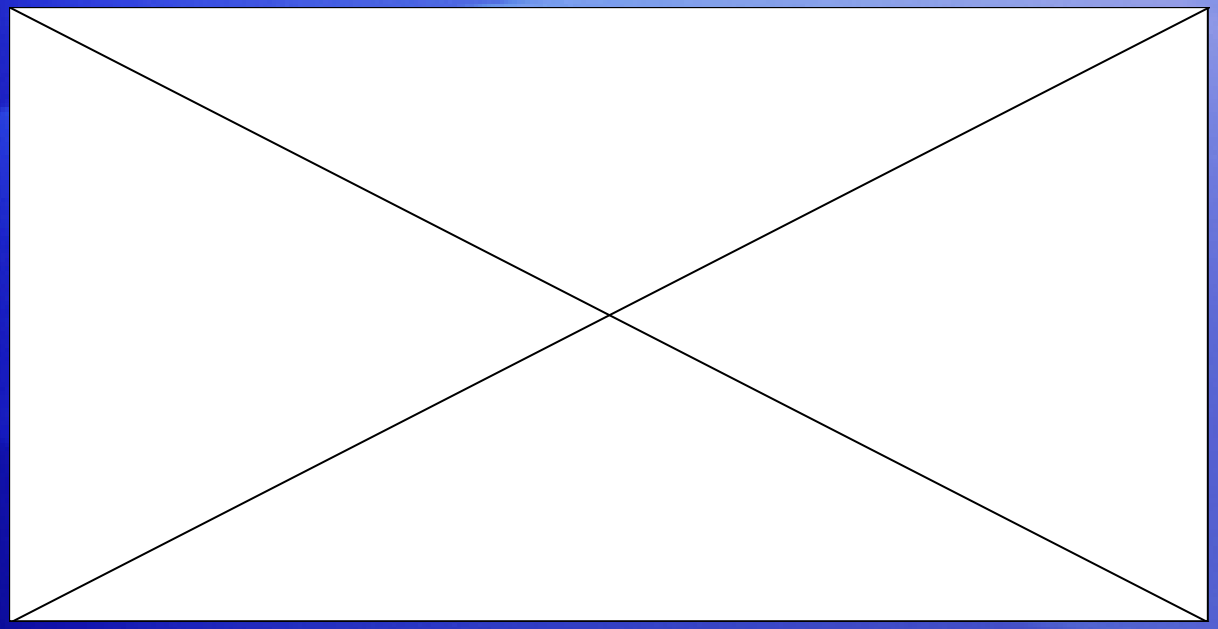


Because the document parts you've known have changed so much in Word 2007, let's call these newly enhanced document parts **building blocks**.

You can think of a completed Word document as a file made up of regular content, such as plain text, pages, and photos or other document objects, and other optional building blocks that you can add to complete your document.

Reuse text and other document parts:
Introducing building blocks

Find building blocks in galleries



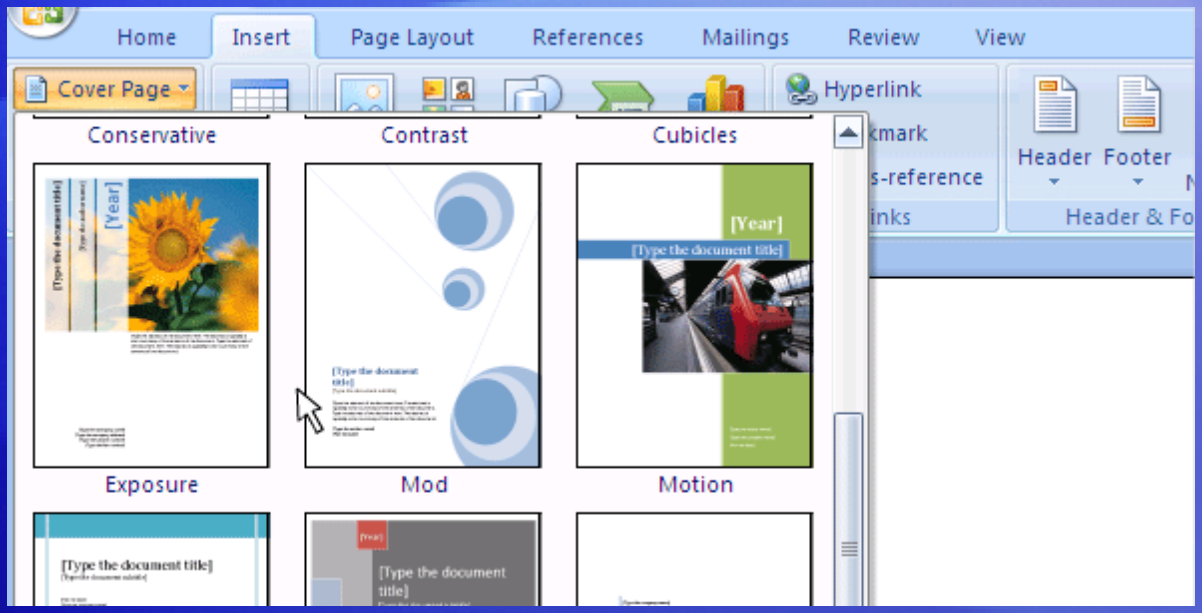
You'll find building blocks in **galleries** filled with headers and footers, watermarks, tables of contents, cover pages, and even boilerplate text.

Animation: Right-click, and click **Play**.

And you'll find these galleries, which contain many built-in designs, throughout the tabs on the Ribbon.

Built-in designs save time because you just choose a design and replace the placeholder text with your own.

Finding building blocks in galleries



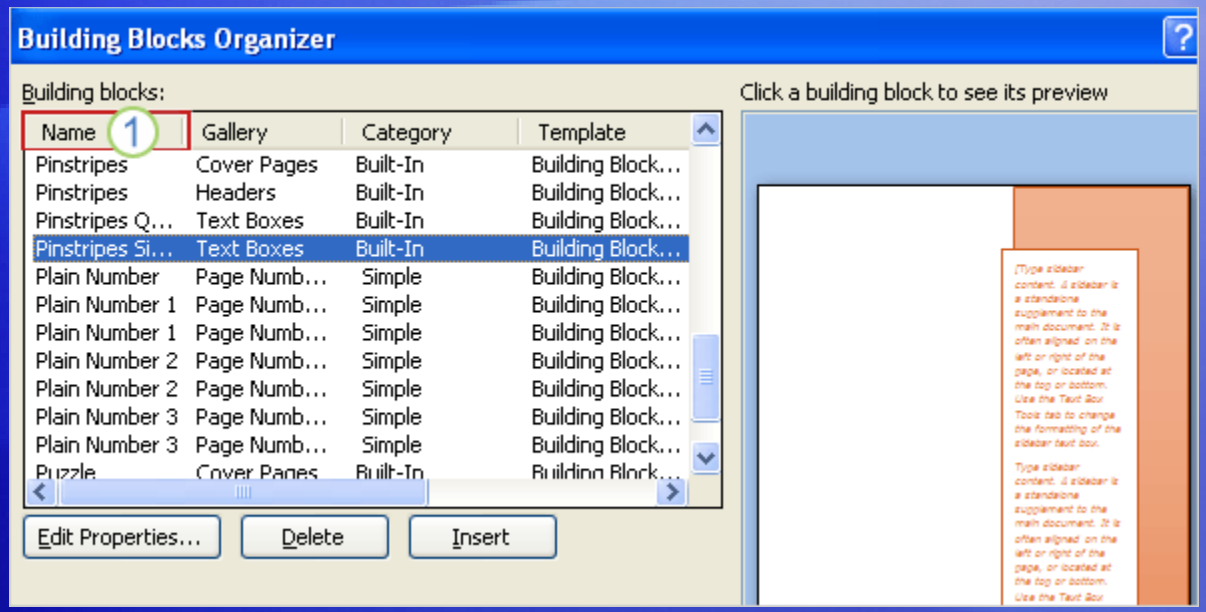
You'll find building blocks in **galleries** filled with headers and footers, watermarks, tables of contents, cover pages, and even boilerplate text.

And you'll find these galleries, which contain many built-in designs, throughout the tabs on the Ribbon.

Built-in designs save time because you just choose a design and replace the placeholder text with your own.

Reuse text and other document parts:
Introducing building blocks

Find all the building blocks in one place

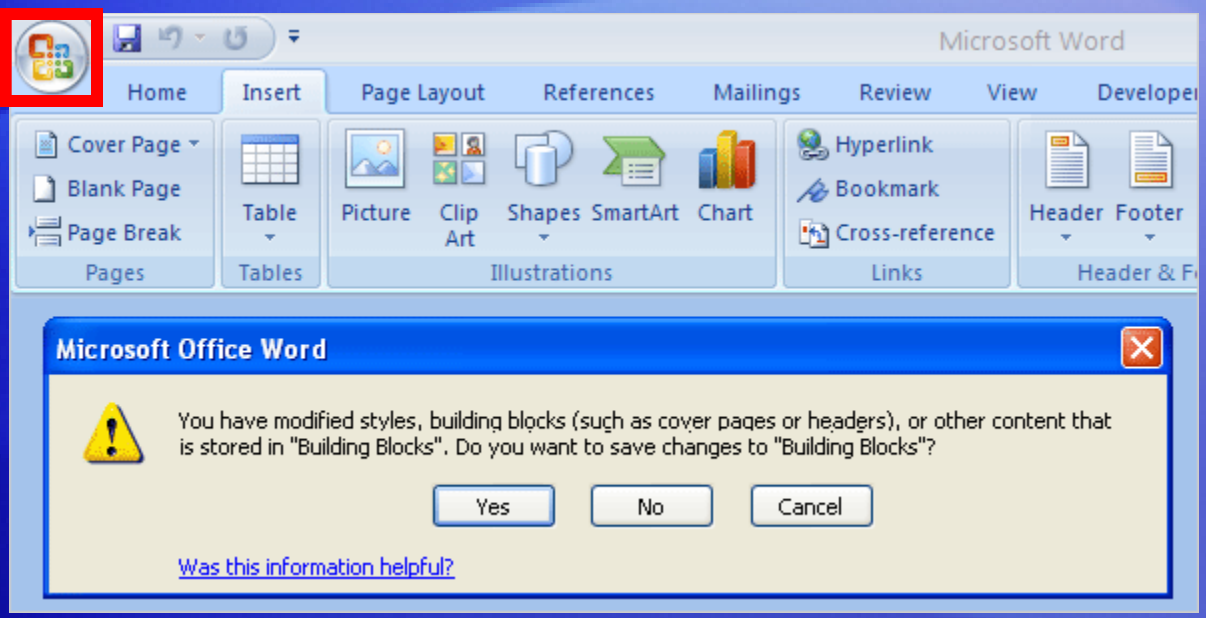


You can find the different kinds of building blocks in their individual galleries.

But the **Building Blocks Organizer** is the single place where you can view and manage all of the building blocks that are available in Word.

You can also use the organizer to find out more about a particular building block or to insert building blocks in your documents.

Save building blocks



You save a document that contains a building block, such as a header or footer, just as you would any other document.

Click the **Microsoft Office Button**, and then click **Save** or **Save As**.

When you exit a session of Word 2007 after making changes to a built-in building block, or after you create or delete a building block, you are asked whether you want to save the changes. Be sure to click **Yes**.

Suggestions for practice

1. Browse the building blocks galleries.
2. Add a building block to a document.
3. Add a cover page.

Online practice (requires Word 2007)

Test 1, question 1

Which of the following are building blocks? (Pick one answer.)

1. Text and pictures.
2. Shapes, SmartArt graphics, and charts.
3. Headers, footers, and cover pages.

Test 1, question 1: Answer

Headers, footers, and cover pages.

There are many types of building blocks, including headers, footers, cover pages, boilerplate text, and so much more.

Test 1, question 2

Where can you find building blocks? (Pick one answer.)

1. In galleries throughout tabs on the Ribbon.
2. On the **References** tab in the **Building Blocks** group.
3. Click the **Microsoft Office Button**, and then click **Word Options**.

Test 1, question 2: Answer

In galleries throughout tabs on the Ribbon.

Galleries contain many building blocks designed for you to click and use.

Test 1, question 3

A professionally designed document is made up of which of the following: (Pick one answer.)

1. Text, photos, and headers and footers.
2. Text, a table of contents, and a cover page.
3. Text, Quick Styles, and text boxes.
4. All of the above.

Test 1, question 3: Answer

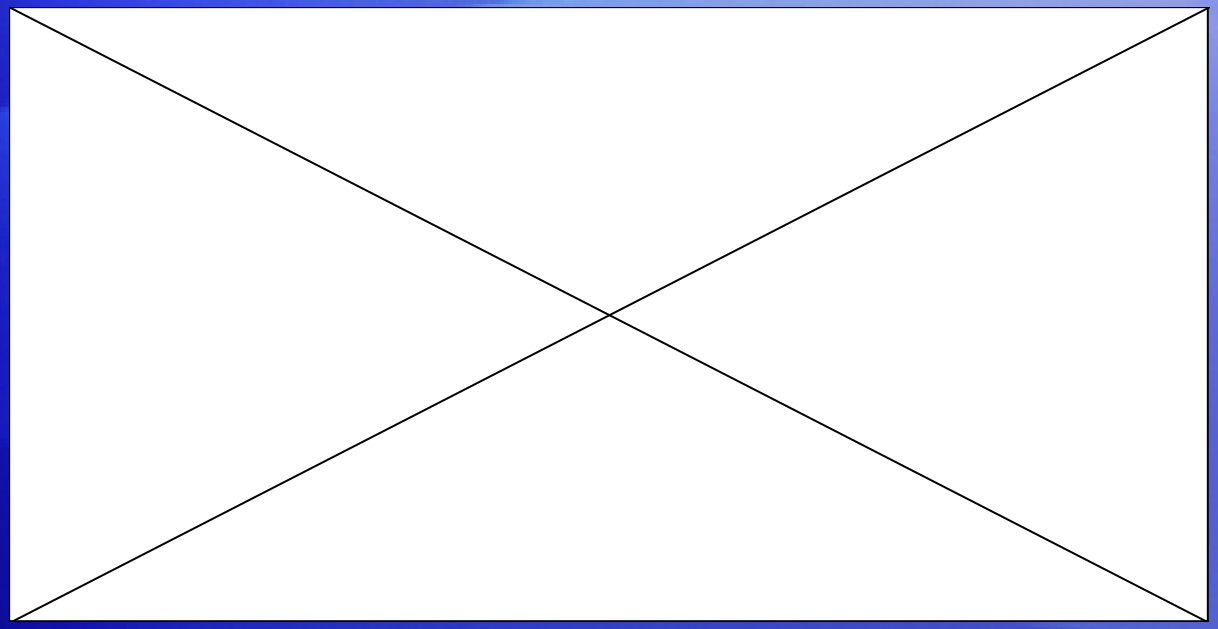
All of the above.

You use building blocks, text, photos, and other document parts to create a well-designed, professional-looking document.

Lesson 2

Swap, format, and remove document building blocks

Swap, format, and remove building blocks

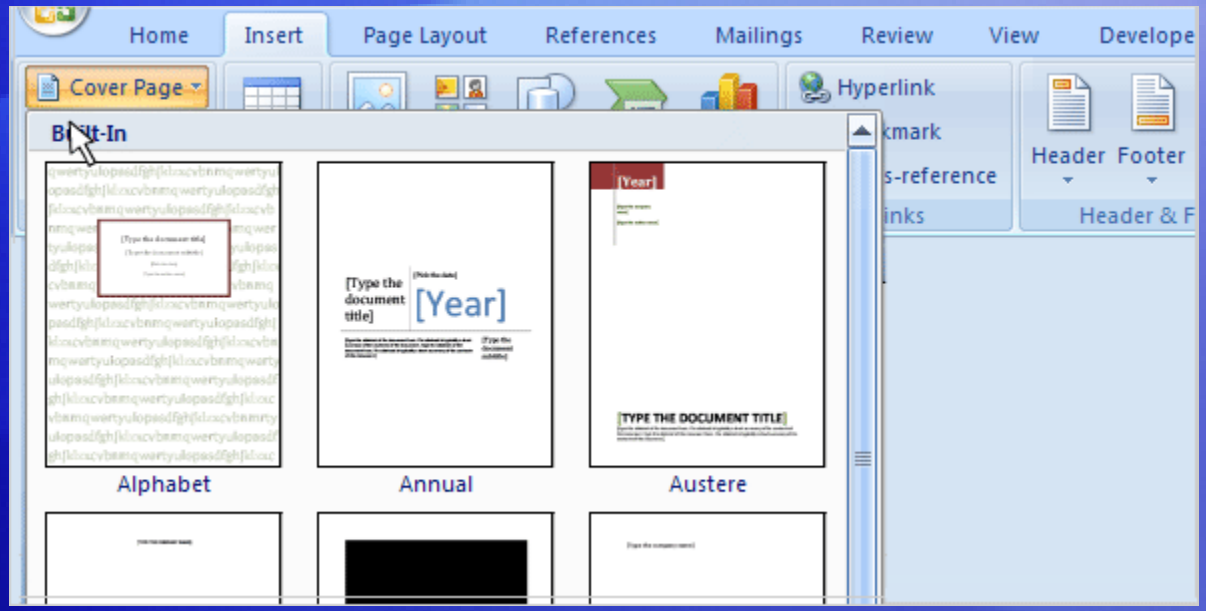


You've added a cover page to your document. What if you decide at the last minute that you want a different cover page design?

Animation: Right-click, and click **Play**.

You can click a new building block design at any time to see how the building block looks in your document. If you already replaced the placeholder text with your own text, you can still change the cover page design with a single click.

Swap, format, and remove building blocks



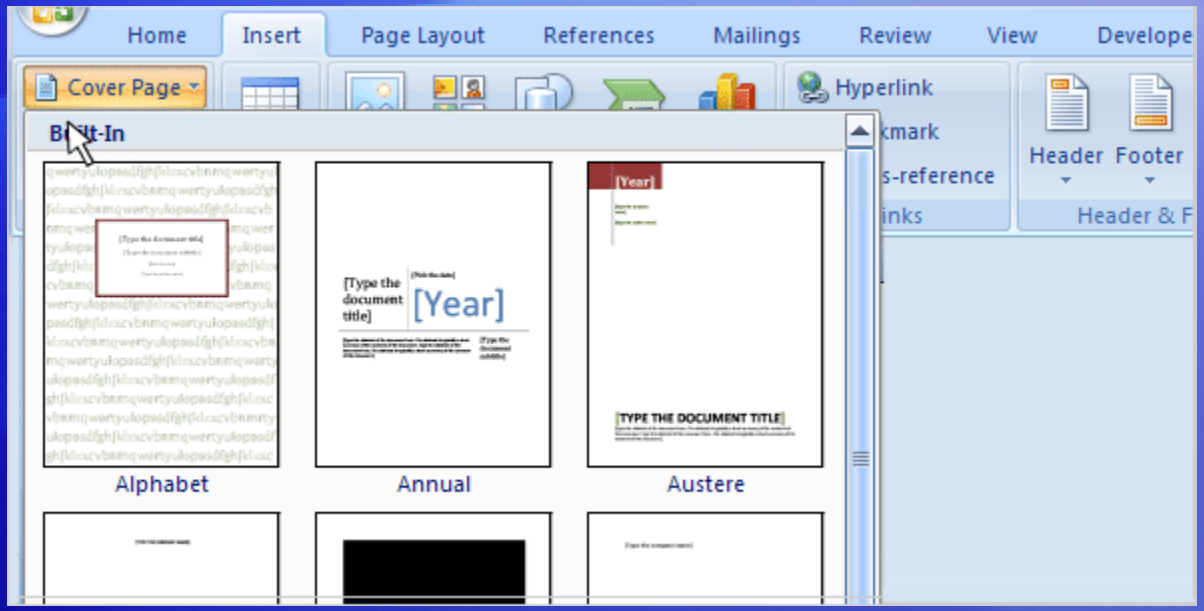
You've added a cover page to your document. What if you decide at the last minute that you want a different cover page design?

You can click a new building block design at any time to see how the building block looks in your document.

If you already replaced the placeholder text with your own text, you can still change the cover page design with a single click.

Reuse text and other document parts:
Introducing building blocks

Swap, format, and remove building blocks



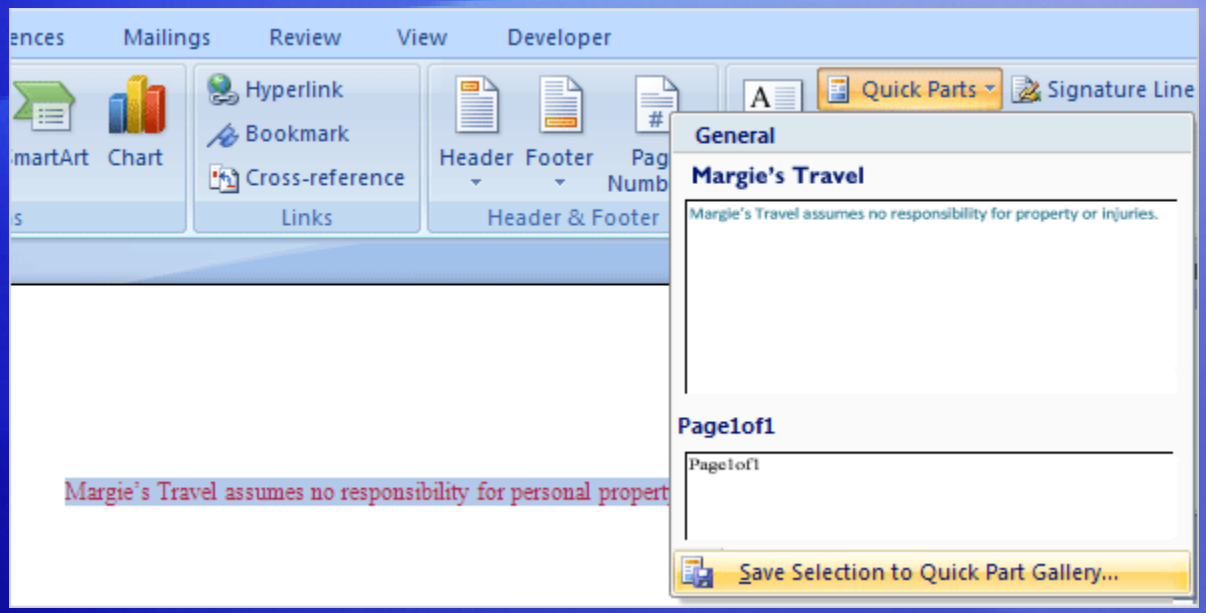
Each building block is made up of different fields called **content controls**.

For example, a content control in a cover page building block might include a title content control and perhaps a date content control.

The important point to remember is that a content control contains information that you can replace with your own text or content.

Reuse text and other document parts:
Introducing building blocks

Create and save boilerplate text

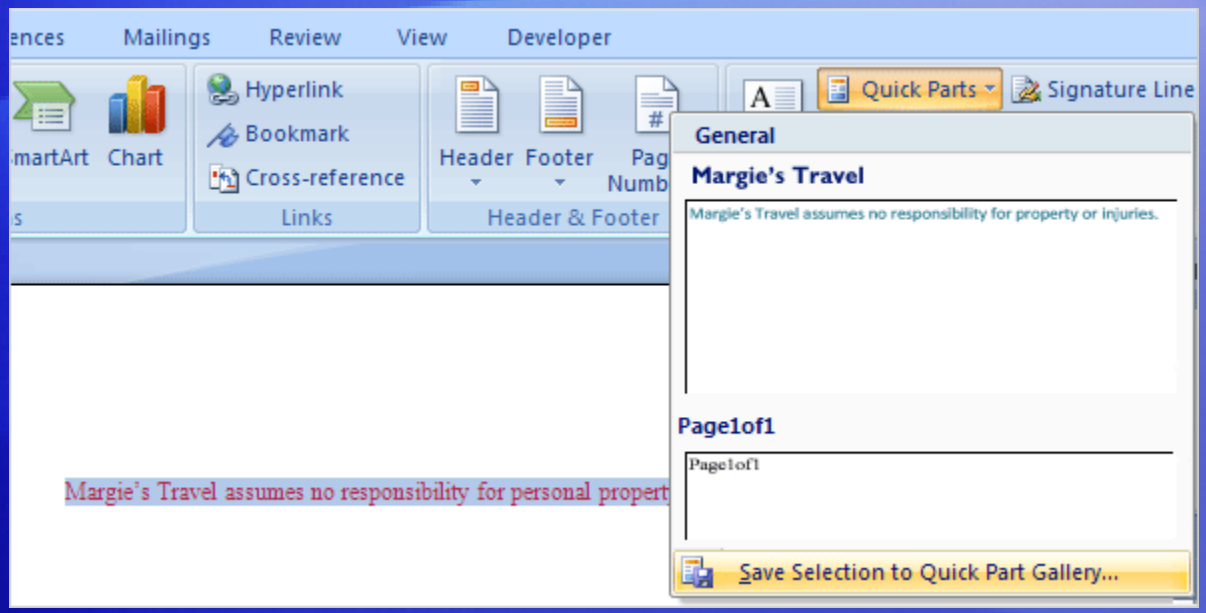


How often do you find yourself re-creating text in the documents you build?

Like cover pages and page numbers, boilerplate text is a common document part that you might want to create in one document and reuse again in this and other documents.

Reuse text and other document parts:
Introducing building blocks

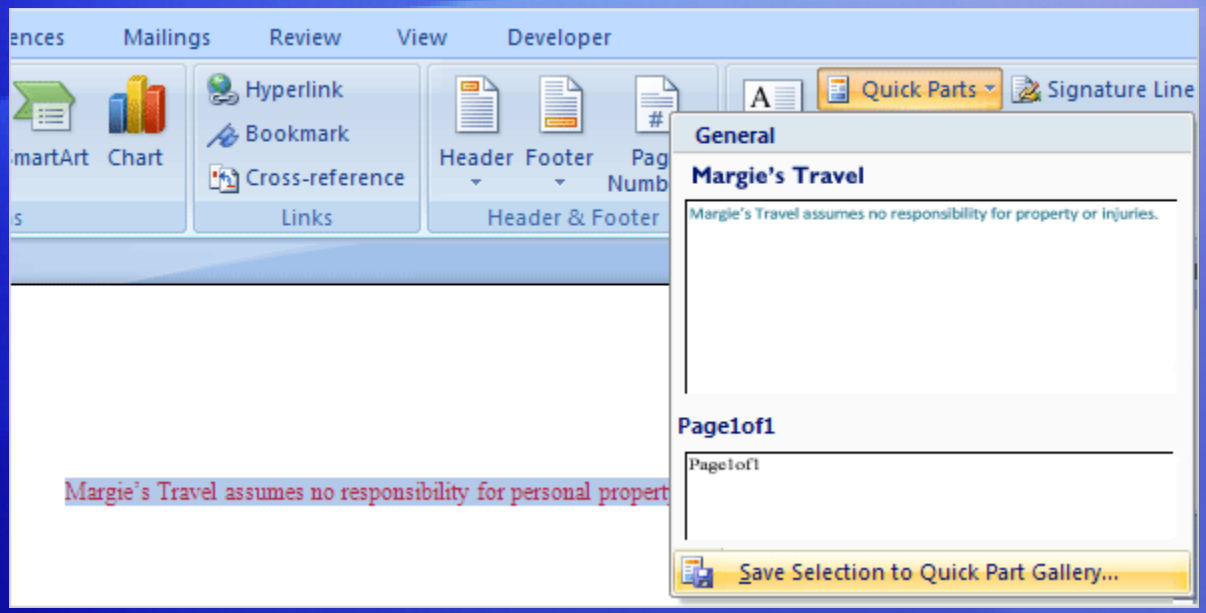
Create and save boilerplate text



How often do you find yourself re-creating text in the documents you build?

In Word 2007, you can save a text selection to a building block gallery called the **Quick Part Gallery**, where you can easily locate the text to use again and again.

Format building block text

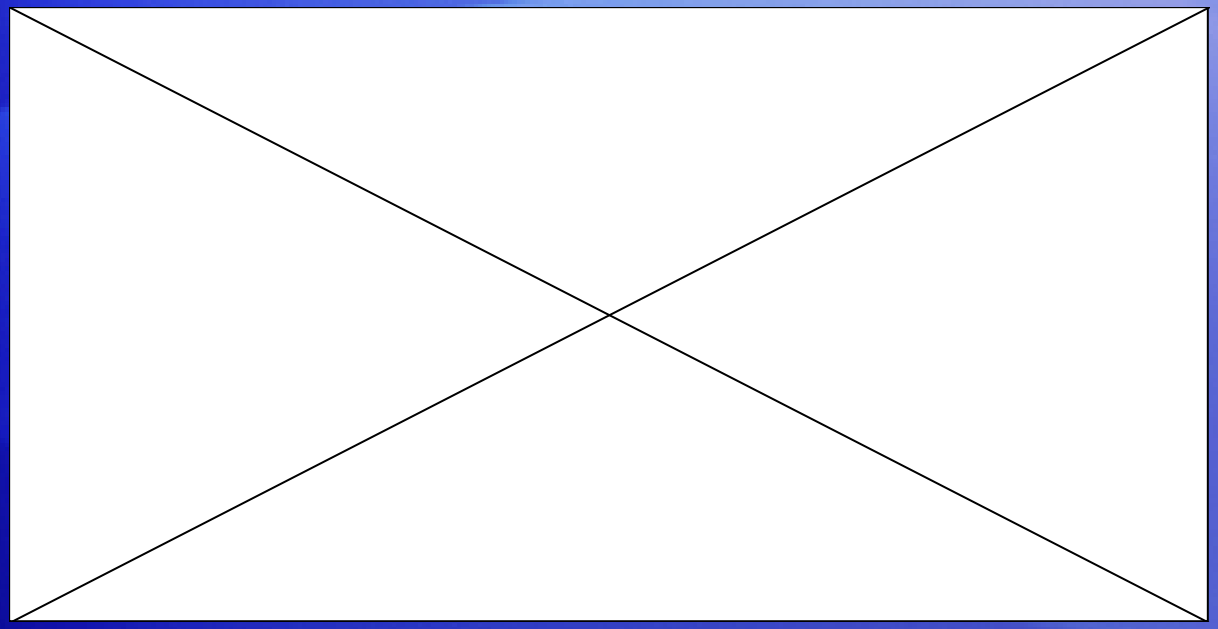


Say you want to make some changes to boilerplate text you already created and saved to the **Quick Part Gallery**.

You can change the font, color, and alignment of the text. You can even redefine the entry for the building blocks gallery so that it's easy to find later.

After you complete your changes, you can select the text and click **Save selection to Quick Part Gallery**.

Remove a building block from a document



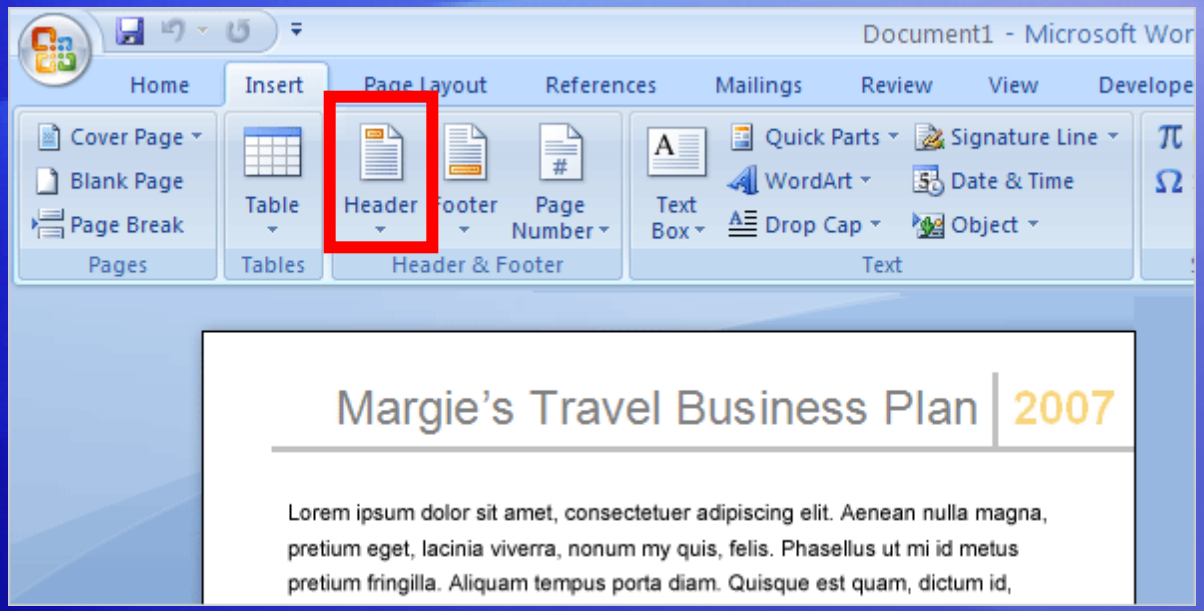
If you decide that you no longer want a building block in your document, you can remove it as quickly as you added it.

Animation: Right-click, and click **Play**.

Most galleries have an option to remove the current building block from the document.

The animation shows the process of removing a header.

Remove a building block from a document



If you decide that you no longer want a building block in your document, you can remove it as quickly as you added it.

Most galleries have an option to remove the current building block from the document.

This picture shows the start of the process of removing a header. On the **Insert** tab, click **Header**, and then click the **Remove Header** command that appears at the bottom of the gallery.

Suggestions for practice

1. Swap one building block design for another.
2. Add boilerplate text to the gallery and save changes to the gallery.
3. Change the building block formatting and save your changes to the gallery.

Online practice (requires Word 2007)

Test 2, question 1

You decide that the cover page you've chosen is not quite right for your document. What should you do? (Pick one answer.)

1. Delete the cover page.
2. Click a new cover page design in the **Cover Page Gallery**.
3. Edit the existing cover page design.

Test 2, question 1: Answer

Click a new cover page design in the **Cover Page Gallery**.

There are many beautifully designed cover pages to choose from in the Cover Page Gallery.

Test 2, question 2

You have a disclaimer that you regularly reuse in documents. How can you save yourself from retyping the text every time you use it? (Pick one answer.)

1. Copy and paste from one document to another.

2. You can’t. You must retype the disclaimer every time you want to use it.

3. Select the text you want to reuse, and save it to the Quick Part Gallery.

Test 2, question 2: Answer

Select the text you want to use, and save it to the **Quick Part Gallery.**

The text you've selected will be available in the gallery to reuse as often as you like.

Test 2, question 3

You can change the font of an existing building block and resave it to the gallery to use again later. (Pick one answer.)

1. True.
2. False.

Test 2, question 3: Answer

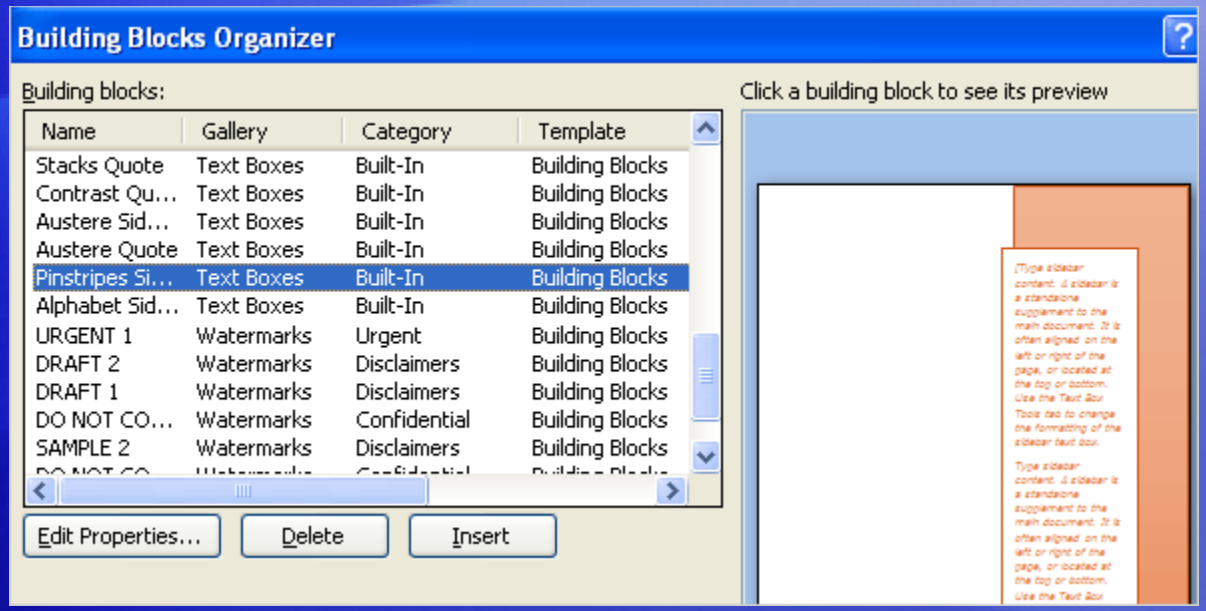
True.

