

CCA-101: Fundamentals of IT & Programming

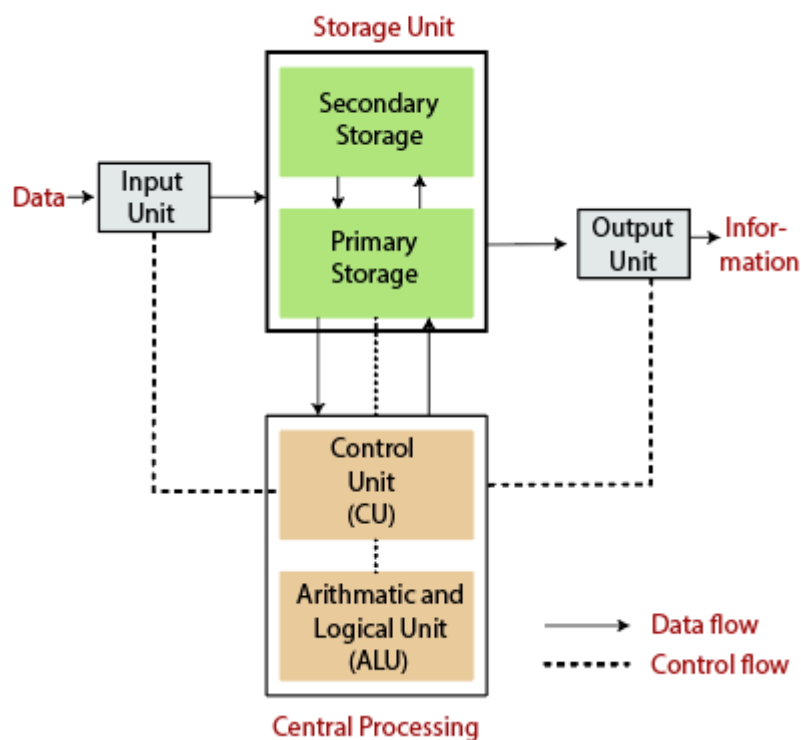
Assignment -1

Q1: What are the four fundamental parts of computer? Explain it with the help of diagram.

Ans. Computer Block Diagram System: Mainly computer system consists of three parts, that are central processing unit (CPU), Input Devices, and Output Devices. The Central Processing Unit (CPU) is divided into two parts again: arithmetic logic unit (ALU) and the control unit (CU). The set of instruction is in the form of raw data.

A large amount of data is stored in the computer memory with the help of primary and secondary storage devices. The CPU is like the heart/brain of the computer. The user does not get the desired output, without the necessary option taken by the CPU. The Central processing unit (CPU) is responsible for the processing of all the instructions which are given by the user to the computer system.

Block diagram of Computer



instruction is processed by the CPU after getting the input by the user, and then the computer system produces the output. The computer can show the output with the help of output devices to the user, such as monitor.

Fig: Block

Diagram of the computer.

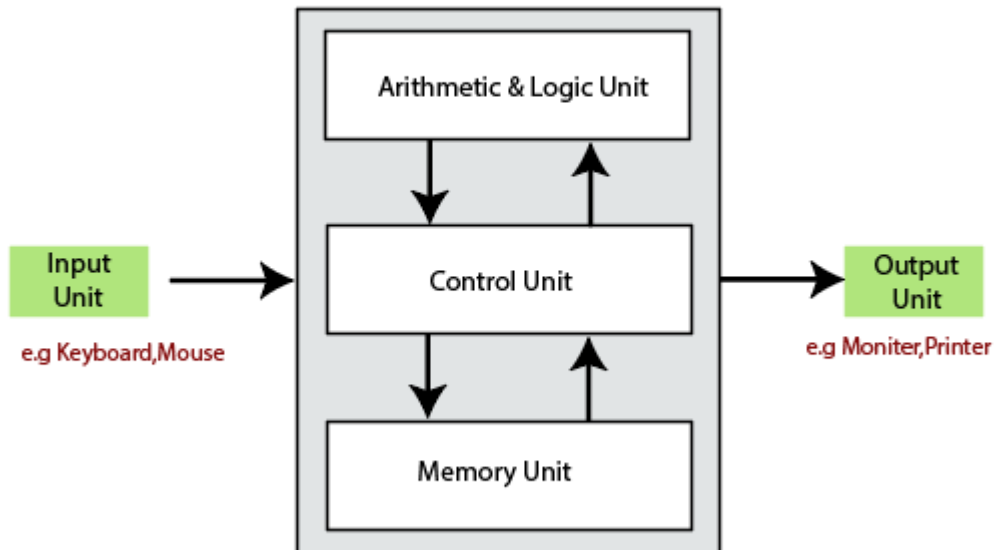
The data is entered through input devices such as the keyboard, mouse, etc. This set of input devices is known as the input unit. The output is produced by the output devices such as monitor, printer, etc.

- CPU (Central Processing Unit)
- Storage Unit
- ALU(Arithmetic Logic Unit)
- Control Unit

Central Processing Unit (CPU)

The computer system is nothing without the Central processing Unit so, it is also known as the brain or heart of computer. The CPU is an electronic hardware device which can perform different types of operations such as arithmetic and logical operation.

Central Processing Unit (CPU)



The CPU contains two parts: the arithmetic logic unit and control unit. We have discussed briefly the arithmetic unit, logical unit, and control unit which are given below:

Control Unit

The control unit (CU) controls all the activities or operations which are performed inside the computer system. It receives instructions or information directly from the main memory of the computer.

When the control unit receives an instruction set or information, it converts the instruction set to control signals then; these signals are sent to the central processor for further processing. The control unit understands which operation to execute, accurately, and in which order.

Arithmetic and Logical Unit

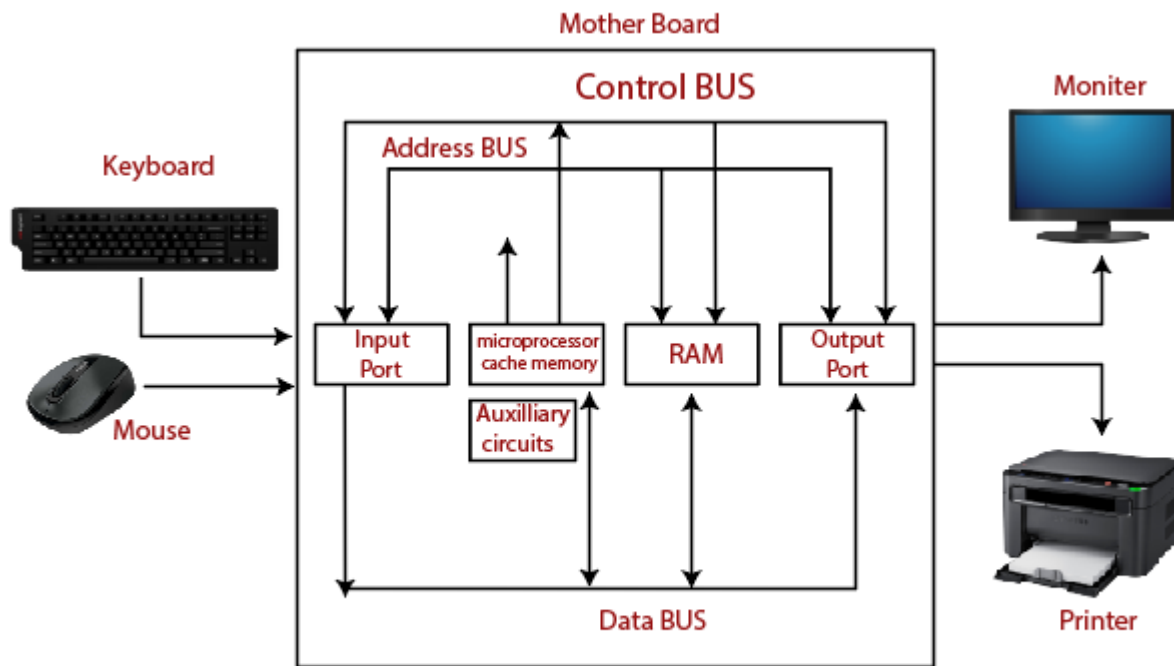
The arithmetic and logical unit is the combinational digital electronic circuit that can perform arithmetic operations on integer binary numbers. It presents the arithmetic and logical operation. The outputs of ALU will change asynchronously in response to the input. The basic arithmetic and bitwise logic functions are supported by ALU.

Storage Unit

The information or set of guidelines are stored in the storage unit of the computer system. The storage unit provides the space to store the data or instruction of processed data. The information or data is saved or hold in computer memory or storage device. The data storage is the core function and fundamental of the computer components.

Components of Computer System

The hardware and software exist on the computer. The information which is stored through the device is known as computer software. The hardware components of the computer system are related to electronic and mechanical parts, and the software component is related to data and computer programs. Many elements are connected to the main circuit board of the computer system called a "motherboard."



Components of a Computer System

- Processor.
- Main Memory.
- Secondary Memory.
- Input Devices.
- Output Devices.

These are mainly five components of the computer system. The computer hardware, computer software, and liveware exist in the element of the computer system.

Processor

The processor is an electric circuitry within the computer system. The Central processing unit is the central processor or main processor of the computer system. The processor carries out the instructions of the computer program with the help of basic arithmetic and logic, input/output operations.

Main Memory

The Random Access Memory is the main memory of the computer system, which is known as RAM. The main memory can store the operating system software, application software, and other information. The Ram is one of the fastest memory, and it allows the data to be readable and writeable.

Secondary memory

We can store the data and programs on a long-term basis in the secondary memory. The hard disks and the optical disks are the common secondary devices. It is slow and cheap memory as compare to primary memory. This memory is not connected to the processor directly.

It has a large capacity to store the data. The hard disk has a capacity of 500 gigabytes. The data and programs on the hard disk are organized into files, and the file is the collection of data on the disk. The secondary storage is direct access by the CPU; that's why it is different from the primary storage.

The hard disk is about 100 times the capacity of the main memory. The main difference between primary and secondary storage is speed and capacity. There are several large blocks of data which are copied from the hard disk into the main memory.

Input Devices

The user provides the set of instruction or information to the computer system with the help of input devices such as the keyboard, mouse, scanner, etc. The data representation to the computer system is in the form of binary language after that the processor processes the converted data. The input unit implements the data which is instructed by the user to the system.

We can enter the data from the outside world into the primary storage as the input through input devices. The input devices are the medium of communication between the outside world and the computer system.

There are some important features of input devices which are given below:

1. The input devices receive or accept the data or instruction from the user, who exist in the outside world.
2. These devices convert the data or instruction into the machine-readable form for further processing.
3. The input device performs like the connection between the outside world and our computer system.
4. The keyboard and mouse are common examples of input devices.
5. When the whole procedure is finished, we get the desired output from the output devices such as monitor, printer, etc.

Output Devices

The output devices produce or generate the desired result according to our input, such as a printer, monitor, etc. These devices convert the data into a human-readable form from binary code.

The computer system is linked or connected to the outside world with the help of output devices. The primary examples of output devices are a printer, projector, etc.

These devices have various features which are given below:

1. These devices receive or accept the data in the binary form.
2. The output devices convert the binary code into the human-readable form.
3. These devices produce the converted result and show to the user.

Q2: Discuss about the classification of computers based on size and capacity.

Ans. Classification of Computer Based on Size and Capability

Introduction

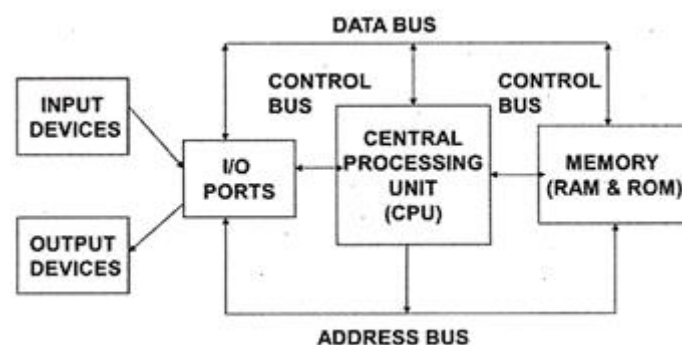
Classification of computers are based on their architecture, speed of executing commands or instructions, peripheral used and also their uses. Microcomputers are usually used in home and offices and only a single user can perform the task using a microcomputer. Its storage and data handling capacity are limited as per the requirement for home and office work. The another type of computer is called minicomputer which has usually larger storage and can handle multiuser at a time. This chapter includes the classification of computers.

Computer's Classification

Computers are classified on different parameters, such as, storage capacity, processing speed and component (CPU) used in computers. Depending upon the components used and features of different computers, they are classified into four groups, Microcomputers, Minicomputers, Mainframe computers and Supercomputers.

Micro Computers

Micro Computer is a computer whose CPU (Central Processing Unit) is a microprocessor. All the components of a microprocessor are on a single integrated circuit chip. Micro computer can be categorized as the desktop, programmable and workstation. The microprocessor based computers are called third generation computers. They are the backbone of the modern computer era. The first and second generation computers are based on vacuum tubes and bipolar junction transistors.



Desktop Computers

Desktop computer is a type of microcomputer. A desktop computer has a keyboard for input data, a LCD or CRT monitor to display information and Central processing unit tower contains storage, memory, different types of drives, such as, CD drive, hard drive, etc. A desktop computer is mainly used at home and office applications.

Programmable Computers (PDA)

Personal digital assistance is a type of hand held programmable digital computer. It is used as notepads, address books and can connect to world web wave to share information. A PDA is equipped with mobile phone hence, called smallest computer.

Workstation

A workstation computer has greater memory capability and more extensive mathematical abilities. It is connected with other workstation computers or personal computer to exchange data and mostly used for scientific applications. It also supports multitasking applications.

Mini Computers

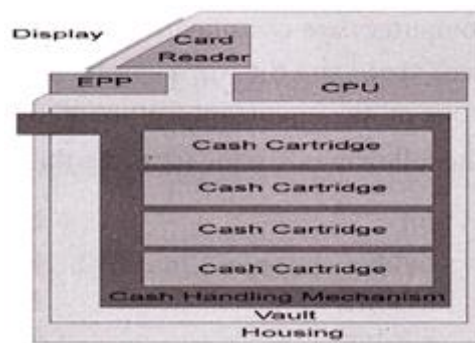
Minicomputers were introduced in early 1960s. They were faster than micro computers. Basically these computers were mainly multi-user systems, where many users work on the systems. Generally these types of computers had larger memories and greater storage capacity. They had large instruction set and address field. These kinds of computers have efficient storage for handling of text, in comparison to lower bit machines. Due to more efficient processor, speed and memory size, minicomputer was used in variety of applications and could support business applications along with the scientific applications. Minicomputer was a multi-user system which means more than one user could use this system simultaneously.

Comparison of Micro and Mini computers

Features	Microcomputer	Minicomputer
Primary memory	Shall memory	Larger memory
Word length	Small word length	Larger word length
Cost low	Low	High
Processor	Low	High

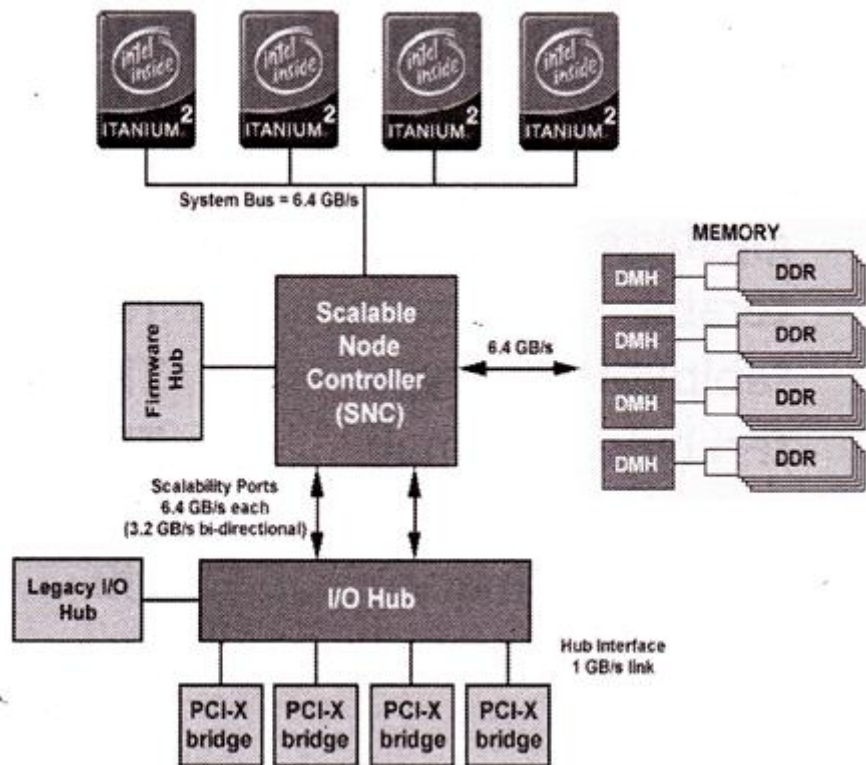
Mainframe Computers

Mainframe computers are large and expensive machines. The word length of mainframe computers may be 48, 60 or 64 bits, memory capacity being in some megabytes and storage capacity in some terabytes. Generally they handle huge volumes of information and data. In terms of speed, they are having significant processing capacity. They are used in research organizations, large industries, airlines reservation where a large database has to be maintained.



Super Computers

Super Computers are the fastest computer in current era. The processing capabilities of super computer lies in the range of GIPS2, word length 64-128 or may be in 256 or so. The memory capacity of super computer is in some gigabytes or in terabytes. The storage capacity of this type of computer is in exabytes.



The parallel processing of a super computer makes it very fast because it contains number of CPU that operates parallel. They are used at some research centers and government agencies involving sophisticated scientific and engineering tasks.

Super computers are used for the followings:

- ❖ Weapons research and development
- ❖ Nuclear and plasma physics
- ❖ Rocket research and development
- ❖ Atomic research
- ❖ Aerodynamics

Units For Measuring Word Length, Data, And Storage Capacity of a Computer

Computers are classified on the basis of their data processing speed better known as clock speed and the word length. The word length that is processed by a CUP at a time is one of the important feature of that CPU.

The followings are the units for the measurement of data volume:

bit	bit	0 or 1
Byte	B	8 bite
Kibibit	Kibit	1024 bits
kilobit	Kbit	1000 bits
kibibyte (binary)	KiB	1024 bytes
kilobyte (decimal)	kB	1000 bytes
megabit	Mbit	1000 kilobits
mebibyte (binary)	MiB	1024 kibibytes
megabyte (decimal)	MB	1000 kilobytes
gigabit	Gbit	1000 megabits
gibibyte (binary)	Gibbs	1024 mebibytes
gigabyte (decimal)	GB	1000 megabytes
terabit	Tbit	1000 gigabits
tebibyte (binary)	TiB	1024 gibibytes
terabyte (decimal)	TB	1000 gigabyte
Petabit	Pbit	1000 terabyte
pebibyte (binary)	PiB	1024 tebibytes
petabyte (decimal)	PB	1000 terabytes
exabit	Ebit	1000 petabits
exbibyte (binary)	EiB	1024 pebibytes
exabyte (decimal)	EB	1000 petabytes

Q3: What is the meaning of computer generation? How many Computer Generations are

defined? What technologies were/are used?