You can reformat and save a building block.

Lesson 3

Find and organize document building blocks

Find and use document building blocks



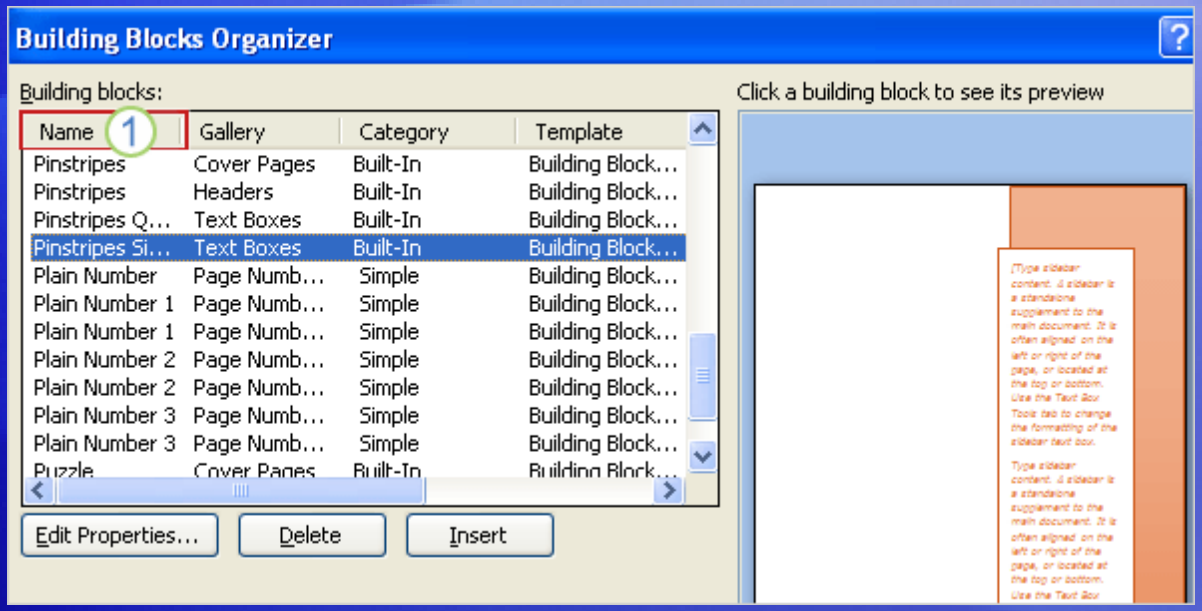
When you're ready to reuse a building block, you can browse the galleries for the building block you want.

Or you can find all of the available building blocks in Word in one place called the **Building Blocks Organizer**.

You open the **Building Blocks Organizer** by right-clicking any building block in a gallery and then clicking **Organize and Delete**.

Reuse text and other document parts:
Introducing building blocks

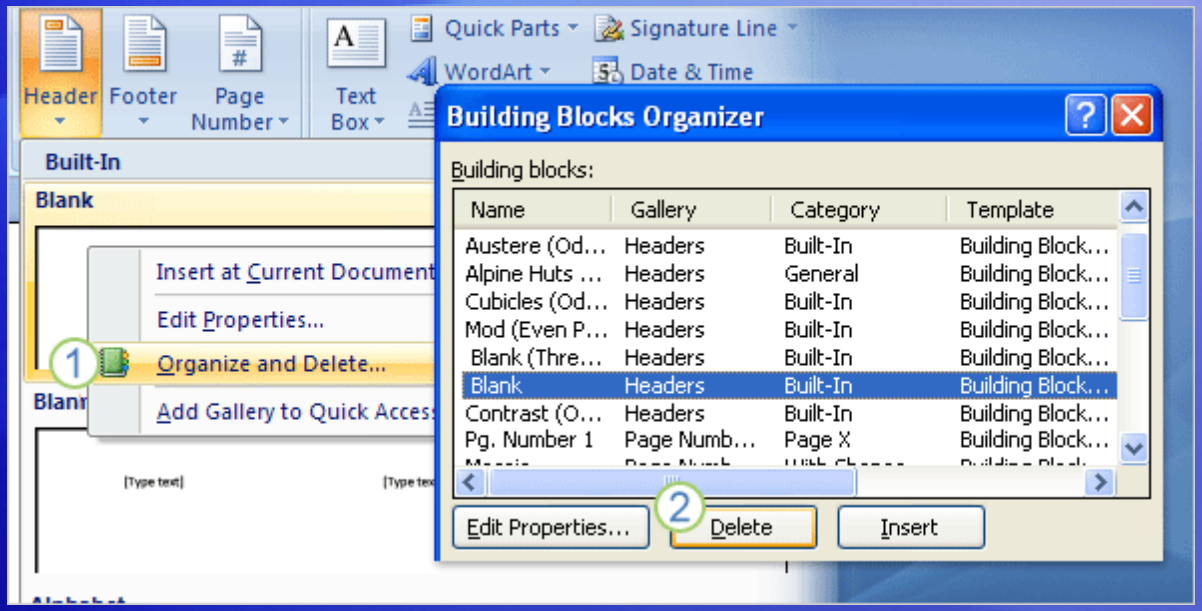
Sort all of the building blocks in Word



Sorting makes it easier to find the building block you want. You can sort easily in the **Building Blocks Organizer**.

1. If you know the name of the piece of text you want, you can find it quickly by clicking **Name** at the top of the column to see all of the building blocks listed in alphabetical order.

Delete document building blocks



You can delete a building block from a document, but you can also permanently delete building block designs from Word.

1. Right-click any building block, and then click **Organize and Delete**.
2. Click the **Delete** button in the **Building Blocks Organizer** to delete the building block from Word.

Reuse text and other document parts:
Introducing building blocks

Suggestions for practice

1. Find a building block.
2. Delete a building block from a gallery.

Online practice (requires Word 2007)

Test 3, question 1

You can get to building blocks through galleries on the Ribbon and by using the Building Blocks Organizer. (Pick one answer.)

1. True.
2. False.

Test 3, question 1: Answer

True.

You can find building blocks in galleries and in the **Building Blocks Organizer**, which is available by right-clicking any building block in a gallery and then clicking **Organize and Delete**.

Test 3, question 2

Which of the following can you do from the Building Blocks Organizer? (Pick one answer.)

1. Sort, insert, and delete building blocks.
2. Edit the properties for any building block in Word.
3. Make changes to the content controls in any building block.
4. Both the first and second options.

Test 3, question 2: Answer

Both the first and second options.

These represent the full functionality of the **Building Blocks Organizer**.

Test 3, question 3

How do you delete a building block from Word? (Pick one answer.)

1. You can’t delete built-in building blocks or building blocks you create.
2. Right-click the building block, and then click **Delete**.
3. From the **Building Blocks Organizer**, select the building block you want to delete, and then click the **Delete** button.

Test 3, question 3: Answer

From the **Building Blocks Organizer**, select the building block you want to delete, and then click the **Delete** button.

This is the easiest way to delete a building block from the Word building block collection.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Word 2007 Training

Edit text and revise your documents

Course contents

- Overview: Moving, selecting, and getting around
- Lesson: Make changes to your document

The lesson concludes with a practice session and a short set of questions to test your understanding of the material.

Overview: Moving, selecting, and getting around

Have you created a Word document and then wondered how to make changes to it?

In this course, you'll learn how to get from one place to another in a document so that you can make changes anywhere on the page.

Then you'll learn how to add and delete text and move it around.

Course goals

- Move the cursor around a document, using either the mouse or the keyboard, so that you can get to where you need to in order to make changes.
- Select text to make revisions.
- Move text by cutting and pasting.

Lesson

Make changes to your document

Make changes to your document

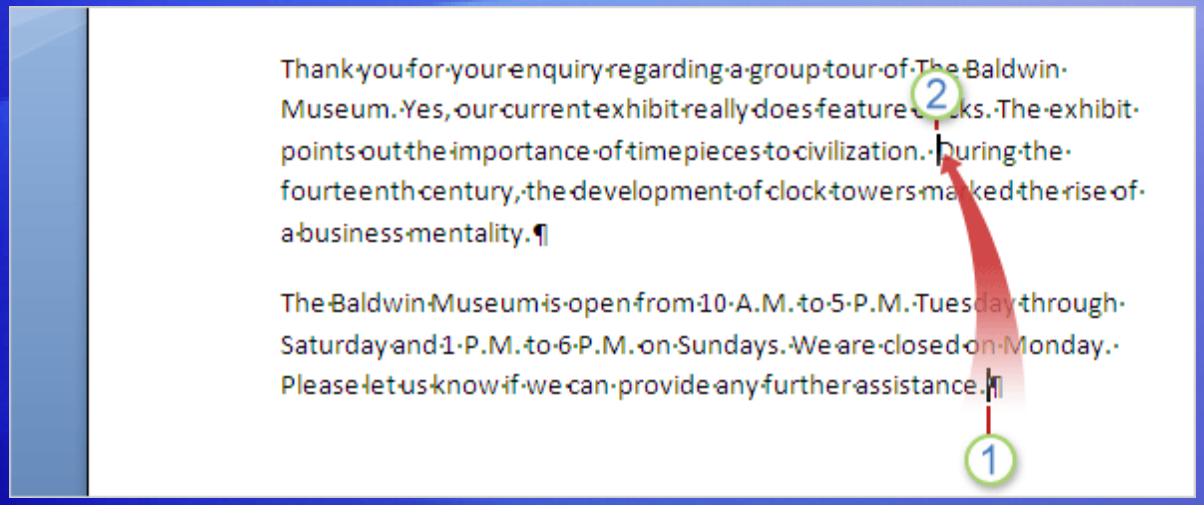
Documents get changed.

You may make changes as you type, or after you finish the document.

To work quickly and efficiently in the document, you need to know how to move around.

Once you get to the part of the document you want to edit, you'll need to type the new text you want to add, or select the existing text so that you can change or delete it.

Move around the document

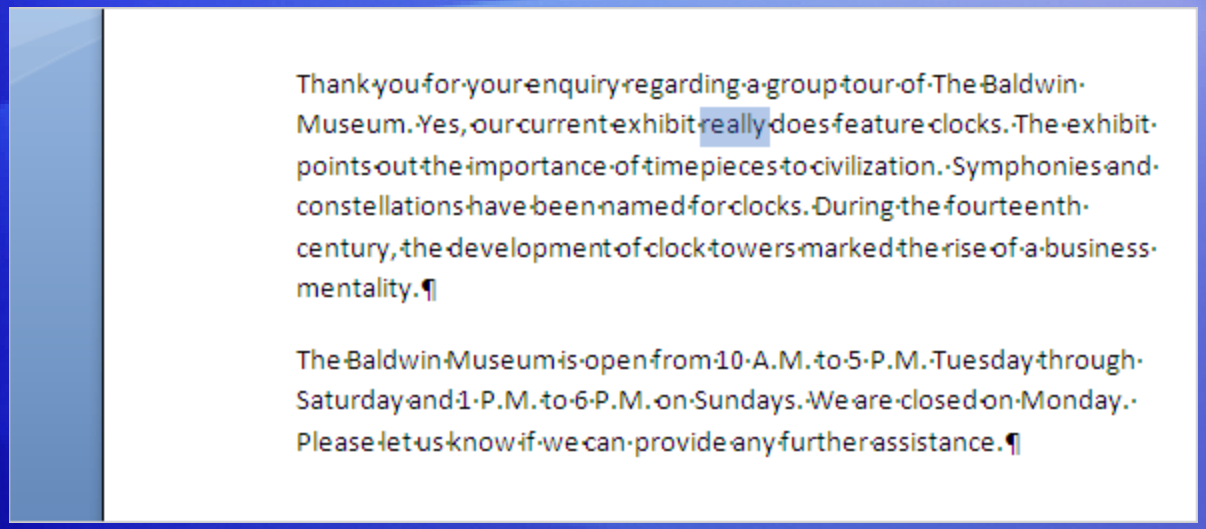


Imagine that you want to type a new sentence between "civilization" and "During": "Symphonies and constellations have been named for clocks."

To type where you want, first move the cursor:

1. The **cursor** is the vertical line at the end of the second paragraph, in front of the paragraph mark.
2. You can move the cursor to the first paragraph by moving the pointer and then clicking, or by using the keyboard.

Select and delete text



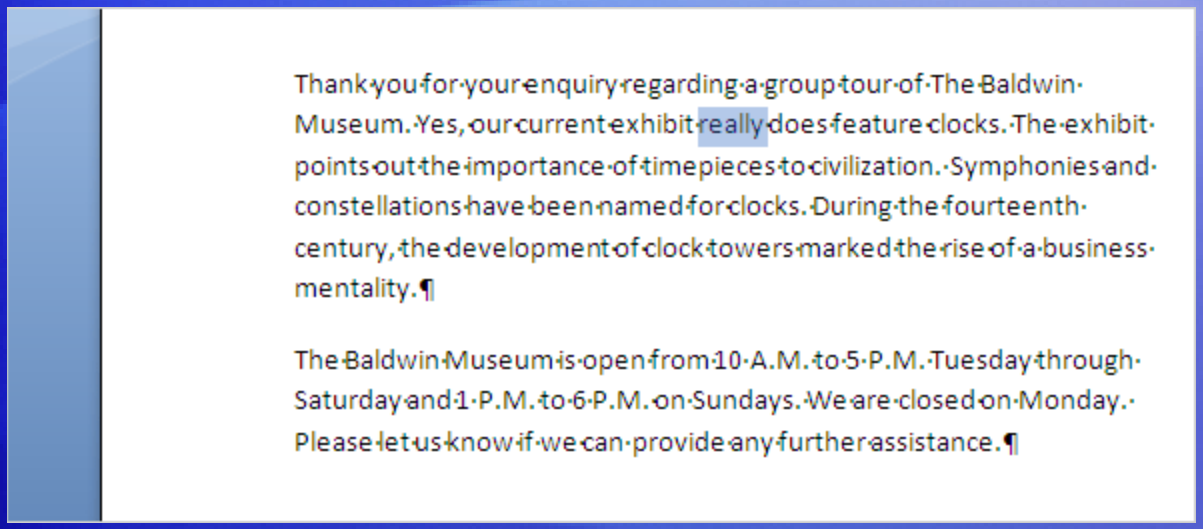
After adding the sentence to the first paragraph, you read the paragraph.

You think the second sentence will read better if you delete the word “really.”

To delete text, first **select** what you want to delete. You can do this by using the mouse or the keyboard.

Once “really” is selected, delete the word by pressing DELETE on your keyboard.

Select and delete text

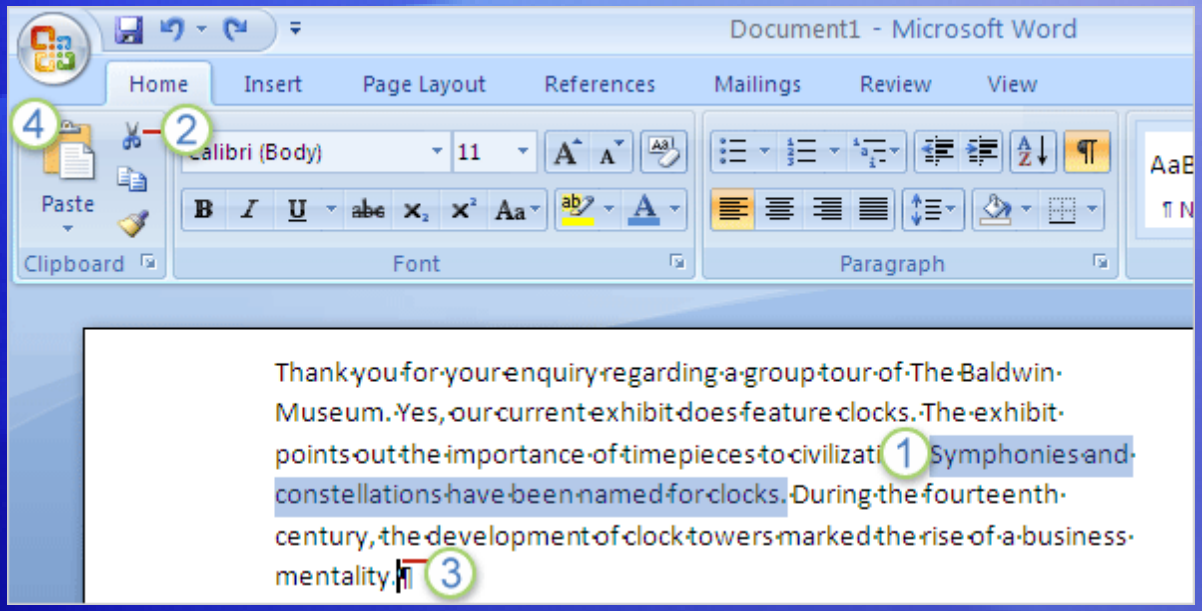


In the picture, you can see formatting marks: a dot between each word and sentence, and a paragraph mark at the end of each paragraph.

These marks help you when you revise text.

For example, you don't want to delete the space between words or sentences. One dot between each word or sentence lets you know that the spacing is okay.

Move text

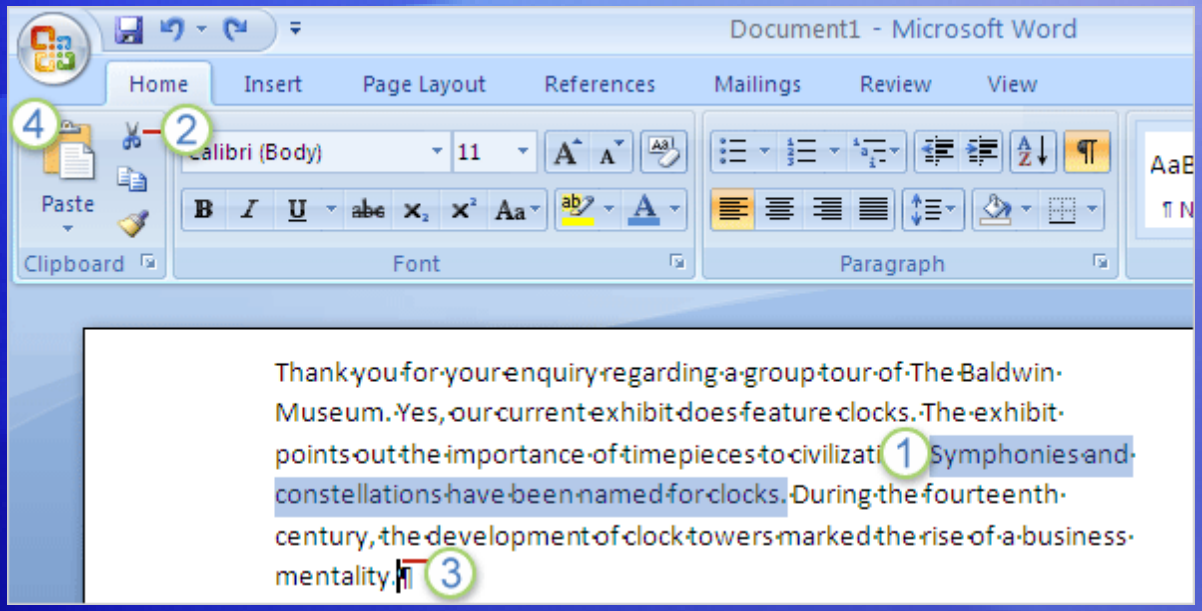


Still looking at the first paragraph, you decide that the sentence you added should be the last sentence in the paragraph.

You don't have to delete the sentence and then type it again.

Instead, you can move the sentence by performing a **cut-and-paste** operation: **Cut** the sentence to delete it from its current location, and then **paste** it into the new location.

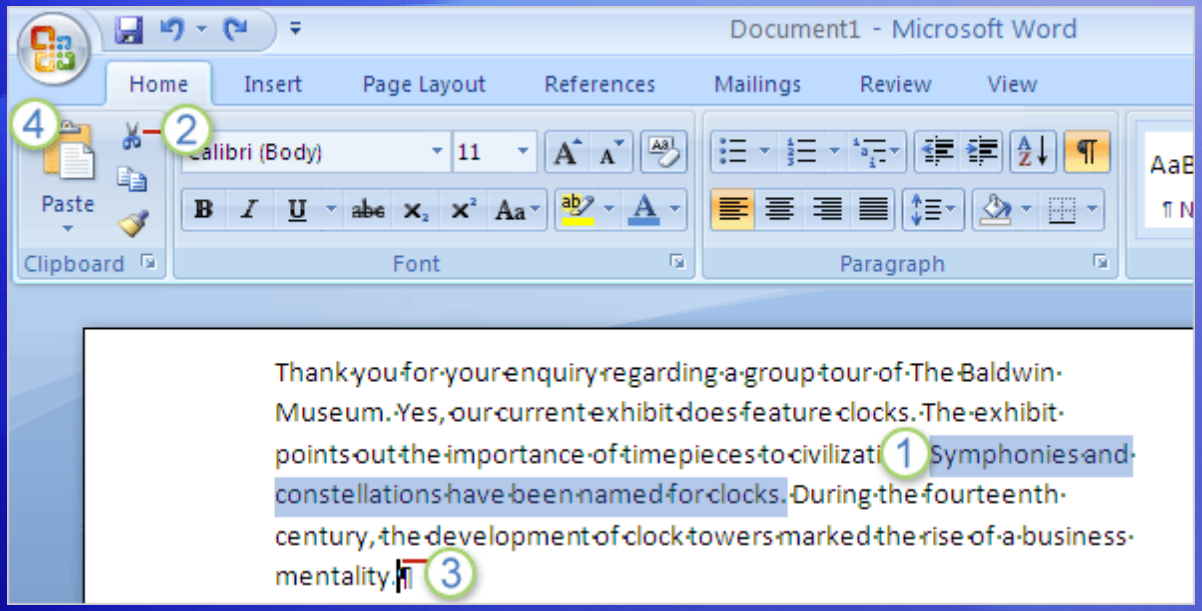
Move text



The picture illustrates what to do.

1. First select the entire sentence.
2. Then, on the Ribbon at the top of the window, on the **Home** tab, in the **Clipboard** group, click **Cut** .

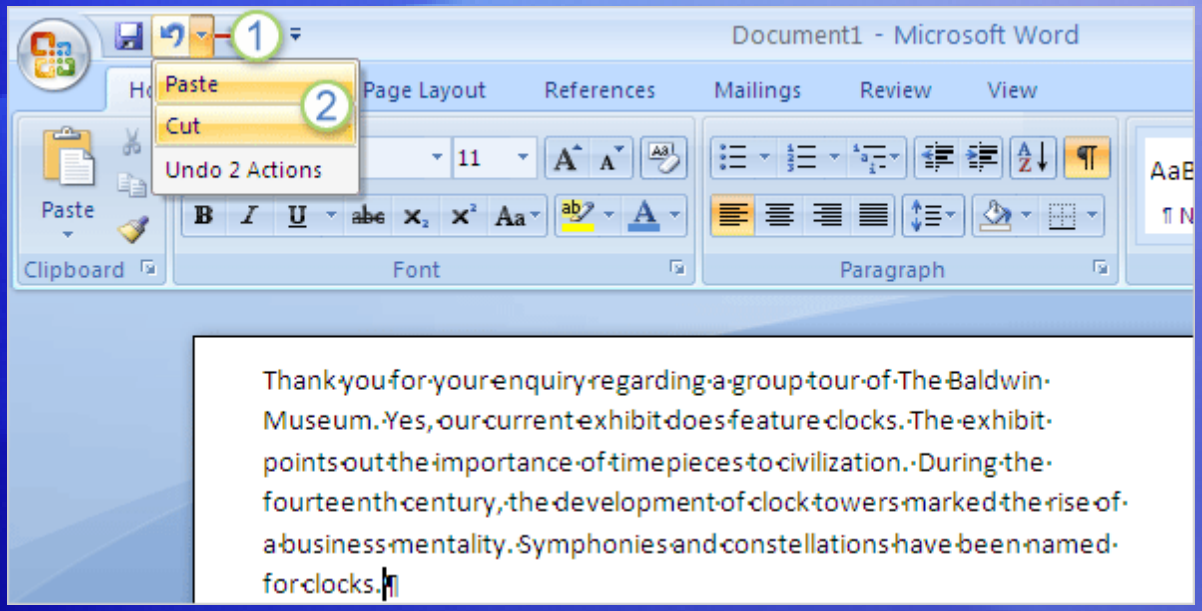
Move text



The picture illustrates what to do.

3. Move the pointer to the end of the paragraph, where you want the sentence to appear (after the dot formatting mark).
4. On the **Home** tab, in the **Clipboard** group, click **Paste**. The sentence is pasted in place.

Undo changes



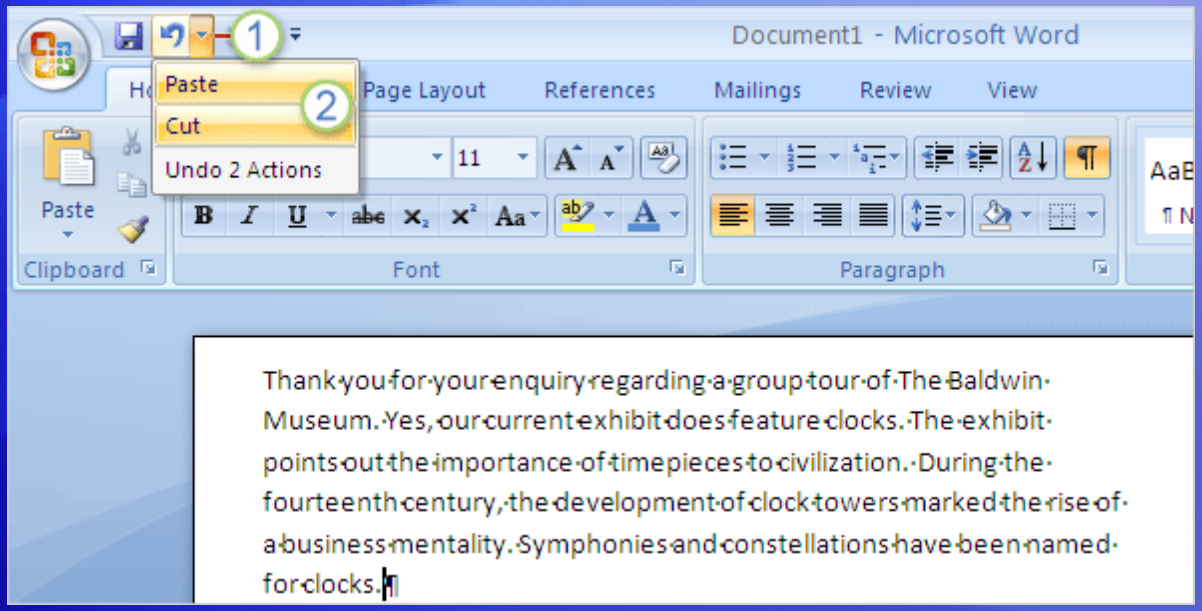
You've moved the sentence, but now you're not happy with the change.

Fortunately, you don't have to go through the cut-and-paste process again to move the sentence back.

Instead, use **Undo**:

1. On the Quick Access Toolbar at the very top of the window, click the arrow on the **Undo** button .

Undo changes



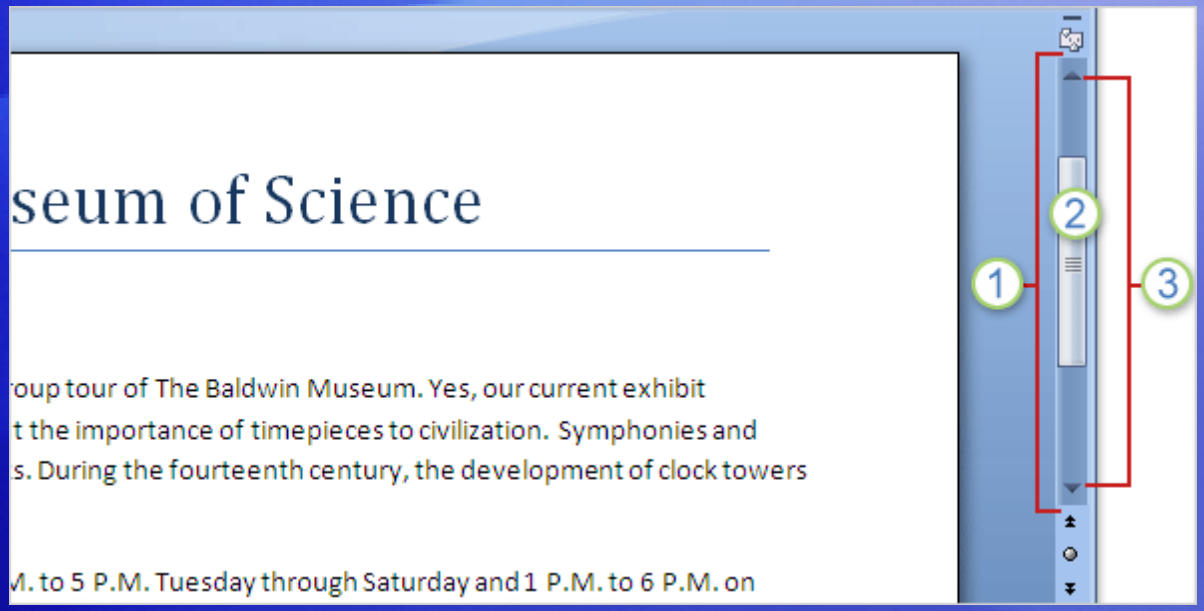
You've moved the sentence, but now you're not happy with the change.

Fortunately, you don't have to go through the cut-and-paste process again to move the sentence back.

Instead, use **Undo**:

2. Move the cursor over the last two actions, **Paste** and **Cut**, and then click. This will undo the last two actions you took and place the sentence back in its original location.

Use the scroll bar to review a document

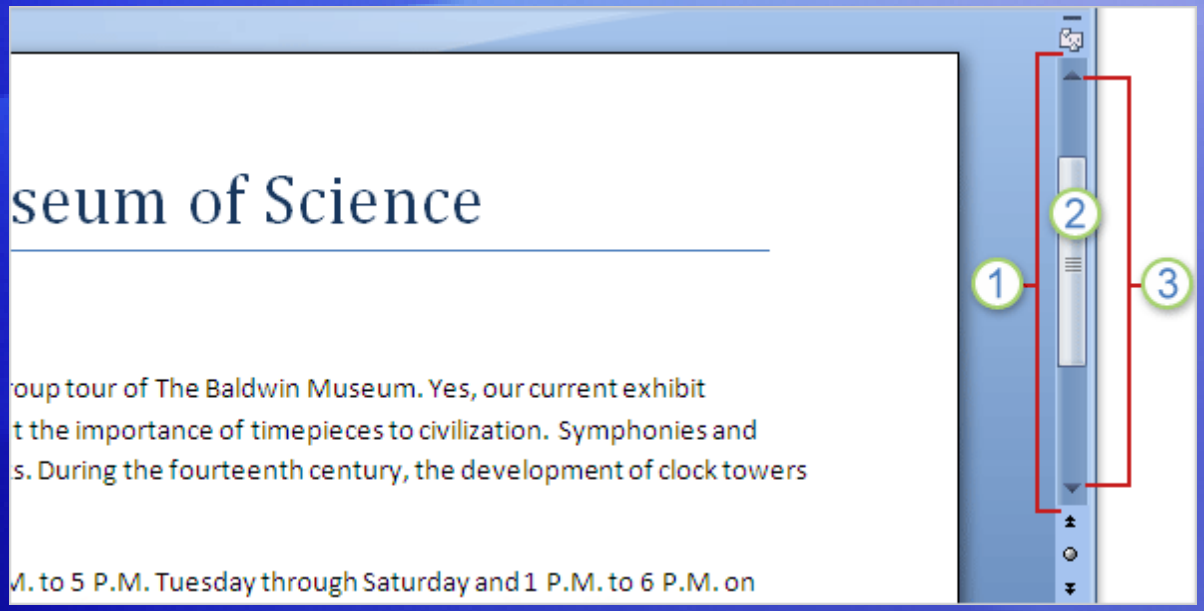


Perhaps you have a long document that you'd like to read all the way through without having to continuously press the arrow keys to move the cursor.

You can do that by **scrolling**, using the scroll bar.

1. The scroll bar is on the right side of the window,
2. To use it, click the scroll box, and then drag it up or down to move through a document without moving the cursor.

Use the scroll bar to review a document

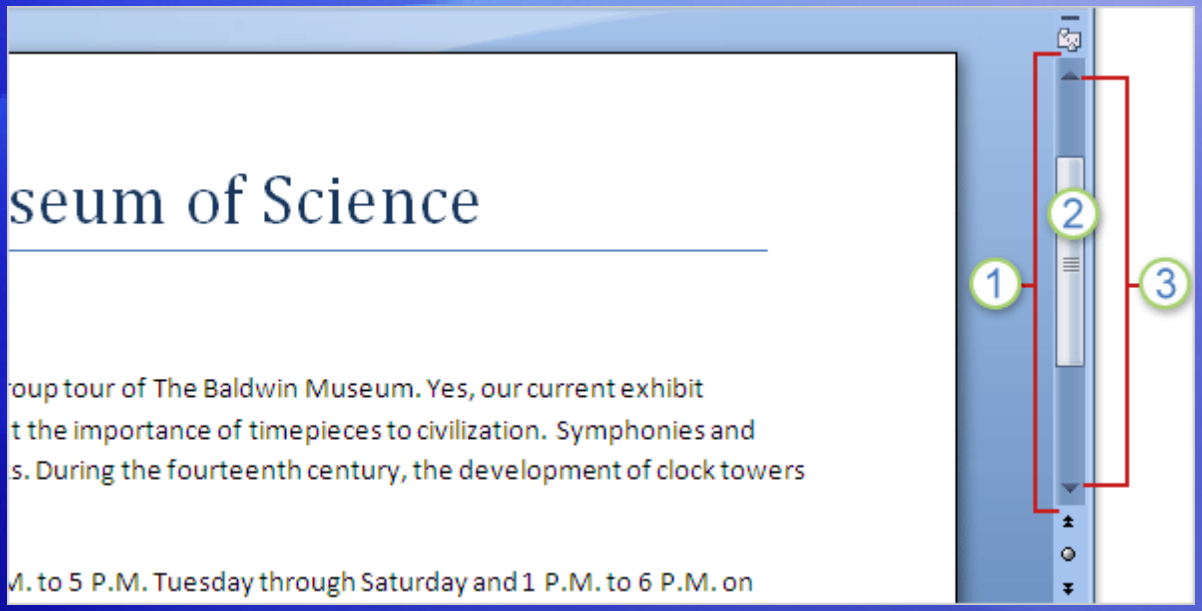


Perhaps you have a long document that you'd like to read all the way through without having to continuously press the arrow keys to move the cursor.

You can do that by **scrolling**, using the scroll bar.

3. Or click the single scroll arrows at either end of the scroll bar to move up or down.

Use the scroll bar to review a document



Perhaps you have a long document that you'd like to read all the way through without having to continuously press the arrow keys to move the cursor.

To quickly scroll by using your keyboard, press PAGE UP Page Up to go up one screen or PAGE DOWN Page Down to go down one screen.

Suggestions for practice

1. Show formatting marks.
2. Move around in the document.
3. Select text.
4. Move text.

Online practice (requires Word 2007)

Test question 1

After you've deleted text, you can still get it back. (Pick one answer.)

1. True.
2. False.

Test question 1: Answer

True.

You can get it back by clicking Undo on the Quick Access Toolbar or by pressing CTRL+Z, as long as you have not yet closed the document or performed any other action that you want to keep.

Test question 2

What's the first thing you do to delete text? (Pick one answer.)