Ans. 1 Computer Fundamental Overview What is a computer? Computer is an advanced electronic device that takes raw data as an input from the user and processes it under the control of a set of instructions (called program), produces a result (output), and saves it for future use. This tutorial explains the foundational concepts of computer hardware, software, operating systems, peripherals, etc. along with how to get the most value and impact from computer technology. Functionalities of a Computer There are three basic functionalities of a Computer System and they are 1. Input 2. Process 3. Output But if we look at it in a very broad sense, any digital computer carries out the following five functions: Step 1 - Takes data as input. Step 2 - Stores the data/instructions in its memory and uses them as required. Step 3 - Processes the data and converts it into useful information. Step 4 - Generates the output. Step 5 - Controls all the above four steps. Computer Input Process Output

2 Advantages of Computers

Following are certain advantages of computers.

High Speed • Computer is a very fast device. • It is capable of performing calculation of very large amount of data. • The computer has units of speed in microsecond, nanosecond, and even the picosecond. • It can perform millions of calculations in a few seconds as compared to man who will spend many months to perform the same task.

Accuracy • In addition to being very fast, computers are very accurate. • The calculations are 100% error free. • Computers perform all jobs with 100% accuracy provided that the input is correct.

Storage Capability • Memory is a very important characteristic of computers. • A computer has much more storage capacity than human beings. • It can store large amount of data. • It can store any type of data such as images, videos, text, audio, etc.

Diligence • Unlike human beings, a computer is free from monotony, tiredness, and lack of concentration. • It can work continuously without any error and boredom. • It can perform repeated tasks with the same speed and accuracy.

Versatility • A computer is a very versatile machine. • A computer is very flexible in performing the jobs to be done. • This machine can be used to solve the problems related to various fields. • At one instance, it may be solving a complex scientific problem and the very next moment it may be playing a card game.

3 Reliability

• A computer is a reliable machine. • Modern electronic components have long lives. • Computers are designed to make maintenance easy.

Automation • Computer is an automatic machine. • Automation is the ability to perform a given task automatically. Once the computer receives a program i.e., the program is stored in the computer memory, then the program and instruction can control the program execution without human interaction.

Reduction in Paper Work and Cost • The use of computers for data processing in an organization leads to reduction in paper work and results in speeding up the process. • As data in electronic files can be retrieved as and when required, the problem of maintenance of large number of paper files gets reduced. • Though the initial investment for installing a computer is high, it substantially reduces the cost of each of its transaction.

Disadvantages of Computers

Following are certain disadvantages of computers.

No I.Q. • A computer is a machine that has no intelligence to perform any task. • Each instruction has to be given to the computer. • A computer cannot take any decision on its own.

Dependency • It functions as per the user's instruction, thus it is fully dependent on humans.

Environment • The operating environment of the computer should be dust free and suitable.

No Feeling • Computers have no feelings or emotions. • It cannot make judgment based on feeling, taste, experience, and knowledge unlike humans.

4 Application of Computers in Various Fields

Business

A computer has high speed of calculation, diligence, accuracy, reliability, or versatility which has made it an integrated part in all business organizations. Computer is used in business organizations for:

- Payroll Calculations
- Budgeting
- Sales Analysis
- Managing Employee Database
- Maintenance of stocks, etc.

Banking

Today, banking is almost totally dependent on computers. Banks provide the following facilities:

Online accounting facility, which includes checking current balance, making deposits and overdrafts, checking interest charges, shares, and trustee records. • ATM machines which are completely automated are making it even easier for customers to deal with banks. Insurance Insurance companies are keeping all records up-to-date with the help of computers. Insurance companies, stock broking firms are widely using computers for their concerns. Insurance companies are maintaining a database of all clients with information showing: • Procedure to continue with policies • Starting date of the policies • Next due installment of a policy • Maturity date • Interests due • Survival benefits • Bonus Education The computer helps in providing a lot of facilities in the education system. • The computer provides a tool in the education system known as CBE (Computer Based Education). • CBE involves control, delivery, and evaluation of learning. • Computer education is rapidly increasing the graph of number of computer students. • There are a number of methods in which educational institutions can use a computer to educate the students. • It is used to prepare a database about performance of a student and analysis is carried out on this basis. 5 Marketing In marketing, uses of the computer are following: • Advertising - With computers, advertising professionals create art and graphics, write and revise copy, and print and disseminate ads with the goal of selling more products. • Home Shopping - Home shopping has been made possible through the use of computerized catalogues that provide access to product information and permit direct entry of orders to be filled by the customers. Healthcare Computers have become an important part in hospitals, labs, and dispensaries. They are being used in hospitals to keep the record of patients and medicines. It is also used in scanning and diagnosing different diseases. ECG, EEG, ultrasounds and CT scans, etc. are also done by computerized machines. Following are some major fields of health care in which computers are used. • Diagnostic System - Computers are used to collect data and identify the cause of illness. • Lab-diagnostic System - All tests can be done and the reports are prepared by computer. • Patient Monitoring System - These are used to check the patient's signs for abnormality such as in Cardiac Arrest, ECG, etc. • Pharma Information System - Computer is used to check drug labels, expiry dates, harmful side effects, etc. • Surgery - Nowadays, computers are also used in performing surgery. Engineering Design Computers are widely used for Engineering purpose. One of the major areas is CAD (Computer Aided Design) that provides creation and modification of images. Some of the fields are: • Structural Engineering - Requires stress and strain analysis for design of ships, buildings, budgets, airplanes, etc. • Industrial Engineering - Computers deal with design, implementation, and improvement of integrated systems of people, materials, and equipment. • Architectural Engineering - Computers help in planning towns, designing buildings, determining a range of buildings on a site using both 2D and 3D drawings. Military Computers are largely used in defence. Modern tanks, missiles, weapons, etc. Military also employs computerized control systems. Some military areas where a computer has been used are: • Missile Control • Military Communication • Military Operation and Planning • Smart Weapons 6 Communication Communication is a way to convey a message, an idea, a picture, or speech that is received and understood clearly and correctly by the person for whom it is meant. Some main areas in this category are: • E-mail • Chatting • Usenet • FTP • Telnet • Video-conferencing Government Computers play an important role in government services. Some major fields in this category are: • Budgets • Sales tax department • Income tax department • Computation of male/female ratio • Computerization of voters' lists • Computerization of PAN card • Weather forecasting 7 Generations of Computers Generation in computer terminology is a change in technology a computer is/was being used. Initially, the generation term was used to distinguish between varying hardware technologies. Nowadays, generation includes both hardware and software, which together make up

an entire computer system. There are five computer generations known till date. Each generation has been discussed in detail along with their time period and characteristics. In the following table, approximate dates against each generation has been mentioned, which are normally accepted. Following are the main five generations of computers.

Sl. No.	Generation	Description
1	First Generation	The period of first generation: 1946-1959. Vacuum tube based.
2	Second Generation	The period of second generation: 1959-1965. Transistor based.
3	Third Generation	The period of third generation: 1965-1971. Integrated Circuit based.
4	Fourth Generation	The period of fourth generation: 1971-1980. VLSI microprocessor based.
5	Fifth Generation	The period of fifth generation: 1980-onwards. ULSI microprocessor based.

8 First Generation Computers The period of first generation was from 1946-1959. The computers of first generation used vacuum tubes as the basic components for memory and circuitry for CPU (Central Processing Unit). These tubes, like electric bulbs, produced a lot of heat and the installations used to fuse frequently. Therefore, they were very expensive and only large organizations were able to afford it. In this generation, mainly batch processing operating system was used. Punch cards, paper tape, and magnetic tape was used as input and output devices. The computers in this generation used machine code as the programming language. The main features of the first generation are:

- Vacuum tube technology
- Unreliable
- Supported machine language only
- Very costly
- Generates lot of heat
- Slow input and output devices
- Huge size
- Need of AC
- Non-portable
- Consumes lot of electricity

Some computers of this generation were:

- ENIAC
- EDVAC
- UNIVAC
- IBM-701
- IBM-750

9 Second Generation Computers The period of second generation was from 1959-1965. In this generation, transistors were used that were cheaper, consumed less power, more compact in size, more reliable and faster than the first-generation machines made of vacuum tubes. In this generation, magnetic cores were used as the primary memory and magnetic tape and magnetic disks as secondary storage devices. In this generation, assembly language and high-level programming languages like FORTRAN, COBOL were used. The computers used batch processing and multiprogramming operating system. The main features of second generation are:

- Use of transistors
- Reliable in comparison to first generation computers
- Smaller size as compared to first generation computers
- Generates less heat as compared to first generation computers
- Consumed less electricity as compared to first generation computers
- Faster than first generation computers
- Still very costly
- AC required
- Supported machine and assembly languages

Some computers of this generation were:

- IBM 1620
- IBM 7094
- CDC 1604
- CDC 3600
- UNIVAC 1108

10 Third Generation Computers The period of third generation was from 1965-1971. The computers of third generation used Integrated Circuits (ICs) in place of transistors. A single IC has many transistors, resistors, and capacitors along with the associated circuitry. The IC was invented by Jack Kilby. This development made computers smaller in size, reliable, and efficient. In this generation remote processing, time-sharing, multi-programming operating system were used. High-level languages (FORTRAN-II TO IV, COBOL, PASCAL PL/1, BASIC, ALGOL-68 etc.) were used during this generation. The main features of third generation are:

- IC used
- More reliable in comparison to previous two generations
- Smaller size
- Generated less heat
- Faster
- Lesser maintenance
- Costly
- AC required
- Consumed lesser electricity
- Supported high-level language

Some computers of this generation were:

- IBM-360 series
- Honeywell-6000 series
- PDP (Personal Data Processor)
- IBM-370/168
- TDC-316

11 Fourth Generation Computers The period of fourth generation was from 1971-1980. Computers of fourth generation used Very Large Scale Integrated (VLSI) circuits. VLSI circuits having about 5000 transistors and other circuit elements with their associated circuits on a single chip made it possible to have microcomputers of fourth generation. Fourth generation computers became more powerful, compact, reliable, and

affordable. As a result, it gave rise to Personal Computer (PC) revolution. In this generation, time sharing, real time networks, distributed operating system were used. All the high-level languages like C, C++, DBASE etc., were used in this generation. The main features of fourth generation are: • VLSI technology used • Very cheap • Portable and reliable • Use of PCs • Very small size • Pipeline processing • No AC required • Concept of internet was introduced • Great developments in the fields of networks • Computers became easily available Some computers of this generation were: • DEC 10 • STAR 1000 • PDP 11 • CRAY-1(Super Computer) • CRAY-X-MP(Super Computer) Fifth Generation Computers The period of fifth generation is 1980-till date. In the fifth generation, VLSI technology became ULSI (Ultra Large Scale Integration) technology, resulting in the production of microprocessor chips having ten million electronic components. This generation is based on parallel processing hardware and AI (Artificial Intelligence) software. AI is an emerging branch in computer science, which interprets the means and method of making computers think like human beings. All the high-level languages like C and C++, Java, .Net etc., are used in this generation. 12 The main features of fifth generation are: • ULSI technology • Development of true artificial intelligence • Development of Natural language processing • Advancement in Parallel Processing • Advancement in Superconductor technology • More user-friendly interfaces with multimedia features • Availability of very powerful and compact computers at cheaper rates Some computer types of this generation are: • Desktop • Laptop • Notebook • Ultrabook • Chromebook

Q4: Differentiate between Volatile & Non- Volatile memories.

Ans. ence between Volatile Memory and Non-Volatile Memory

Computer EngineeringComputer NetworkMCA

Volatile and Non-Volatile Memory are both types of computer memory. Volatile Memory is used to store computer programs and data that CPU needs in real time and is erased once computer is switched off. RAM and Cache memory are volatile memory. Where as Non-volatile memory is static and remains in the computer even if computer is switched off. ROM and HDD are non-volatile memory.

Following are the important differences between Volatile and Non-Volatile Memory.

Sr. No.	Key	Volatile Memory	Non-Volatile Memory
1	Data Retention	Data is present till power supply is present.	Data remains even after power supply is not present.
2	Persistence	Volatile memory data is not	Non-volatile memory data is permanent.

Sr. No.	Key	Volatile Memory	Non-Volatile Memory
		permanent.	
3	Speed	Volatile memory is faster than non-volatile memory.	Non-volatile memory access is slower.
4	Example	RAM is an example of Volatile Memory.	ROM is an example of Non-Volatile Memory.
5	Data Transfer	Data Transfer is easy in Volatile Memory.	Data Transfer is difficult in Non-Volatile Memory.
6	CPU Access	CPU can access data stored on Volatile memory.	Data to be copied from Non-Volatile memory to Volatile memory so that CPU can access its data.
7	Storage	Volatile memory less storage capacity.	Non-Volatile memory like HDD has very high storage capacity.
8	Impact	Volatile memory such as RAM is high impact on system's performance.	Non-volatile memory has no impact on system's performance.
9	Cost	Volatile memory is costly per unit size.	Non-volatile memory is cheap per unit size.

Q5: Distinguish among system software, application software and open source software on the basis of their features.

Ans. Difference between System software and Application software.

Software/CodingSoftware EngineeringComputer Programming

As we know that software is a set of instructions or programs instructing a computer to do specific tasks. Software is basically a generic term used to describe computer programs. In general Scripts, applications, programs and a set of instructions are all terms often used to describe software.

Now the basis of language in which software is developed and platform which is required for its execution we can classified software as in two divisions which are System software and Application software. Following are some basic differences between System software and Application software.

Sr. No.	Key	System Software.	Application Software.
1	Definition	System Software is the type of software which is the interface between application software and system.	On other hand Application Software is the type of software which runs as per user request. It runs on the platform which is provide by system software.
2	Development Language	In general System software are developed in low level language which is more compatible with the system hardware in order to interact with.	While in case of Application software high level language is used for their development as they are developed as some specific purpose software.
3	Usage	System software is used for operating computer hardware.	On other hand Application software is used by user to perform specific task.
4	Installation	System software are installed on the computer when operating system is installed.	On other hand Application software are installed according to user's requirements.
5	User interaction	As mentioned in above points system software are specific to system hardware so less or no user interaction available in case of system software.	On other hand in application software user can interacts with it as user interface is available in this case.
6	Dependency	System software can run independently. It provides platform	On other hand in application software can't run independently. They can't run without the presence

Sr. No.	Key	System Software.	Application Software.
		for running application software.	of system software..
7	Examples	Some examples of system software's are compiler, assembler, debugger, driver, etc.	On other hand some examples of application software's are word processor, web browser, media player, etc.

Q6. a) Create a file in MS-word to insert a paragraph about yourself and save it with file name

“yourself”. Describe all steps involved in it.

Ans. [Skip to main content](#)

-
- **SIGN IN**
- **TRY NOW**
-
- **TEAMS**
- **INDIVIDUALS**
- **FEATURES**
- Certifications
- Interactive learning
- Live online sessions
- **WHAT'S NEW**
- **O'REILLY FOR MARKETERS**

Search

Word 2007: The Missing Manual by Chris Grover

Chapter 1. Creating, Opening, and Saving Documents

Every Word project you create—whether it’s a personal letter, a TV sitcom script, or a thesis in microbiology—begins and ends the same way. You start by creating a document, and you end by saving your work. Sounds simple, but to manage your Word documents effectively, you need to know these basics and beyond. This chapter shows you all the different ways to create a new Word document—like starting from an existing document or adding text to a predesigned template—and how to choose the best one for your particular project.

You’ll also learn how to work faster and smarter by changing your view of your document. If you want, you can use Word’s Outline view when you’re brainstorming, and then switch to Print view when you’re ready for hard copy. This chapter gets you up and running with these fundamental tools so you can focus on the important stuff—your words.

TIP

If you’ve used Word before, then you’re probably familiar with opening and saving documents. Still, you may want to skim this chapter to catch up on the differences between this version of Word and the ghosts of Word past. You’ll grasp some of the big changes just by examining the figures. For more detail, check out the gray boxes and the notes and tips—like this one!

Launching Word

The first time you launch Word after installation, the program asks you to confirm your name and initials. This isn’t Microsoft’s nefarious plan to pin you down: Word uses this information to identify documents that you create and modify. Word uses your initials to mark your edits when you review and add comments to Word documents that other people send to you ([Section 16.3](#)).

You have three primary ways to fire up Word, so use whichever method you find quickest:

- **Start menu.** The Start button in the lower-left corner of your screen gives you access to all programs on your PC—Word included. To start Word, choose Start → All Programs → Microsoft Office → Microsoft Office Word.
- **Quick Launch toolbar.** The Quick Launch toolbar at the bottom of your screen (just to the right of the Start menu) is a great place to start programs you use frequently. Microsoft modestly assumes that you'll be using Word a lot, so it usually installs the Word icon in the Quick Launch toolbar. To start using Word, just click the W icon, and voilà!

TIP

When you don't see the Quick Launch toolbar, here's how to display it: On the bar at the bottom of your screen, right-click an empty spot. From the menu that pops up, choose Toolbars → Quick Launch. When you're done, icons for some of your programs appear in the bottom bar. A single click fires up the program.

- **Opening a Word document.** Once you've created some Word documents, this method is fastest of all, since you don't have to start Word as a separate step. Just open an existing Word document, and Word starts itself. Try going to Start → My Recent Documents, and then, from the list of files, choose a Word document. You can also double-click the document's icon on the desktop or wherever it lives on your PC.

TIP

If you need to get familiar with the Start menu, Quick Launch toolbar, and other Windows features, then pick up a copy of *Windows XP: The Missing Manual*, Second Edition or *Windows Vista: The Missing Manual*.

So, what happens once you've got Word's motor running? If you're a newcomer, you're probably just staring with curiosity. If you're familiar with previous versions of Word, though, you may be doing a double take

(Figure 1-1). In Word 2007, Microsoft combined all the old menus and toolbars into a new feature called the ribbon. Click one of the tabs above the ribbon, and you see the command buttons change below. The ribbon commands are organized into groups, with the name of each group listed at the bottom. (See [Figure 1-1](#) for more detail on the ribbon.)