1. Press DELETE.
2. Press BACKSPACE.
3. Select the text you want to delete.

Test question 2: Answer

Select the text you want to delete.

Select text by using the mouse pointer or the keyboard, and then press DELETE or BACKSPACE.

Test question 3

To move text from one location to another, copy the text. (Pick one answer.)

1. True.
2. False.

Test question 3: Answer

False.

To move the text from one place, select and then cut the text. Paste it in the new location.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Word 2007 Training

Save time with templates

Course contents

- Overview: Get a jump-start on your documents
- Lesson 1: Tap into template power
- Lesson 2: Create your own templates

Each lesson includes a list of suggested tasks and a set of test questions.

Overview: Get a jump-start on your documents

Before creating your Word 2007 document from scratch, think about starting with one of the content-rich templates that already exist.

Word provides a wealth of templates, from letters and resumés to calendars and brochures.

You can even go a step further and turn an existing document into a template that exactly suits your needs. This course shows you how.

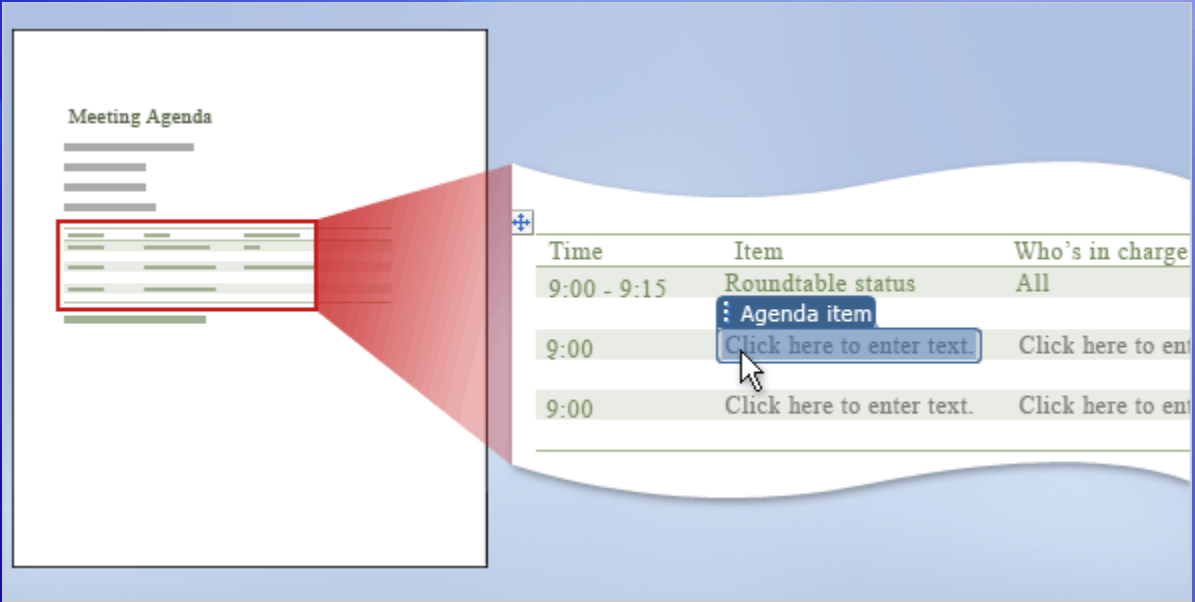
Course goals

- Get a huge time boost by using templates provided by Word and Microsoft Office Online.
- Create your own template, customized to your business needs.

Lesson 1

Tap into template power

Tap into template power



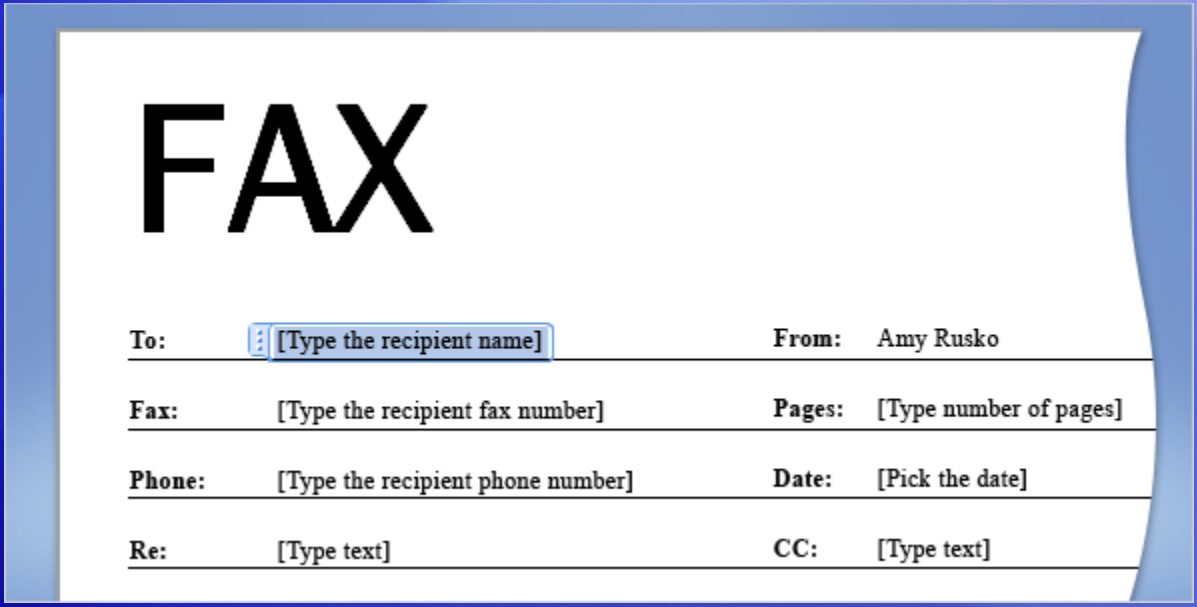
While you may have worked in Word, you might not be so familiar with Word templates.

What's a template, and what's its benefit to you?

A template is a type of document that already contains content. Using a template can help ensure impressive document design and save you time.

This lesson offers some examples by providing a firsthand glimpse of the many templates that already exist within Word itself and on Microsoft Office Online.

Use an already-made fax cover sheet



FAX

To:	[Type the recipient name]	**From:**	Amy Rusko
Fax:	[Type the recipient fax number]	**Pages:**	[Type number of pages]
Phone:	[Type the recipient phone number]	**Date:**	[Pick the date]
Re:	[Type text]	**CC:**	[Type text]

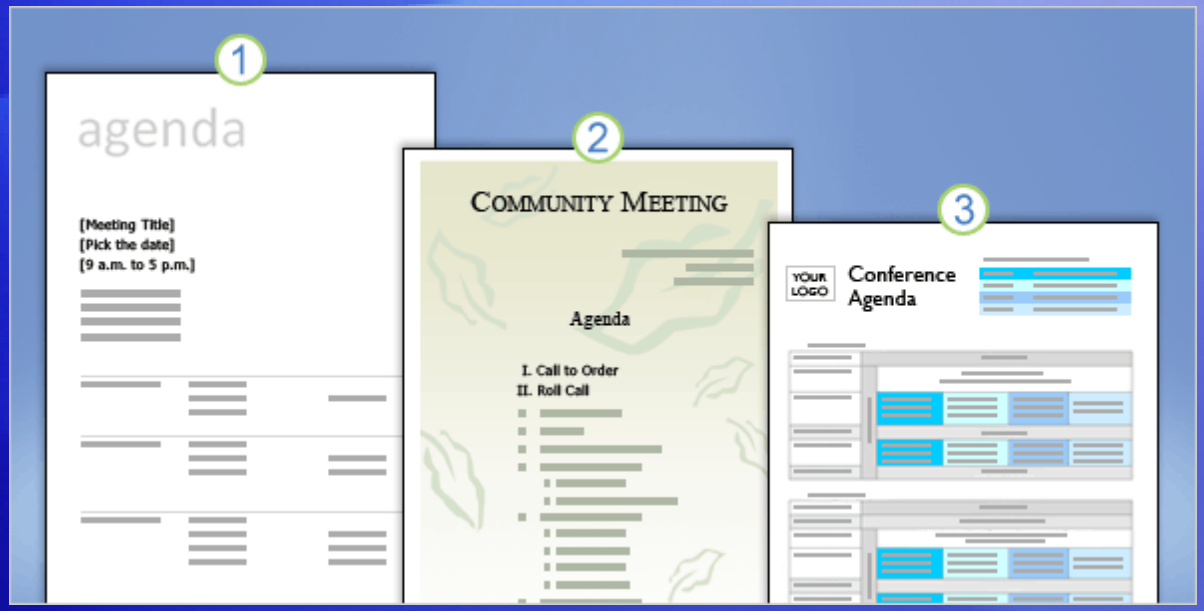
Let's say that on your job you frequently have the task of sending a fax to another company.

You always need a cover page for the fax.

You could spend the time and create this page in Word every time. Or you could use a fax cover sheet that Word already contains.

You will find this, and other templates, among Word's **installed templates**.

Use an already-prepared agenda



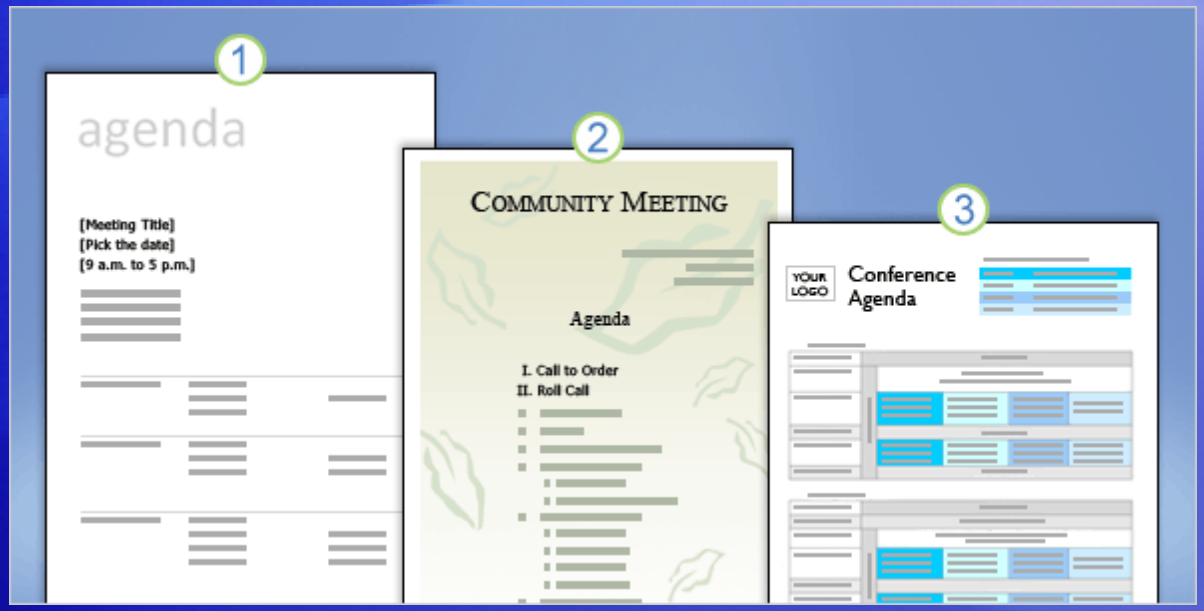
Here's another example of how Word templates could help you.

Imagine that you're in charge of creating the agenda for your weekly team meeting.

Before you start from a blank page, look at the templates available on Microsoft Office Online—you can link directly to these from within Word.

On Office Online, you'll find a vast and varied collection of templates organized into categories. Within each, you have several choices of template type.

Use an already-prepared agenda

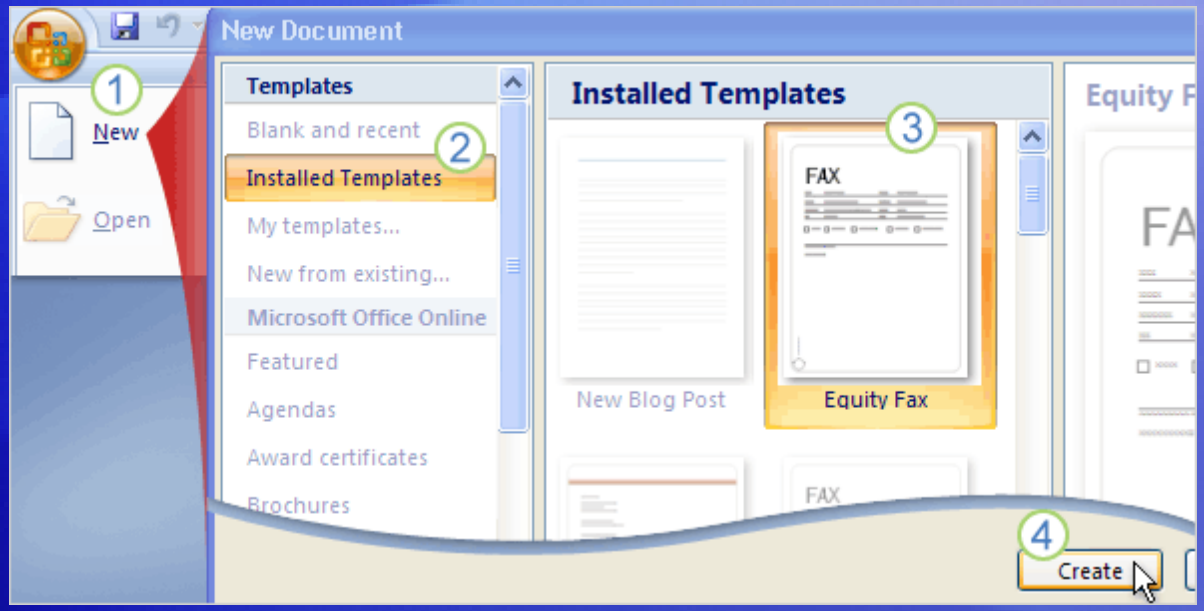


The picture shows three of the agenda templates.

Simply open the agenda you want, and fill in your information.

1. Simple and straightforward, with formatted text areas that help you fill out the agenda.
2. A completely finished, artful look; you can type over example text.
3. Page layout and formatting amped up a notch, with color and tables creating areas for a complex agenda design.

Find installed templates

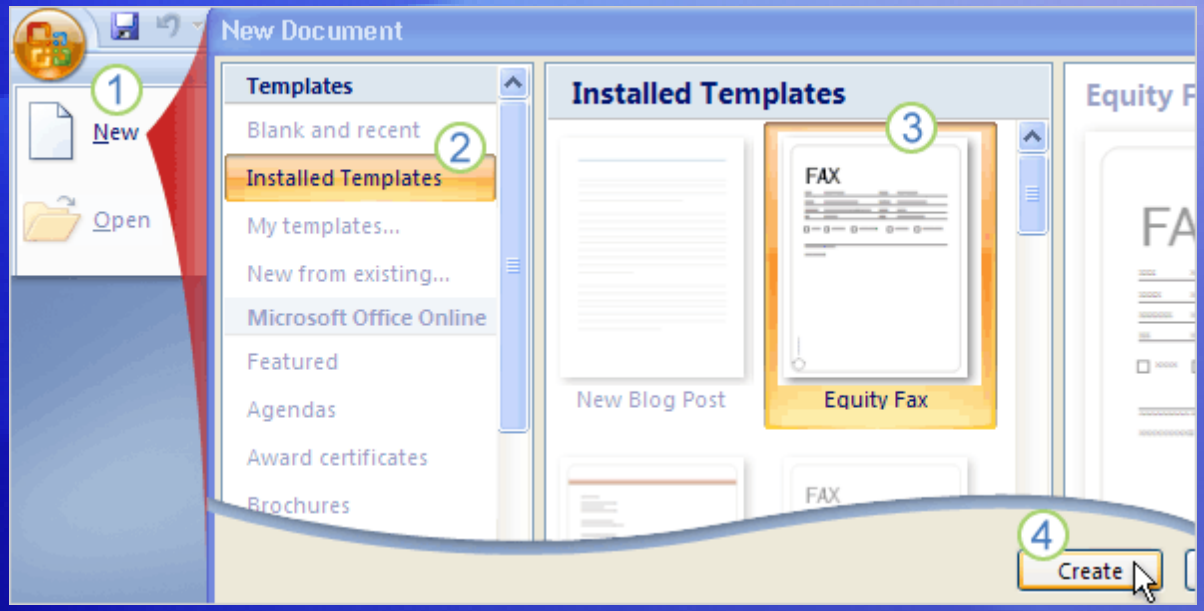


Word includes over 30 pre-installed templates for document types such as letters, faxes, reports, resumés, and blog posts.

Here's how you find them.

1. Click the **Microsoft Office Button**, and click **New**.
2. In the **New Document** window, click **Installed Templates**.

Find installed templates



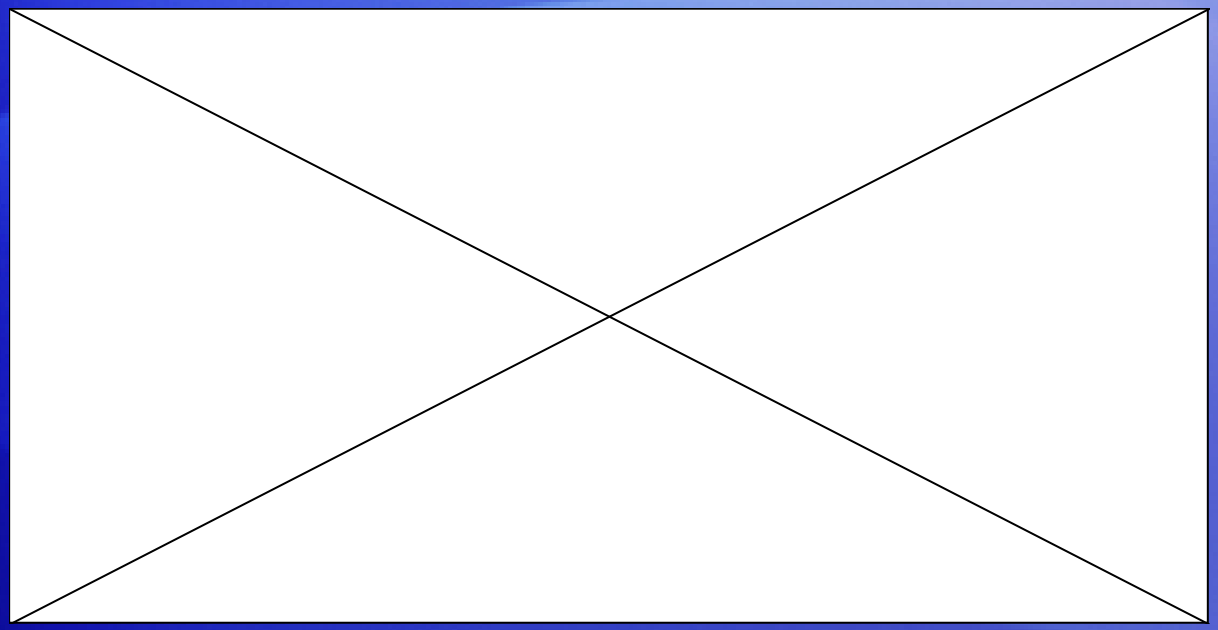
Word includes over 30 pre-installed templates for document types such as letters, faxes, reports, resumés, and blog posts.

Here's how you find them.

3. Click one of the thumbnails, and see its preview on the right.
4. When you've found the template you want, click **Create**.

A new document opens that's based on the template, and you make the changes to it that you want.

Find Office Online templates



The steps for opening templates from the Office Online Web site are very similar.

Animation: Right-click, and click **Play**.

As the animation shows, you open the **New Document** window, but in this case you look in the area under **Microsoft Office Online**.

Click a category to see thumbnails. To download a template, select the thumbnail and click **Download**.

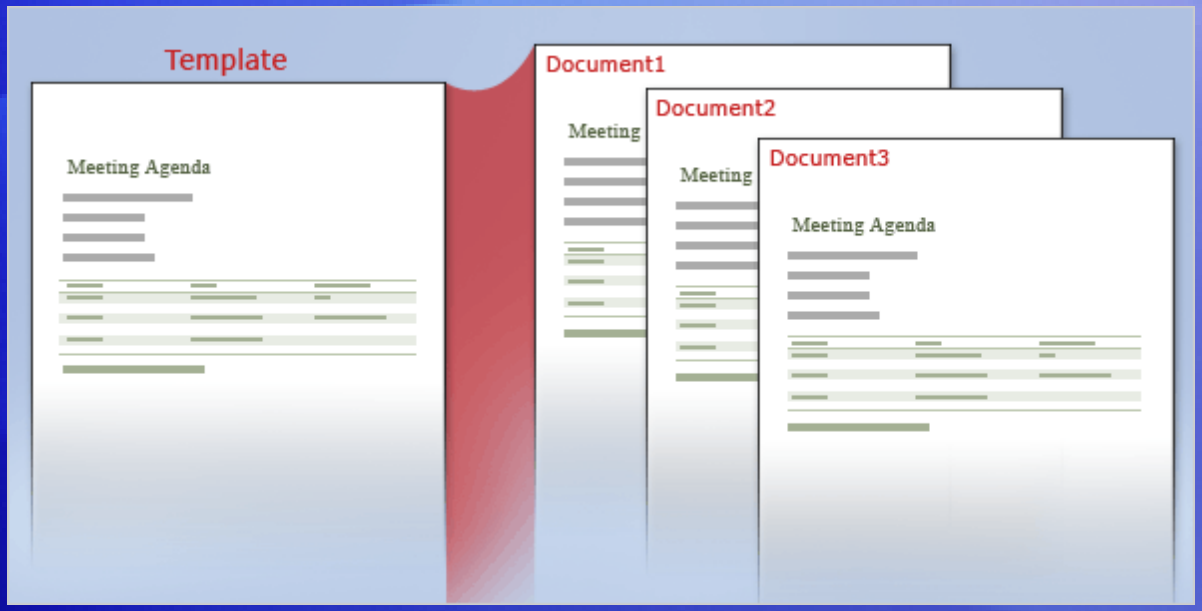
Find Office Online templates

The steps for opening templates from the Office Online Web site are very similar.

You open the **New Document** window, but in this case you look in the area under **Microsoft Office Online**.

Click a category to see thumbnails. To download a template, select the thumbnail and click **Download**. A template opens as a fresh new document on your computer for you to add to as you want and then save.

A template's special power



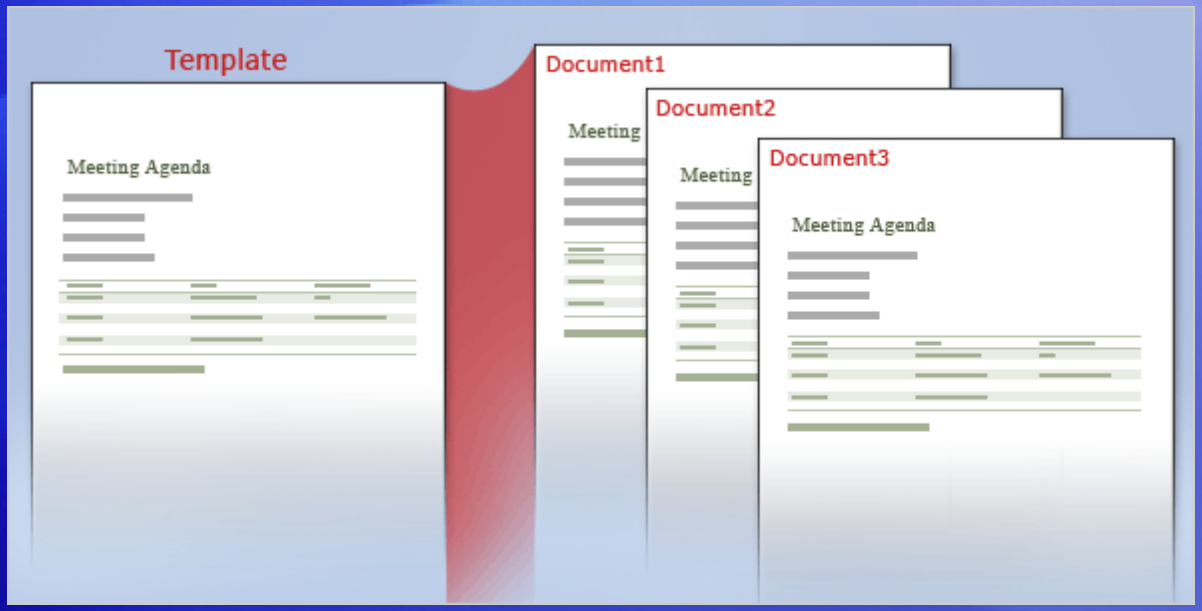
When you open a template, a new document opens that's based on the template you selected.

So you're opening a copy of the template, not the template itself.

And that's a template's special power: *It opens up a copy of itself*, imparting everything it contains to a new, fresh document.

You work in that new document, benefiting from everything that was built into the template, plus adding or deleting what you need to.

A template's special power

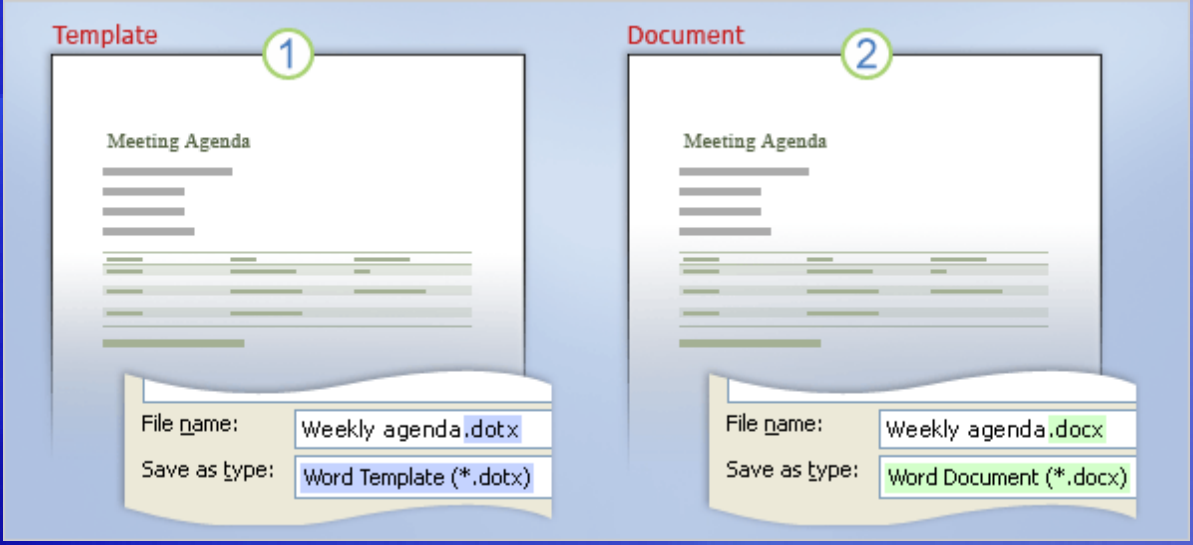


Because the new document is not the template itself, your changes are saved to the document, and the template is left in its original state.

Therefore, one template can be the basis for an unlimited number of documents.

Every document is based on a template of some kind; the template just lives in the background.

Templates, documents: two distinct file types

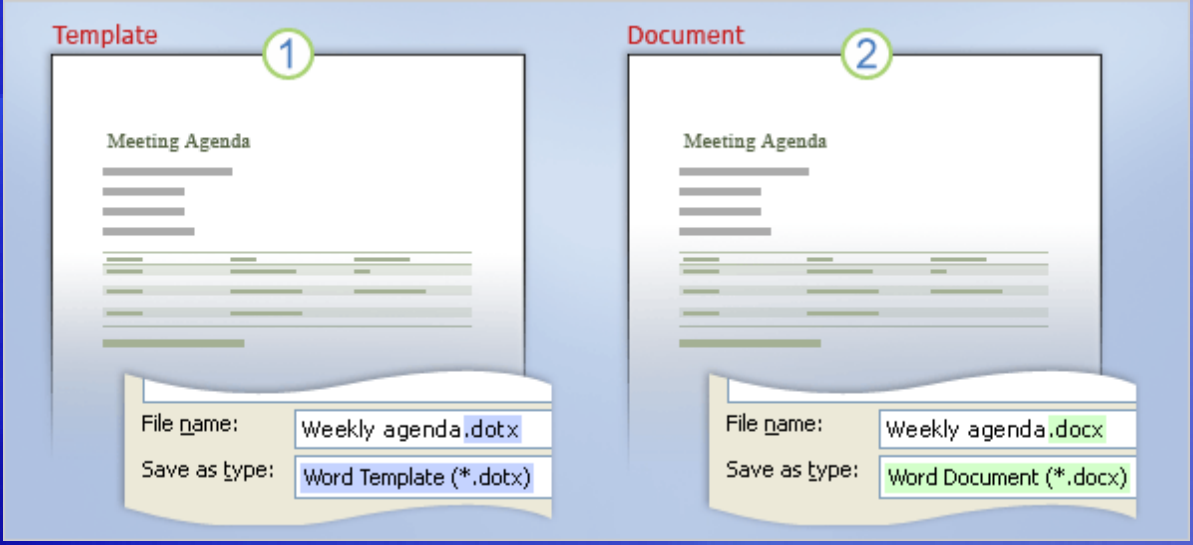


Just as templates have slightly different behavior from documents, so are they also a distinct file type.

If you've saved many documents in Word, you're probably familiar with the choices of file type available in which to save files.

The standard format defaults to a document type.

Templates, documents: two distinct file types



A template is a different type, and templates and documents behave differently.

1. As shown in example 1: A template is saved as a **Word Template** type. It has .dotx at the end of its file name. (In prior Word versions, this extension was .dot.)
2. As shown in example 2: A document is saved as a **Word Document** type. It has .docx at the end of its file name. (In prior Word versions, this extension was .doc.)

Suggestions for practice

1. Use a template for a business letter.
2. Add your own text to the letter.
3. Use a template for a flyer.

Online practice (requires Word 2007)

Test 1, question 1

What's a significant way in which a template differs from a document? (Pick one answer.)

1. It contains styles.
2. It contains a Word theme.
3. It opens up a copy of itself as a new document.

Test 1, question 1: Answer

It opens up a copy of itself as a new document.

The template is meant to be a starting point for a document that you can go on to customize as you need to. A template has a universal quality that's widely adaptable, so you can use it repeatedly for a certain type of document.

Test 1, question 2

Within Word, what's the first step to finding existing Word templates? (Pick one answer.)

1. Click the **Microsoft Office Button**, and then click **New**.
2. Click the **Microsoft Office Button**, and the click **Word Options**.

Test 1, question 2: Answer

Click the **Microsoft Office Button**, and then click **New**.

Links for installed templates and online templates are contained in the **New Document** window that opens when you click **New**.

Test 1, question 3

A template is different from a document in the way that it behaves and also as a file type. (Pick one answer.)

1. True.
2. False.

Test 1, question 3: Answer

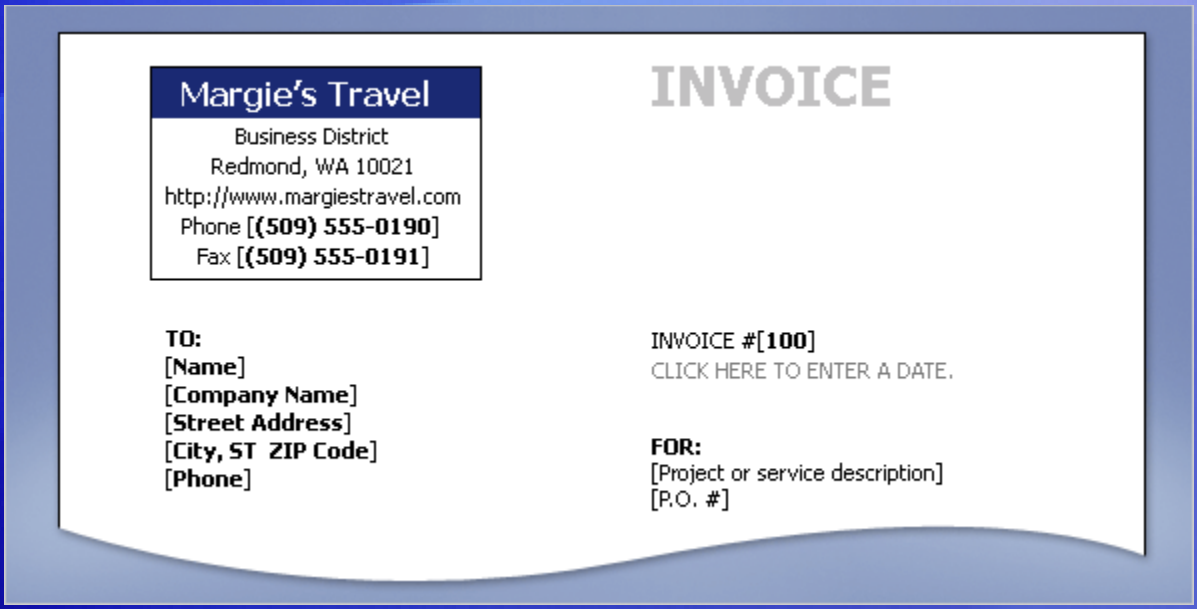
True.

A template differs from a document in that it opens up a copy of itself in the form of a fresh, new document. Also, it is saved as a file type called Word Template, which has the .dotx extension at the end of the file name.

Lesson 2

Create your own templates

Create your own templates

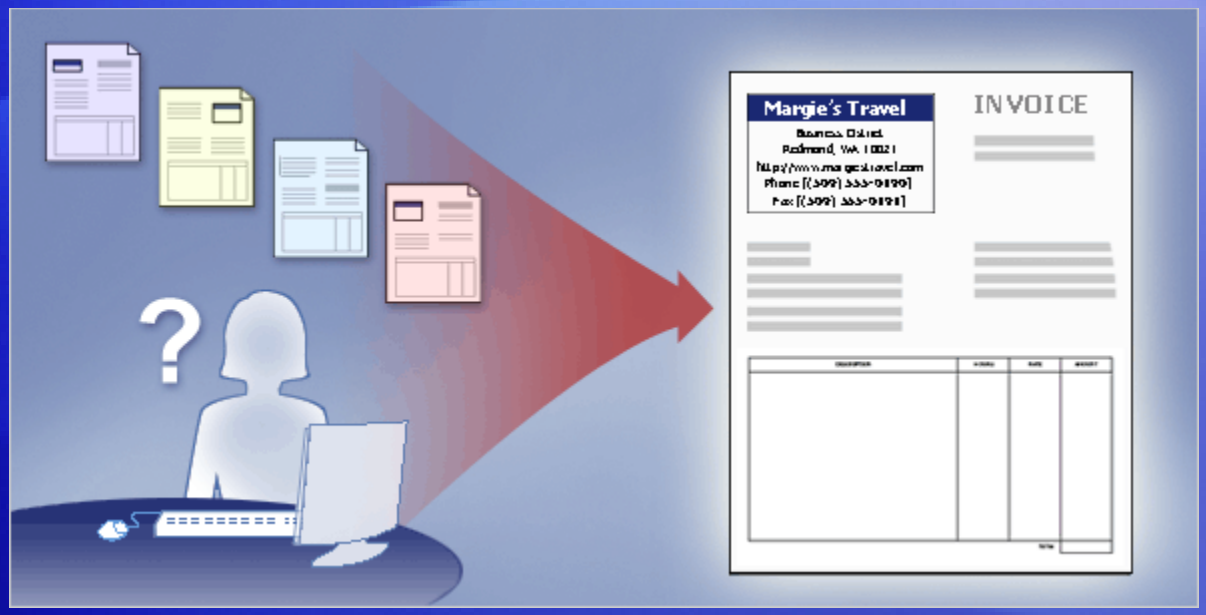


Say you often use a certain invoice whose basic content stays the same except for certain details that change each time.

In effect, you're using your original document as a template, although you may never have turned it into one.

Why not do so? You'll have one clear master to work from, and you won't have to undo outdated content when you're preparing a current invoice.