Creating a New Document

When you start Word without opening an existing document, the program gives you an empty one to work in. If you're eager to put words to page, then type away. Sooner or later, though, you'll want to start *another* new document. Word gives you three ways to do so:

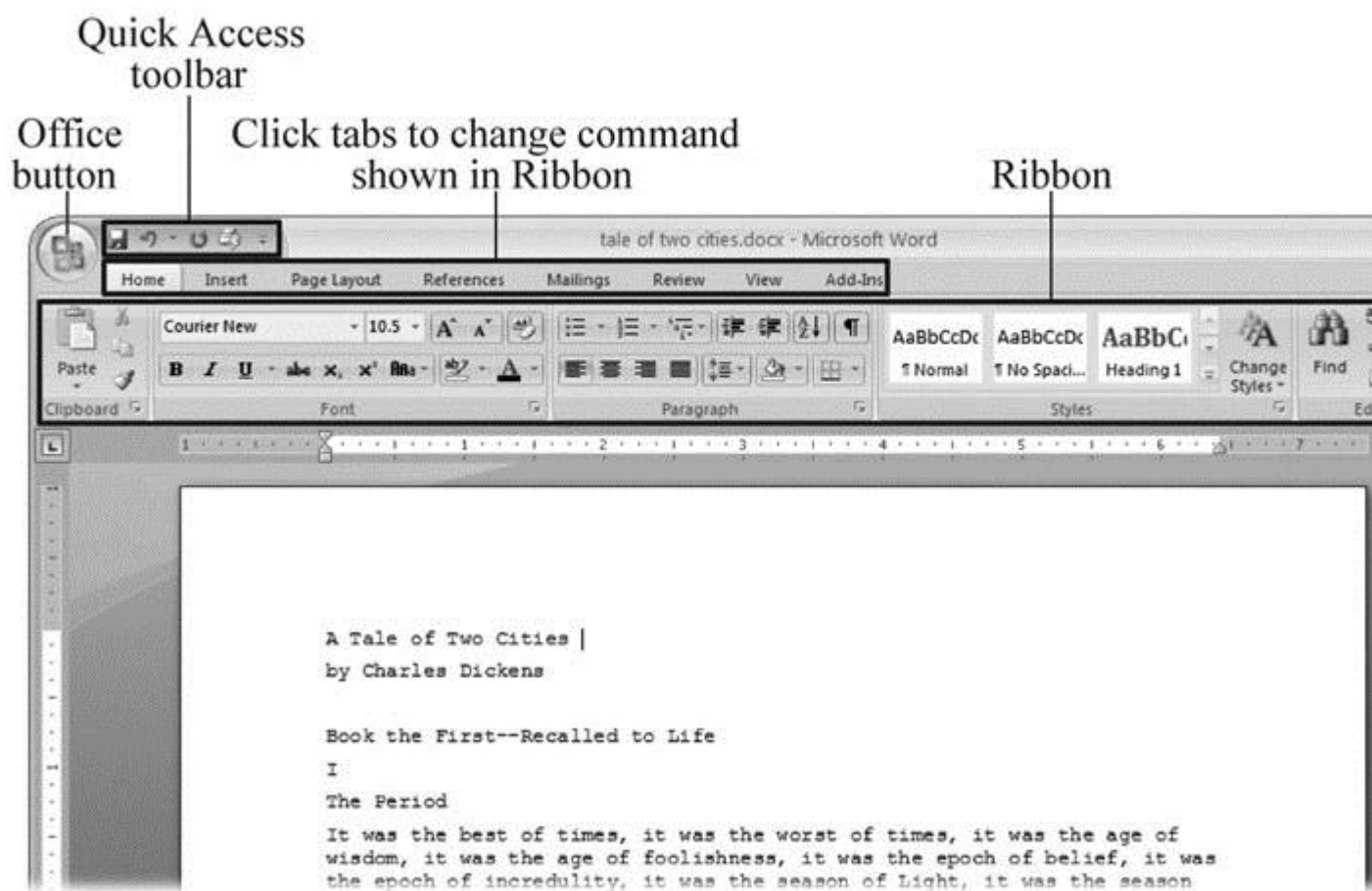


Figure 1-1. When you start Word 2007 for the first time, it may look a little top-heavy. The ribbon takes up more real estate than the old menus and toolbars. This change may not matter if you have a nice big monitor. But if you want to reclaim some of that space, you can hide the ribbon by

double-clicking the active tab. Later, when you need to see the ribbon commands, just click a tab.

- **Creating a new blank document.** When you're preparing a simple document—like a two-page essay, a note for the babysitter, or a press release—a plain, unadorned page is fine. Or, when you're just brainstorming and you're not sure what you want the final document to look like, you probably want to start with a blank slate or use one of Word's templates (more on that in a moment) to provide structure for your text.
- **Creating a document from an existing document.** For letters, resumes, and other documents that require more formatting, why reinvent the wheel? You can save time by using an existing document as a starting point ([Section 1.2.2](#)). When you have a letter format that you like, you can use it over and over by editing the contents.
- **Creating a document from a template ([Section 1.2.3](#)).** Use a template when you need a professional design for a complex document, like a newsletter, a contract, or meeting minutes. Templates are a lot like forms—the margins, formatting, and graphics are already in place. All you do is fill in your text.

TIP

Microsoft provides a mind-boggling number of templates with Word, but they're not the only source. You can find loads more on the Internet, as described in [Section 5.2.1](#). Your employer may even provide official templates for company documents.

To start your document in any of the above ways, click the Windows logo in the upper-left corner of the screen. That's Office 2007's new *Office button*. Click it, and a drop-down menu opens, revealing commands for creating, opening, and saving documents. Next to these commands, you see a list of your Word documents. This list includes documents that are open, as well as those that you've recently opened.

The Office button is also where you go to print and email your documents ([Figure 1-2](#)).

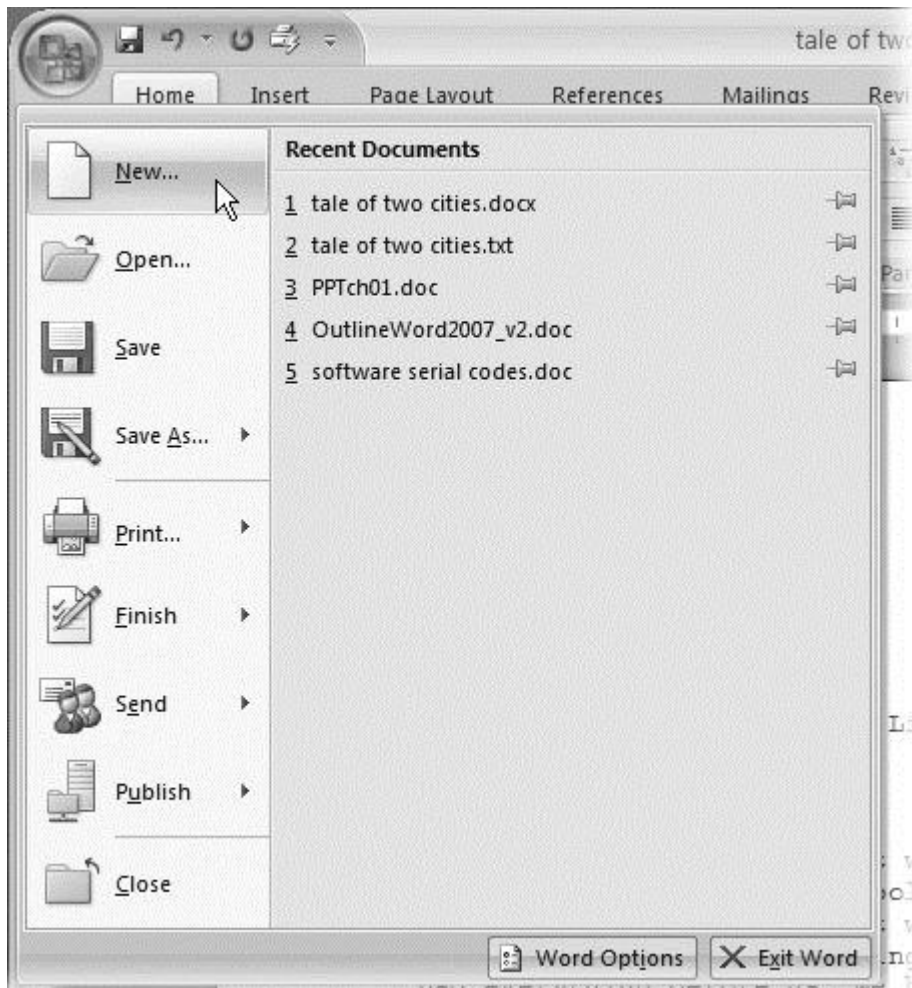


Figure 1-2. The phrase most frequently uttered by experienced Word fans the first time they start Word 2007 is, “Okay, where’s my File menu?” Never fear, the equivalent of the File menu is still there—it’s just camouflaged a bit. Clicking the Office button (the one that looks like a Windows logo) reveals the commands you use to create, open, and save Word documents.

Creating a New Blank Document

Say you want a new blank document, just like the one Word shows you when you start the program. No problem—here are the steps:

1. **Choose Office button → New.**

The New Document dialog box appears.

2. In the upper-left corner of the large “Create a new Word document” panel, click “Blank document” (Figure 1-3).

The New Document box presents a seemingly endless number of options, but don’t panic. The “Blank document” option you want is on the left side of the first line.

3. At the bottom of the New Document dialog box, click **Create**.

The dialog box disappears, and you’re gazing at the blank page of a new Word document.

Better get to work.

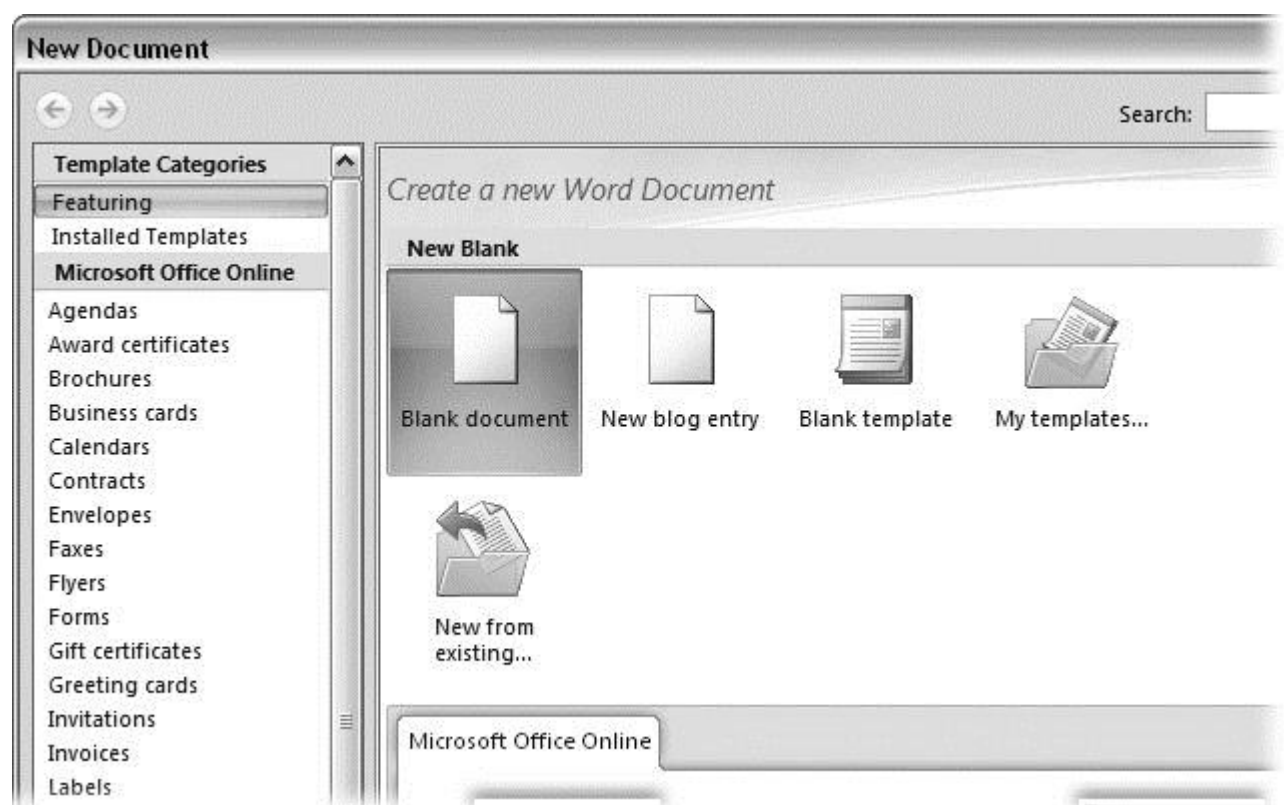


Figure 1-3. Open the New Document box (Office button → New, or Alt+F, N), and Word gives you several ways to create a new document. Click “Blank document” to open an empty document, similar to the one Word shows when you first start the program. Or you can click “New from existing” to open a document that you previously created under a new name.

Creating a New Document from an Existing Document

A blank Word document is sort of like a shapeless lump of clay. With some work, you can mold it to become just about anything. Often, however, you can save time by opening an existing document that's similar to the one you want to create. Imagine that you write the minutes for the monthly meetings of the Chief Executive Officer's Surfing Association (CEOSA). When it's time to write up the June minutes, it's a lot faster to open the minutes from May. You keep the boilerplate text and all the formatting, but you delete the text that's specific to the previous month. Now all you have to do is enter the text for June and save the document with a new name: *JuneMinutes.docx*.

NOTE

The .docx extension on the end of the filename is Word 2007's new version of .doc. The switch from three-letter to four-letter filename extensions indicates a change in the way Word stores documents. (If you need to share documents with folks using earlier versions of Word, choose Office button → Save As → Word 97-2003 document when you save the file. See the box in [Section 1.2.3](#) for details.)

Word gives you a “New from existing” document-creation option to satisfy your desire to spend more time surfing and less time writing meeting minutes. Here's how to create a new document from an existing document:

1. **Choose Office button → New (Alt+F, N) to open the New Document window. Then click “New from existing...” (it sits directly below the “Blank document” button).**

The three dots at the end of the button's title tell you that there's another dialog box to come. And sure enough, when you click “New from existing...”, it opens another box, appropriately titled New from Existing Document ([Figure 1-4](#)). This box looks—and works—like a standard Windows Open File box. It lets you navigate to a specific folder and open a file.

2. On your computer, find the existing document you're using for a model.

You can use the bar on the left to change the folder view. Word starts you in your My Documents folder, but you can switch to your desktop or your My Computer icon by clicking the icons on the left. Double-click folder icons in the large window to open them and see their contents.

3. Click to select the file, and then click Create New (in the lower-right corner). (Alternatively, just double-click the file's icon to open it. This trick works in all Open File boxes.)

Instead of the usual Open button at the bottom of the box, the button in the New from Existing Document box reads Create New—your clue that this box behaves differently in one important respect: Instead of opening an existing file, you're making a *copy* of an existing file. Once open, the file's name is something like *Document2.docx* instead of the original name. This way, when you save the file, you don't overwrite the original document. (Still, it's best to save it with a new descriptive name right away.)

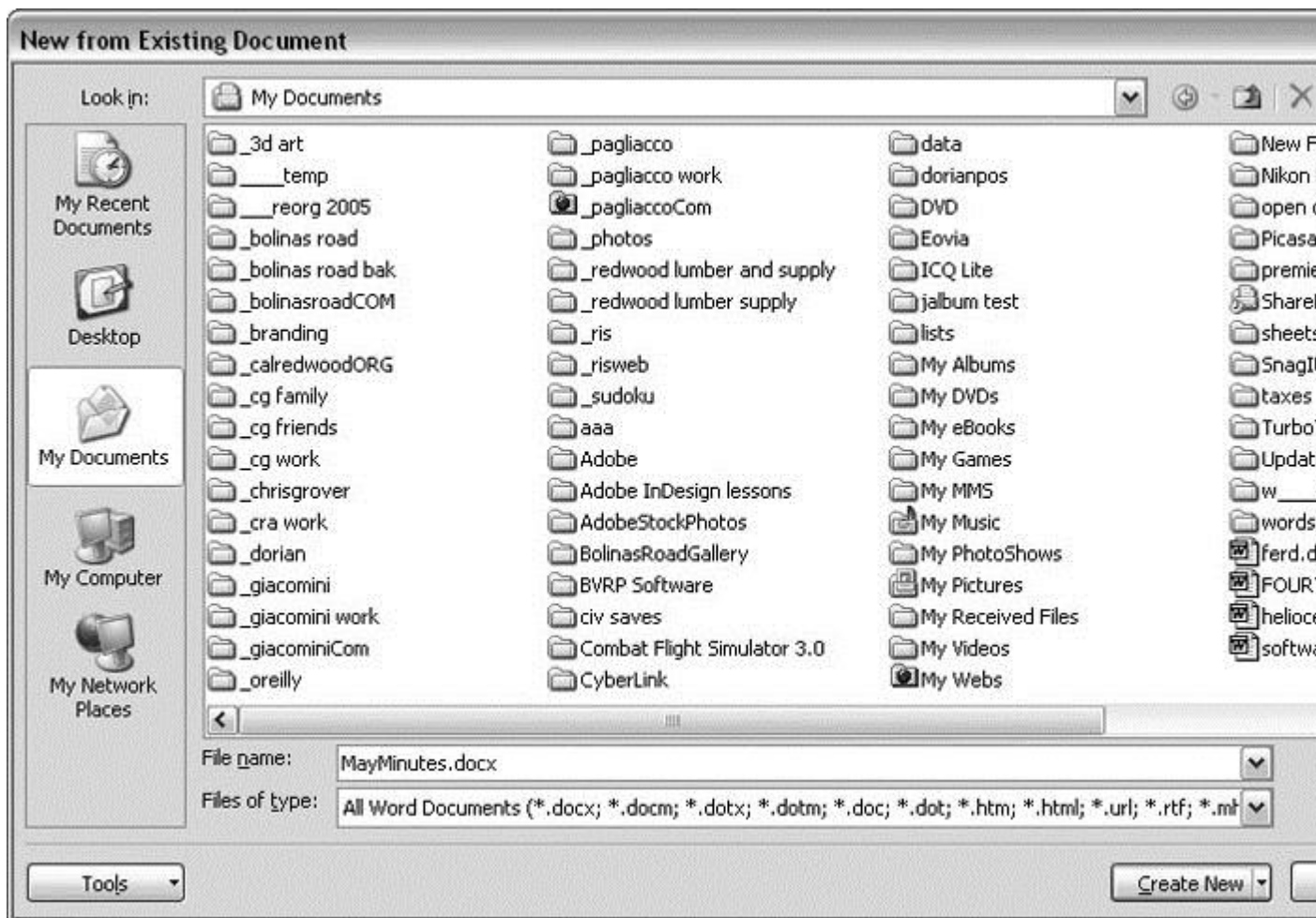


Figure 1-4. Use the New from Existing Document box to find an existing Word document that you'd like to open as a model for your new document. When you click Create New at bottom-right, Word opens a new copy of the document, leaving the original untouched. You can modify the copy to your heart's content and save it under a different file name.