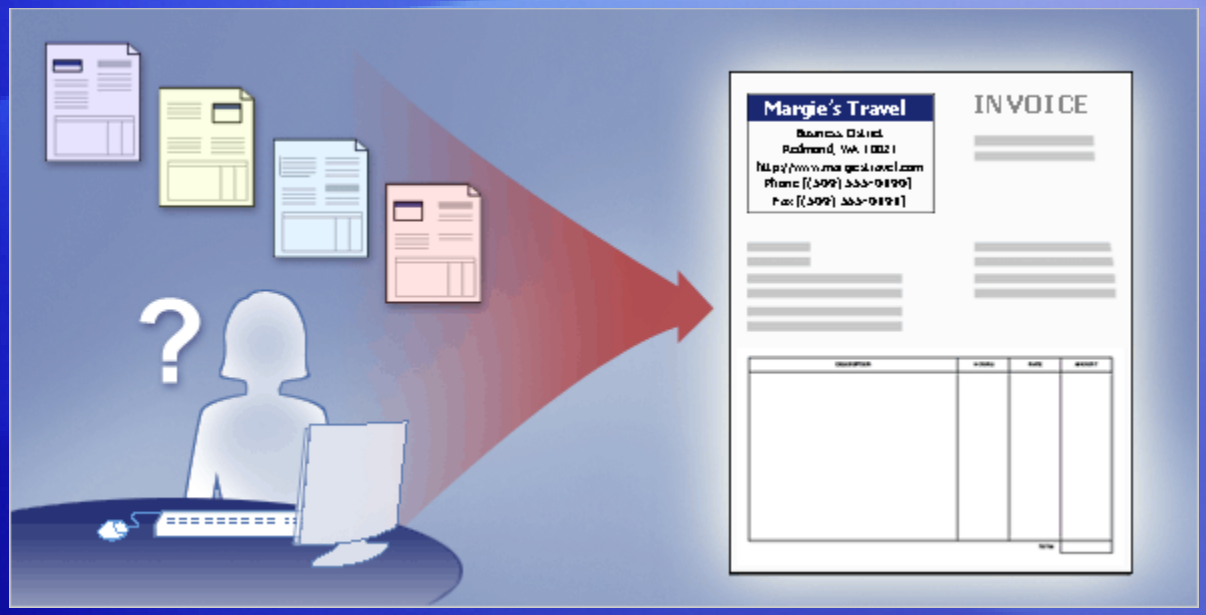
Advantages of creating a template



Sticking with the example of an invoice document, here are some things you'd gain by turning the document into a template.

- You wouldn't have to search through various document versions; changes would all be stored in the template.
- Since a template opens up a copy of itself, you wouldn't have to worry about accidentally saving over one of your previous invoices.

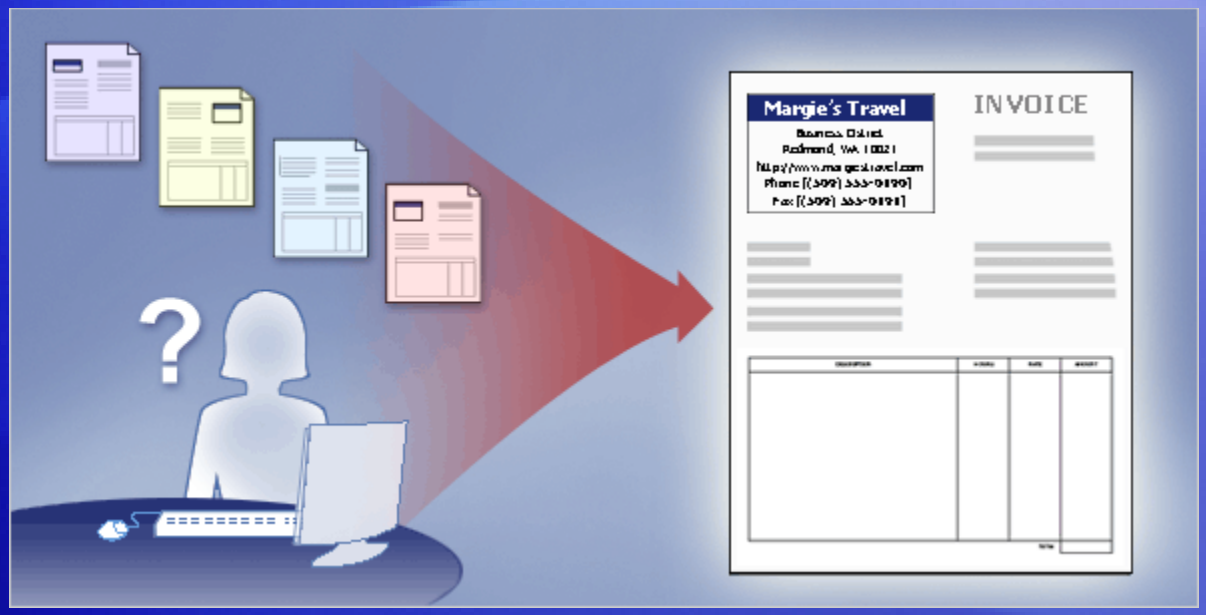
Advantages of creating a template



Sticking with the example of an invoice document, here are some things you'd gain by turning the document into a template.

- You could alter the template's content so that it contained only that information you wanted for every single invoice. This way, you would not always have to delete outdated information, and that would save you time and bother.

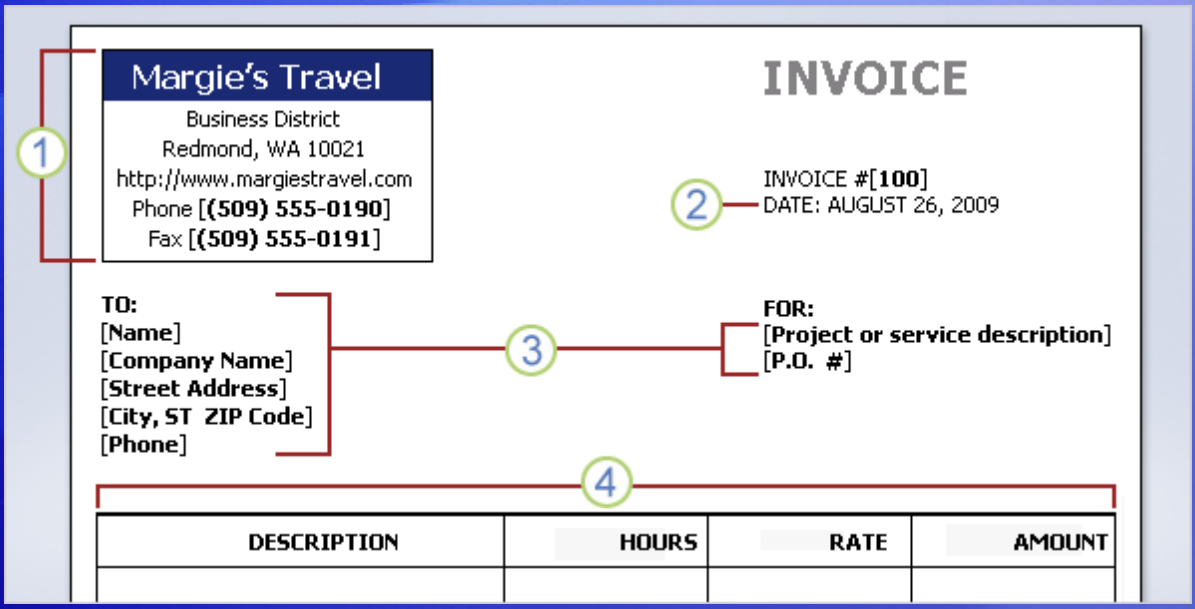
Advantages of creating a template



Sticking with the example of an invoice document, here are some things you'd gain by turning the document into a template.

- By taking out the obsolete content, you'd reduce the chance of saving and accidentally sending out an invoice with unwanted information.
- The template would always be in the same location in Word, with all your other templates.

Prepare the content for the template

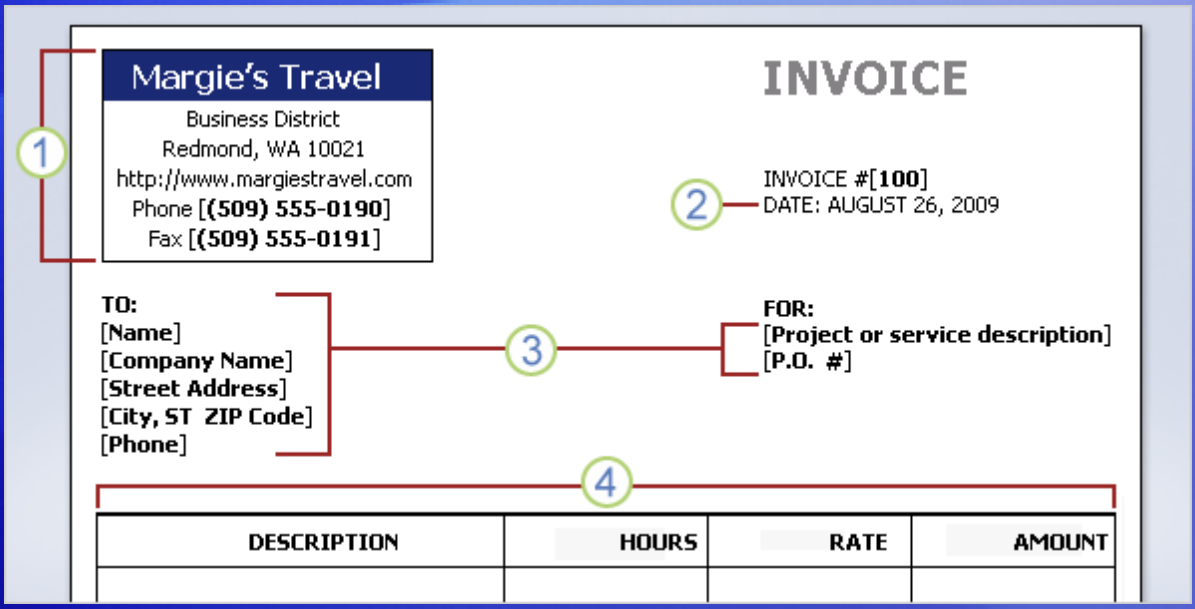


Part of the process of creating a template is leaving or creating just the information in it that you want.

This is the content that you'd want each new document that was based on the template to start with.

Much of what you put in the template depends on your own preferences and the particulars of the content.

Prepare the content for the template

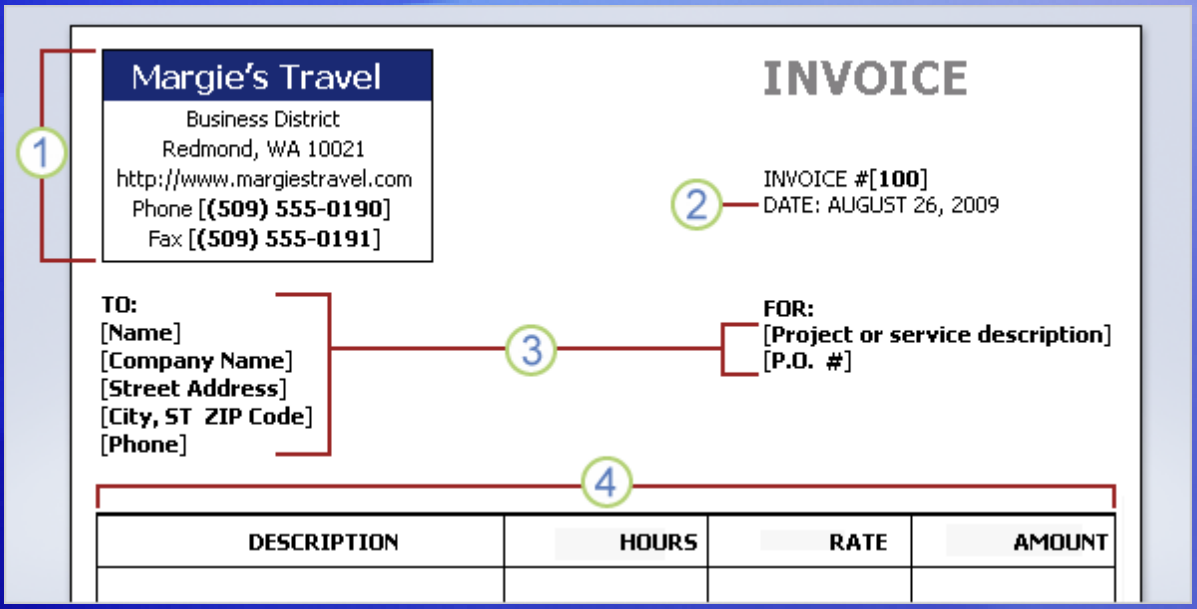


First, open the document you want to use to create the template (in this case, the invoice document), or open a blank document.

Here are typical things you might do afterward:

1. Leave in the content that's bound to stay the same for a while.
2. Insert a **Date & Time** command for the invoice's date area. This will automatically put the current date into a new document.

Prepare the content for the template



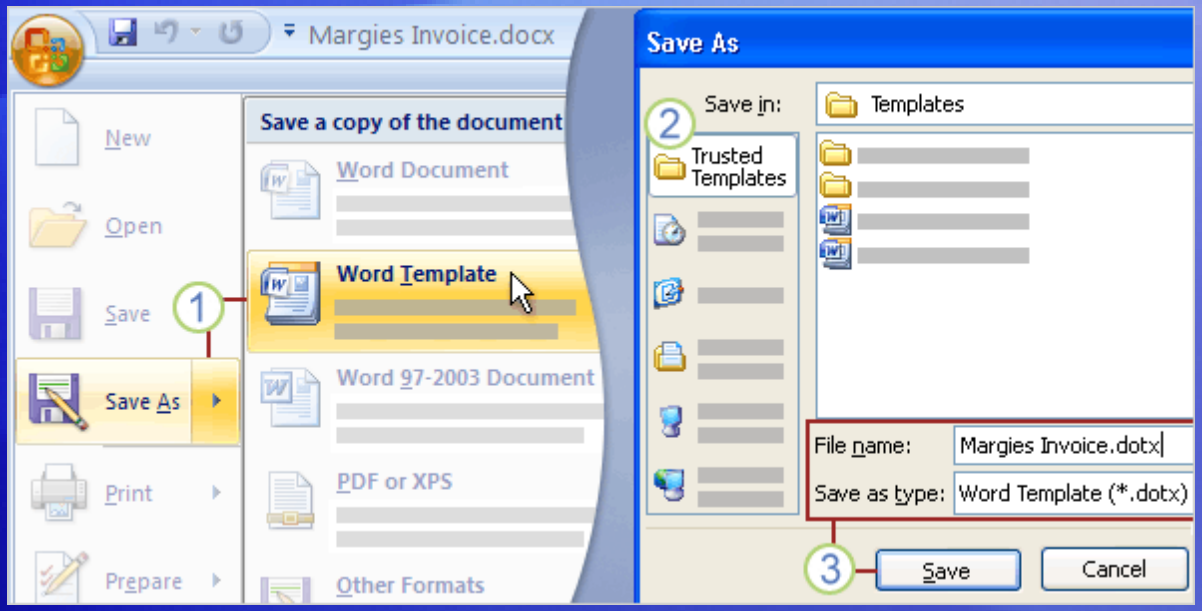
First, open the document you want to use to create the template (in this case, the invoice document), or open a blank document.

Here are typical things you might do afterward:

3. Leave text placeholder areas for information that will change per invoice: company name and address the invoice goes to.

4. Leave empty the areas that will change for every invoice: work done, number of hours, and total cost.

Save the file as a template

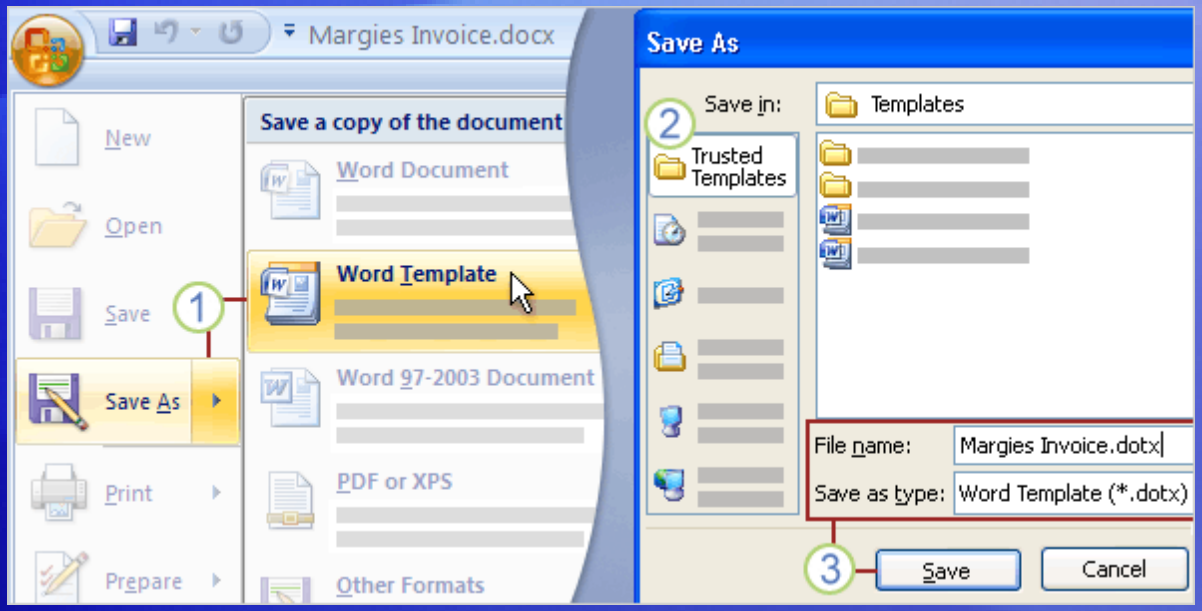


Since a template is its own type of file, to save a document as a template you'll select the file type called **Word Template**.

Here are the steps.

1. Click the **Microsoft Office Button**, point to **Save As**, and click **Word Template**.
2. In the **Save As** dialog box, click **Trusted Templates** as the place in which to save the template.
3. Name the template, and click **Save**.

Save the file as a template



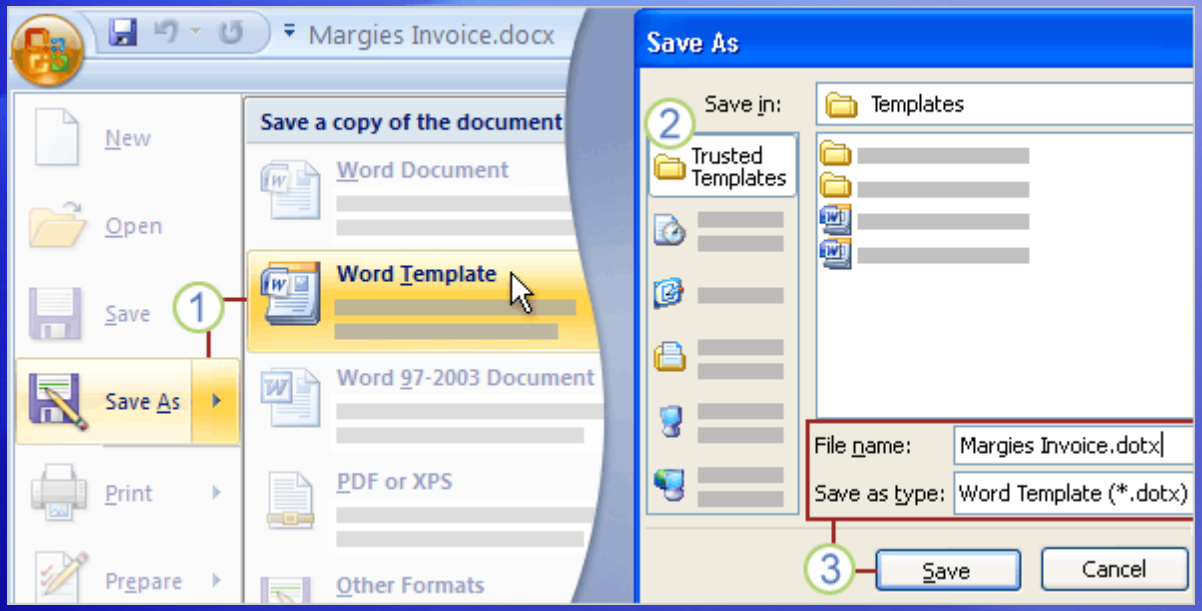
Putting the template in Trusted Templates is important.

This tells Word that it's safe to open even if the template should contain macros or other code.

Because macros can contain malicious code, Word is on the lookout against opening documents with macros.

If your computer security settings are at the recommended level, Word will open any template file, but it will disable any macros it contains.

Save the file as a template

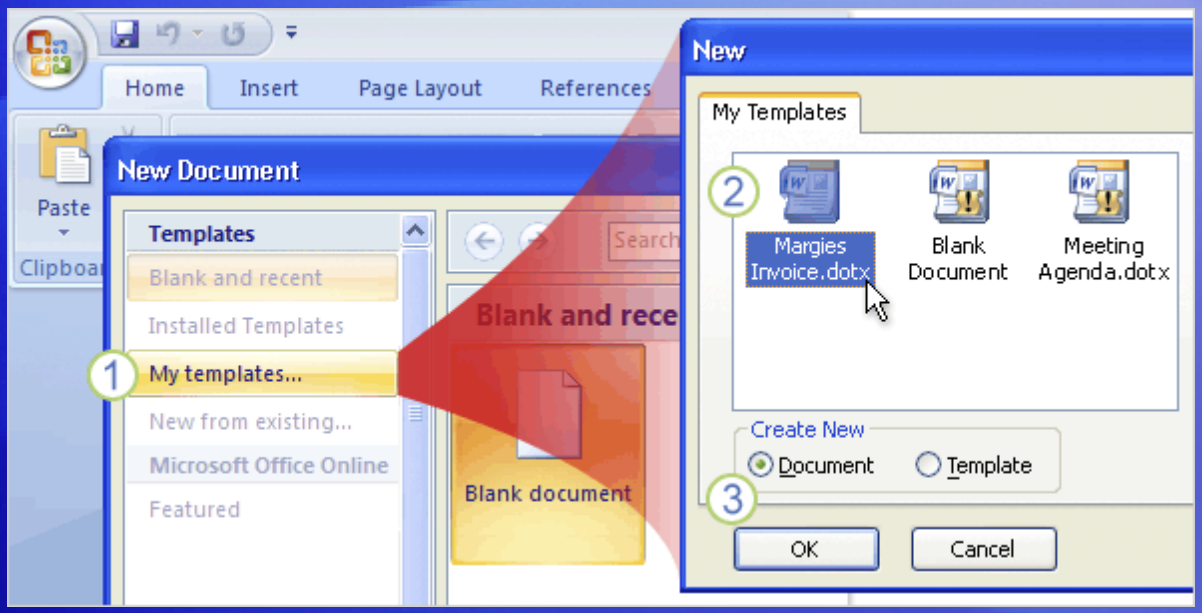


Putting the template in Trusted Templates is important.

This tells Word that it's safe to open even if the template should contain macros or other code.

For templates that are in the Trusted Templates folder, however, Word doesn't disable the macros. It assumes the files are safe, so be sure the files you store there are from a trusted source.

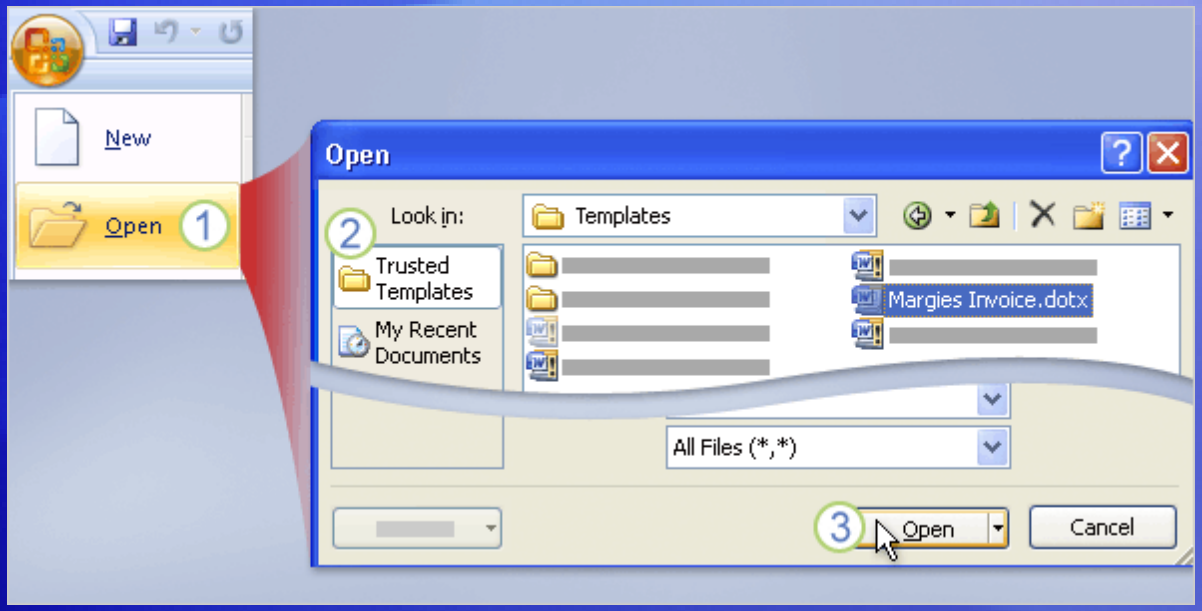
Create a document based on the template



Another advantage of saving a template in the **Trusted Templates** folder is that Word then makes it very easy to find.

1. In the **New Document** window, click **My templates**.
2. Click the template you want.
3. Make sure that **Document** is selected on the lower right, under **Create New**, and then click **OK**.

Edit the template

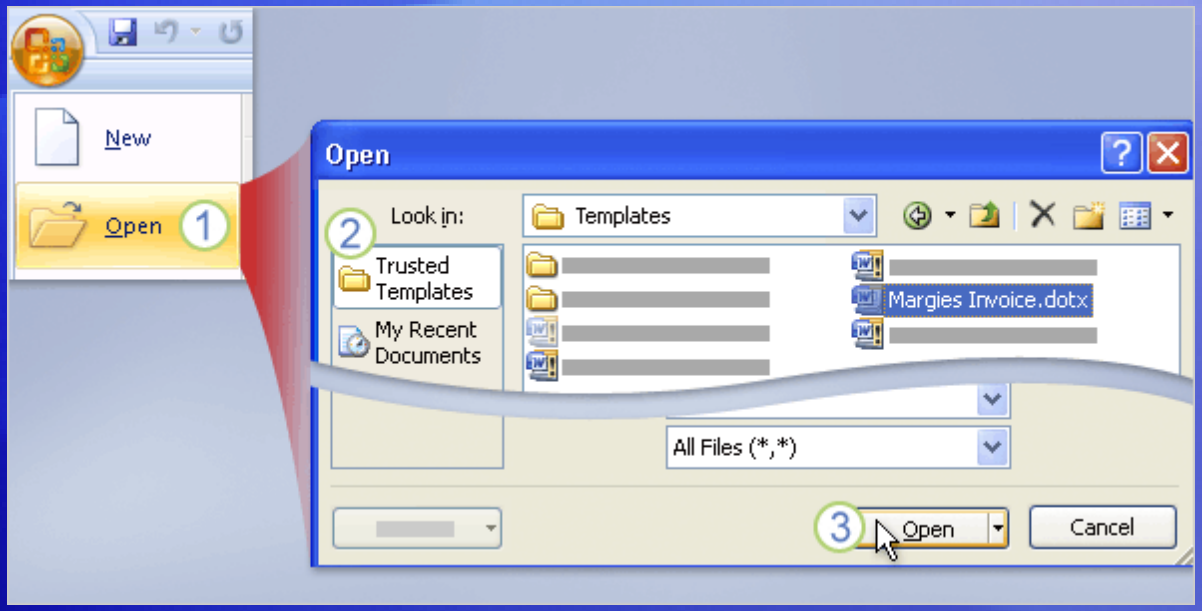


What if a vital part of the template information became outdated; for example, your company logo changes?

Here's how you'd open it up and edit it.

1. Click the **Microsoft Office Button**, and click **Open**.
2. Click the **Trusted Templates** folder.
3. Select the template, and click **Open**.

Edit the template



What if a vital part of the template information became outdated, for example, your company logo changes?

Here's how you'd open it up and edit it.

Protecting your templates

If you have created a template that other people in your company plan to use, consider protecting the template's contents against edits to the template that you may not want.

Suggestions for practice

1. View extensions in a file name.
2. Turn a document into a template.
3. Find and use the template.
4. Edit the template.

Online practice (requires Word 2007)

Test 2, question 1

One difference between a document file and a template file shows up in the file name, in the file name extension (the letters after the period). What is the file name extension for a template file? (Pick one answer.)

1. .docx
2. .dotx

Test 2, question 1: Answer

.dotx.

This is the extension for a Word template created in Word 2007.

Test 2, question 2

When you want to save a file as a template, you point to Save As on the menu under the Microsoft Office Button, and then what to do you click? (Pick one answer.)

1. The **Word Template** command.

2. The **Word Document** command.

Test 2, question 2: Answer

The **Word Template** command.

Test 2, question 3

What's one reason you should save a template in the Trusted Templates folder? (Pick one answer.)

1. So that you can find it using the **My Templates** link in the **New Document** window.

2. This protects the template from being edited by someone else.

Test 2, question 3: Answer

So that you can find it using the **My Templates** link in the **New Document** window.

This is a great reason. Just as important, this tells Microsoft Word it does not have to disable macros, if the template contains them, when it opens the template. For this reason, be sure you can fully trust any template that you put in this folder.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Word 2007 Training

Table of Contents I: Create an automatic TOC

Course contents

- Overview: A quick and simple TOC
- Lesson: Get started on a table of contents

The lesson includes a list of suggested tasks and a set of test questions.

Overview: A quick and simple TOC

Need a quick and simple way to create a table of contents?

Or, have you previously gotten errors when you tried to create one?

This course shows you a guaranteed way to include a TOC in your document — quickly and automatically.

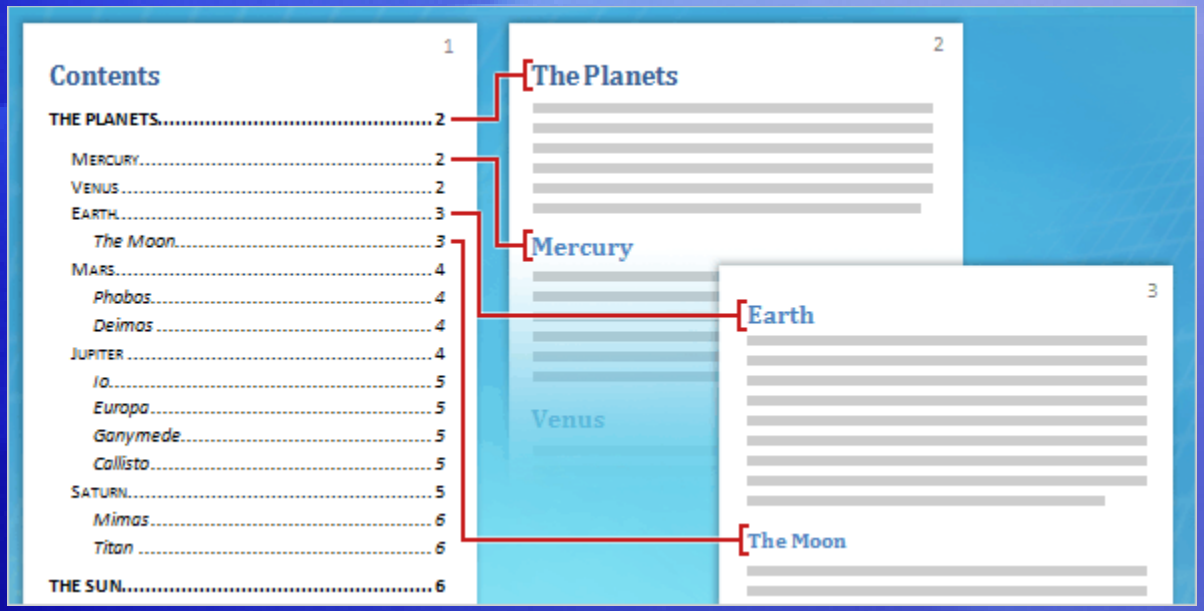
Course goals

- Prepare your document to use an automatic TOC.
- Create an automatic TOC.
- Update your TOC.

Lesson

Get started on a table of contents

Get started on a table of contents



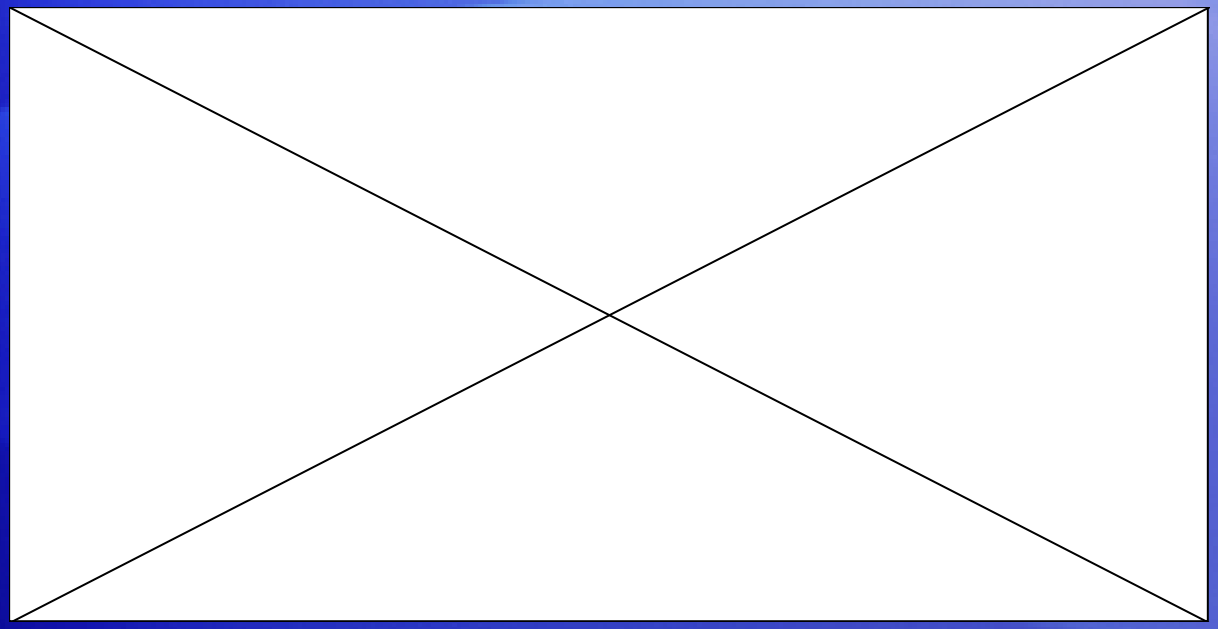
A TOC may be a simple list of chapter titles, or it can include several levels, as shown in the picture.

Either way, the TOC provides an overview of what's in the document and helps readers quickly find a particular section.

By automatically collecting your chapter titles and headings and setting them up in hierarchical levels, Word makes TOC creation a snap.

Table of Contents I: Create an automatic TOC

How it works

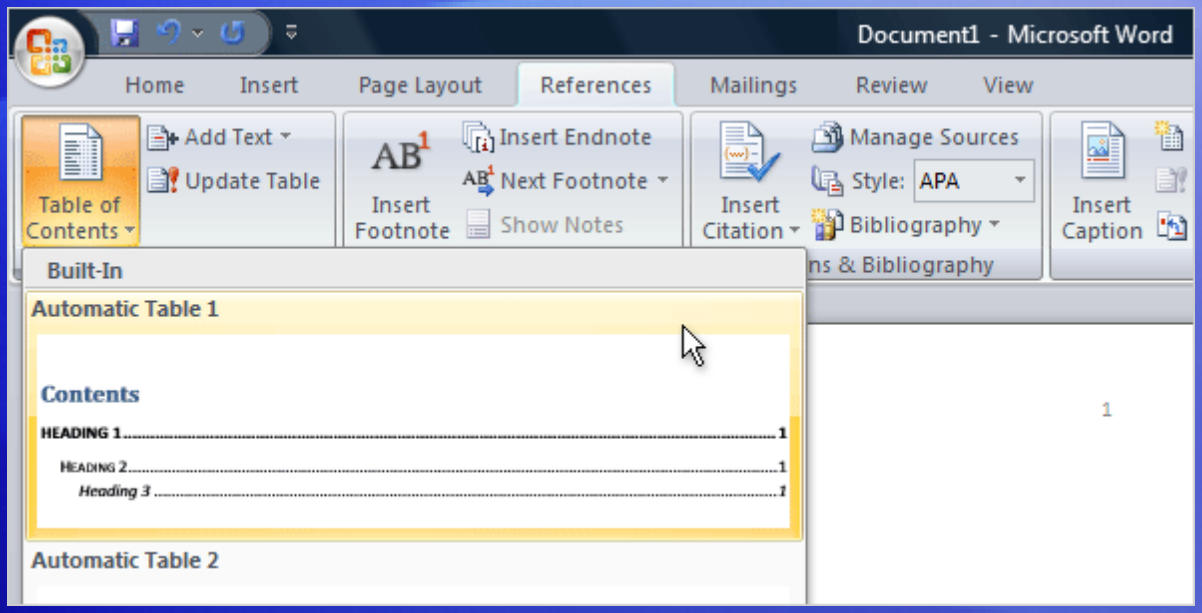


There are two steps you take to create an automatic TOC.

Animation: Right-click, and click **Play**.

1. Prepare your document by assigning heading styles to the chapter titles and headings that you want to appear in the TOC.
2. Collect those titles and headings into the TOC.

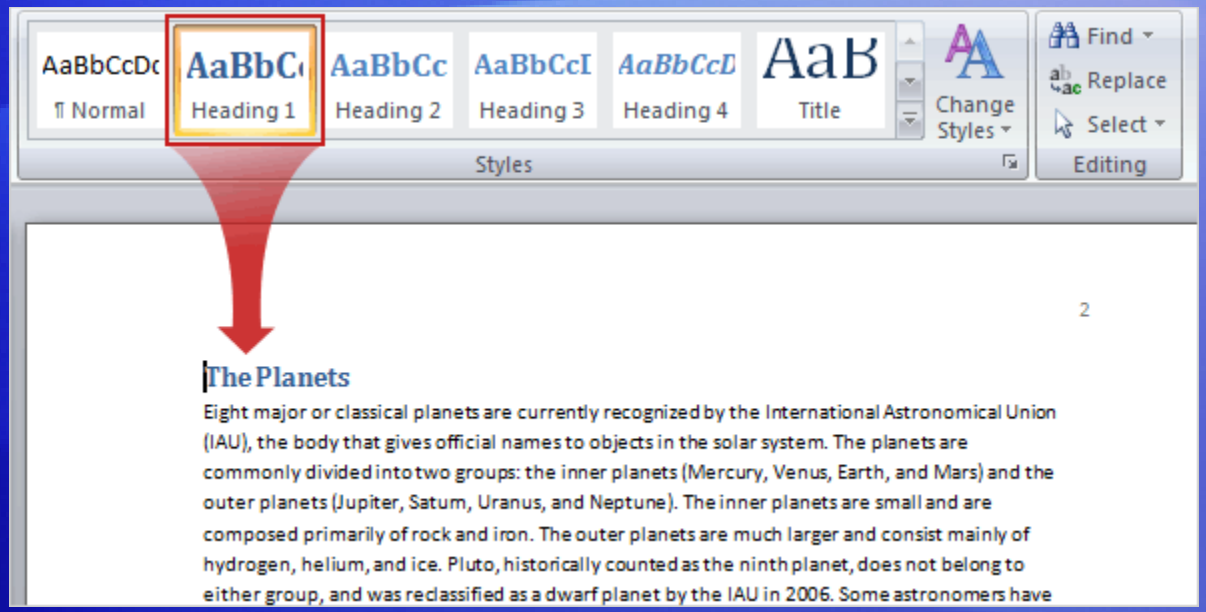
How it works



There are two steps you take to create an automatic TOC.

1. Prepare your document by assigning heading styles to the chapter titles and headings that you want to appear in the TOC.
2. Collect those titles and headings into the TOC.

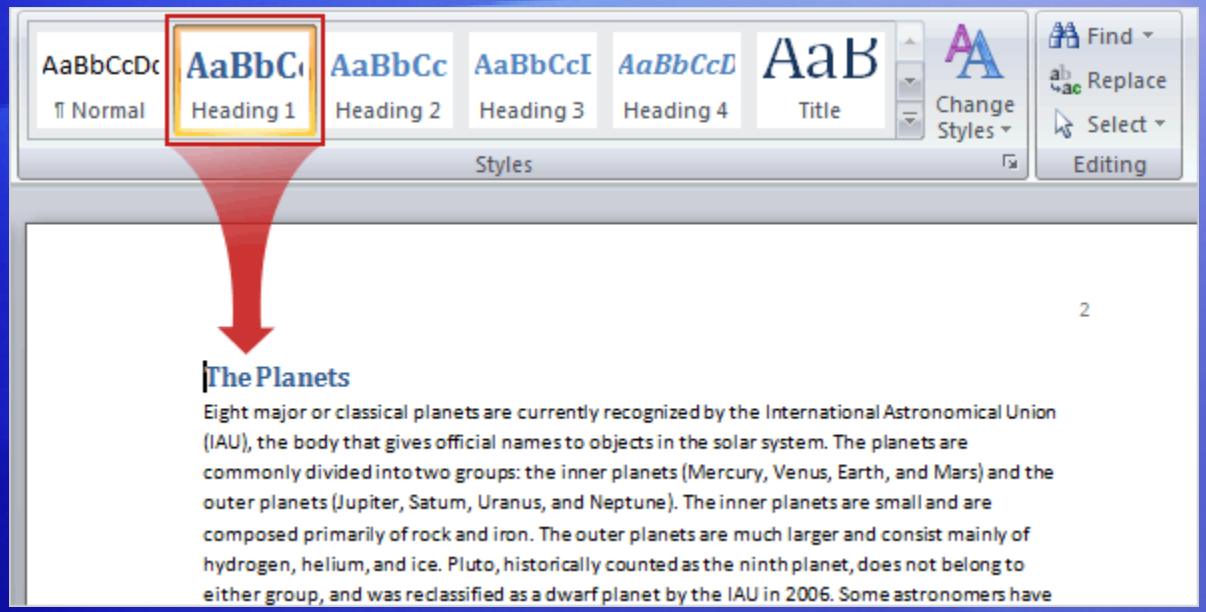
Step 1: Prepare your document



Heading styles are the link to building an automatic TOC.

So after you've decided on the chapter titles and headings that you want to appear in the TOC, you'll need to apply specific styles to them so that Word will include them in the TOC.

Step 1: Prepare your document

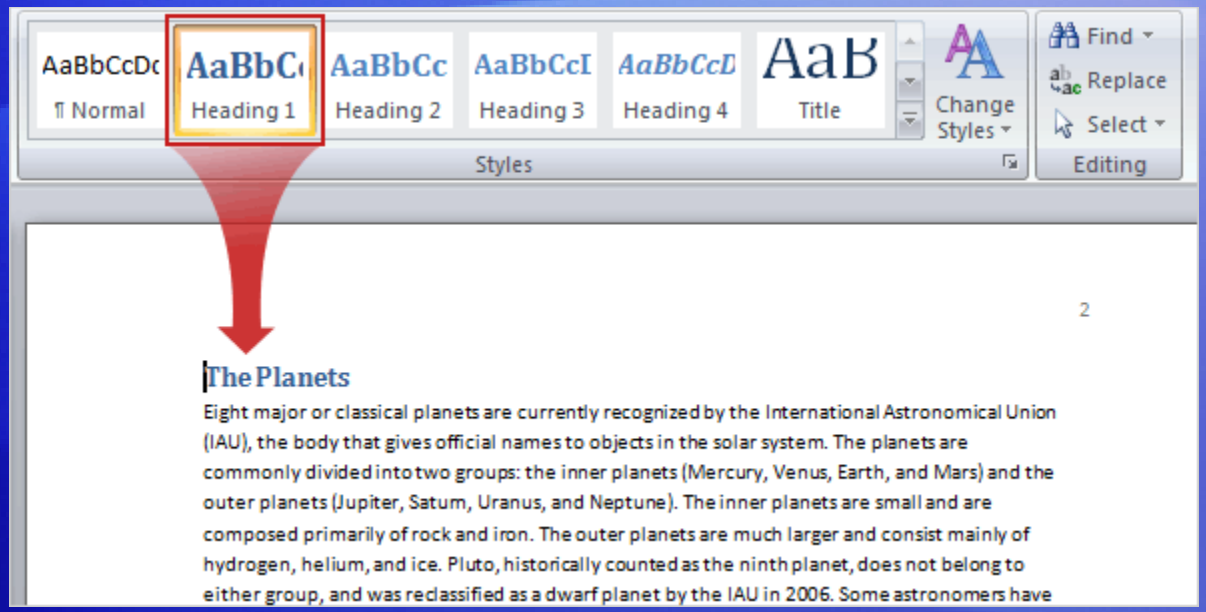


These styles are on the **Home** tab, in the **Styles** group.

For *each* chapter title and heading:

1. Place the cursor in the chapter title or heading.
2. In the **Styles** group, click **Heading 1** for the highest level, such as a chapter title; **Heading 2** for the next level, maybe a section heading; and **Heading 3** for a sub-heading.

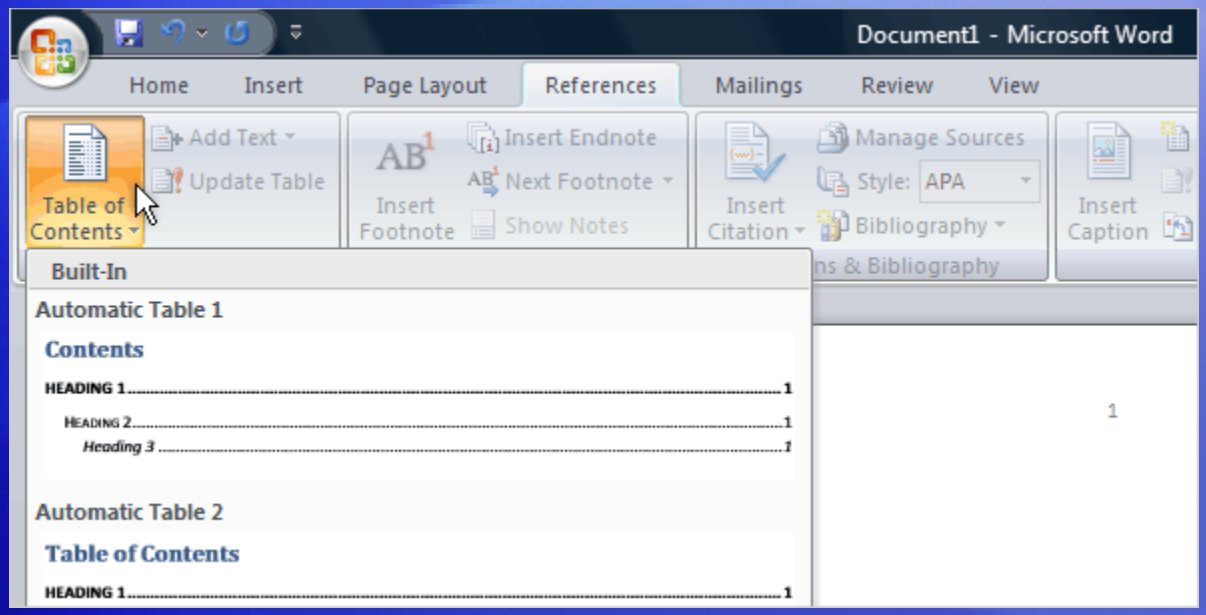
Step 1: Prepare your document



These styles are on the **Home** tab, in the **Styles** group.

The heading styles and the automatic TOC work together: Word designates Heading 1 titles to the highest level in the TOC; Heading 2 corresponds to the next highest level; and Heading 3 is the following level.

Step 2: Create your TOC



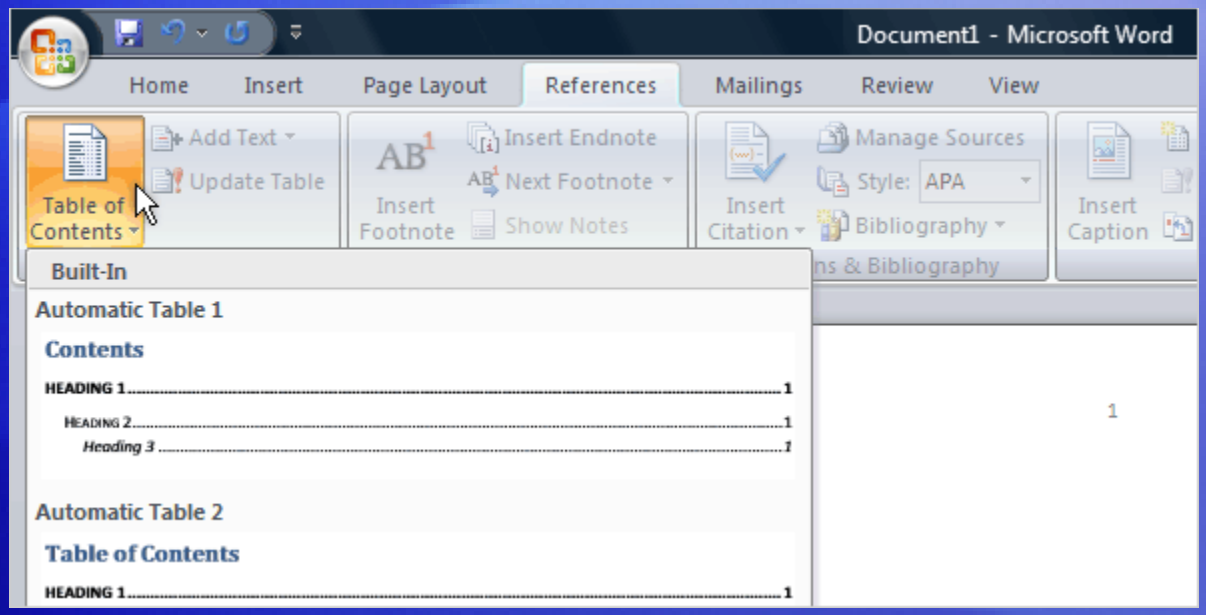
After the heading styles are applied, it's time to collect them all together in the TOC. This is where Word does the work for you.

First, place the cursor where you want the TOC to appear, usually at the beginning of the document.

Then, on the **References** tab, click **Table of Contents**, and click either **Automatic Table 1** or **Automatic Table 2**, whichever TOC looks best to you in the instant preview.

Table of Contents I: Create an automatic TOC

Step 2: Create your TOC

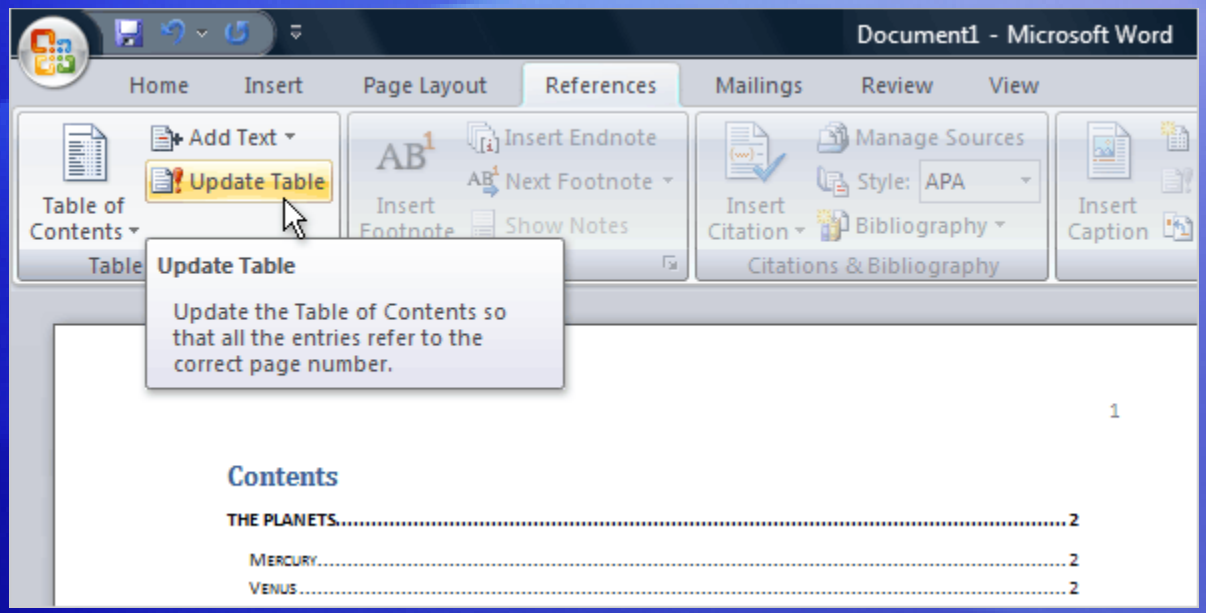


That's it! Quick and simple.

When you click in an automatic TOC, it will be displayed in a light blue box. This is okay; it's a visual cue to let you know that it's an automatic TOC.

Then when you move the pointer away from the TOC, the entries will turn gray and you will see the cursor where you initially clicked.

Update your TOC

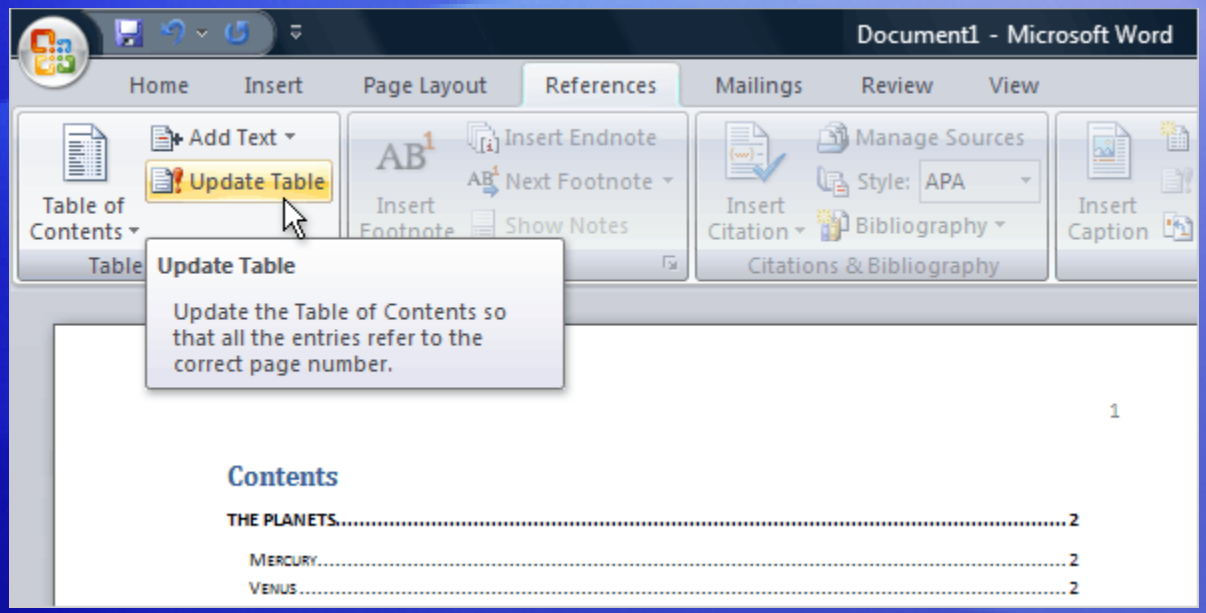


After you've created your TOC, you will probably have to maintain it.

The TOC is automatically updated whenever you open the document; but it's a good idea to also update it whenever you add more titles or headings in your document, or when you add more content that may affect the page numbers that appear in the TOC.

It's easy — just two steps.

Update your TOC

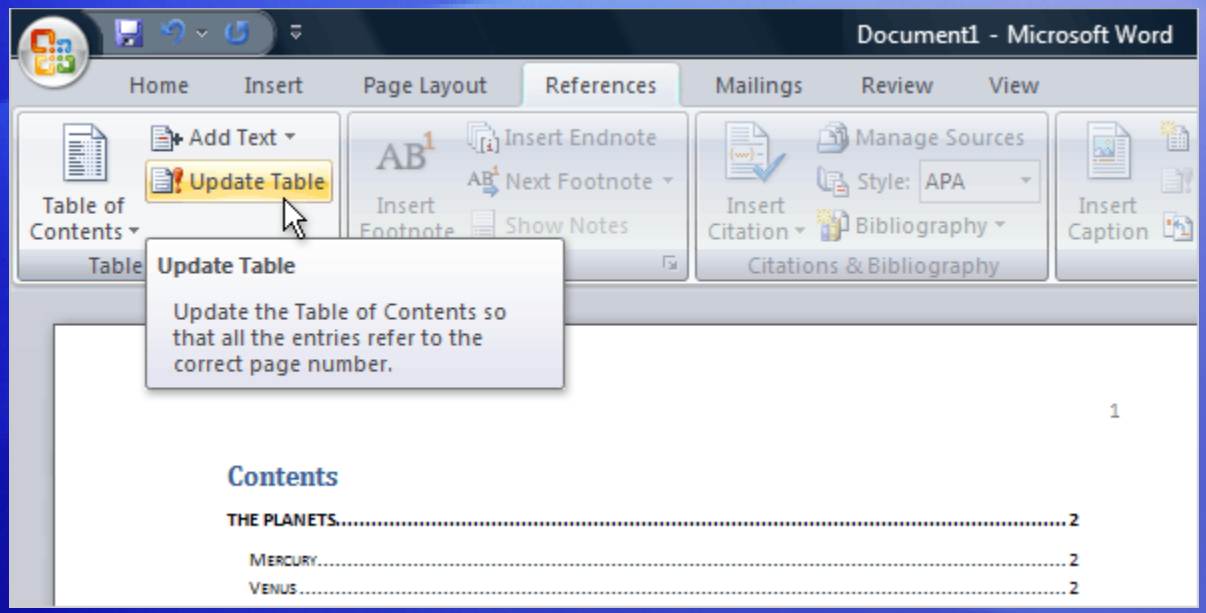


You update the TOC by clicking the **References** tab and then **Update Table** in the **Table of Contents** group.

When you update the TOC, you'll be asked if you want to update the entire TOC, or just the page numbers.

Choose the **page numbers** option only if you've been adding body text but no new headings — it's faster and will save you time in a long document.

Update your TOC



Avoid editing entries in the TOC itself — if you ever update the TOC you will lose those changes.

To change text that appears in the TOC, be sure to edit this text in the body of the document — not in the TOC — and then click **Update Table** to compile the changes.

More changes to your TOC?

There are many more ways that you can change your TOC.

Besides being able to choose from a variety of built-in styles and formats, you can also decide on the details for your TOC.

These include the number of levels, whether page numbers will be displayed, what the dots between the entry and the page number look like, and much more.

Suggestions for practice

1. Create a TOC by adding heading styles and collecting the text into the TOC.

2. Update your TOC.

Online practice (requires Word 2007)

Test question 1

Which of these is the correct way to create an automatic TOC? (Pick one answer.)

1. Prepare your document by assigning heading styles to the text you want in the TOC, and then use the **Table of Contents** command to collect that text together into a TOC.

2. Create a blank TOC and then copy and paste items into it.

3. Type out a separate document for the TOC.

Test question 1: Answer

Prepare your document by assigning heading styles to the text you want in the TOC, and then use the **Table of Contents** command to collect that text together into a TOC.

This is the quickest and easiest way to create a TOC.

Test question 2

An automatic TOC should be manually updated by typing new page numbers or text in it. (Pick one answer.)

1. True.
2. False.

Test question 2: Answer

False.

The TOC is automatic and should not be edited manually.

Test question 3

Before you create your TOC by clicking the Table of Contents command on the References tab, you must do which of the following? (Pick one answer.)

1. Create a new table for the TOC.
2. Add page numbers.
3. Place the cursor where you want the TOC.
4. Add a blank page.

Test question 3: Answer

Place the cursor where you want the TOC.

Always move the cursor first, or you'll end up with he TOC in the wrong location.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

JohnRouda.com presents:

Microsoft® Office Word 2007 Training

Table of Contents II: Customize your TOC

Course contents

- Overview: Jazz it up
- Lesson 1: Change the appearance of your TOC
- Lesson 2: Include custom titles and headings in your TOC
- Lesson 3: Include outline levels in your TOC

Each lesson includes a list of suggested tasks and a set of test questions.

Overview: Jazz it up

You know how to create a table of contents; now take it to the next level. For example, your document headings are blue, and now you want your TOC to be blue also.

And if your document has custom styles for chapter titles and headings, and you need to include them into a TOC, it just takes a couple of clicks to add them.

This course will show you how.

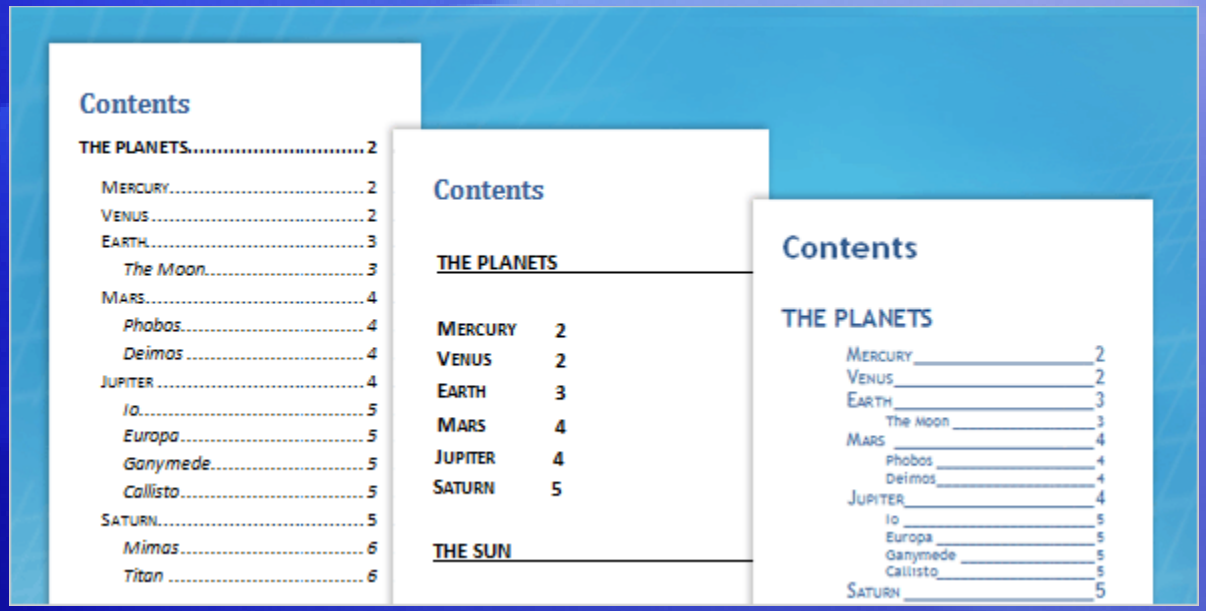
Course goals

- Format a TOC to get it looking the way you want.
- Include custom chapter titles and headings in your TOC.
- Include outline levels in your TOC.

Lesson 1

Change the appearance
of your TOC

Change the appearance of your TOC



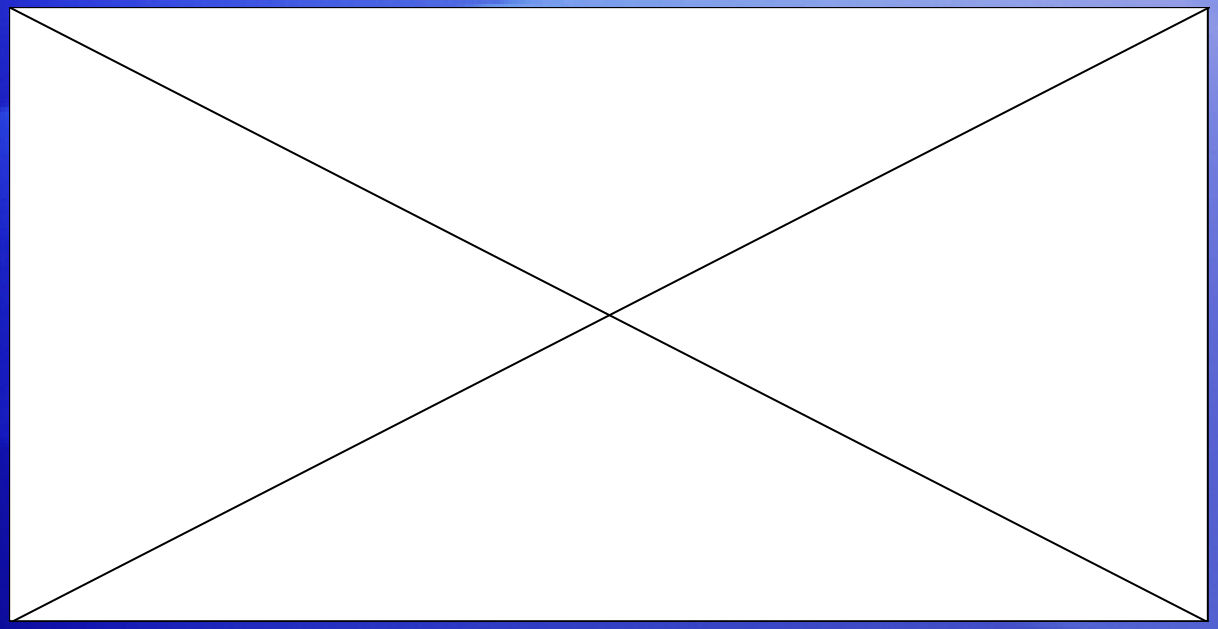
You've created an automatic table of contents, but now you feel like making some changes.

For example, maybe you'd like to make your TOC entries match the color of your document headings. Maybe you'd like to shorten your TOC.

Or, perhaps you're basically satisfied with the TOC but just want to make a minor change. All these changes, and more, are possible; this lesson will show you how.

Table of Contents II:
Customize your TOC

Design the look of your TOC

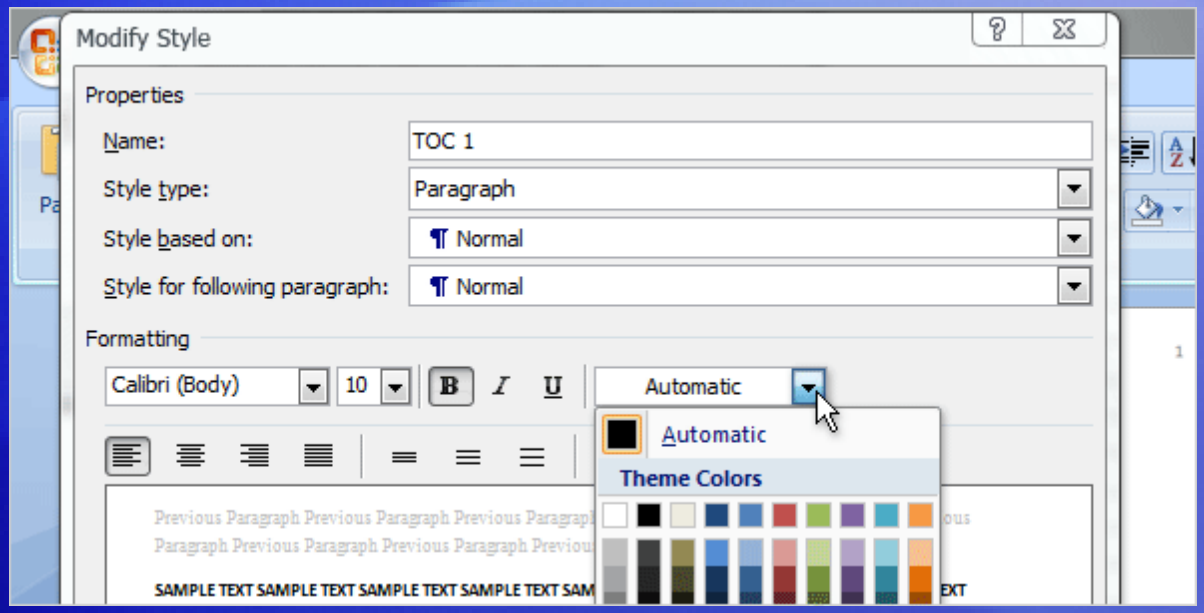


You built a TOC for your document and it looks okay, but you want color in it — the same color as your document chapter titles and headings.

Animation: Right-click, and click **Play**.

The animation shows you how to get the effect you want.

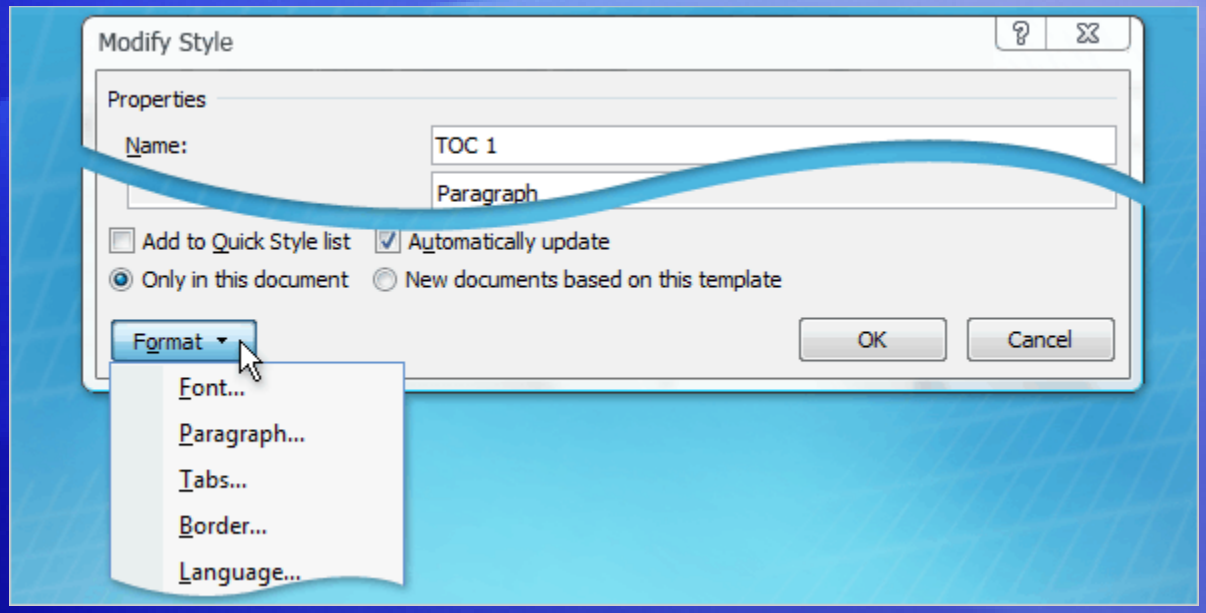
Design the look of your TOC



You built a TOC for your document and it looks okay, but you want color in it — the same color as your document chapter titles and headings.

It's easy to do in the **Modify Style** dialog box, as shown here.