TIP

Windows' Open File boxes, like New from Existing Document, let you do a lot more than just find files. In fact, they let you do just about anything you can do in Windows Explorer. Using keyboard shortcuts, you can cut (Ctrl+X), copy (Ctrl+C), and paste (Ctrl+V) files. A right-click displays a shortcut menu with even more commands, letting you rename files, view Properties dialog boxes, and much more. You can even drag and drop to move files and folders.

POWER USERS' CLINIC: WORD'S NEW FILE FORMATS: .DOCX AND .DOCM

With Office 2007, Microsoft took the drastic step of changing its file formats in hopes of improving your computer's security. Malicious programmers were using Office's macros to do nasty things to unsuspecting computers. The *.docx* format, the new standard for Word files, doesn't permit macros, making it safe from those threats. The *.docm* format indicates that a document contains macros or other bits of programming code. When opening one of these files, play it safe: If you don't know who created the *.docm* file, then don't open it.

The downside of the new file formats is that older versions of Word don't know how to open these *.docx* and *.docm* documents. To open Word 2007 files with an older version (even Word 2003), you need to install the Microsoft Office Compatibility Pack.

This software fix gives pre-2007 versions of Word the power to open documents in the new formats. Even then, you may not be able to use or edit parts of the file that use new Word features (like themes, equations, and content controls). To download the free compatibility pack, go to www.office.microsoft.com and type *office 2007 compatibility* into the search box at the top of the page.

Also, if you're preparing a Word document for someone who's using an older Word version, then you have to save it in a compatible format, as described in the tip in [Section 1.2.2](#). (Fortunately, the compatibility issue doesn't go both ways: Word 2007 can open old *.doc* docs just fine.)

Creating a New Document from a Template

Say you're creating meeting minutes for the first time. You don't have an existing document to give you a leg up, but you do want to end up with handsome, properly formatted minutes. Word is at your service—with *templates*. Microsoft provides dozens upon dozens of prebuilt templates for everything from newsletters to postcards. Remember all the busy stuff in the New Document box in [Figure 1-3](#)? About 90 percent of the items in there are templates.

In the previous example, where you use an existing document to create the meeting minutes for the Chief Executive Officer's Surfing Association (CEOSA), each month you open the minutes from the previous month. You delete the information that pertains to the previous month and enter the current month's minutes. A template works pretty much the same way, except it's a generic document, designed to be adaptable to lots of different situations. You just open it and add your text. The structure, formatting, graphics, colors, and other doodads are already in place.

NOTE

The subject of Word templates is a lengthy one, especially when it comes to creating your own, so there's a whole chapter devoted to that topic—[Chapter 20](#).

Here's how to get some help from one of Microsoft's templates for meeting minutes:

1. Choose Office button → New (Alt+F, N) to open the New Document window.

On the left of the New Document box is a Template Categories list. The top entry on this list is Installed Templates—the ones Word has installed on your computer.

You could use any of these, but you also have a world of choice waiting for you online. On its Web site, Microsoft offers hundreds of templates for all sorts of documents, and you can access them right from the New Document box. If you have a fast Internet connection, then it's just as quick and easy to use an online template as it is using the ones stored on your computer. In fact, you'll use an online template for this example.

NOTE

If you can't connect to the Internet right now, then simply choose one of the installed templates instead. Click Create, and then skip to step 4.

2. Scroll down the Template Categories list to the Microsoft Office Online heading. Under this heading, select Minutes.

In the center pane, you'll see all different types of minutes templates, from PTA minutes to Annual shareholder's meeting minutes (Figure 1-5). When you click a template's icon, a preview appears in the pane on the right.

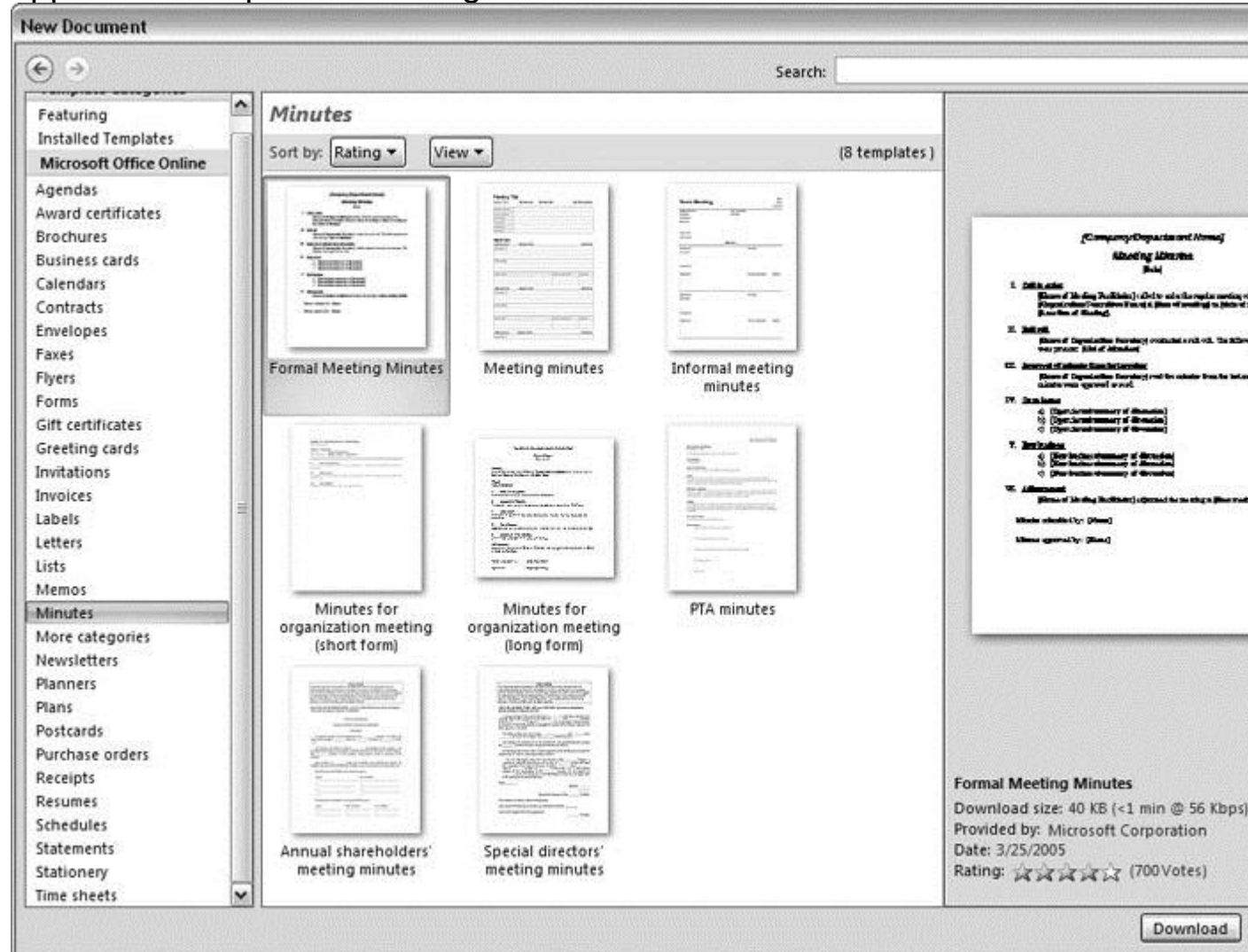


Figure 1-5. The New Document box lists prebuilt templates that live at Microsoft Office Online in categories like Agendas, Brochures, Calendars, and Minutes. Below the thumbnail you see an estimate of how long it takes to download the template from the Microsoft Office Online Web site. A rating, from 0 to 5 stars, tells you what other people think of the template (the rating system is kind of like the one at Amazon.com).

3. When you're done perusing the various styles, click the Formal Meeting Minutes icon. (After all, CEOSA is a very formal organization.) Then click Download.

Word downloads and opens the document.

4. Start writing up the minutes for the CEO Surfers.

To follow the template's structure, replace all the words in square brackets ([]) with text relevant to CEOSA.

TIP

If you'd rather not download the Formal Meeting Minutes template every time you use it, then you can save the file on your computer as a Word template. The steps for saving files are just around the corner in [Section 1.5](#).

Opening an Existing Document

If you've mastered creating a document from an existing document and creating a document from a template, you'll find that opening an existing document is a snap. The steps are nearly identical.

1. Choose Office button → Open (Alt+F, O). In the Open window ([Figure 1-6](#)), navigate to the folder and file you want to open.

The Open window starts out showing your My Documents folder, since that's where Word suggests you save your files. When your document's in a more exotic location, click the My Computer icon, and then navigate to the proper folder from there.

TIP

When you open a document you've used recently, you may see its name right on the Office button → Recent Documents menu. If so, simply click to open it without a trip to the Open dialog box.

2. With the file selected, click Open in the lower-right corner.

The Open box goes away and your document opens in Word. You're all set to get to work. Just remember, when you save this document (Alt+F, S or Ctrl+S), you write over the previous file. Essentially, you create a new, improved, and only copy of the file you just opened. If you don't want to write over the existing document, use the Save As command (Alt+F, A), and then type a new name in the File Name text box.

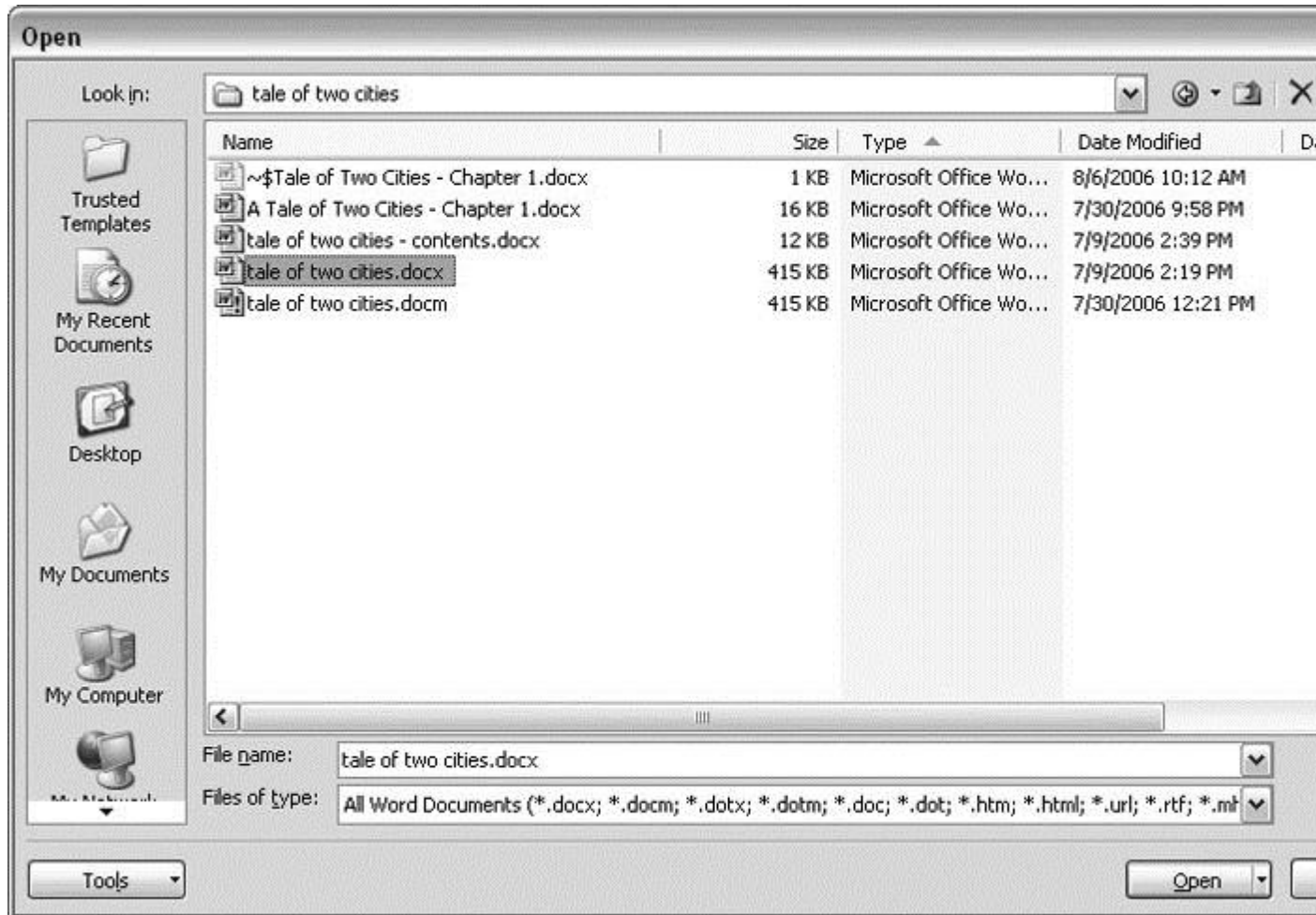


Figure 1-6. This Open dialog box shows the contents of the tale of two cities folder, according to the “Look in” box at the top. The file tale of two cities.docx is selected, as you can see in the “File name box” at the bottom of the window. By clicking Open, Mr. Dickens is ready to go to work.

TIP

Opening a file in Word doesn't mean you're limited to documents *created* in Word. You can choose documents created in other programs from the Files of Type drop-down

menu at the bottom of the Open dialog box. Word then shows you that type of document in the main part of the window. You can open Outlook messages (.msg), Web pages (.htm or .html), or files from other word processors (.rtf, .mcw, .wps).

Your Different Document Views

Now that you know a handful of ways to create and open Word documents, it's time to take a look around the establishment. You may think a document's a document—just look at it straight on and get your work done. It's surprising, though, how changing your view of the page can help you work faster and smarter. When you're working with a very long document, you can change to Outline view and peruse just your document's headlines without the paragraph text. In Outline view, you get a better feeling for the manuscript as a whole. Likewise, when you're working on a document that's headed for the Web, it makes sense to view the page as it will appear in a browser. Other times, you may want to have two documents open on your screen at once (or on each of your two monitors, you lucky dog), to make it easy to cut and paste text from one to the other.

The key to working with Word's different view options is to match the view to the job at hand. Once you get used to switching views, you'll find lots of reasons to change your point of view. Find the tools you need on the View tab ([Figure 1-7](#)). To get there, click the View tab (Alt+W) on the ribbon (near the top of Word's window). The tab divides the view commands into four groups:

- **Document Views.** These commands change the big picture. For the most part, use these when you want to view a document in a dramatically different way: two pages side by side, Outline view, Web layout view, and so on.
- **Show/Hide.** The Show/Hide commands display and conceal Word tools like rulers and gridlines. These tools don't show when you print your document; they're just visual aids that help you when you're working in Word.

- **Zoom.** As you can guess, the Zoom tools let you choose between a close-up and a long shot of your document. Getting in close makes your words easier to read and helps prevent eyestrain. But zooming out makes scrolling faster and helps you keep your eye on the big picture.

TIP

In addition to the Zoom tools on the ribbon, handy Zoom tools are available in the window's lower-right corner. Check out the + (Zoom In) and – (Zoom Out) buttons and the slider in between them. See [Section 1.4.3](#) for the details on using them.

- **Window.** In the Window group, you'll find creative ways to organize document windows on your screen—like split views of a single document or side-by-side views of two different documents.

All the commands in the View tab's four groups are covered in the following pages.

NOTE

This section provides the short course on viewing your Word documents. For even more details and options for customizing your Word environment, see [Chapter 17](#).

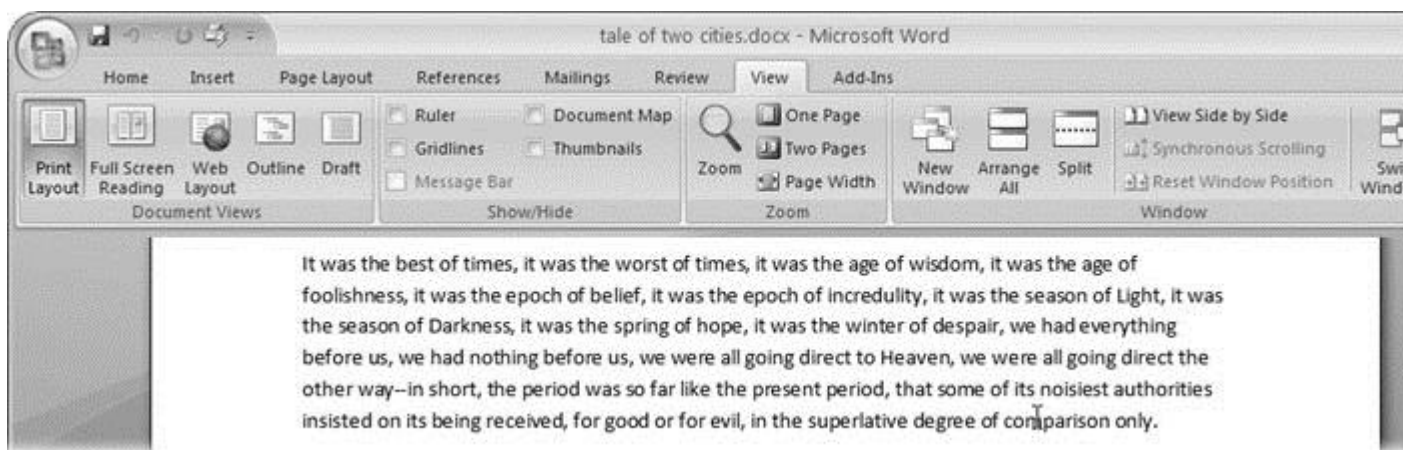


Figure 1-7. The View tab is your document-viewing control center. Look closely, and you see it's divided into four groups with names at the bottom of the ribbon: Document Views, Show/Hide, Zoom, and Window. To apply a view command, just click the button or label.

Document Views: Five Ways to Look at Your Manuscript

Word gives you five basic document views. To select a view, go to the View tab (Alt+W) and choose one of the Document Views on the left side of the ribbon (Figure 1-8). You have another great option for switching from one view to another that's always available in the lower-right corner of Word's window. Click one of the five small buttons to the left of the slider to jump between Print Layout, Full Screen Reading, Web Layout, Outline, and Draft views. Each view has a special purpose, and you can modify them even more using the other commands on the View tab.

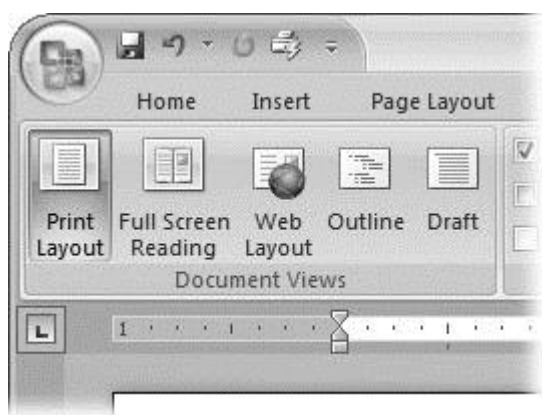


Figure 1-8. On the left side of the View tab, you find the five basic document views: Print Layout, Full Screen Reading, Web Layout, Outline, and Draft. You can edit your document in any of the views, although they come with different tools for different purposes. For example, Outline view provides a menu that lets you show or hide headings at different outline levels.