More changes that you can make

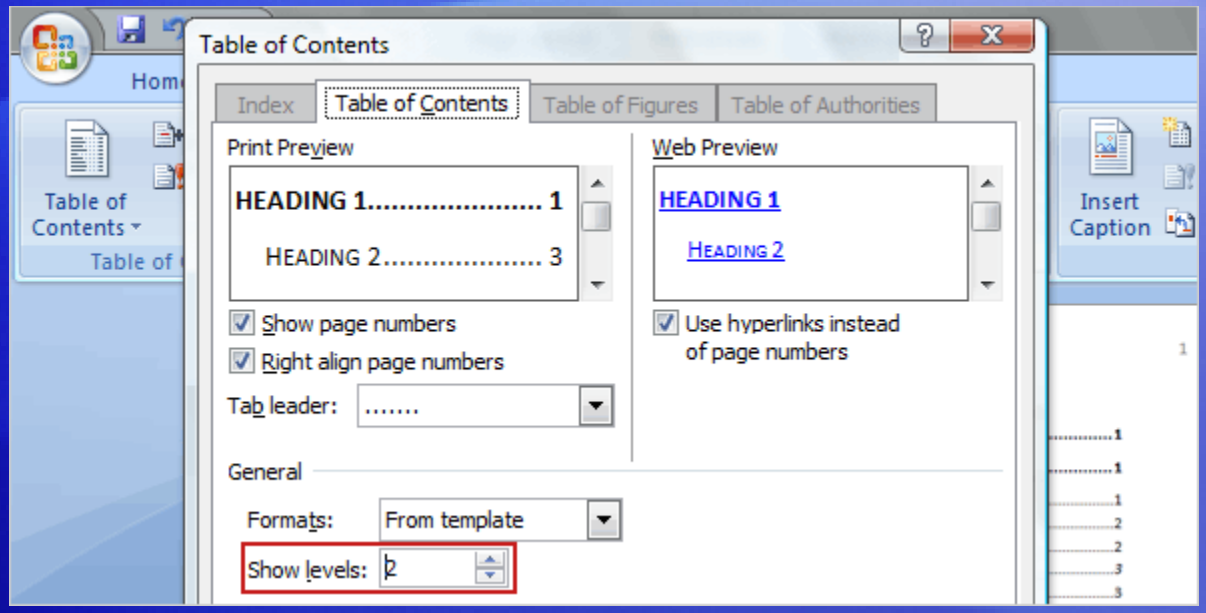


Want to make more changes? There are many other options available to you in the **Modify Style** dialog box that let you completely tailor your TOC.

Notice that if you click **Format**, you have access to changes such as font, paragraph, tabs, and so on.

You can change these settings and view them in the preview areas before you apply them to the TOC.

Shorten or lengthen your TOC

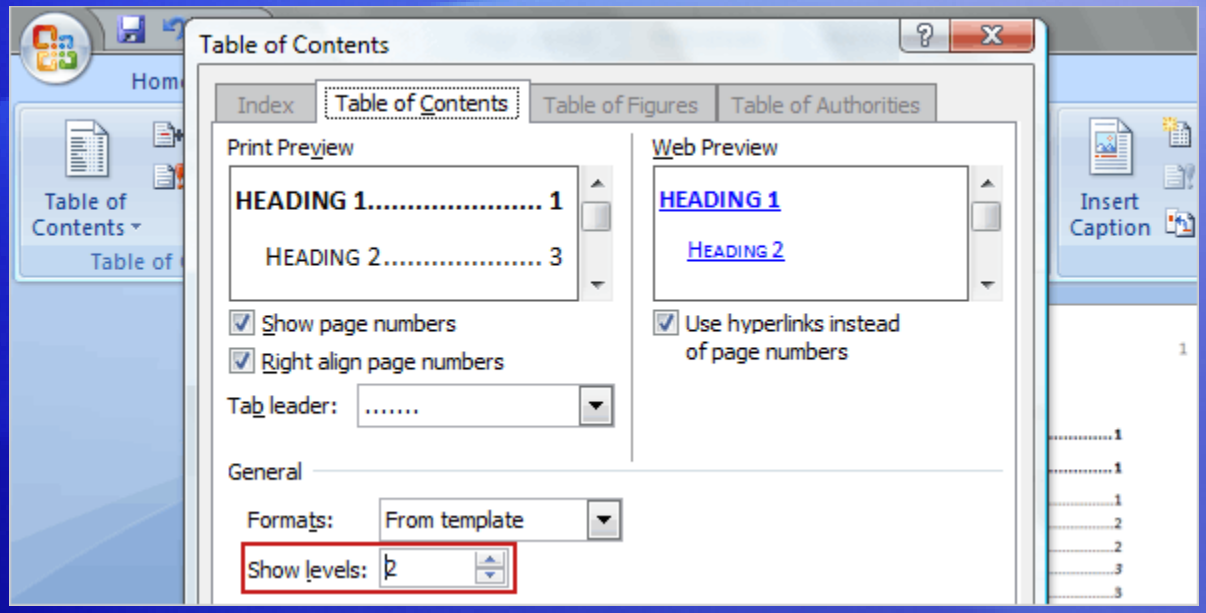


Is your TOC too long?

Maybe the first two levels (TOC 1, and TOC 2) are all you need for your document.

The **Show levels box** in the **Table of Contents** dialog box is where you can choose the number of hierarchical levels you want displayed in your TOC, up to nine.

Shorten or lengthen your TOC



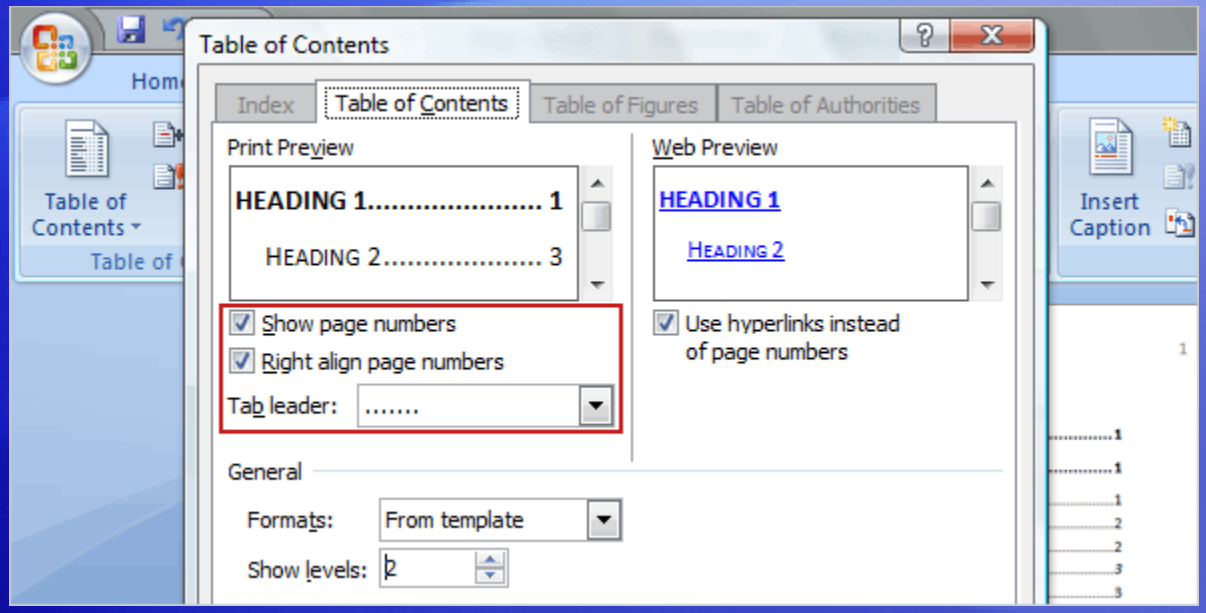
Is your TOC too long?

Maybe the first two levels (TOC 1, and TOC 2) are all you need for your document.

Shorten your TOC by lowering the number; lengthen your TOC by increasing the number.

You can look in the **Print Preview** or **Web Preview** area to see your changes before you apply them. When you're sure it's what you want, just click **OK** twice.

Make simple changes



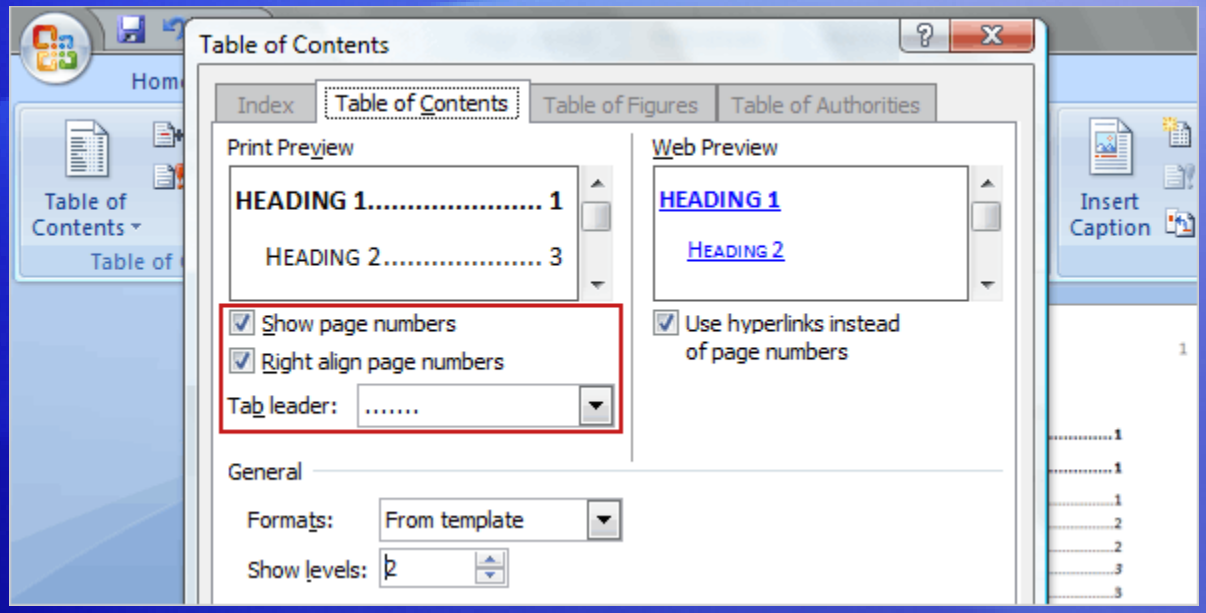
You don’t have to get drastic with your TOC.

You can just make minor adjustments, without leaving the **Table of Contents** dialog box.

For example, change the dots or dashes between the TOC entry and the page number (tab leaders) or the alignment of the page numbers.

If you’re writing for the Web, maybe you don’t need page numbers at all!

Make simple changes

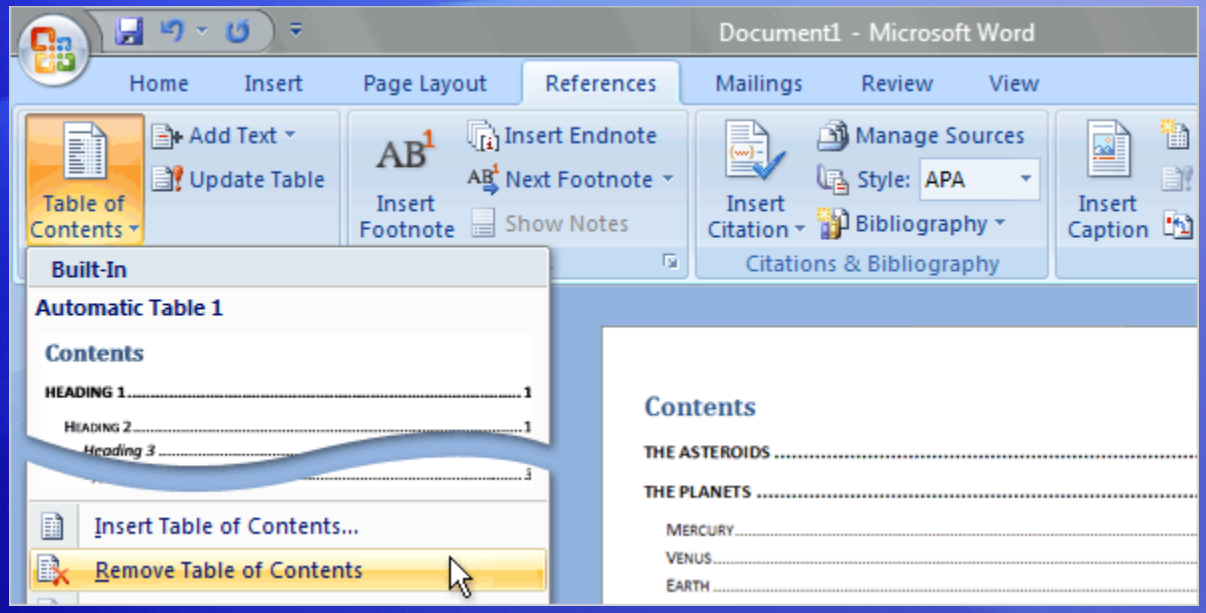


To change the tab leaders, click the **Tab leader** arrow to view different types of dashes and lines.

If you clear the **Right align page numbers** box, the page numbers will move closer to the TOC entries and the tab leaders will no longer be available.

If you want to delete the page numbers entirely, clear the **Show page numbers** check box.

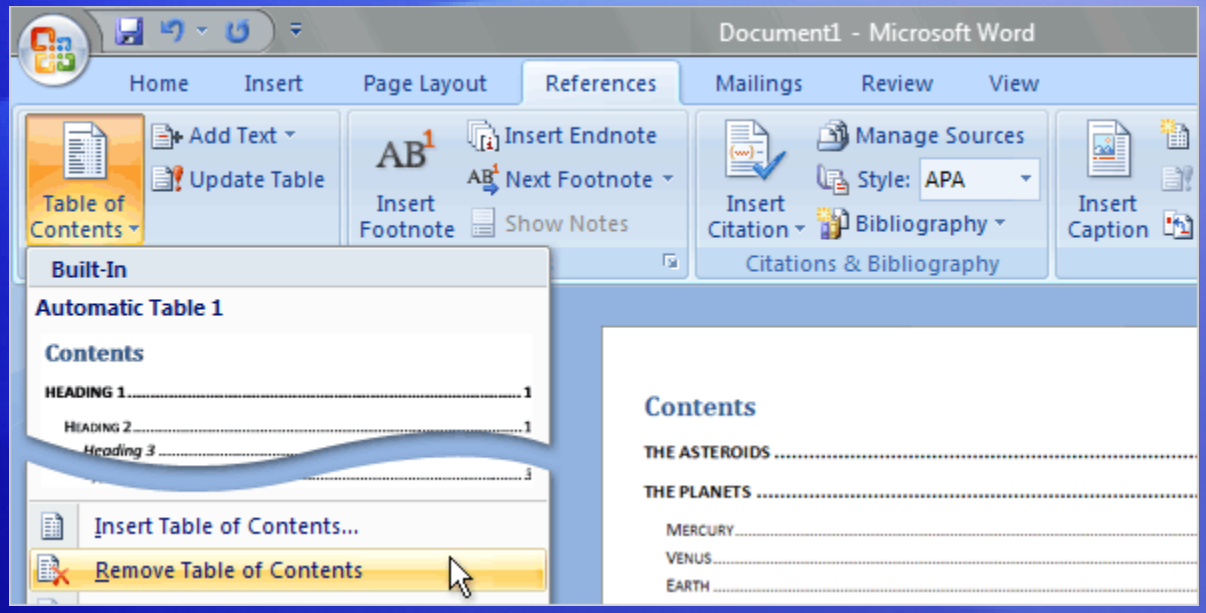
Start over: Remove or reset your TOC



Did you get lost making changes to your TOC and now you wish you could start over?

Click the **Table of Contents** command, and then click **Remove Table of Contents**, at the bottom of the list.

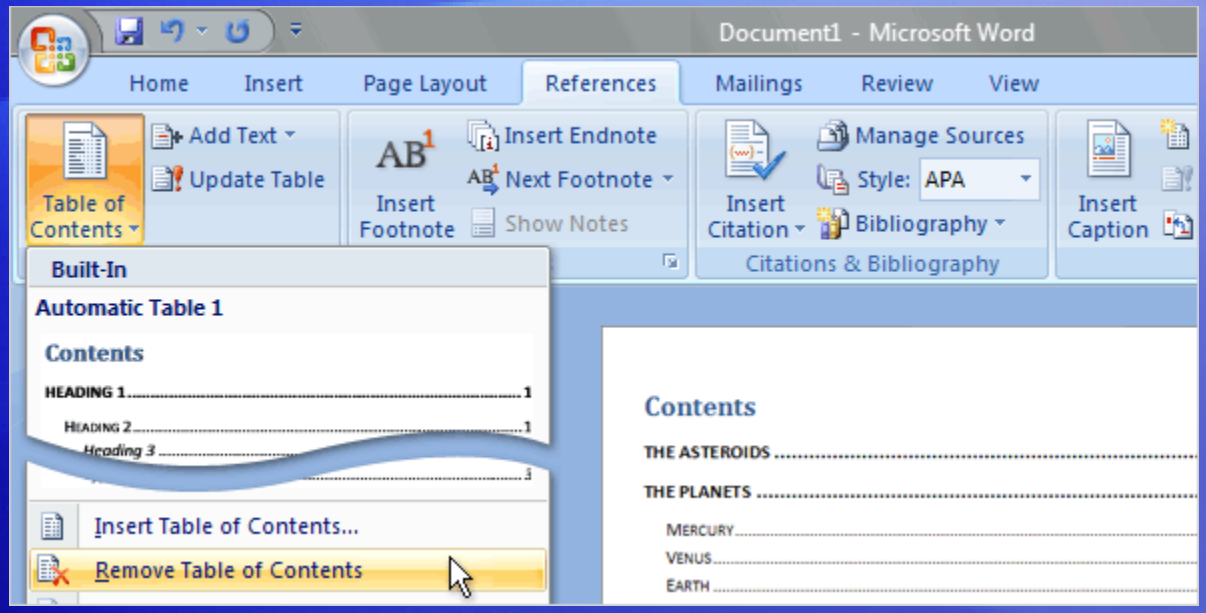
Start over: Remove or reset your TOC



Did you get lost making changes to your TOC and now you wish you could start over?

Be sure to use the **Remove Table of Contents** command; if you manually delete the TOC, there is a possibility that hidden code might be left in your document and cause incorrect references in any future TOC that is built.

Start over: Remove or reset your TOC



Did you get lost making changes to your TOC and now you wish you could start over?

You can also return to the default settings — Heading 1, Heading 2, Heading 3 styles as Level 1, Level 2, Level 3 — by clicking **Insert Table of Contents** from the **Table of Contents** command, then clicking **Options** and then **Reset**.

Suggestions for practice

1. Match the color of your dominant headings.
2. Shorten your TOC.
3. Format tab leaders and page numbers.

Online practice (requires Word 2007)

Test 1, question 1

The Show levels box on the Table of Contents dialog box is where you can shorten or lengthen your TOC. (Pick one answer.)

1. True.
2. False.

Test 1, question 1: Answer

True.

In the **Show levels** box, you can add or subtract levels in your TOC.

Test 1, question 2

Changing the TOC 1 style will change the Heading 1 style in your document. (Pick one answer.)

1. True.
2. False.

Test 1, question 2: Answer

False.

TOC styles and heading styles are completely separate.

Test 1, question 3

What's a tab leader? (Pick one answer.)

1. The row of characters between a TOC entry and the page number.
2. The space the insertion point moves when you press the TAB key.
3. The name of a tab in a dialog box.

Test 1, question 3: Answer

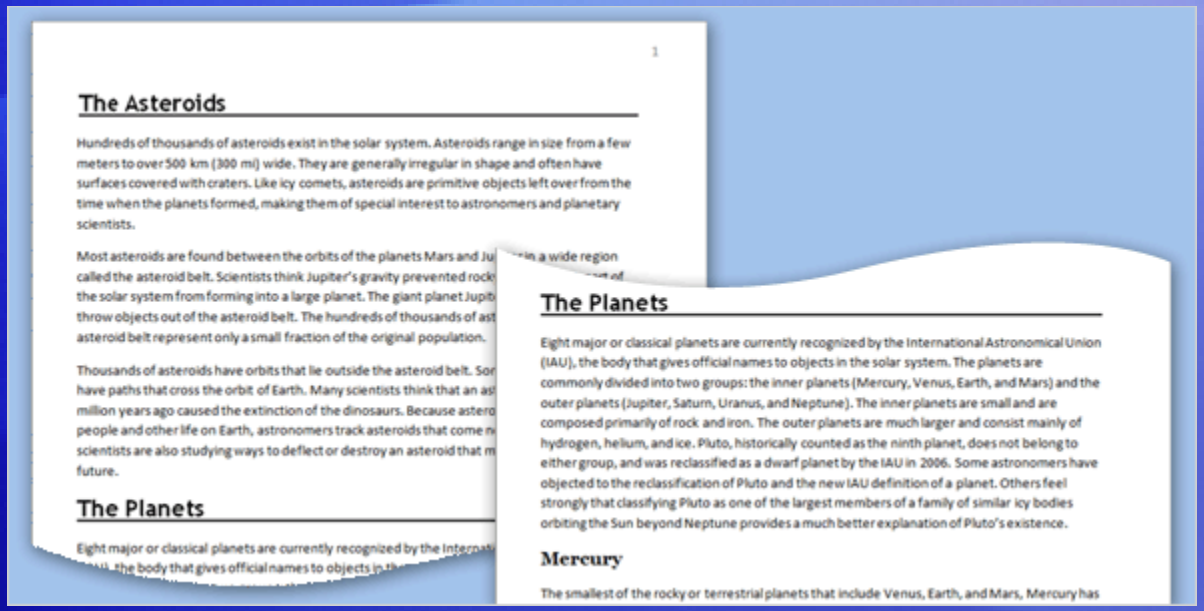
The row of characters between a TOC entry and the page number.

The tab leader can be dots, dashes, or a straight line. Alternatively, you can choose not to have one at all.

Lesson 2

Include custom titles and headings in your TOC

Include custom titles and headings in your TOC

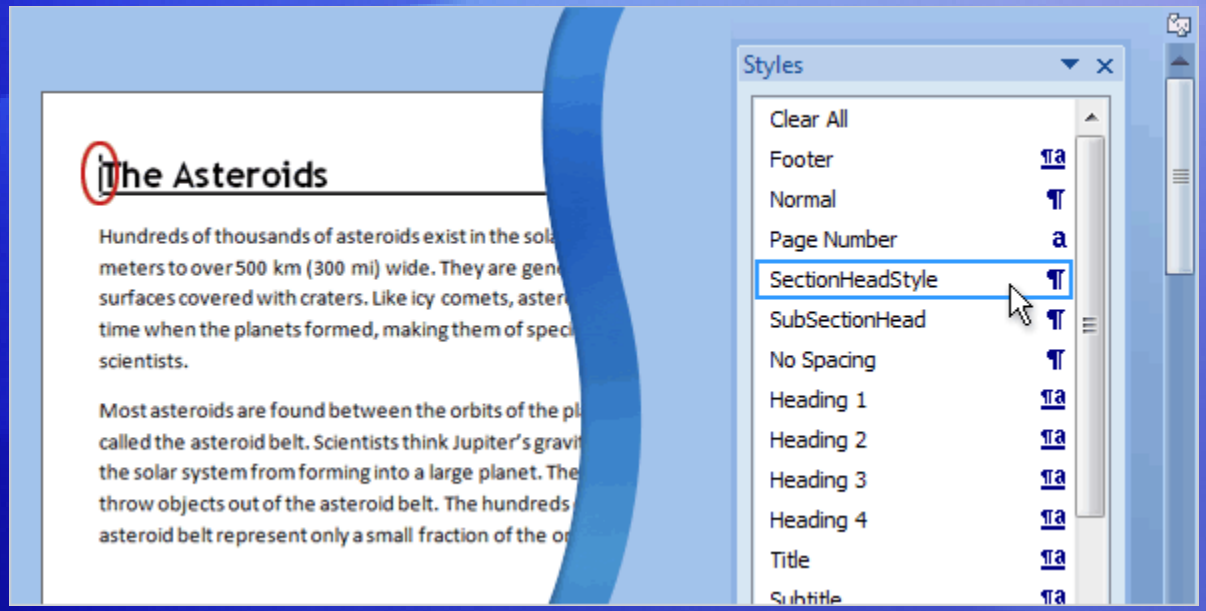


In the first lesson you learned how to customize the look of your automatic TOC entries.

Suppose you've inherited a document that uses Word's predefined Heading 1, Heading 2, and Heading 3 styles as well as custom-styled headings.

Fortunately, building a TOC that includes both kinds of headings, predefined and custom, is not hard. In fact, it takes just a couple of clicks.

Identify the heading styles used in the document



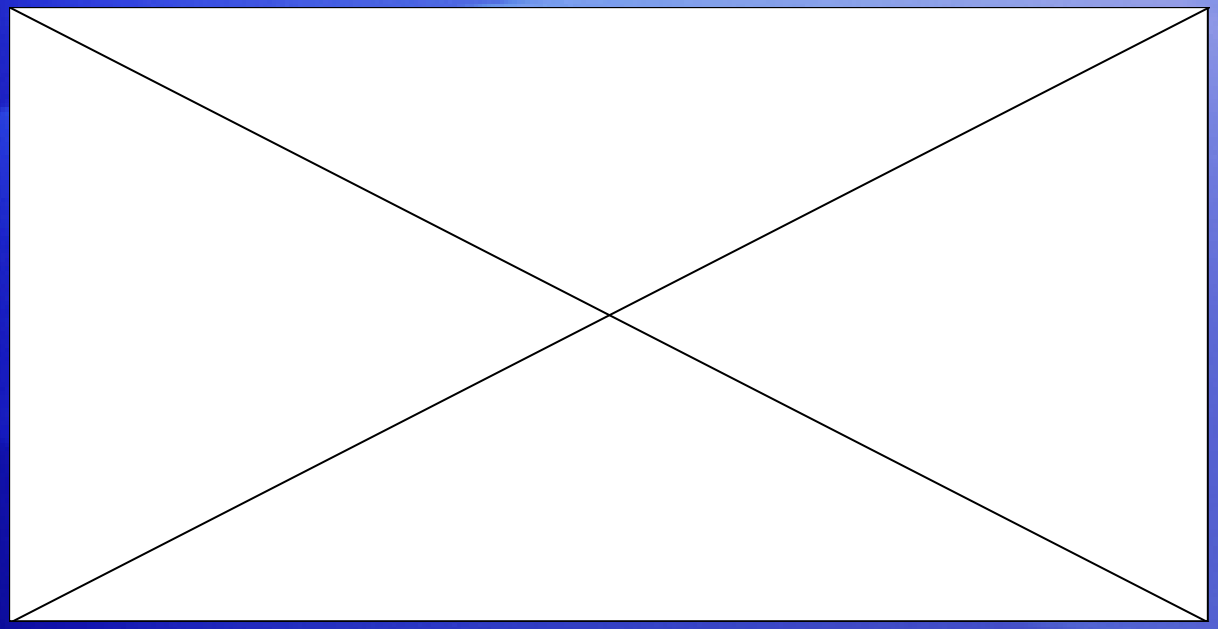
First, find out what styles are used for the custom titles and headings in the document.

Word does not include these custom styles in the TOC — you must set them up manually.

To view the styles, click the **Styles** Dialog Box Launcher on the **Home** tab. Then click in the document in the heading that you want to identify.

Note the style name in the **Styles** box so that you can find it in the **Table of Contents** dialog box in the next step.

Include the custom heading styles in your TOC

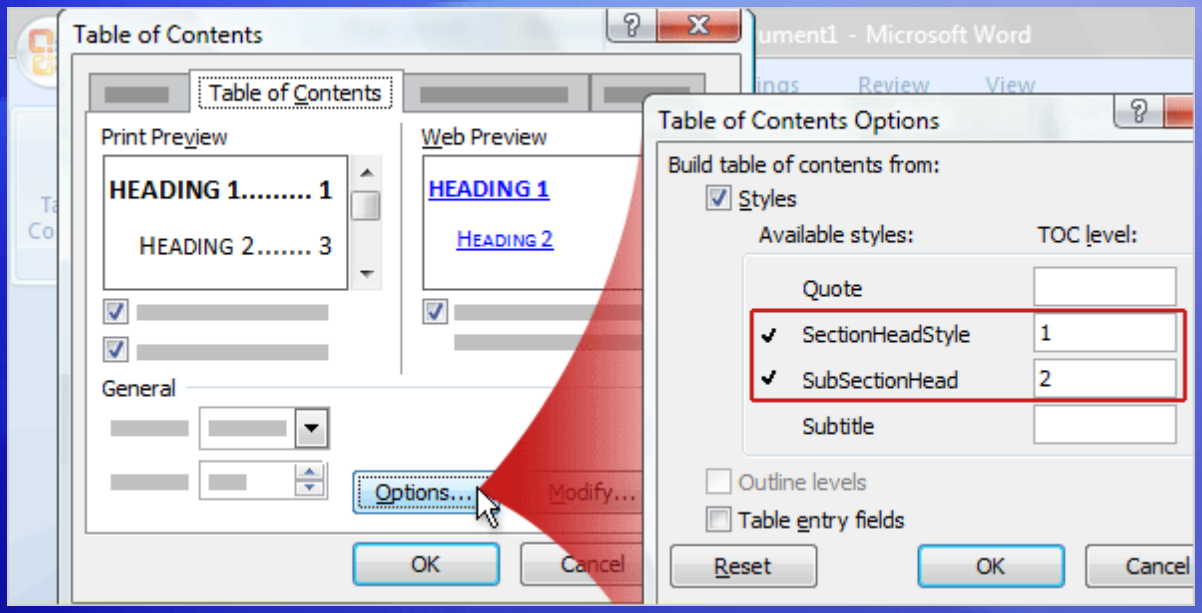


After identifying the styles used in a document, you set up the TOC to collect those custom headings along with Heading 1, Heading 2, and Heading 3.

Animation: Right-click, and click **Play**.

The animation shows how a custom style is added to a TOC.

Include the custom heading styles in your TOC



After identifying the styles used in a document, you set up the TOC to collect those custom headings along with Heading 1, Heading 2, and Heading 3.

On the **References** tab, click **Table of Contents**, click **Insert Table of Contents**, and then click **Options**.

Under **Available styles**, find the name of the style that was used for the chapter titles or headings. Next to each style, type a number from 1 to 9 to indicate the level that you want the custom style to appear as.

Suggestions for practice

1. View custom styles.
2. Create an automatic TOC.
3. Include custom styles in the TOC.

Online practice (requires Word 2007)

Test 2, question 1

Which dialog box do you use to ad custom styles to your TOC? (Pick one answer.)

1. The **Modify Styles** dialog box.
2. The **Formats** dialog box.
3. The **Table of Contents Options** dialog box.
4. All of the above.

Test 2, question 1: Answer

The **Table of Contents Options** dialog box.

Look in the **Available styles** list to find the custom style, and then type in the level that you want it to appear as in the TOC.

Test 2, question 2

You can use the Available styles list to create a custom style and assign it a level in the TOC. (Pick one answer.)

1. True.
2. False.

Test 2, question 2: Answer

False.

The list includes existing pre-defined and custom styles only. Make sure you know the name of the style that you want to include in the TOC.

Test 2, question 3

You can have up to nine levels in your TOC. (Pick one answer.)

1. True.
2. False.

Test 2, question 3: Answer

True.

The nine levels correspond to the nine heading styles in Word.

Lesson 3

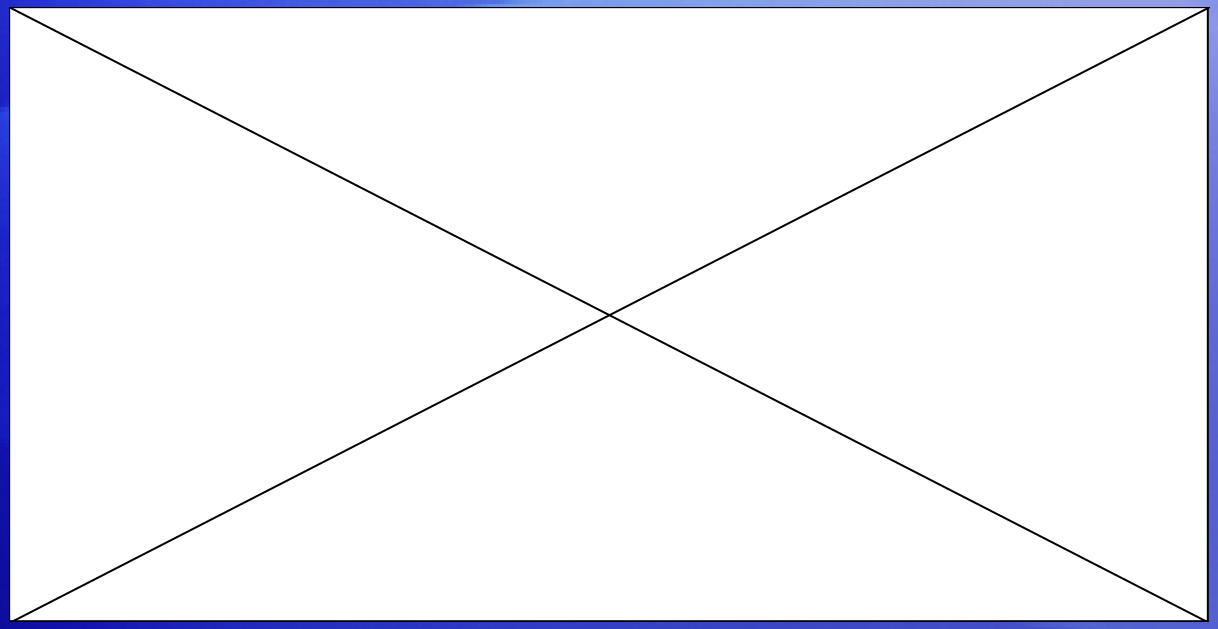
Include outline levels in your TOC

Include outline levels in your TOC

Using Word's built-in heading styles in your document makes for a quick and easy way of building a TOC.

But if you're fond of outlining, you can create a document outline and set up the TOC all at the same time. Word's outline feature automatically includes the entries in your TOC.

Assign outline levels



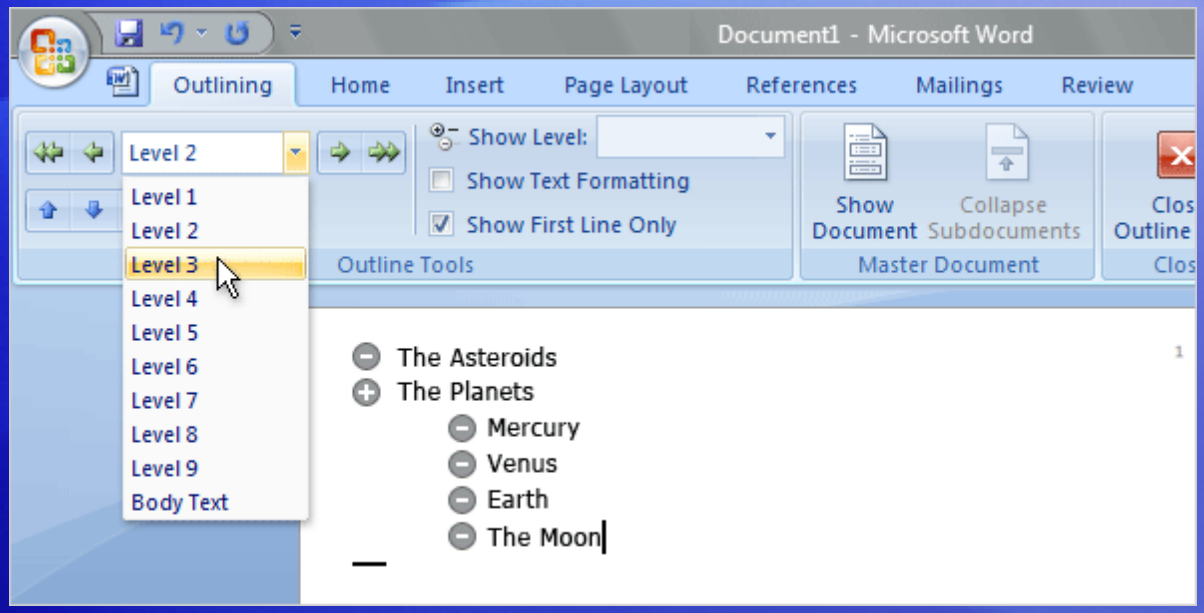
Start your outline by clicking the **View** tab, then clicking **Outline** in the **Document Views** group, and begin typing.

Animation: Right-click, and click **Play**.

The animation shows the remainder of the process.

Note that as you work on your outline, the entries for your TOC are set up automatically, with no extra steps required.