NOTE

Changing your view in no way affects the document itself—you're just looking at the same document from a different perspective.

- **Print Layout (Alt+W, P).** The most frequently used view in Word, Print Layout, is the one you see when you first start the program or create a new blank document. In this view, the page you see on your computer screen looks much as it does when you print

it. This view's handy for letters, reports, and most documents headed for the printer.

- **Full Screen Reading (Alt+W, F).** If you'd like to get rid of the clutter of menus, ribbons, and all the rest of the word-processing gadgetry, then use Full Screen Reading view. As the name implies, this view's designed primarily for reading documents. It includes options you don't find in the other views, like a command that temporarily decreases or increases the text size. In the upper-right corner you see some document-proofing tools (like a text highlighter and an insert comment command), but when you want to change or edit your document, you must first use the View Options → Allow Typing command. For more details on using Word for reviewing and proofing, see [Chapter 16](#).

- **Web Layout (Alt+W, L).** This view shows your document as if it were a single Web page loaded in a browser. You don't see any page breaks in this view. Along with your text, you see any photos or videos that you've placed in the document—just like a Web page. [Section 13.2](#) has more details on creating Web pages with Word.

- **Outline (Alt+W, U).** For lots of writers, an outline is the first step in creating a manuscript. Once they've created a framework of chapters and headings, they dive in and fill out the document with text. If you like to work this way, then you'll love Outline view. It's easy to jump back and forth between Outline view and Print Layout view or Draft view, so you can bounce back and forth between a macro and a micro view of your epic. (For more details on using Word's Outline view, see [Section 8.1](#).)

- **Draft (Alt+W, V).** Here's the no-nonsense, roll-up-your-sleeves view of your work ([Figure 1-9](#)). You see most formatting as it appears on the printed page, except for headers and footers. Page breaks are indicated by a thin dotted line. In this view, it's as if your document is on one single roll of paper that scrolls through your computer screen. This view's a good choice for longer documents and those moments when you want to focus on

the words without being distracted by page breaks and other formatting niceties.

Show and Hide Window Tools

Word gives you some visual aids that make it easier to work with your documents. Tools like rulers and gridlines don't show up when you print your document, but they help you line up the elements on the page. Use the ruler to set page margins and to create tabs for your documents.

Checkboxes on the View tab let you show or hide tools, but some tools aren't available in all the views, so they're grayed out. You can't, for example, display page rulers in Outline or Full Screen Reading views.

Use the checkboxes in the Show/Hide group of the View tab ([Figure 1-10](#)) to turn these tools on and off:

- **Ruler.** Use the ruler to adjust margins, set tabs, and position items on your page. For more detail on formatting text and paragraphs, see [Chapter 4](#).
- **Gridlines.** When you click the Gridlines box, it looks like you created your document on a piece of graph paper. This effect isn't too helpful for an all-text document, but it sure comes in handy if you're trying to line up photos on a page.

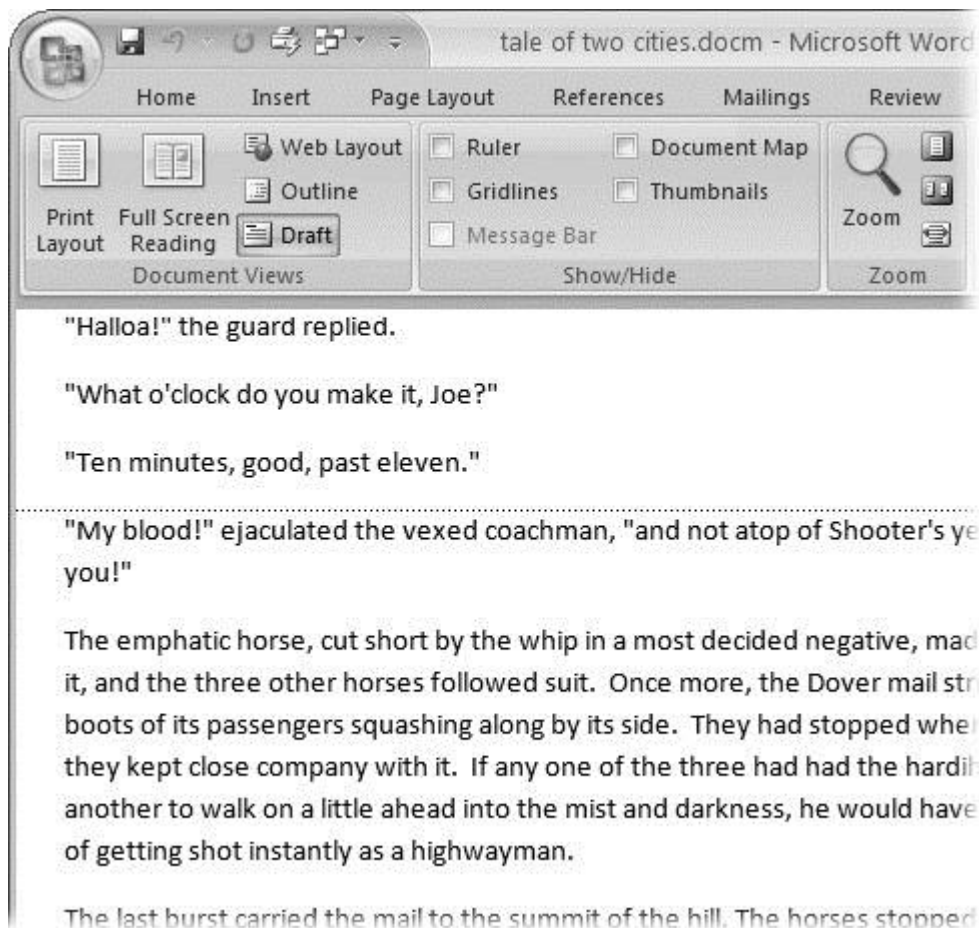


Figure 1-9. In Draft view, you see most text and paragraph formatting, but headers, footers, and other distracting page formatting features are hidden. Your text appears as a continuous scroll, with the margins hidden. Page breaks appear as dotted lines.

- **Message Bar.** The Message Bar resides directly under the ribbon, and it's where you see alerts about a document's behavior. For example, when a document is trying to run a macro and your Word settings prohibit macros, an alert appears in the Message Bar. Click the checkbox to show or hide the Message Bar.
- **Document Map.** If you work with long documents, you'll like the Document Map. This useful tool appears to the left of your text (you can see it in [Figure 1-10](#)), showing the document's headings at various levels. Click the little + and – buttons next to a heading to expand or collapse the outline. Click a heading, and you jump to that location in your document.

- **Thumbnails.** Select the Thumbnails option, and you see little icons of your document's pages in the bar on the left. Click a thumbnail to go to that page. In general, thumbnails are more useful for shorter documents and for pages that are visually distinctive. For longer documents, you'll find the Document Map easier to use for navigation.

Zooming Your View In and Out

When you're working, do you ever find that you sometimes hold pages at arm's length to get a complete view, and then, at other times, you stick your nose close to the page to examine the details? Word's Zoom options (Figure 1-11) let you do the same thing with your screen—but without looking nearly as silly.

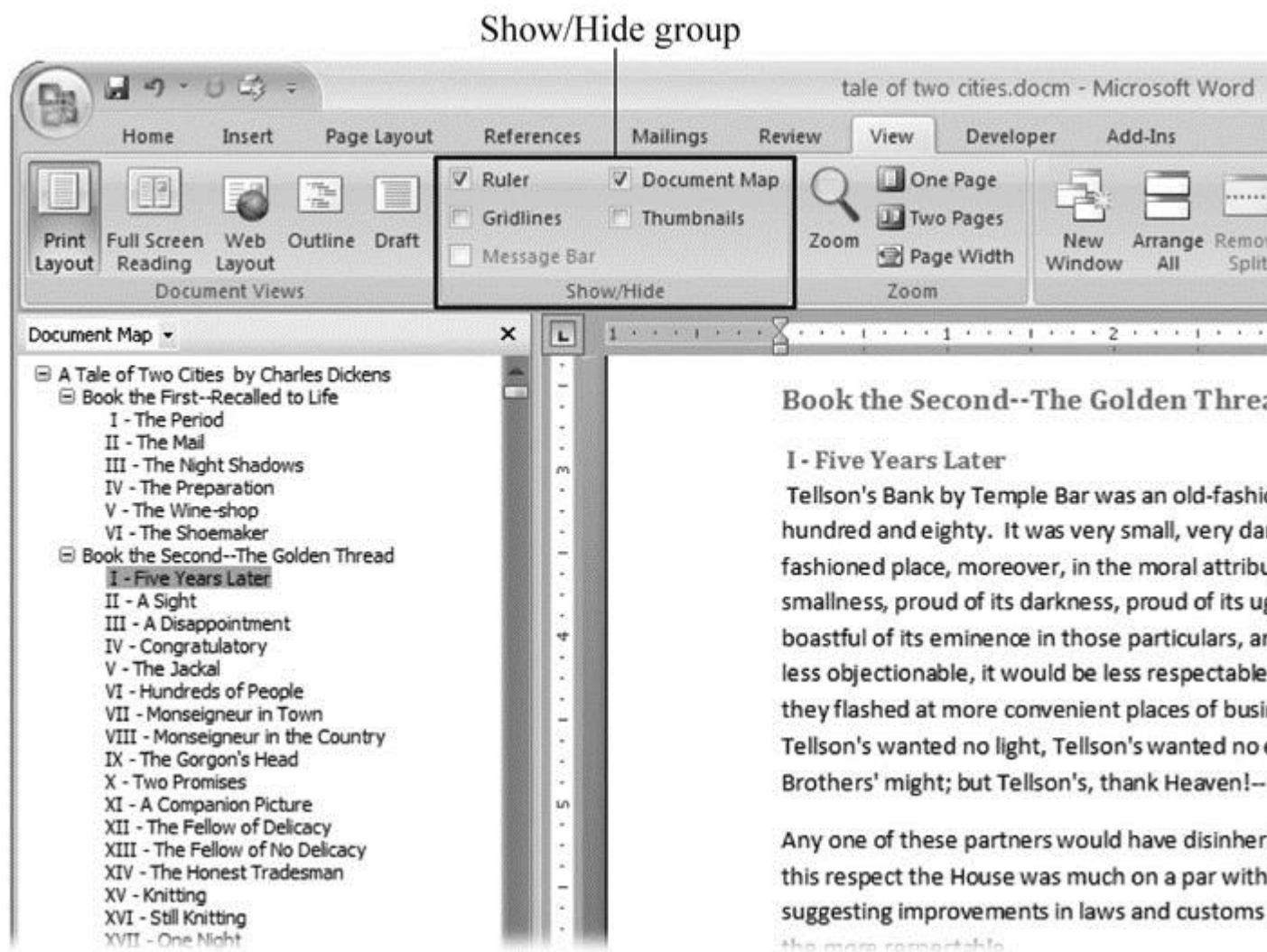


Figure 1-10. Use the Show/Hide group on the View tab to display or conceal Word tools. The Ruler gives you a quick and easy way to set tabs and margins. The Document Map is particularly helpful when you work with longer documents because it displays headings in the bar on the left of the screen. In the left pane, you can see that Mr. Dickens wrote more than his fair share of chapters.

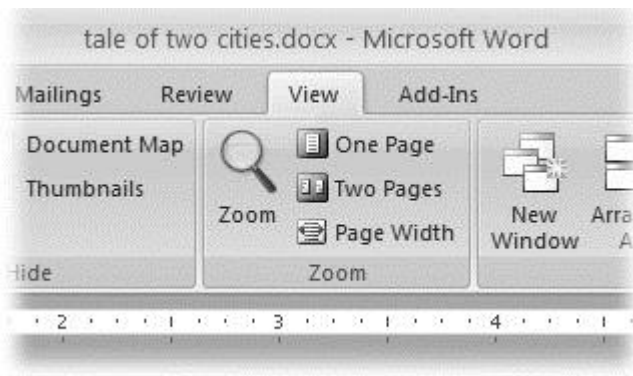


Figure 1-11. The Zoom group of options lets you view your document close up or at a distance. The big magnifying glass opens the Zoom dialog box with more controls for fine-tuning your zoom level. For quick changes, click one of the three buttons on the right: One Page, Two Pages, or Page Width.

NOTE

Even though the text appears to get bigger and smaller when you zoom, you're not actually changing the document in any way. Zoom is similar to bringing a page closer so you can read the fine print. If you want to actually change the font size, then use the formatting options on the Home tab (Alt+H, FS).

On the View tab, click the big magnifying glass to open the Zoom dialog box ([Figure 1-12](#)). Depending on your current Document View (see [Section 1.4](#)), you can adjust your view by percentage or relative to the page and text (more on that in a moment). The options change slightly depending on which Document View you're using. The Page options don't really apply to Web layouts, so they're grayed out and inactive if you're in the Web Layout view.

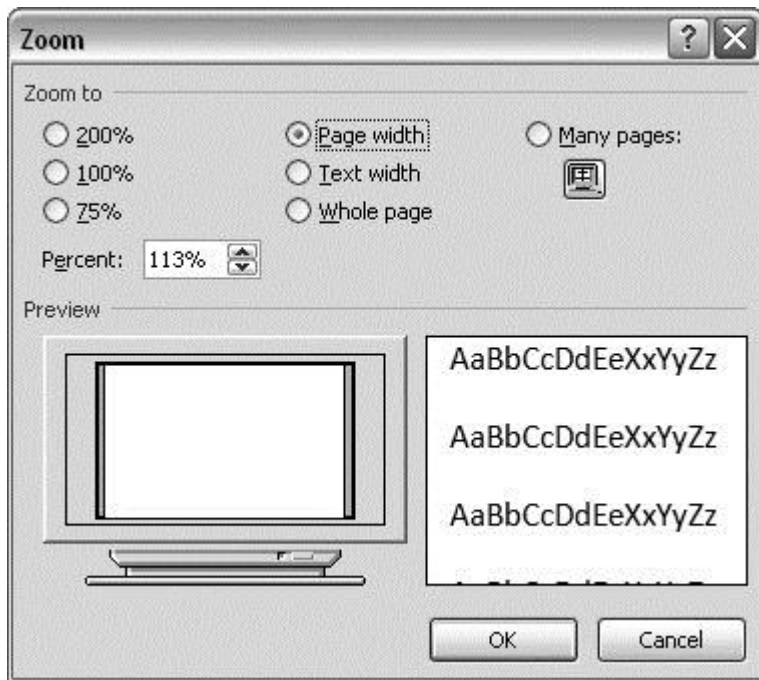


Figure 1-12. The Zoom dialog box lets you choose from a variety of views. Just click one of the option buttons, and then click OK. The monitor and text sample at the bottom of the Zoom box provide visual clues as you change the settings.

Zooming by percentage

In the box's upper-left corner, you find controls to zoom in and out of your document by percentage. The view varies depending on your computer screen and settings, but in general, 100% is a respectable, middle-of-the-road view of your document. The higher the percentage, the more zoomed in you are, and the bigger everything looks—vice versa with a lower percentage.

The three radio buttons (200%, 100%, and 75%) give you quick access to some standard settings. For in-between percentages (like 145%), type a number in the box below the buttons, or use the up-down arrows to change the value. For a quick way to zoom in and out without opening a dialog box, use the Zoom slider ([Figure 1-13](#)) in the lower-right corner of your window. Drag the slider to the right to zoom in on your document, and drag it to the left to zoom out. The percentage changes as you drag.

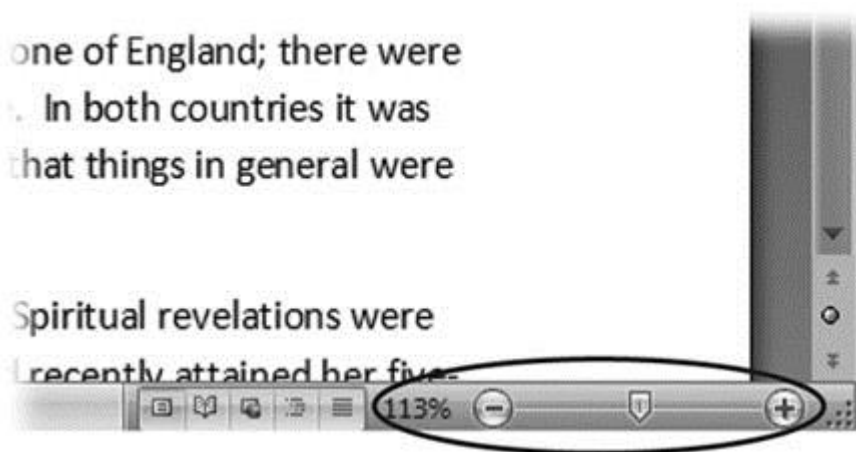


Figure 1-13. The Zoom slider at the bottom of the document window gives you a quick and easy way to change your perspective. Drag the slider to the right to zoom in on your document, and drag it to the left to zoom out. To the left of the slider are five View buttons: Print Layout, Full Screen Reading, Web Layout, Outline, and Draft ([Section 1.4.2](#)). Since the first button is selected, this document is in Print Layout view.

Zooming relative to page or text

Not everyone's a number person. (That's especially true of writers.) So you may prefer to zoom without worrying about percentage figures. The Zoom dialog box (on the View tab, click the magnifying-glass icon) gives you four radio buttons with plain-English zoom settings:

Page width. Click this button, and the page resizes to fill the screen from one side to the other. It's the fastest way to zoom to a text size that most people find comfortable to read. (You may have to scroll, though, to read the page from top to bottom.)

Text width. This button zooms in even farther, because it ignores the margins of your page. Use this one if you have a high-resolution monitor (or you've misplaced your reading glasses).

Whole page. When you want to see an entire page from top to bottom and left to right, click this button. It's great for getting an overview of how your headings and paragraphs look on the page.

Many pages. This view is the equivalent of spreading your document out on the floor, and then viewing it from the top of a ladder. You can use it to see how close you are to finishing that five-page paper, or to inspect the layout of a multi-page newsletter.

WARNING

When you're zoomed out to Whole or "Many pages" view, watch those fingers on the keyboard. You can still make changes to your text in these views, even though you can't see what you're doing.

Changing page view from the ribbon

The ribbon offers radio buttons for three popular page views. (You can see them back in [Figure 1-11](#), to the Zoom tool's right.) They're a quick and dirty way to change the number of pages you see onscreen without fiddling with zoom controls.

- **One Page.** This view shows the entire page in Word's document window. If your screen is large enough, you can read and edit text in this view.
- **Two Pages.** In this view, you see two pages side by side. This view's handy when you're working with documents that have two-page spreads, like booklets.
- **Page Width.** This button does the exact same thing as the Page Width button in the Zoom dialog box ([Section 1.4.3](#)). It's more readable than the One Page and Two Page options, because the page fills the screen from edge to edge, making the text appear larger.