Assign outline levels

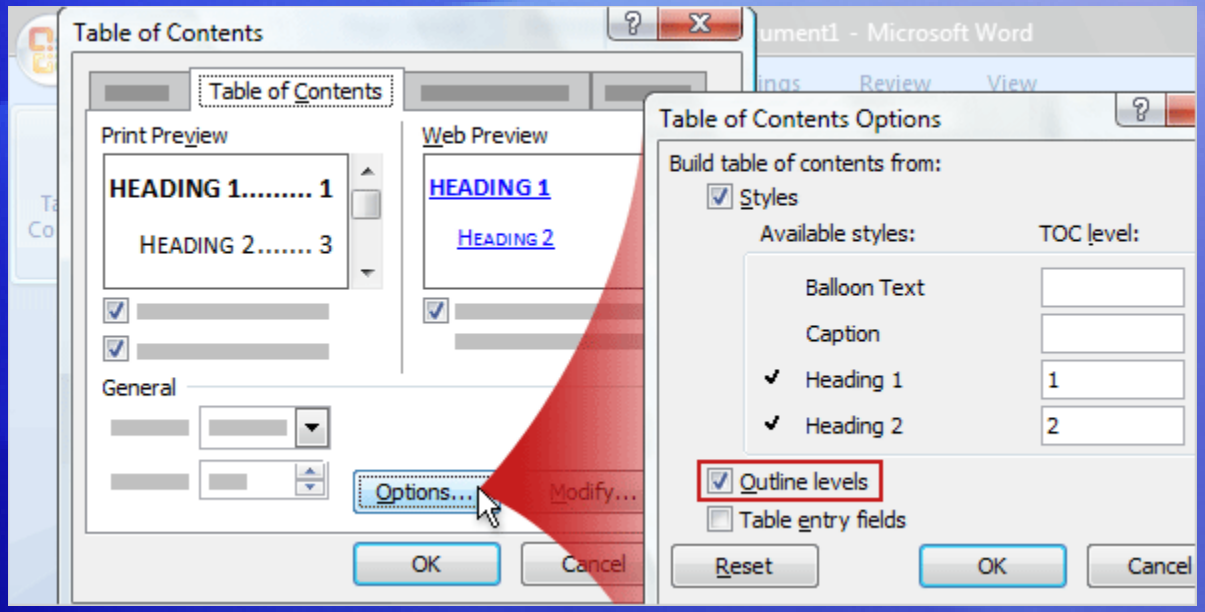


Start your outline by clicking the **View** tab, then clicking **Outline** in the **Document Views** group, and begin typing.

As you decide on the hierarchal level for the paragraph, simply click the **Outline Level** box in the **Outline Tools** group and then click a level from 1 to 9.

As you work on your outline, the entries for your TOC are set up automatically; no extra steps are required.

Add the outline levels to your TOC



When you've finished outlining your document, everything is ready for you to create or update your TOC.

Simply click **Table of Contents** on the **References** tab and choose either a built-in table, or, if you have an existing TOC, click **Update Table**.

The levels you designated in the Outlining tool will be collected into the TOC.

Suggestions for practice

1. Mark some outline levels.
2. Build the TOC with outline levels.

Online practice (requires Word 2007)

Test 3, question 1

Which method of creating TOCs is the easiest to use when you're outlining a document? (Pick one answer.)

1. Heading styles.
2. Outline levels.
3. Custom styles.
4. All of the above.

Test 3, question 1: Answer

Outline levels.

Test 3, question 2

When you use the Outlining tool, Word applies heading styles automatically. (Pick one answer.)

1. True.
2. False.

Test 3, question 2: Answer

True.

Level 1, Level 2, and Level 3 from the Outlining tool are tied to Heading 1, Heading 2, Heading 3.

Test 3, question 3

There are extra steps you need to take to create a TOC when you use outlining. (Pick one answer.)

1. True.
2. False.

Test 3, question 3: Answer

False.

When you have finished outlining your document, everything is ready for you to create your TOC.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.

Table of Contents II:
Customize your TOC

JohnRouda.com presents:

Microsoft® Office Word 2007 Training

Revise documents with Track Changes and Comments

Course contents

- Overview: Make revisions that others can see
- Lesson 1: Track Changes and Comments: The basics
- Lesson 2: Track Changes and Comments: Beyond the basics

Each lesson includes a list of suggested tasks and a set of test questions.

Overview: Make revisions that others can see

You have a document to review before it's sent to a group of employees, and you want to make revisions that your manager can see and then decide if they get accepted or rejected.

Track Changes and Comments enables you to add revisions and comments for others to see, hide them so that others can't see them, and review changes before finalizing the document.

This course shows you how.

Course goals

- Use Track Changes when you want to mark up documents with revisions.
- Review tracked changes, and accept or reject them.
- Insert, view, edit, and delete comments.
- Review documents to ensure that no unwanted revisions or comments remain in the distributed documents.

Lesson 1

Track Changes and Comments: The basics

Track Changes and Comments: The basics

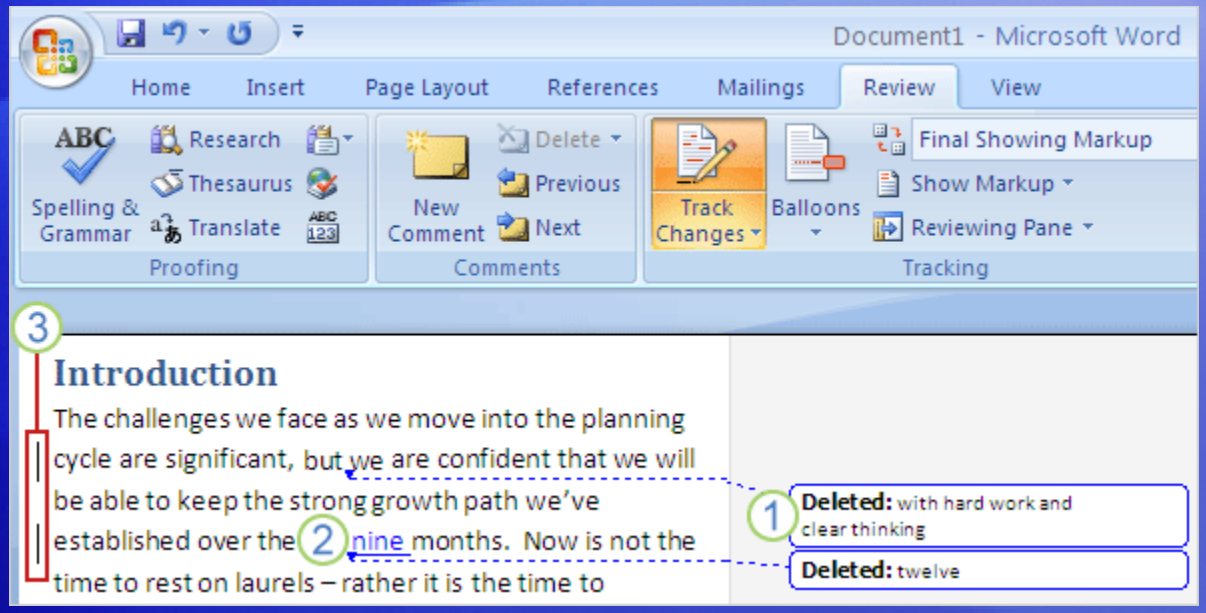
You're reviewing a document for your manager before it's sent to your entire organization.

You notice changes you want to make, which you also want your manager to see.

When you turn on Track Changes, Word inserts marks that show where deletions, insertions, and formatting changes are made.

To turn on Track Changes, on the **Review** tab, in the **Tracking** group, click **Track Changes**.

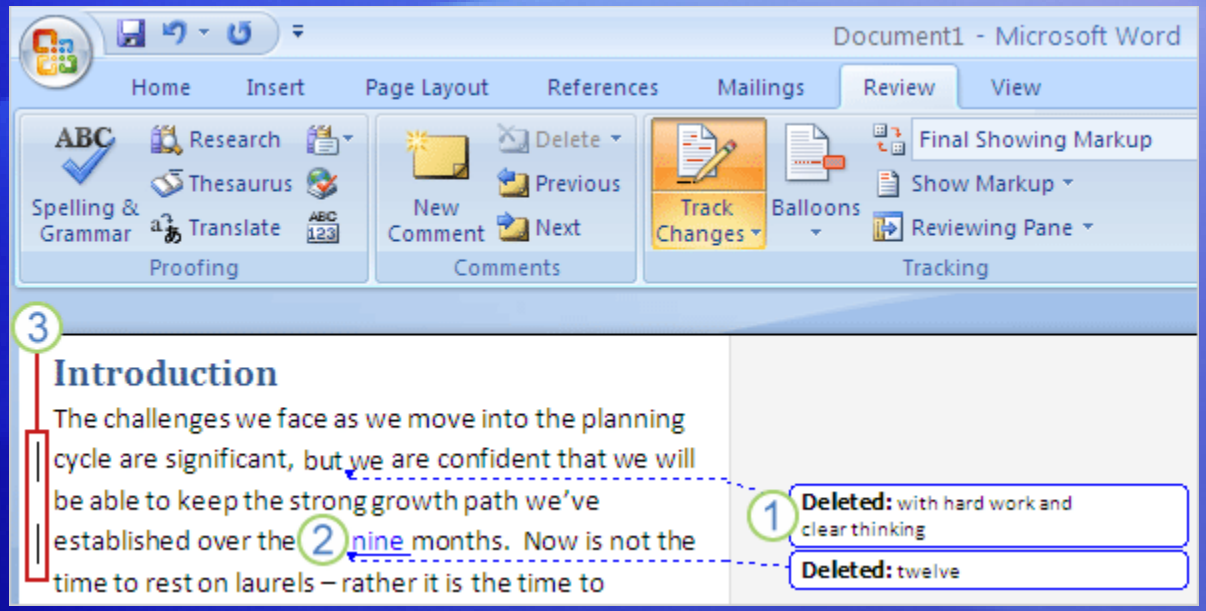
See revisions



After you turn Track Changes on, work in Word as you normally do.

As you insert or delete text, or move text or graphics around, each change appears with **markup** — marks such as colors and lines that show where each revision is and what it is.

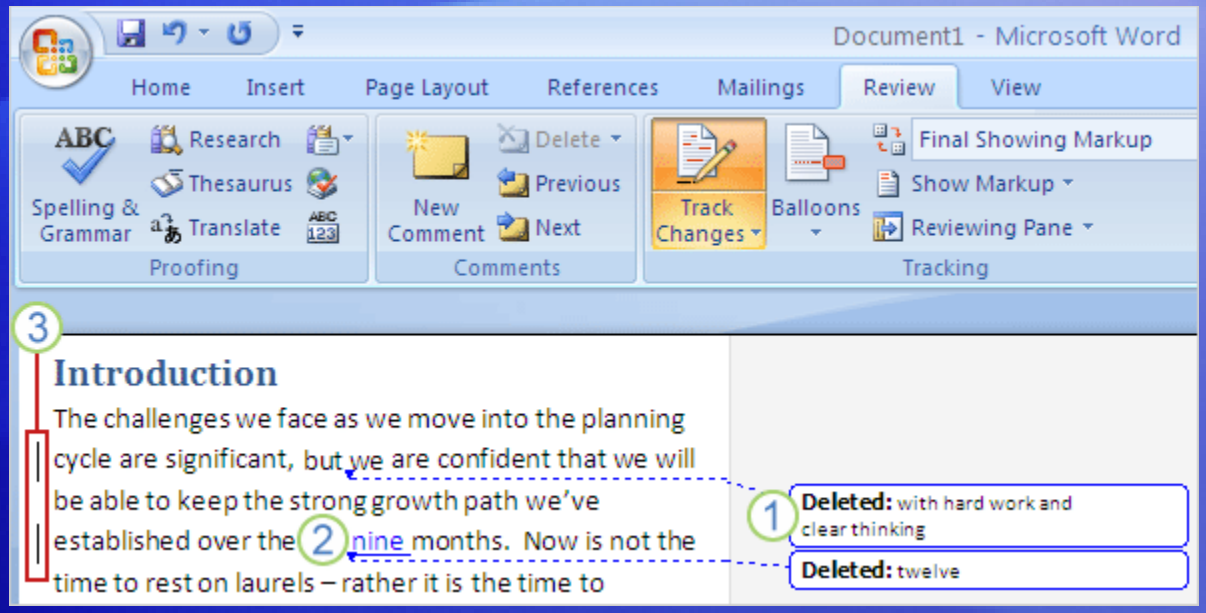
See revisions



The picture shows how markup looks when you make changes in your document.

1. When you delete the text "with hard work and clear thinking," the deleted text is put in a **balloon** in the document margin.
2. To replace "twelve" with "nine," you select "twelve" and type "nine" over it. "Twelve" goes into a balloon in the document margin; the newly inserted "nine" is underlined.

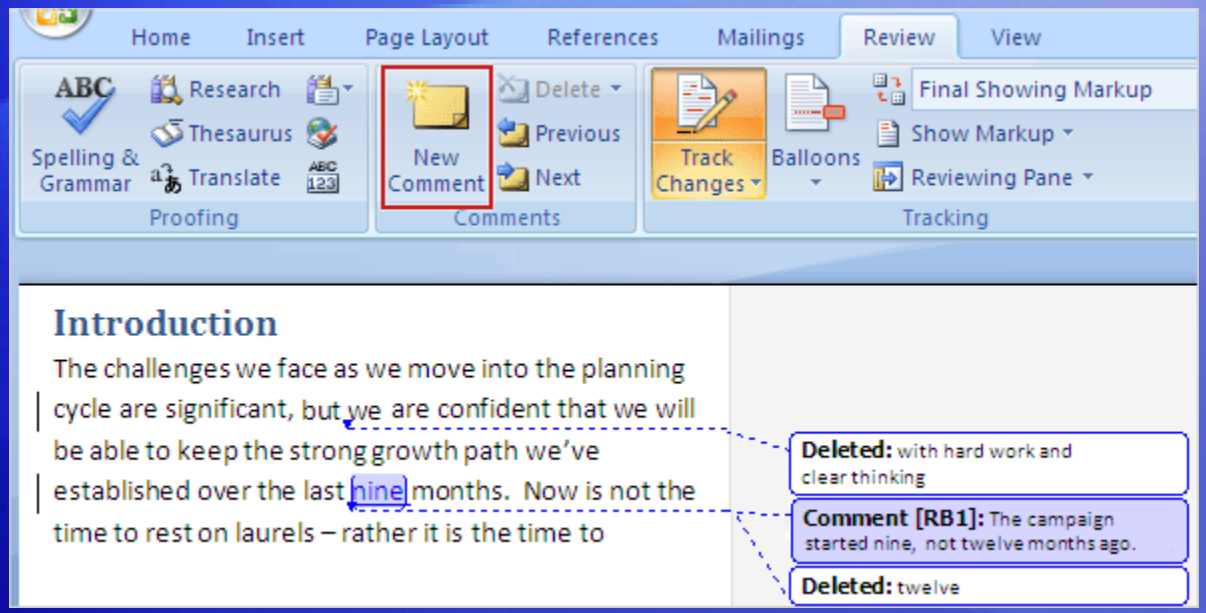
See revisions



The picture shows how markup looks when you make changes in your document.

3. A vertical line appears in the left margin next to each sentence with tracked changes. This is an additional signal that there are changes in some sentences.

Insert a comment

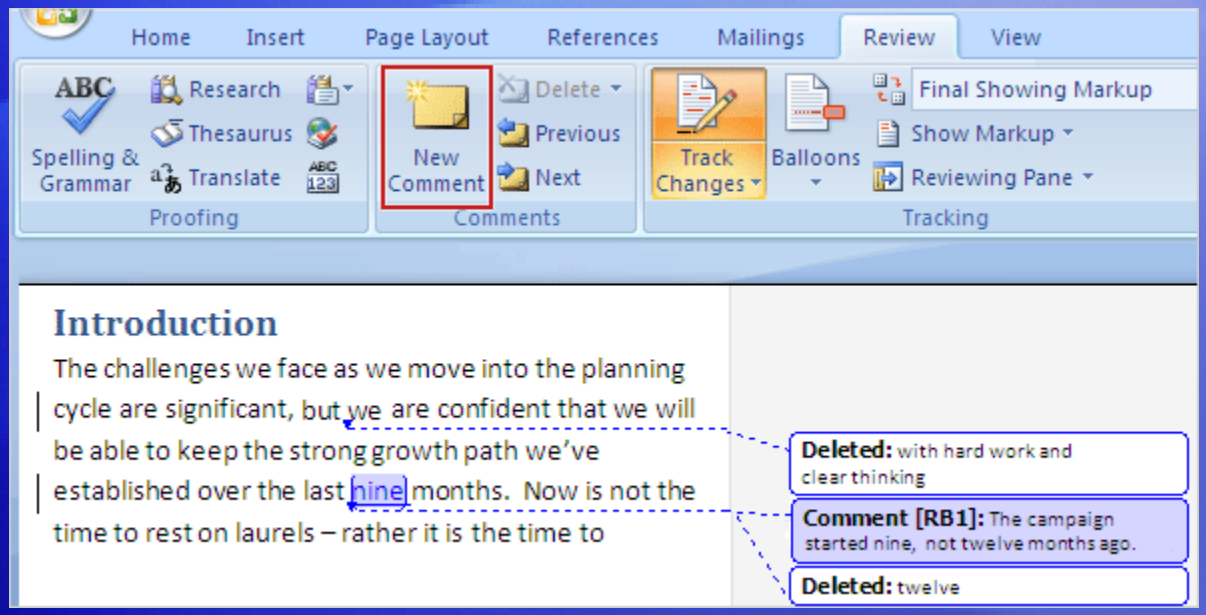


You made some revisions, but you'd also like to explain why you deleted "twelve" in the first sentence.

No problem: Insert a **comment**, which is an annotation that you can add to the document.

To do that, place the cursor at the end of the text you want to comment on, "nine" in this example. On the **Review** tab, in the **Comments** group, click **New Comment**.

Insert a comment

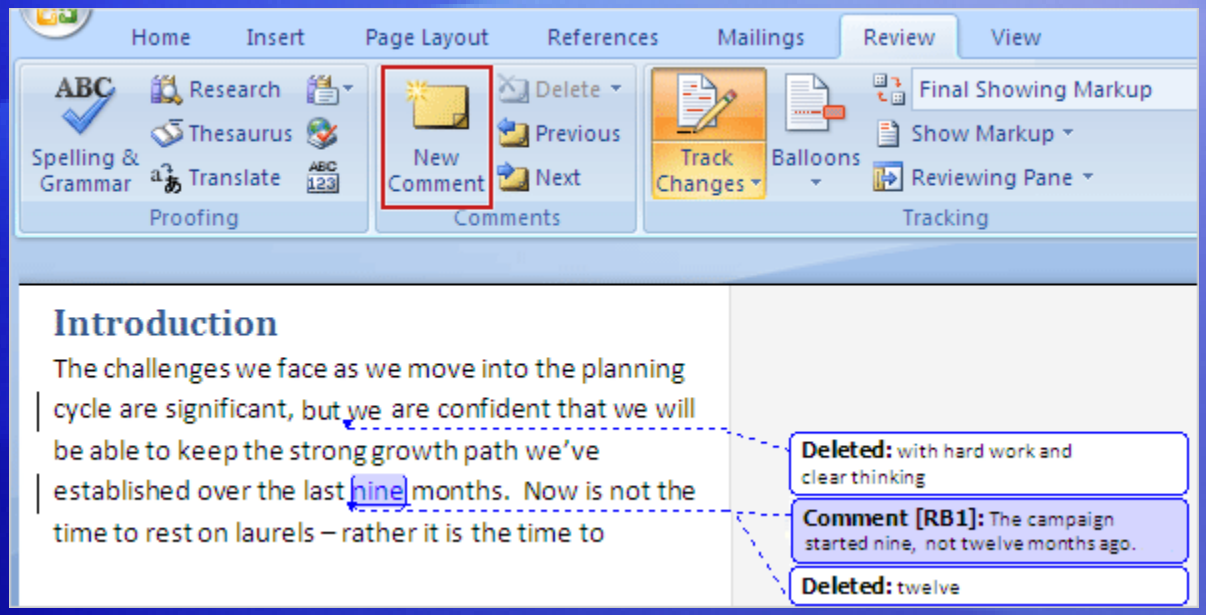


A comment balloon appears in the document margin. The text you are commenting on, "nine," is highlighted with your review color. You type your text in the comment balloon.

Here's how to tell the difference between a comment balloon and a deleted text balloon:

- The solid color background in the comment balloon. A deleted text balloon has color only around its outside border.

Insert a comment

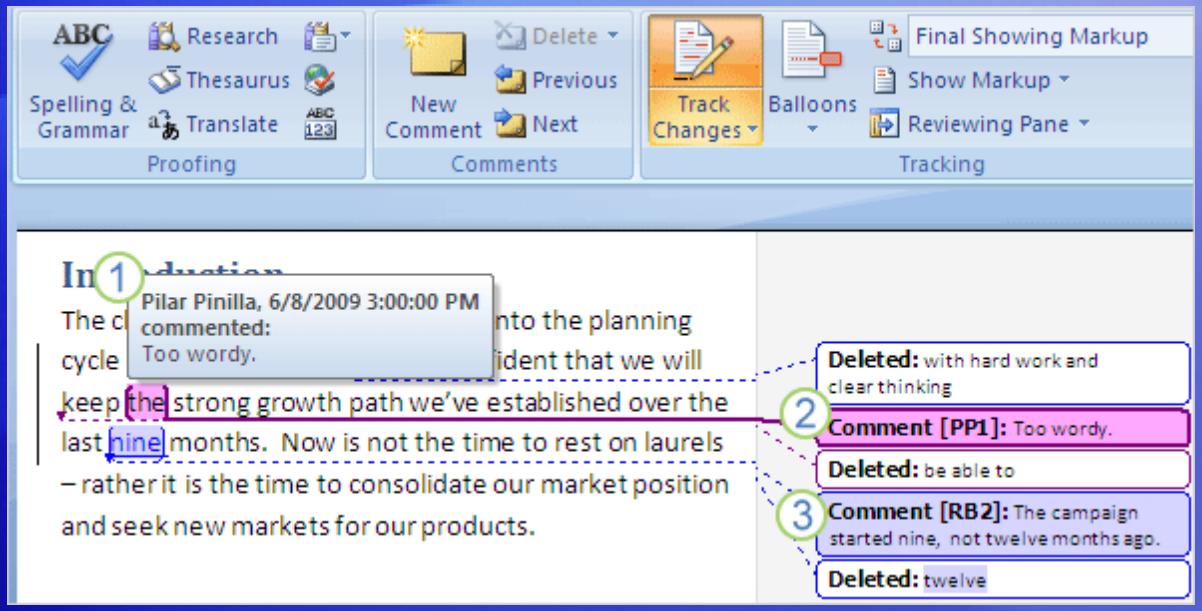


A comment balloon appears in the document margin. The text you are commenting on, "nine," is highlighted with your review color. You type your text in the comment balloon.

Here's how to tell the difference between a comment balloon and a deleted text balloon:

- The "Comment" label in the balloon.
- The reviewer's initials in the balloon.

How to tell which reviewer has done what

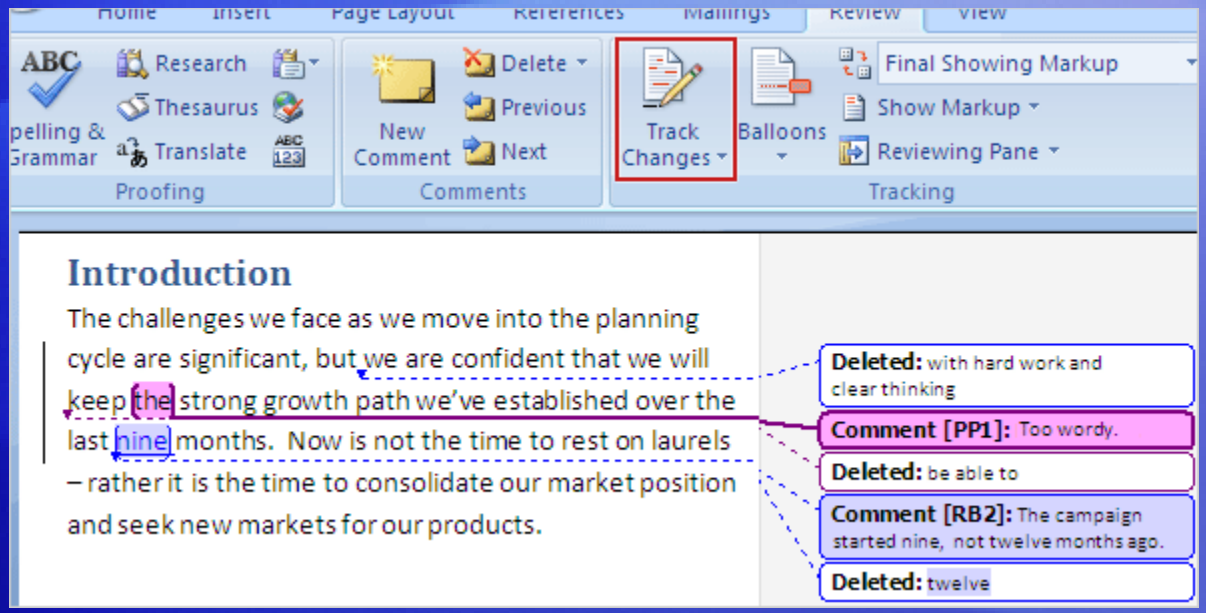


When more than one person reviews a document, you might want to know what changes were made by which reviewer.

Here are some ways to tell who did what.

1. See who made a comment by moving the mouse pointer over it in the document.
2. Look at the color of the revision. Pilar Pinilla's comments (PP) appear in one color…
3. …while Richard Bready's comments (RB) appear in another.

Turning off doesn't mean deletion



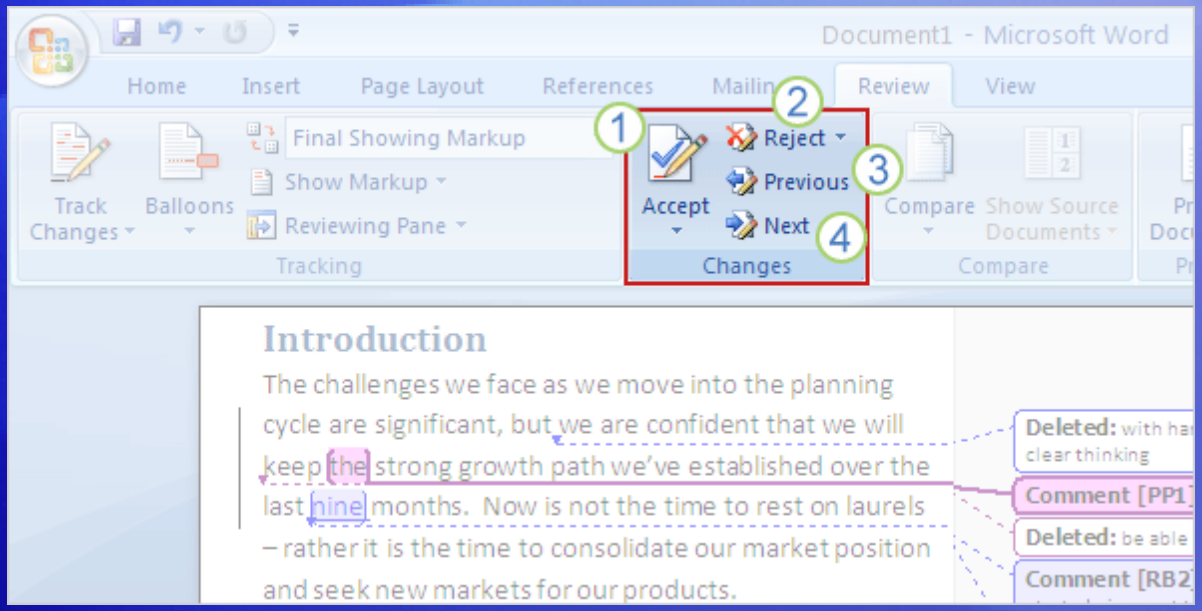
In case you wondered, turning Track Changes off does **NOT** delete tracked changes — or comments.

Here's what it does do.

All tracked changes already made up to that point remain in your document, even though Track Changes is turned off.

Any revisions you go on to make will not be marked as revisions.

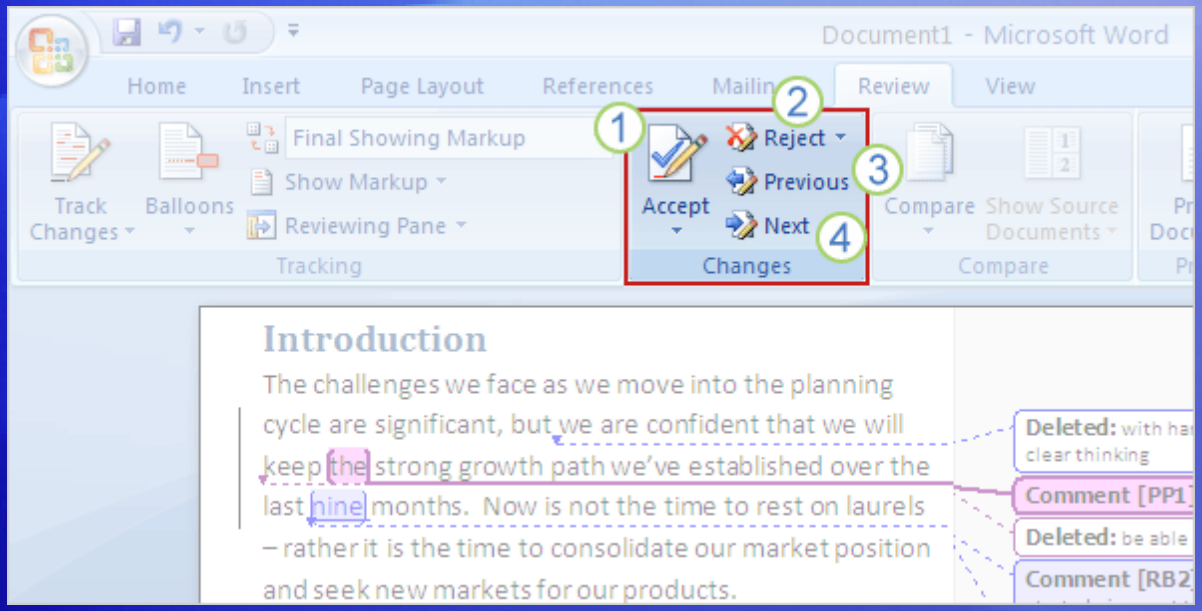
Accept or reject changes, and delete comments



When the revisions are done, someone must review them and then accept or reject them.

The reviewer can deal with revisions one at a time or all at once, and can read the comments and then delete them.

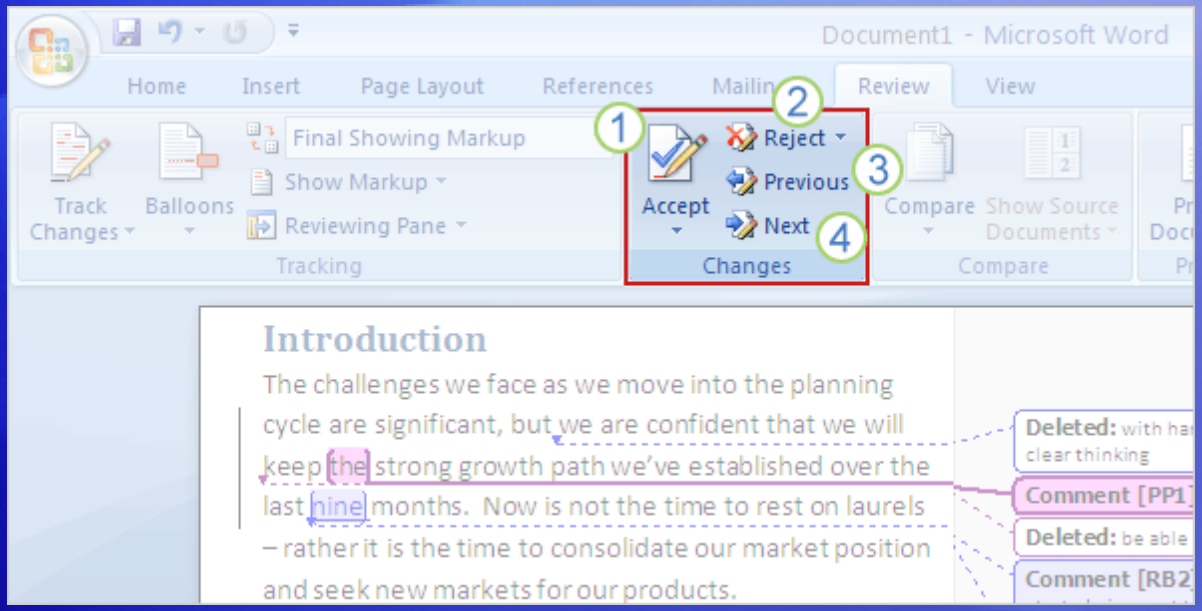
Accept or reject changes, and delete comments



The picture shows the options.

1. On the **Review** tab, in the **Changes** group, use the **Accept** button to accept changes one at a time or in sequence, or to accept all changes at once.
2. Use the **Reject** button to reject changes one at a time or in sequence, or to reject all changes at once.

Accept or reject changes, and delete comments

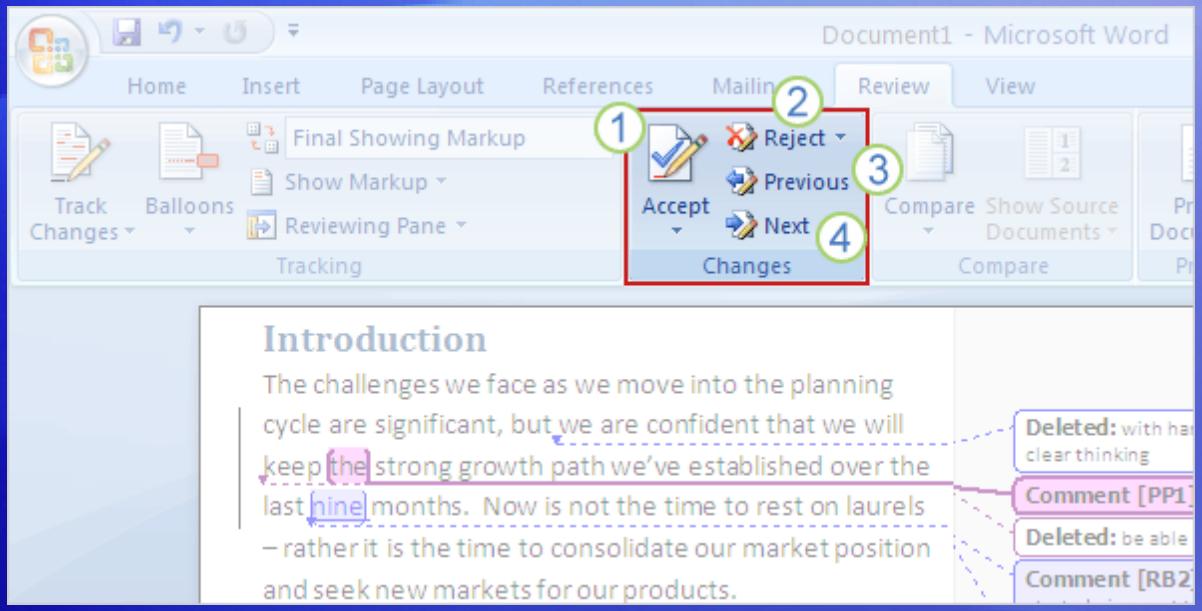


The picture shows the options.

3. Use the **Previous** button to review each item going toward the beginning of the document.

4. Use the **Next** button to review each item going toward the end of the document.

Accept or reject changes, and delete comments



The picture shows the options.

If you want to accept and reject changes and delete comments all at once rather than one at a time, right-click in the document.

Suggestions for practice

1. Make changes.
2. Move text.
3. Insert comments.
4. Show revisions and comments in a different way.
5. Accept or reject changes and delete comments.

Online practice (requires Word 2007)

Test 1, question 1

To get rid of tracked changes, turn off Track Changes. (Pick one answer.)

1. True.
2. False.

Test 1, question 1: Answer

False.

Accept or reject tracked changes to get rid of them. And watch for that message at the end of the document telling you that there are no more tracked changes (or comments).

Test 1, question 2

What does turning off Track Changes do? (Pick one answer.)

1. Deletes tracked changes and comments.
2. Hides existing tracked changes and comments.
3. Stops tracking revisions.

Test 1, question 2: Answer

Stops tracking revisions.

Any revisions made after Track Changes is turned off will not be marked with strikethroughs or underlines, or in balloons. But any revisions already created remain in the document until you accept or reject them. And comments remain until you reject or delete them.

Test 1, question 3

To insert a comment, you have to turn on Track Changes. (Pick one answer.)

1. True.
2. False.

Test 1, question 3: Answer

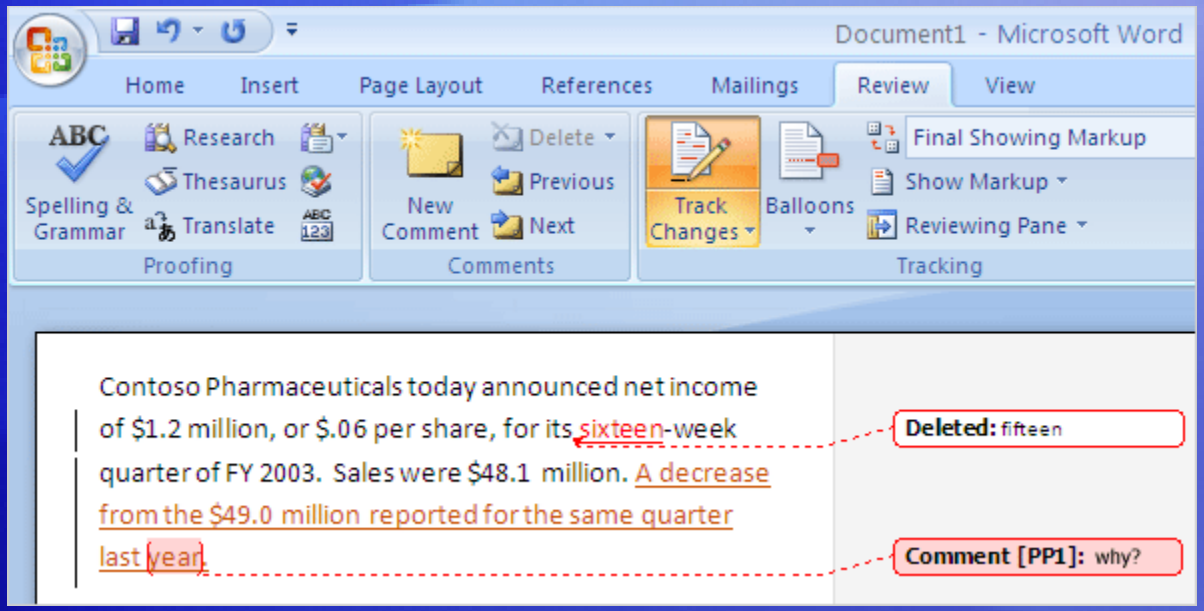
False.

Track Changes does not have to be turned on before you insert a comment. You can use comments at any time, not just when you work with tracked changes. On the **Review** tab, in the **Comments** group, click **New Comment**. You can also insert a comment by pressing CTRL+ALT+M.

Lesson 2

Track changes and comments: Beyond the basics

Track changes and comments: Beyond the basics



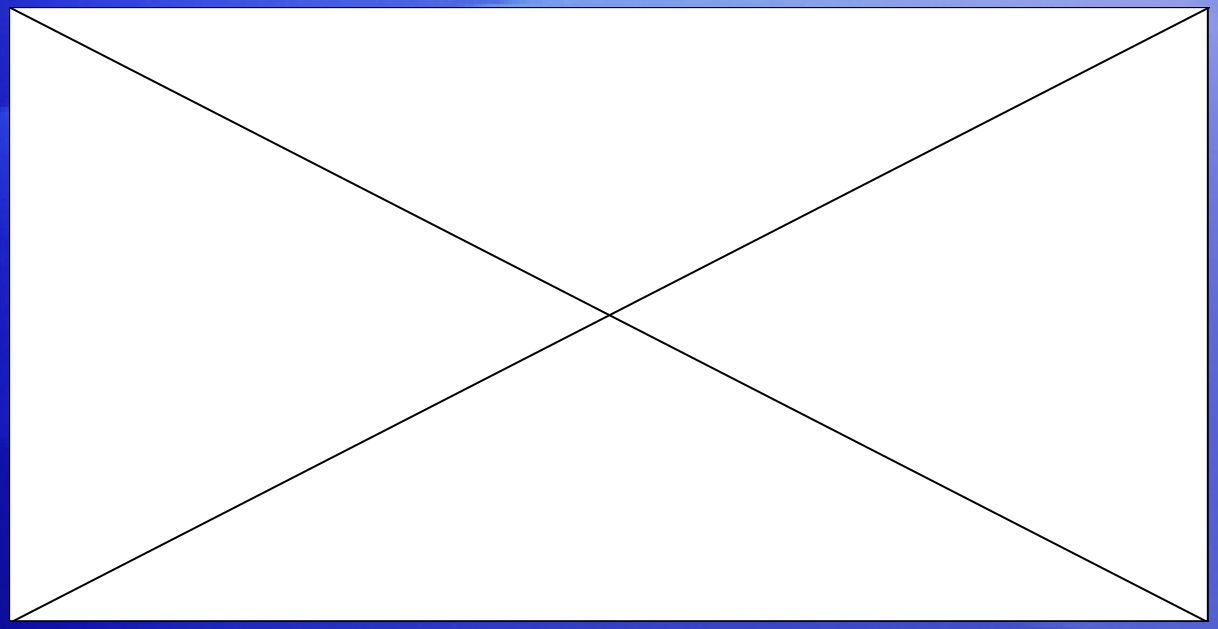
Imagine that you are about to review a document with changes made by Richard, Kai, and Pilar.

You'd like to see Pilar's revisions first. You know that you can see them by moving the pointer over all the changes to see her name or by looking for her markup color.

But you wonder if you can see just her changes, without having to sort through Richard's and Kai's too. This can be handy when working with long documents.

Revise documents with Track Changes and Comments

Temporarily hide changes

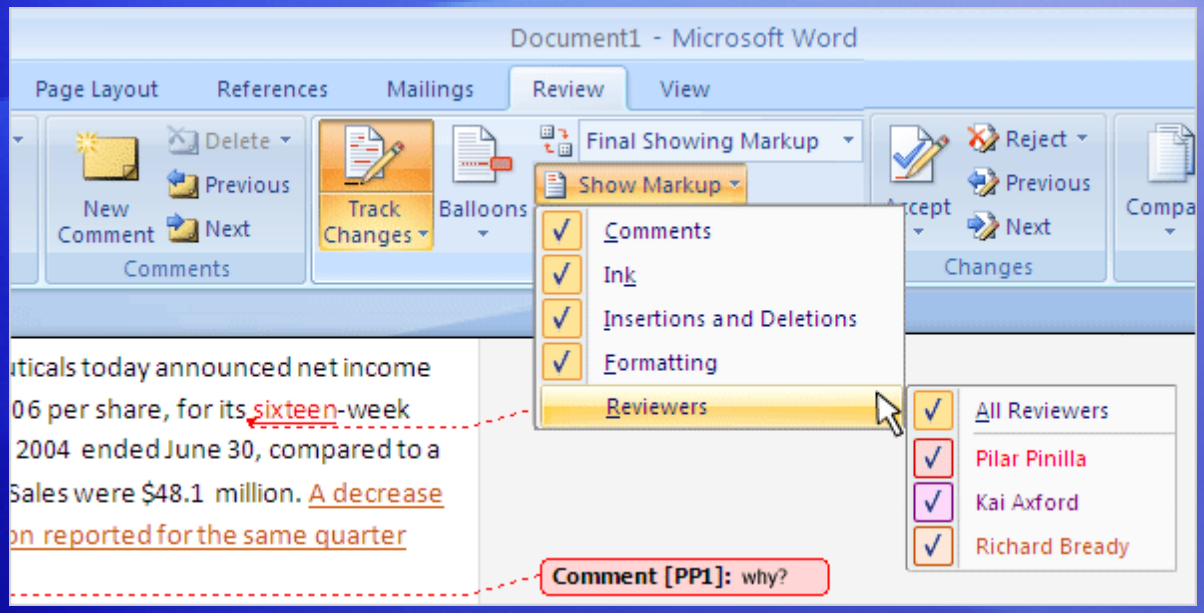


To see only Pilar's changes, you can *temporarily* hide the information you don't want to review right now (Richard's and Kai's revisions).

Animation: Right-click, and click **Play**.

On the **Review** tab, in the **Tracking** group, click the arrow next to **Show Markup**, point to **Reviewers**, and clear the check box next to **All Reviewers**. Then click the arrow next to **Show Markup** again, point to **Reviewers**, and click the check box next to Pilar's name to select it.

Temporarily hide changes

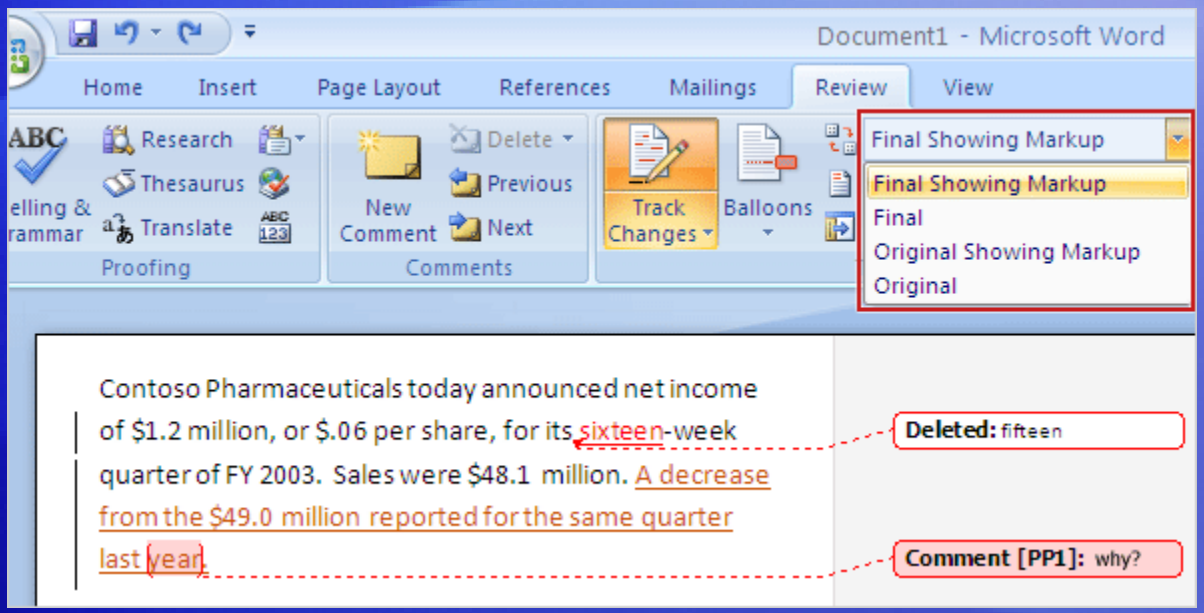


To see only Pilar's changes, you can *temporarily* hide the information you don't want to review right now (Richard's and Kai's revisions).

On the **Review** tab, in the **Tracking** group, click the arrow next to **Show Markup**, point to **Reviewers**, and clear the check box next to **All Reviewers**.

Then click the arrow next to **Show Markup** again, point to **Reviewers**, and click the check box next to Pilar's name to select it.

See a document before and after

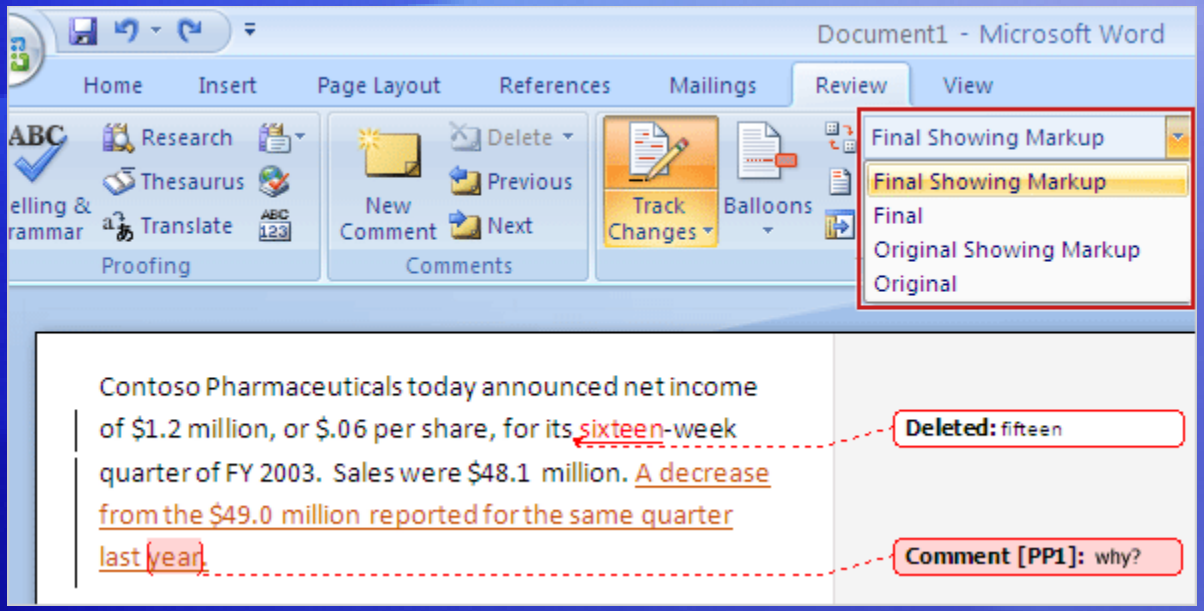


What did a marked-up document look like before it had all those revisions and changes? What it would look like if you accepted all changes and deleted all comments?

To help prevent you from inadvertently distributing documents with tracked changes and comments, Word automatically displays documents with markup showing.

On the **Review** tab, in the **Tracking** group, **Final Showing Markup** is the default option in the **Display for Review** box.

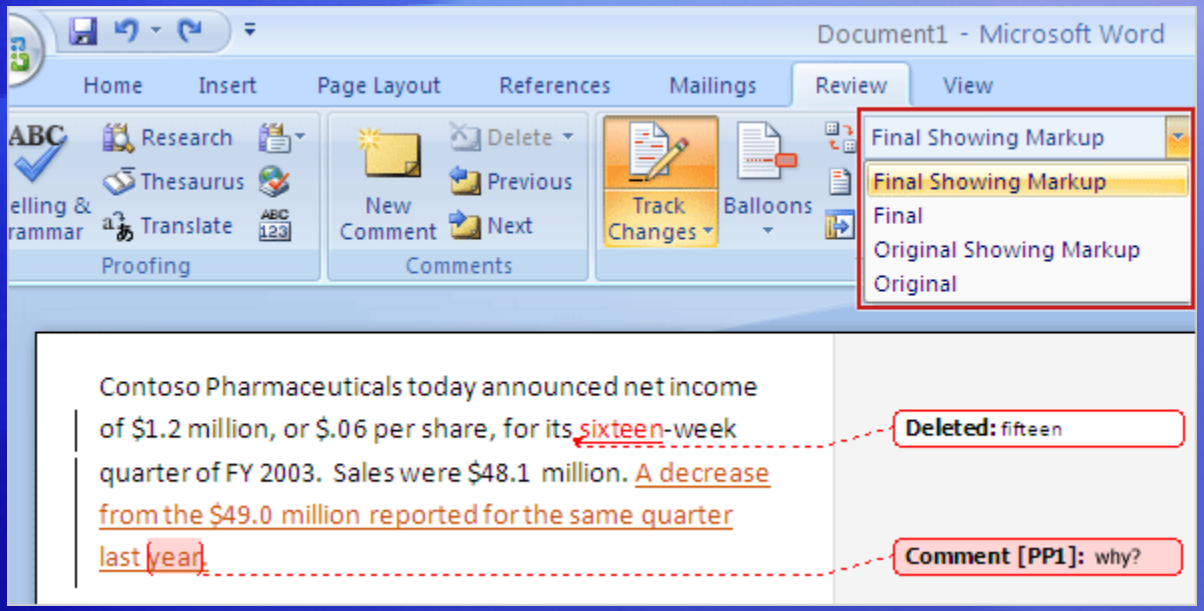
See a document before and after



What did a marked-up document look like before it had all those revisions and changes? What it would look like if you accepted all changes and deleted all comments?

To see how the document looked before tracked changes and comments were inserted, click the arrow in the **Display for Review** box, and then click **Original**.

See a document before and after

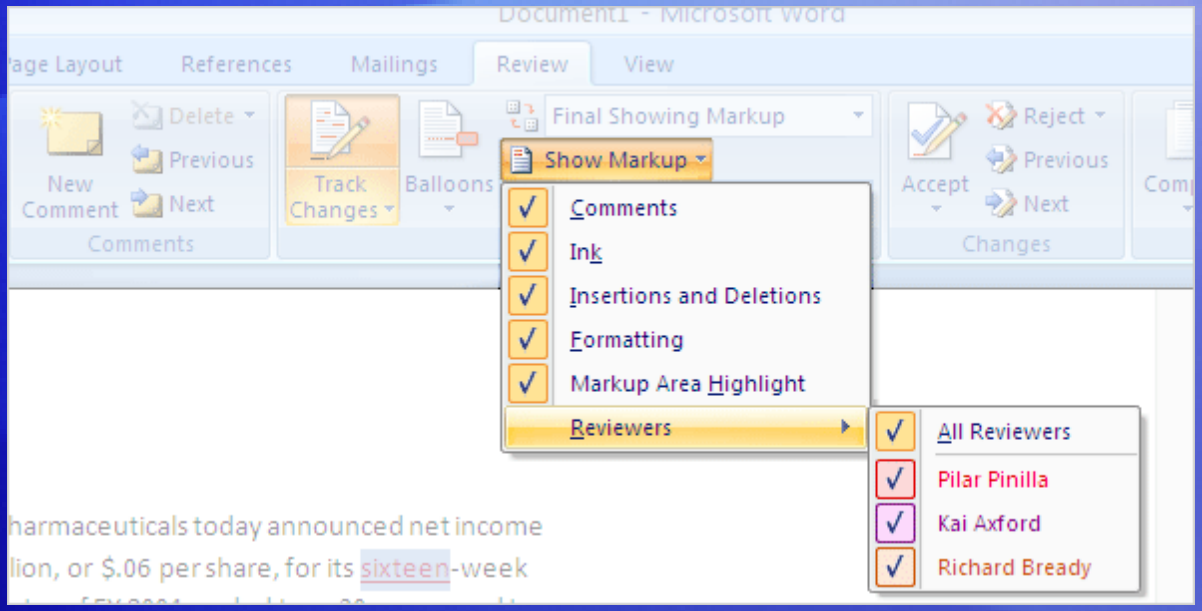


What did a marked-up document look like before it had all those revisions and changes? What it would look like if you accepted all changes and deleted all comments?

To see how the document would look with all revisions accepted and comments deleted, click the arrow in the **Display for Review** box, and then click **Final**.

After you review the document, click **Final Showing Markup** to display tracked changes and comments again.

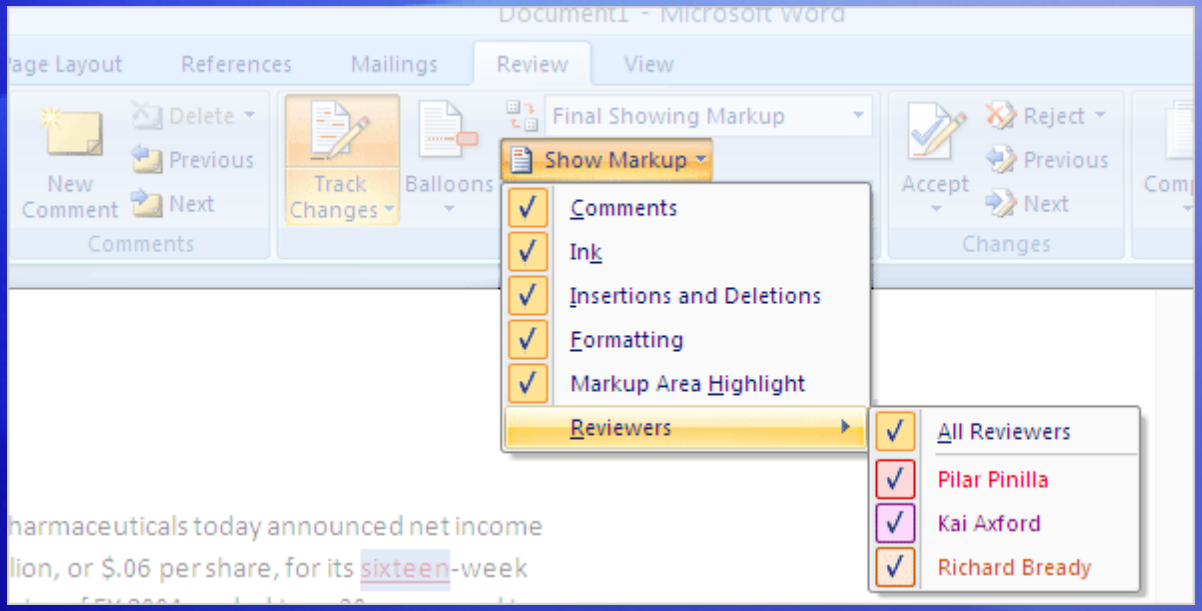
Hiding tracked changes doesn’t mean deletion



As mentioned earlier, hiding tracked changes or comments doesn’t delete markup. It just lets you see the document without underlines and balloons.

If you save and close a document with hidden markup, you (and maybe someone else, too) will see revisions and comments when the document is opened again.

Hiding tracked changes doesn't mean deletion

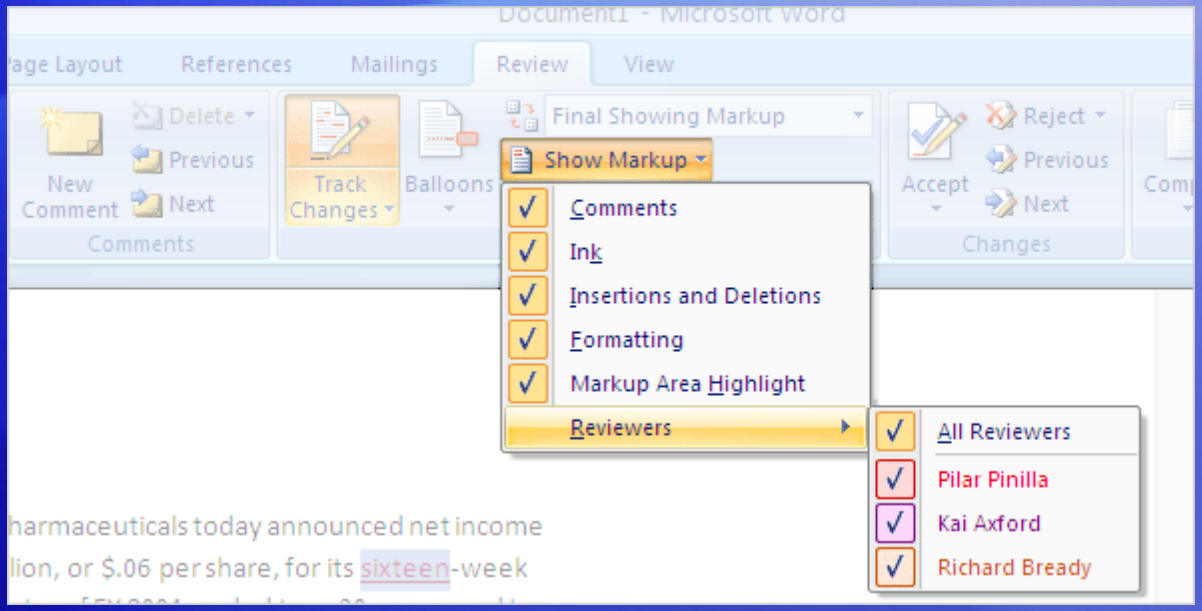


Here are some ways to see if a document contains hidden tracked changes or comments before you close it.

Doing this is especially important if you are about to distribute a document:

- On the **Review** tab, in the **Tracking** group, click **Show Markup**. Make sure there is a check mark next to **Comments**, **Ink** (for handwritten notes with a Tablet PC), **Insertions and Deletions**, and **Formatting**.

Hiding tracked changes doesn't mean deletion

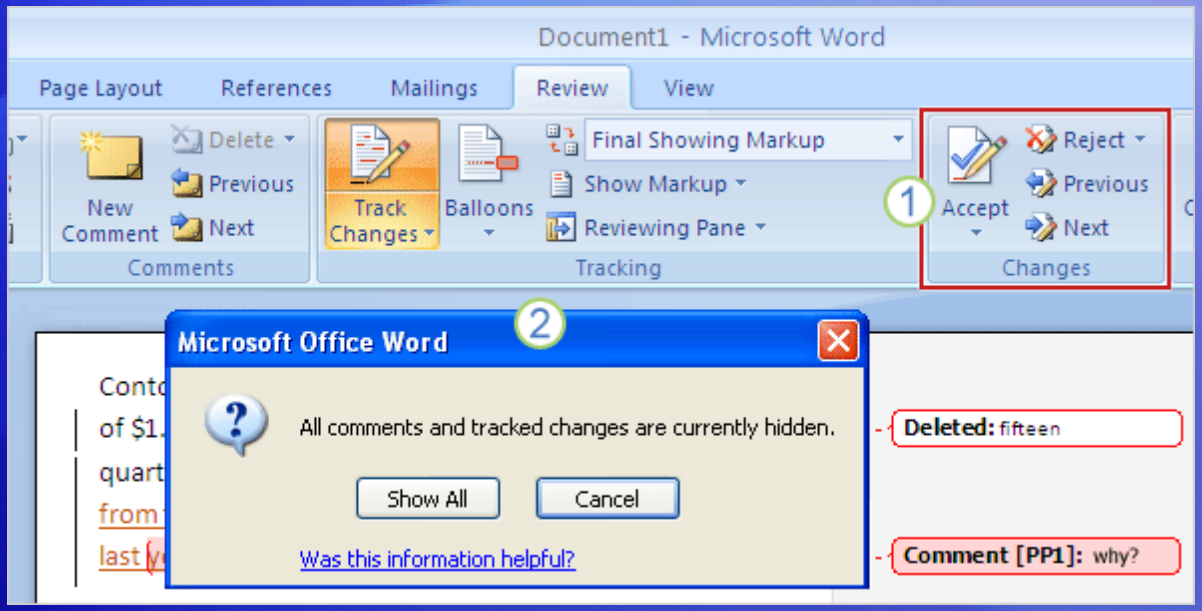


Here are some ways to see if a document contains hidden tracked changes or comments before you close it.

Doing this is especially important if you are about to distribute a document:

- Point to **Reviewers** on the **Show Markup** menu, and be sure there is a check mark next to **All Reviewers**.

Check for revisions and comments

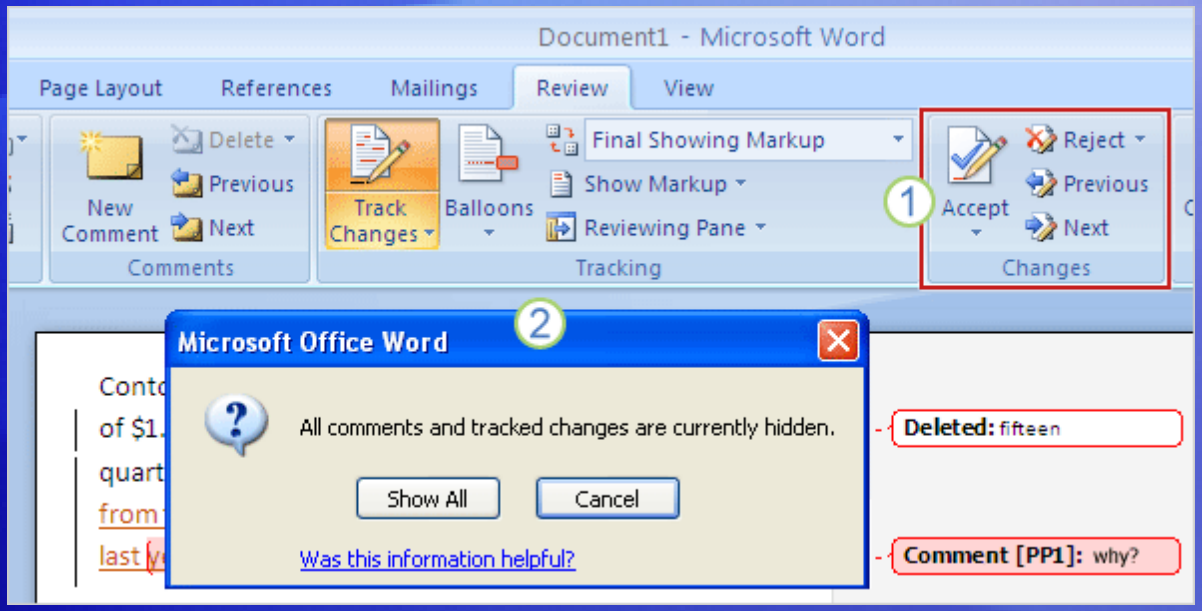


The only way to get rid of tracked changes is to accept or delete them. The only way to get rid of comments is to delete or reject them.

After you've checked to ensure that all revisions and comments are displayed, and before you distribute a document, do what the professionals do, automatically and every time.

Revise documents with Track Changes and Comments

Check for revisions and comments

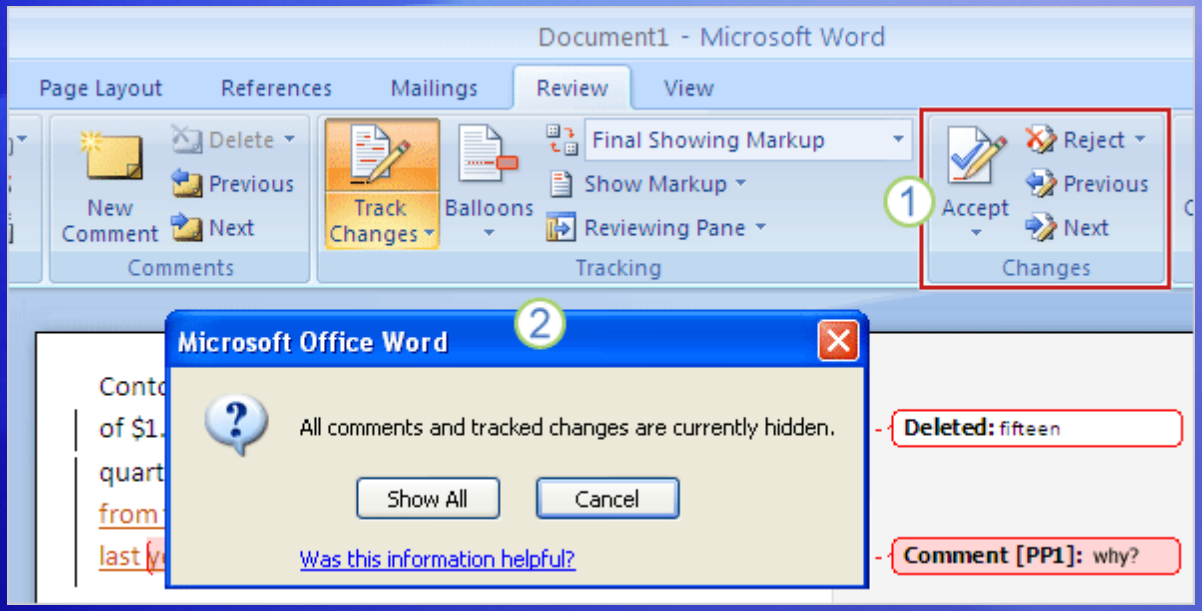


The only way to get rid of tracked changes is to accept or delete them. The only way to get rid of comments is to delete or reject them.

1. On the **Review** tab, in the **Changes** group, use the buttons to look for revisions and comments from one end of the document to the other.

   Remove any changes by accepting or rejecting them, and delete any comments.

Check for revisions and comments

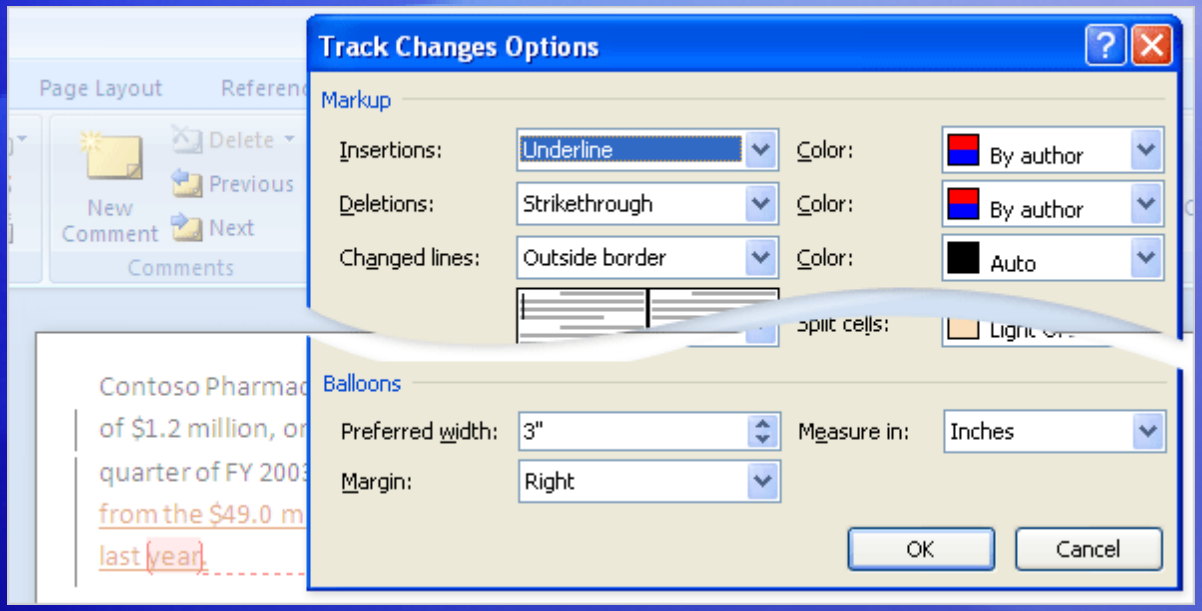


The only way to get rid of tracked changes is to accept or delete them. The only way to get rid of comments is to delete or reject them.

2. To see if a document contains hidden tracked changes or comments, click any button in the **Comments** or **Changes** group.

   If you get the message shown here, click **Show All** to display revisions and comments.

Choose how you make tracks



Do you like to see comments and tracked changes but wish that you could change their look?

You have some options for how tracked changes and comments are displayed. On the **Review** tab, in the **Tracking** group, click the arrow on **Track Changes**. Then click **Change Tracking Options**.

As the picture shows, there's lots to choose from.

Suggestions for practice

1. Use the **Show Markup** menu to temporarily hide reviewer markup.
2. Track formatting revisions.
3. Use the **Show Markup** menu to hide revisions by type.
4. Look at different ways to verify that a document doesn't contain hidden markup.
5. Check out the tracked changes option.

Online practice (requires Word 2007)

Test 2, question 1

Clearing check boxes on the Show Markup menu does not delete changes. (Pick one answer.)

1. True.
2. False.

Test 2, question 1: Answer

True.

Clearing check boxes temporarily hides revisions and comments.
Clearing a check box never deletes changes.

Test 2, question 2

You have a document with insertions and deletions, formatting changes, and comments. To see just insertions and deletions, on the Show Markup menu, clear which of the following? (Pick one answer.)

1. The check box next to **Comments**.

2. The check boxes next to **Insertions** and **Deletions**.

3. The check boxes next to both **Comments** and **Formatting**.

Test 2, question 2: Answer

The check boxes next to both **Comments** and **Formatting**.

Clearing these two check boxes will hide comments and formatting revisions, leaving only insertions and deletions.

Test 2, question 3

What's the last thing you should do before you distribute a document? (Pick one answer.)

1. Check for spelling and grammar errors.
2. Save the document.
3. Check for revisions and comments.

Test 2, question 3: Answer

Check for revisions and comments.

Before you distribute a document, always check to see if there are any revisions or comments. As a last step, you can use the Document Inspector.

Quick Reference Card

For a summary of the tasks covered in this course, view the Quick Reference Card.