The Window Group: Doing the Splits

Back when dinosaurs roamed the earth and people used typewriters (or very early word processors), you could work on only one document at a time—the one right in front of you. Although Word 2007 has more options for viewing multiple documents and multiple windows than ever, some folks forget to use them. Big mistake. If you ever find yourself comparing

two documents or borrowing extensively from some other text, then having two or more documents visible on your screen can double or triple your work speed.

The commands for managing multiple documents, views, and windows are in the View tab's Window group ([Figure 1-14](#)).

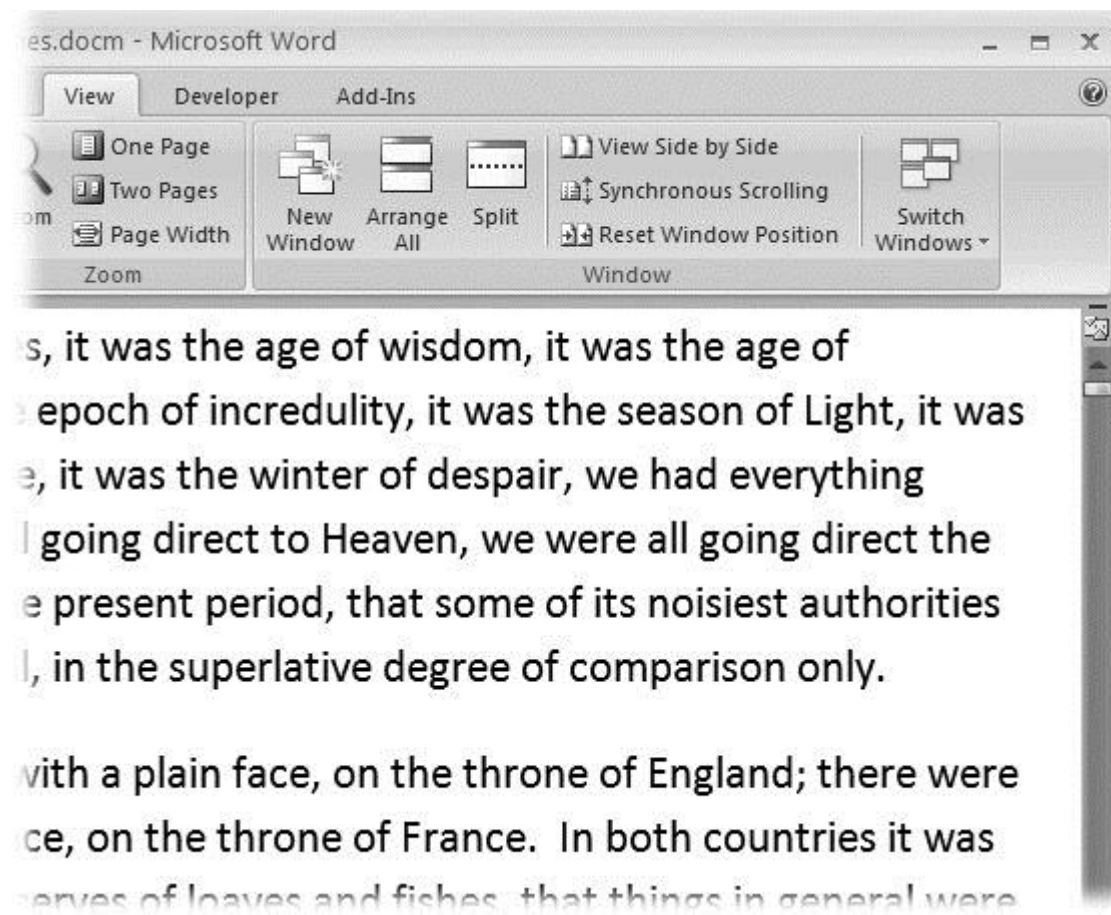


Figure 1-14. In the Window group, the three commands on the left—New Window, Arrange All, and Split—let you open and view your work from multiple vantage points. The commands in the middle—View Side by Side, Synchronous Scrolling, and Reset Window Position—are helpful when reviewing and comparing documents. The big Switch Windows button lets you hop from one document to another.

- **New Window (Alt+W, N).** When you're working on a long document, sometimes you want to see two different parts of the document at the same time, as if they were two separate documents. You may want to keep referring to what you said in the

Introduction while you're working in Chapter 5. Or perhaps you want to keep an Outline view open while editing in Draft view. That's where the New Window command comes in. When you click this button (or hit this keystroke), you've got your document open in two windows that you can scroll independently. Make a change to one window, and it immediately appears in the other.

- **Arrange All (Alt+W, A).** Great—now you've got documents open in two or more windows, but it takes a heck of a lot of mousing around and window resizing to get them lined up on your screen at the same time. Click Arrange All and, like magic, your open Word document windows are sharing the screen, making it easy to work on one and then the other. Word takes an egalitarian approach to screen real estate, giving all windows an equal amount of property (Figure 1-15).
- **Split (Alt+W, S).** The Split button divides a single window so you can see two different parts of the same document—particularly handy if you're copying text from one part of a document to another. The other advantage of the Split command is that it gives you more room to work than using Arrange All for multiple windows because it doesn't duplicate the ribbon, ruler, and other Word tools (Figure 1-16).

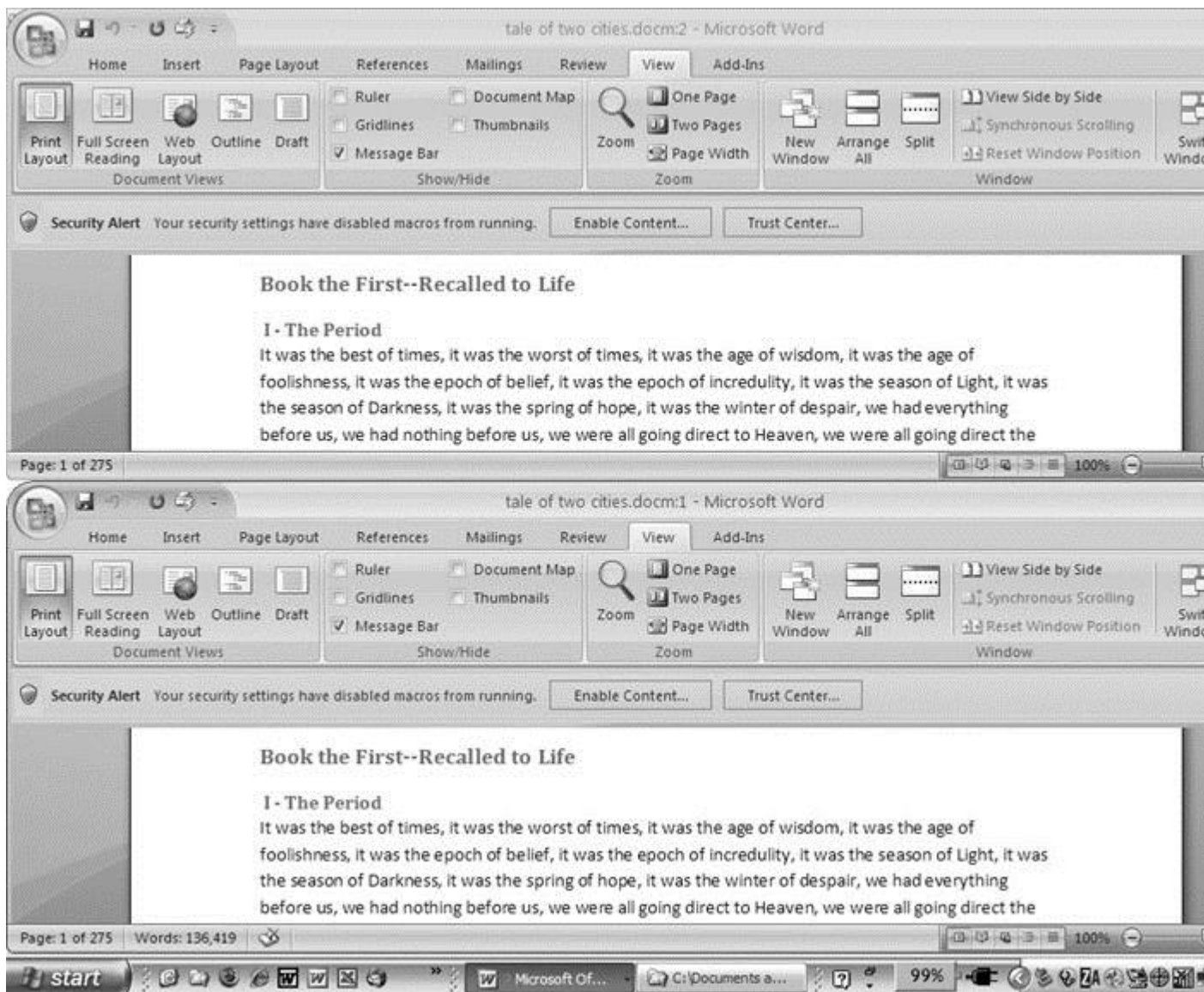


Figure 1-15. One downside of Office 2007's ribbon: It takes up more space on your computer's screen than menus or even the older button bars. When you open a couple of windows, you're not left with much space to do your work, especially when you're working on an ultra-portable laptop or a computer with a small screen. You can double-click the active tab to hide the ribbon, but in most cases, you're better off working with a split screen, as shown in [Figure 1-16](#).

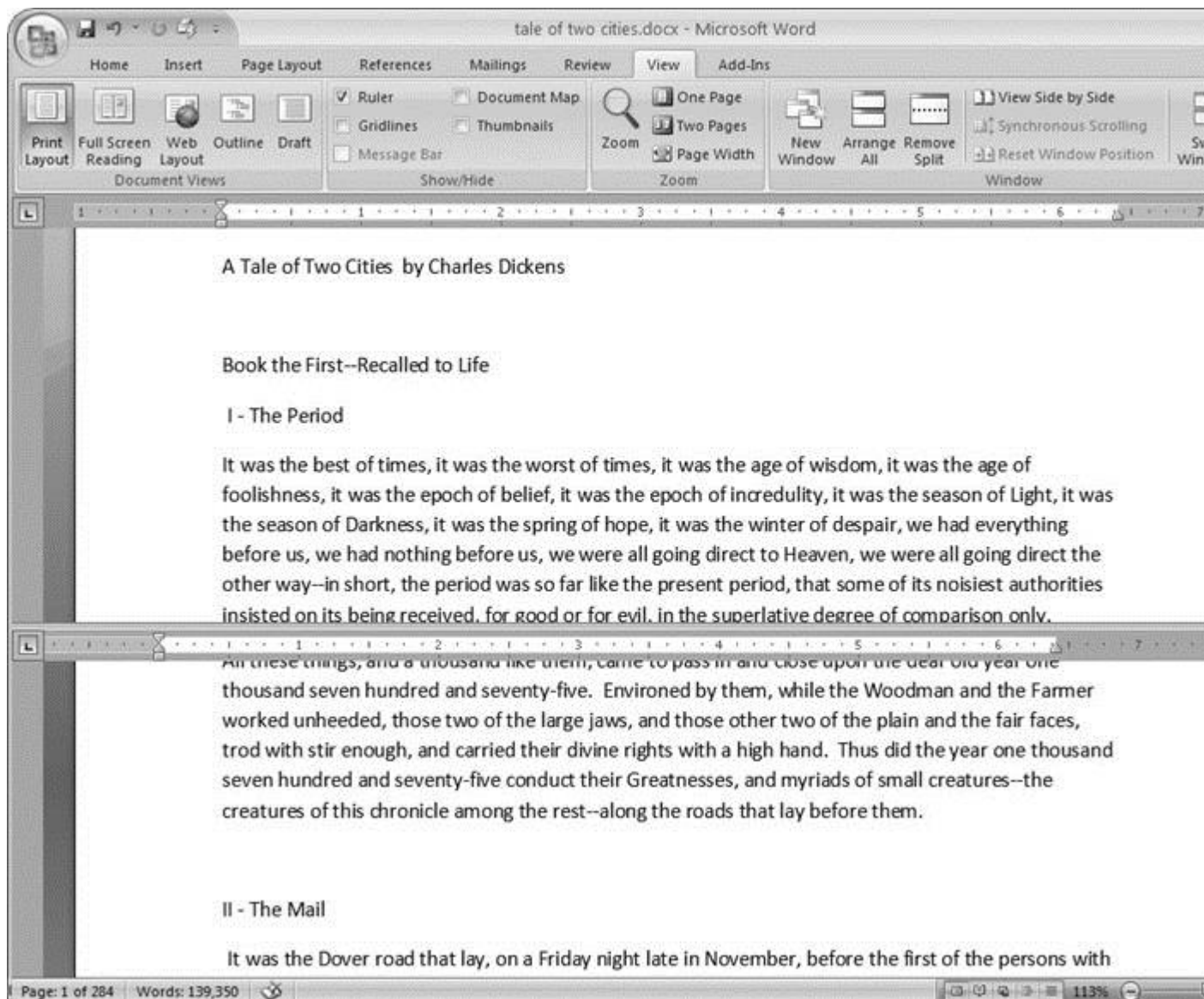


Figure 1-16. When you're viewing two different parts of a single document, use the Split command; it leaves you more room to work than two separate windows, as shown in [Figure 1-15](#). Each section of the split window has a scroll bar, so you can independently control different parts of your document. If you want to fine-tune your split, just drag the middle bar exactly where you want it. When you're done, click Remove Split to return to a single screen view.

Viewing multiple windows

One common reason for wanting to see two documents or more on your screen at once is so you can make line-by-line comparisons. Imagine you have two Word documents that are almost identical, but you have to find

the spots where there are differences. A great way to make those differences jump out is to put both versions on your screen side by side and scroll through them. As you scroll, you can see differences in the paragraph lengths and the line lengths. Here are the commands to help you with the process:

- **View Side by Side (Alt+W, B).** Click the View Side by Side command and Word arranges two windows vertically side by side. As you work with side-by-side documents, you can rearrange windows on your screen by dragging the very top of the Window frame. You can resize the windows by pointing to any edge of the frame. When you see a double arrow, just drag to resize the window. Synchronous Scrolling (described next) is automatically turned on.
- **Synchronous Scrolling (Alt+W, Y).** The Synchronous Scrolling feature keeps multiple document windows in lock step. When you scroll one window, the other windows automatically scroll too. Using the same button or keystroke, you can toggle Synchronous Scrolling on and off as you work with your documents.
- **Reset Windows Position (Alt+W, T).** If you've moved or resized your document windows as described earlier under View Side by Side, then you can click this button to reset your view so the windows share the screen equally.

Saving and Closing Documents

From the earliest days of personal computing, the watchword has been “save early, save often.” There’s nothing more frustrating than working half the day and then having the Great American Novel evaporate into the digital ether because your power goes out. So, here are some tips to protect your work from disasters human-made and natural:

- Name and save your document shortly after you first create it. You’ll see the steps to do so later in this section.
- Get in the habit of doing a quick save with Alt+F, S (think *File Save*) when you pause to think or get up to go to the

kitchen for a snack. (Note for old-timers: Ctrl+S still works for a quick save too.)

- If you're leaving your computer for an extended period of time, save and close your document with Alt+F, C (think *File Close*).

UP TO SPEED: WHERE ARE MY KEYBOARD SHORTCUTS?

Ribbons, buttons, and menus are all well and good when you're doing something new or complicated. But when you know where you're going, a good keyboard shortcut can save time. Word 2007 has dozens of keyboard shortcuts. If you don't have your favorites memorized, use the Alt key to reveal them.

Press the Alt key, and you see small badges with letters and numbers pop up next to menus and buttons. These are your shortcuts. If you're looking for the keyboard shortcut to close your document, follow these steps:

1. Press and release the Alt key to show the keyboard shortcut badges.

When you do this, the badges appear over menu items and ribbon buttons. (The Alt key acts as a toggle. If you change your mind and don't want to use a shortcut, then press the Alt key again and you're back in normal typing mode.)

2. Press F to open the Office menu.

Pressing F (which used to stand for File menu) does the same thing as clicking the button with your mouse, except that now it sports little keyboard shortcut badges.

3. Press C to close your document.

Looking at the bottom of the Office menu, you see the Close command. A small C badge indicates that pressing C closes your document.

As you can guess, most keyboard shortcuts are based on the initial letter of the actual command words. This doesn't always work out for popular letters. As a result, you have cases like the References tab, which has the keyboard shortcut S.

Even if you don't deliberately work to memorize the keyboard shortcuts, you'll find that you begin to learn your favorites as you use them. Before long, your fingers will tap them out automatically.

If a substantial portion of your brain is occupied by keyboard shortcuts from previous versions of Word, never fear. Most of those old commands still work—including Ctrl+B for Bold, Ctrl+N for new document, and F7 for spell checking.

The Many Ways to Save Documents

It's the Microsoft Way to give you multiple ways to do most everything. Whether that's because the company's programmers believe in giving you lots of choices, or because they can't make up their minds about the best way to do something is a question best left to the philosophers. But the point is, you do have a choice. You don't have to memorize every keystroke, button, and command. Especially with saving, the important thing is to find a way you like and stick with it. Here's a list of some ways you can save the document you're working on:

Saving by keyboard shortcut

- **Ctrl+S.** If you're an old hand at Word, this keyboard shortcut may already be burned in your brain. It still works with Word and other Office programs. This command quickly saves the document and lets you get back to work.
- **Alt+F, S.** This keyboard shortcut does the exact same thing as Ctrl+S. Unlike Ctrl+S, though, you get visual reminders of which keys to press when you press the Alt key. See the box above.

Saving by menu command

- **Office button → Save.** If you don't want to use keyboard shortcuts, you can mouse your way to the same place using menus. Like the options above, this command saves your file with its current name.
- **Office button → Save As.** The Save As option lets you save your file with a new name ([Figure 1-17](#)). When you use this command, you create a new document with a new name that includes any changes you've made. (The individual steps are described in the next section.)

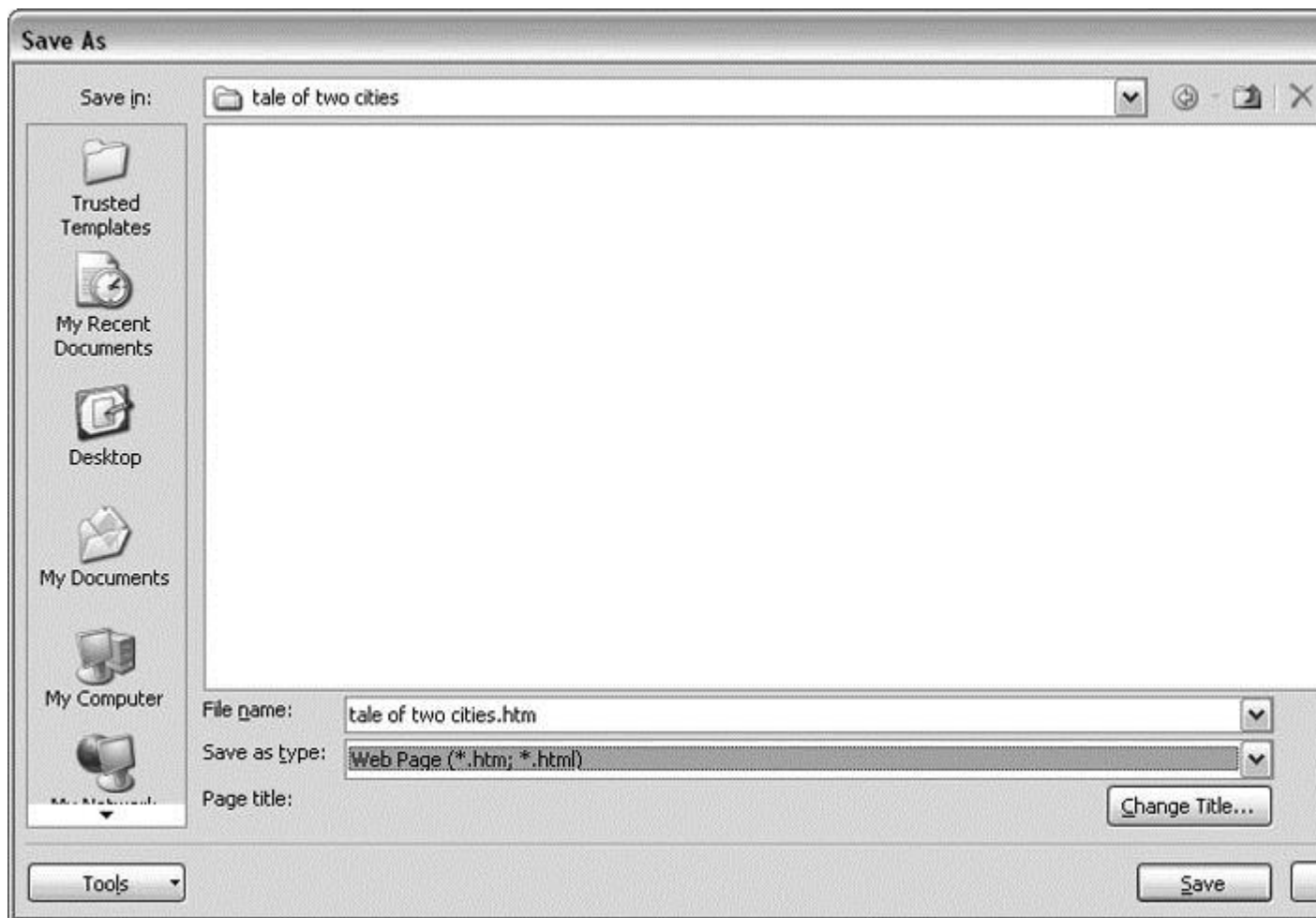


Figure 1-17. Use Office button → Save As to save your file with a new name or in a different file format. In this example, the Word file tale of two cities is being saved as an HTML type file—a format used for Web pages.

- **Office button → Close.** When you close a document, Word checks to see if you've made any changes to the file. When you've made changes, Word always asks whether you'd like to save the document (Figure 1-18).

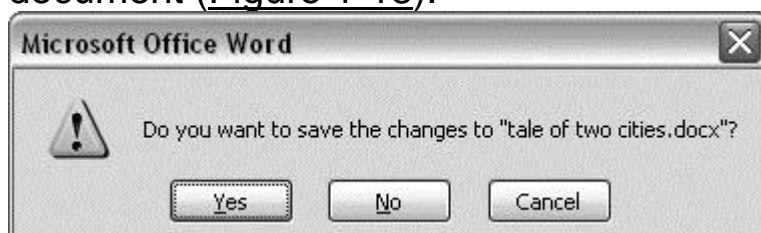


Figure 1-18. When you see this message box, you have three choices: Yes saves your document before closing it; No closes your document without saving it; Cancel leaves your document open without saving it.

Saving with a new name

When you save a new document or save a document with a new name (Save As), you've got three things to consider: a filename, a file location, and a file format.

POWER USERS' CLINIC: PREVENTING AND RECOVERING FROM DISASTER

Lightning strikes. Children trip over power cords. Computers crash. Saving your work frequently and keeping backup copies of your documents are important safeguards. You can have Word save backup copies every time you save a document, so you always have the last two versions of your work stored on your computer. Word doesn't automatically save backup copies of your files, but it's easy enough to change this setting. Click the Office button, and then click Word Options at the bottom of the box.

After the Word Options dialog box opens, scroll down to the Save group, and turn on the "Always create backup copy" checkbox. Choose Office button → Open to find and open your backup file ([Figure 1-19](#)).

When disaster strikes in spite of your meticulous preventive measures, Word can help too. Word's new file formats have been designed to be easier to recover and repair. In many cases, if a picture or a table is corrupted in the file, you can still retrieve everything else ([Figure 1-20](#)).

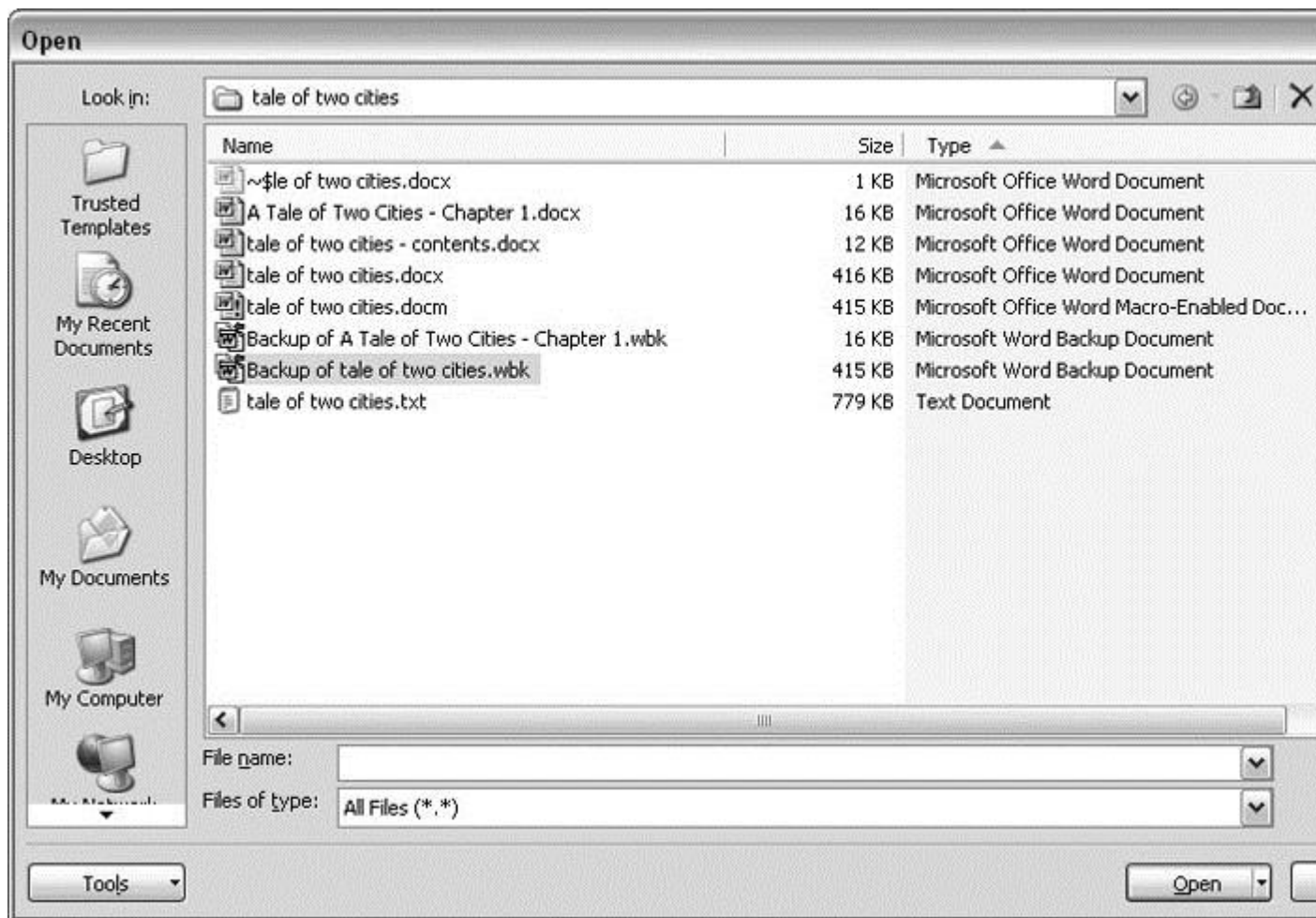


Figure 1-19. To open a backup file, choose All Files (.*) in the “Files of type” drop-down menu at the bottom of the Open dialog box. Look for a file that begins with the words “Backup of.” Double-click to open the file.*

Here are the steps for saving a file, complete with a new name:

1. **Choose Office button → Save As to open the Save As box.**

You use the Save As command when you’re saving a file with a new name. Word also displays the Save As box the first time you save a new document.

2. **Use the “Save in” drop-down list or double-click to open folders in the window to find a location to store your file.**

The buttons in the upper-right corner can also help you navigate. See the details in [Figure 1-21](#). Word doesn't care where you save your files, so you can choose your desktop or any folder on your computer.

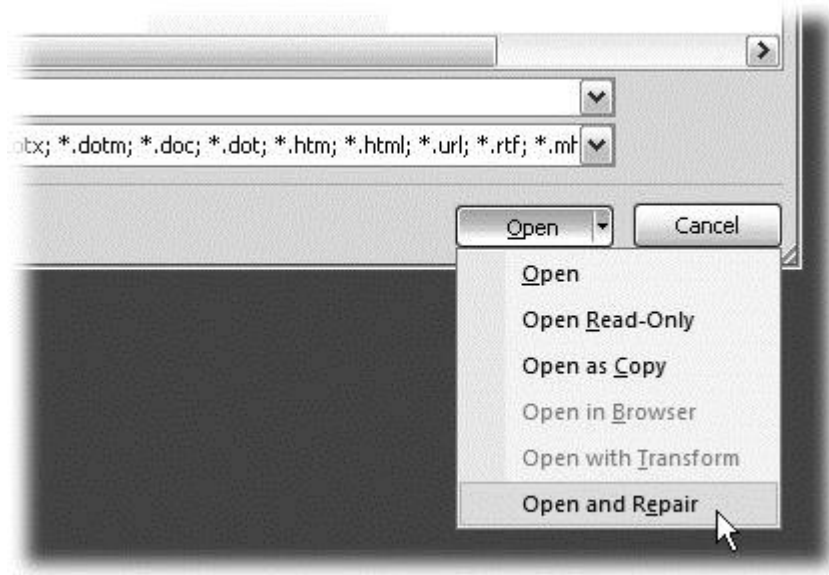


Figure 1-20. When you can't open a file with a normal Open command, click the arrow to the right of the Open button, and choose Open and Repair from the drop-down menu. Some parts of your file may still be damaged, but you can usually recover most of your work.

TIP

The more files you save on your computer, the more helpful it is to have a logical folder and file system. If you keep hundreds of Word documents, you may want to have different folders named: letters, memos, reports, and newsletters.

3. At the bottom of the Save As dialog box, type a name in the File name box.

Word accepts long names, so you don't need to skimp. Use a descriptive name that will help you identify the file two weeks or two years from now. A good name saves you time in the long run.

4. Use the "Save as type" box to choose a file type.

In most cases you don't need to change the file type. Word automatically selects either *.docx* or *.docm* depending on the contents of your file, but Word can save files in over a dozen different formats. If you're sharing the file with someone who's using an older version of Word, then choose Word 97-2003 Document to save the document in *.doc* format. If you're sharing with someone who uses a Mac or Linux computer, then you may want to use the more universal Rich Text Format (*.rtf*).

TIP

If you want to use your document as a template in the future, then choose Word Template (*.dotx*). Use the Word Macro-Enabled format (*.dotm*) if you've created any macros ([Section 19.2](#)).

Unless you're sharing your file with someone using an older version of Word or a different operating system or making a template, stick with the new standard Word file types *.docx* (for normal Word files) and *.docm* (for files that run macros). See the box in [Section 1.2.3](#) for a complete rundown.

5. Click Save.

Word does the rest. All you need to do is remember where you saved your work.

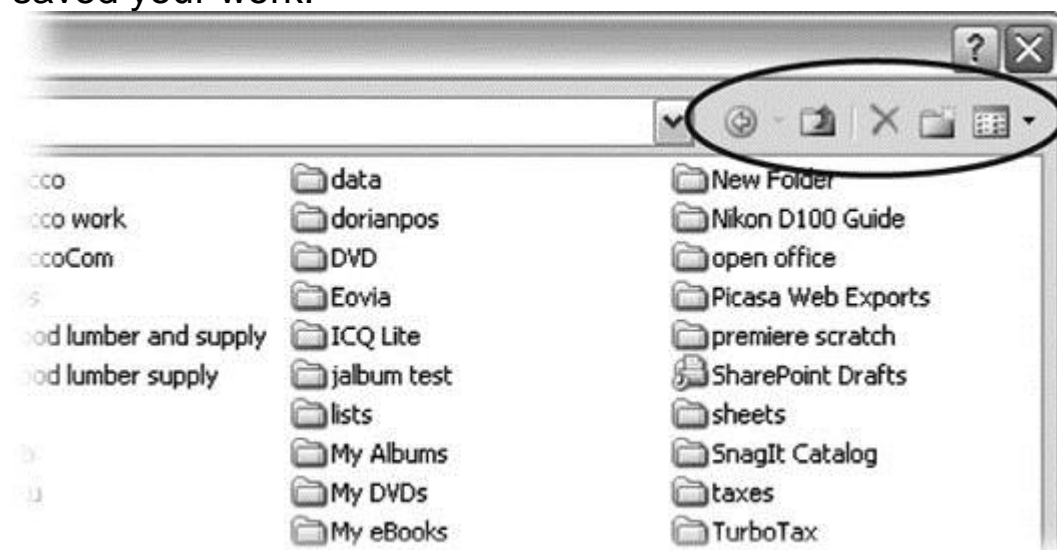


Figure 1-21. The Save As dialog box has all the controls you need to navigate to any location on your computer—including five nifty buttons in the upper-right corner. From left to right: The left arrow button steps you backward through your past locations (just like the back button in a Web browser). The up arrow takes you out to the folder enclosing the one you’re in now. The X button deletes folders and files—be careful with it. Click the folder with the star in the corner to create a new folder.

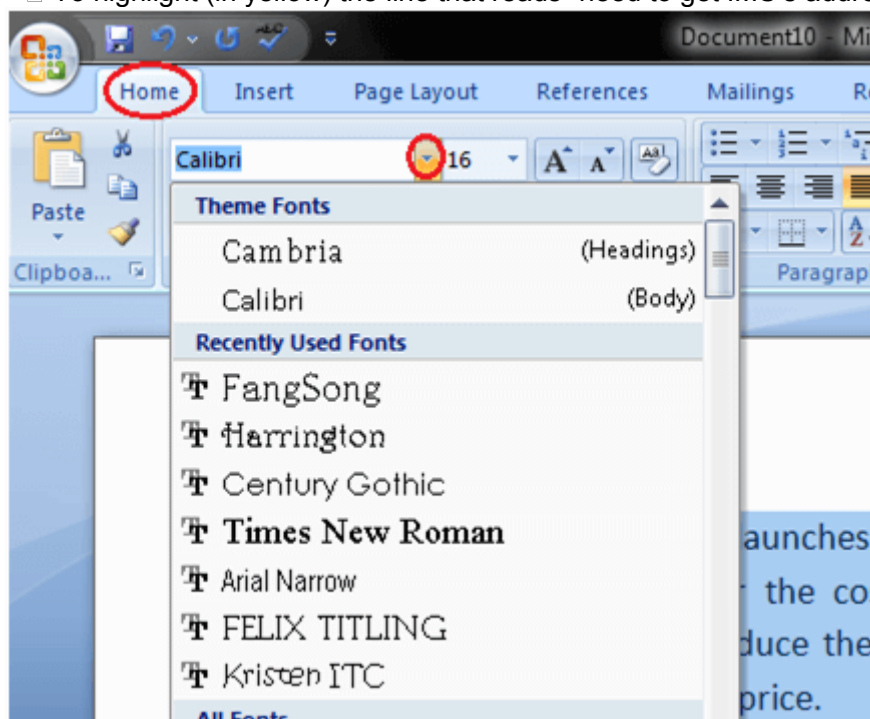
UP TO SPEED: UNDERSTANDING WORD FILE TYPES

When you save your first file in Word 2007, you’ll find a bewildering array of file types. Don’t sweat it—you’ll use some new file types on the list frequently, but you’ll probably ignore a lot of types. The two you’ll use most often are **.docx** and **.docm**.

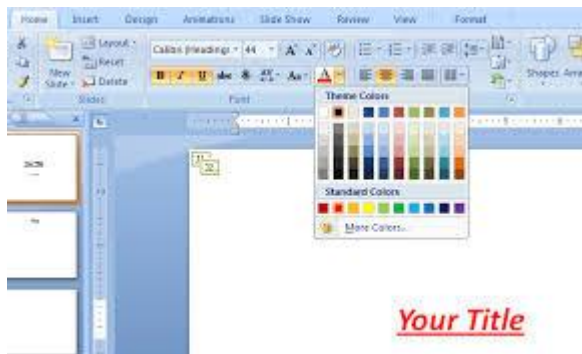
- **.docx**. New format for most Word documents. Pre-2007 versions of Word can’t open these documents without the help of the Office Compatibility Pack, as described in the box in [Section 1.2.3](#).
- **.docm**. New format for Word documents containing macros. (Microsoft is making an effort to increase computer security by reining in Office macros.)
- **.dotx**. New format for templates.
- **.dotm**. New format for templates containing macros.
- **.doc**. Format for all the previous versions of Word including: Word 6.0, Word 95, and Word 97-2003.
- **.dot**. The template format for previous versions of Word.
- **.pdf**. Adobe Reader (also known as Acrobat) files. PDF stands for Portable Document Format.
- **.xps**. XML Paper specification. As explained in [Section 17.5.1](#), this format is Microsoft’s answer to PDF for creating documents that anyone can open on any computer.
- **.mhtm, .mhtml**. Single file Web page. In other words, all the files that make up a Web page (including images) are contained in one single file. (There’s no difference between .mhtm and .mhtml files; they’re just four-letter and five-letter versions of the same filename extension.)
- **.htm, .html**. Standard Web page format. This format is for the Web pages you see on the Internet. When the page includes photos or other files, links on the page

point to those external files. (There's no difference between .htm and .html; both mean the same thing.)

- **.rtf**. Rich Text Format, a file format used to exchange files with other word processors and other types of computers like Macs and Linux computers.
 - **.txt**. This plain text format doesn't have a lot of the formatting you can do in Word. It makes for a nice, small file size, and you can open it on any computer, but it's not pretty.
 - **.xml**. eXtensible Markup Language is a standard language for describing many different types of data.
 - **.wps**. This format indicates a document created in Office's little sibling, Microsoft Works.
- Q6 b) Write steps regarding followings
 - ☐ To change the font style
 - ☐ To change the font size
 - ☐ To change the font color
 - ☐ To highlight (in yellow) the line that reads "need to get IMS's address".

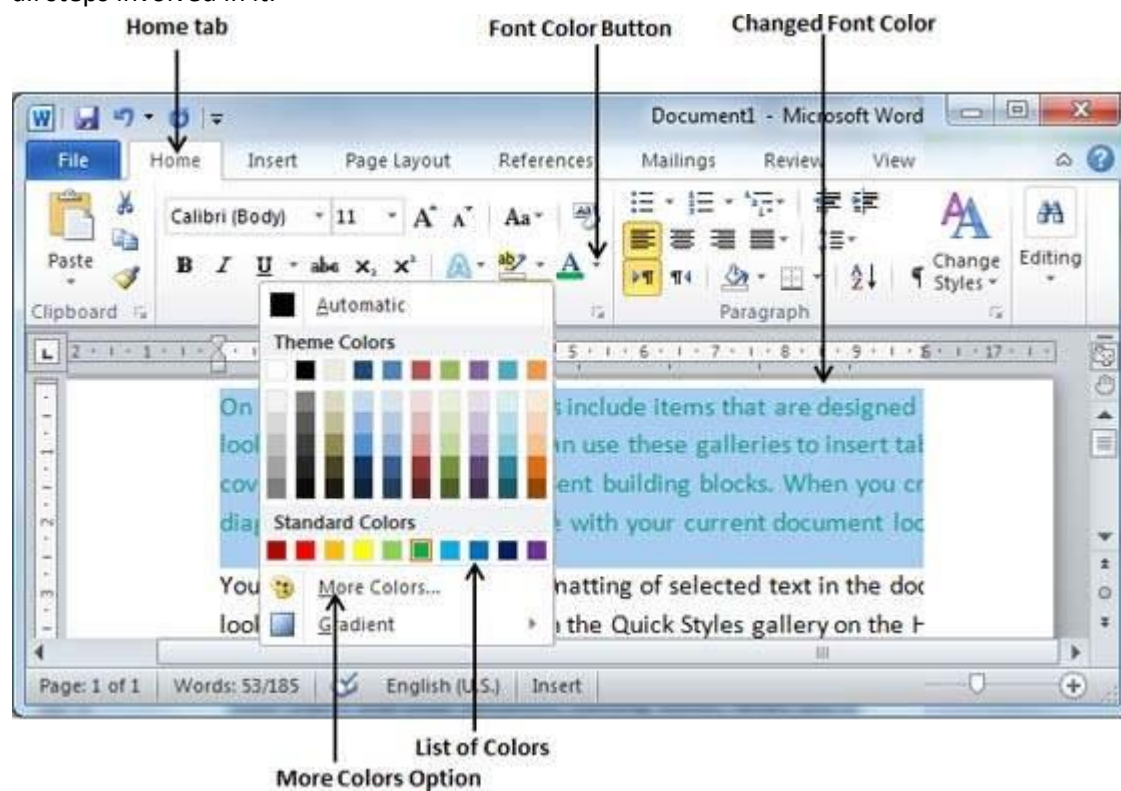


Ans.



Q7. Create a file in MS-Word for the following document and save it with file name 'ms_word'. Describe

all steps involved in it.



Q7. Create a file in MS-Word for the following document and save it with file name 'ms_word'. Describe

reating a New Document

When you start Word without opening an existing document, the program gives you an empty one to work in. If you're eager to put words to page,

then type away. Sooner or later, though, you'll want to start *another* new document. Word gives you three ways to do so:

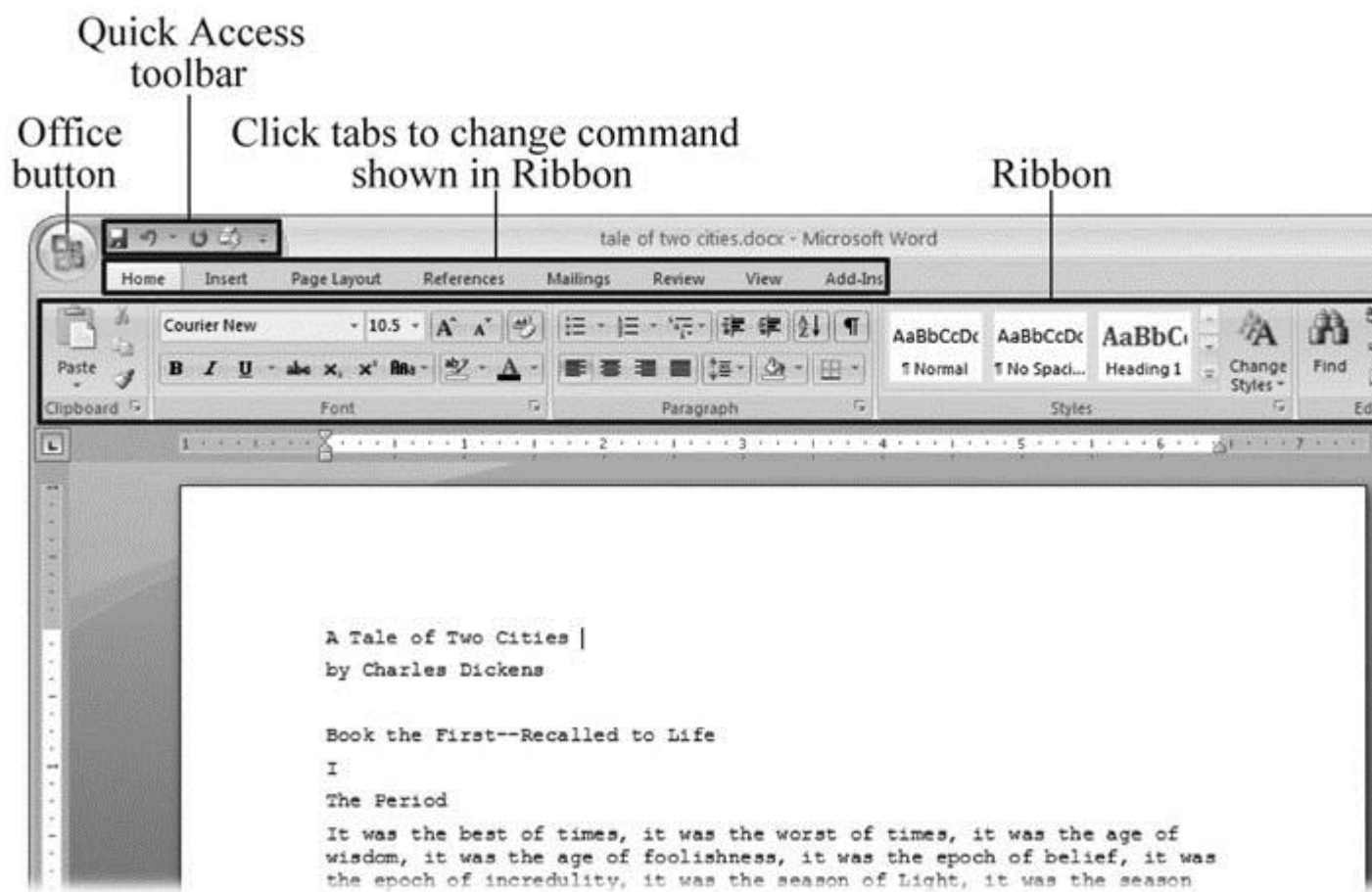


Figure 1-1. When you start Word 2007 for the first time, it may look a little top-heavy. The ribbon takes up more real estate than the old menus and toolbars. This change may not matter if you have a nice big monitor. But if you want to reclaim some of that space, you can hide the ribbon by double-clicking the active tab. Later, when you need to see the ribbon commands, just click a tab.

- **Creating a new blank document.** When you're preparing a simple document—like a two-page essay, a note for the babysitter, or a press release—a plain, unadorned page is fine. Or, when you're just brainstorming and you're not sure what you want the final document to look like, you probably want to start with a blank slate or use one of Word's templates (more on that in a moment) to provide structure for your text.

- **Creating a document from an existing document.** For letters, resumes, and other documents that require more formatting, why reinvent the wheel? You can save time by using an existing document as a starting point ([Section 1.2.2](#)). When you have a letter format that you like, you can use it over and over by editing the contents.
- **Creating a document from a template ([Section 1.2.3](#)).** Use a template when you need a professional design for a complex document, like a newsletter, a contract, or meeting minutes. Templates are a lot like forms—the margins, formatting, and graphics are already in place. All you do is fill in your text.

TIP

Microsoft provides a mind-boggling number of templates with Word, but they're not the only source. You can find loads more on the Internet, as described in [Section 5.2.1](#). Your employer may even provide official templates for company documents.

To start your document in any of the above ways, click the Windows logo in the upper-left corner of the screen. That's Office 2007's new *Office button*. Click it, and a drop-down menu opens, revealing commands for creating, opening, and saving documents. Next to these commands, you see a list of your Word documents. This list includes documents that are open, as well as those that you've recently opened.

The Office button is also where you go to print and email your documents ([Figure 1-2](#)).

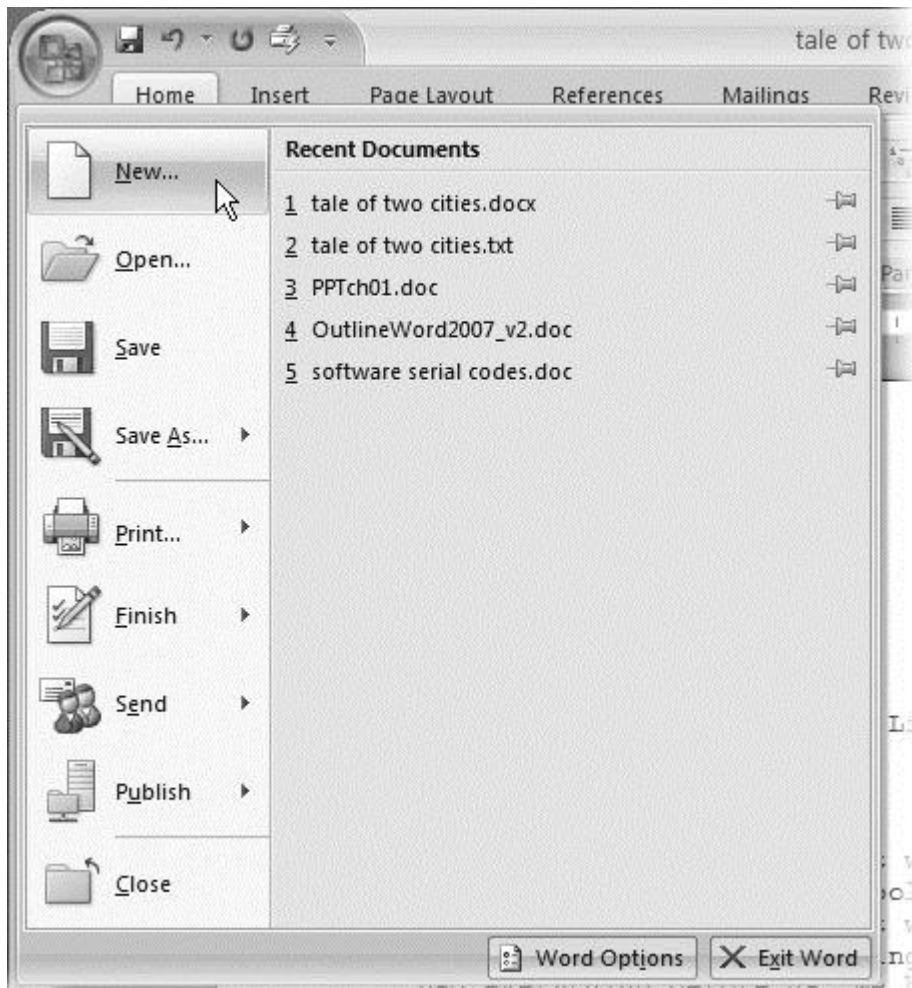


Figure 1-2. The phrase most frequently uttered by experienced Word fans the first time they start Word 2007 is, “Okay, where’s my File menu?” Never fear, the equivalent of the File menu is still there—it’s just camouflaged a bit. Clicking the Office button (the one that looks like a Windows logo) reveals the commands you use to create, open, and save Word documents.

Creating a New Blank Document

Say you want a new blank document, just like the one Word shows you when you start the program. No problem—here are the steps:

1. **Choose Office button → New.**

The New Document dialog box appears.

2. In the upper-left corner of the large “Create a new Word document” panel, click “Blank document” (Figure 1-3).

The New Document box presents a seemingly endless number of options, but don’t panic. The “Blank document” option you want is on the left side of the first line.

3. At the bottom of the New Document dialog box, click **Create**.

The dialog box disappears, and you’re gazing at the blank page of a new Word document.

Better get to work.

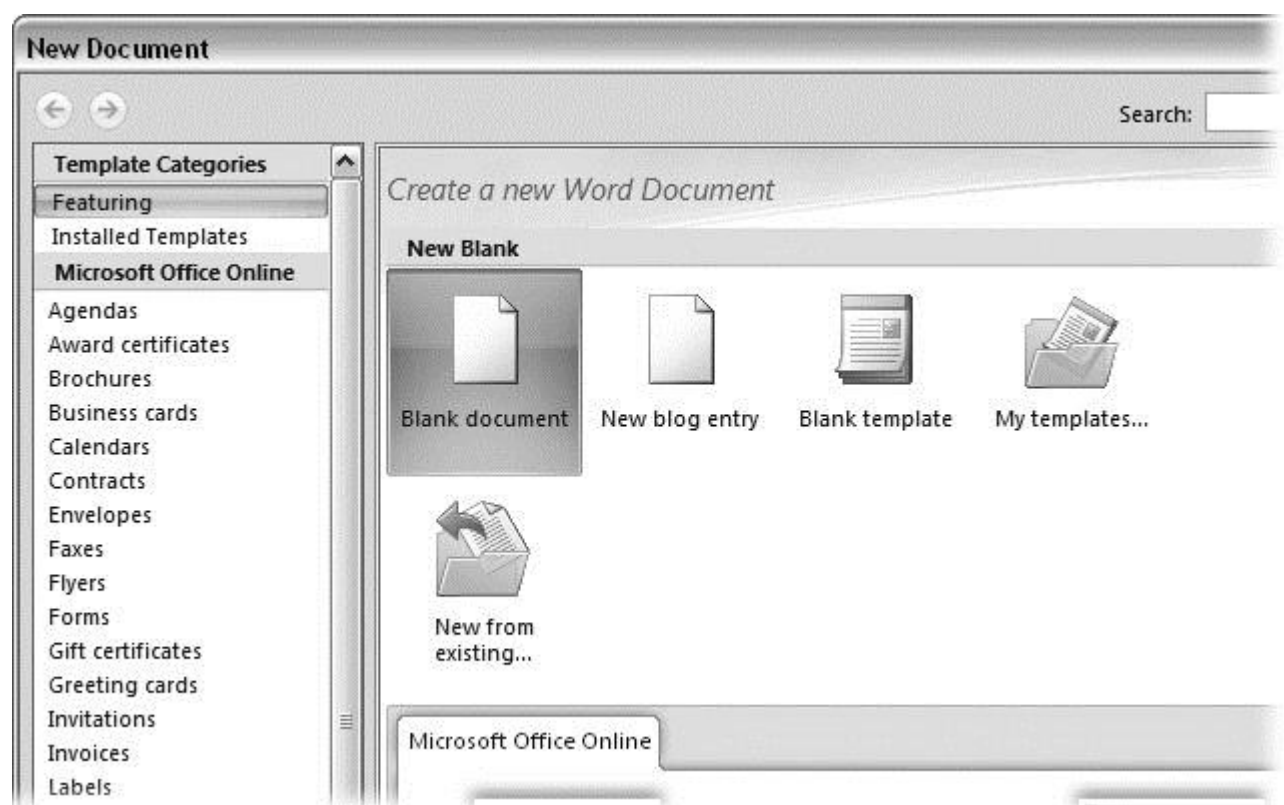


Figure 1-3. Open the New Document box (Office button → New, or Alt+F, N), and Word gives you several ways to create a new document. Click “Blank document” to open an empty document, similar to the one Word shows when you first start the program. Or you can click “New from existing” to open a document that you previously created under a new name.

Creating a New Document from an Existing Document

A blank Word document is sort of like a shapeless lump of clay. With some work, you can mold it to become just about anything. Often, however, you can save time by opening an existing document that's similar to the one you want to create. Imagine that you write the minutes for the monthly meetings of the Chief Executive Officer's Surfing Association (CEOSA). When it's time to write up the June minutes, it's a lot faster to open the minutes from May. You keep the boilerplate text and all the formatting, but you delete the text that's specific to the previous month. Now all you have to do is enter the text for June and save the document with a new name: *JuneMinutes.docx*.

NOTE

The .docx extension on the end of the filename is Word 2007's new version of .doc. The switch from three-letter to four-letter filename extensions indicates a change in the way Word stores documents. (If you need to share documents with folks using earlier versions of Word, choose Office button → Save As → Word 97-2003 document when you save the file. See the box in [Section 1.2.3](#) for details.)

Word gives you a “New from existing” document-creation option to satisfy your desire to spend more time surfing and less time writing meeting minutes. Here's how to create a new document from an existing document:

1. Choose Office button → New (Alt+F, N) to open the New Document window. Then click “New from existing...” (it sits directly below the “Blank document” button).

The three dots at the end of the button's title tell you that there's another dialog box to come. And sure enough, when you click “New from existing...”, it opens another box, appropriately titled New from Existing Document ([Figure 1-4](#)). This box looks—and works—like a standard Windows Open File box. It lets you navigate to a specific folder and open a file.

2. On your computer, find the existing document you're using for a model.

You can use the bar on the left to change the folder view. Word starts you in your My Documents folder, but you can switch to your desktop or your My Computer icon by clicking the icons on the left. Double-click folder icons in the large window to open them and see their contents.

3. Click to select the file, and then click Create New (in the lower-right corner). (Alternatively, just double-click the file's icon to open it. This trick works in all Open File boxes.)

Instead of the usual Open button at the bottom of the box, the button in the New from Existing Document box reads Create New—your clue that this box behaves differently in one important respect: Instead of opening an existing file, you're making a *copy* of an existing file. Once open, the file's name is something like *Document2.docx* instead of the original name. This way, when you save the file, you don't overwrite the original document. (Still, it's best to save it with a new descriptive name right away.)

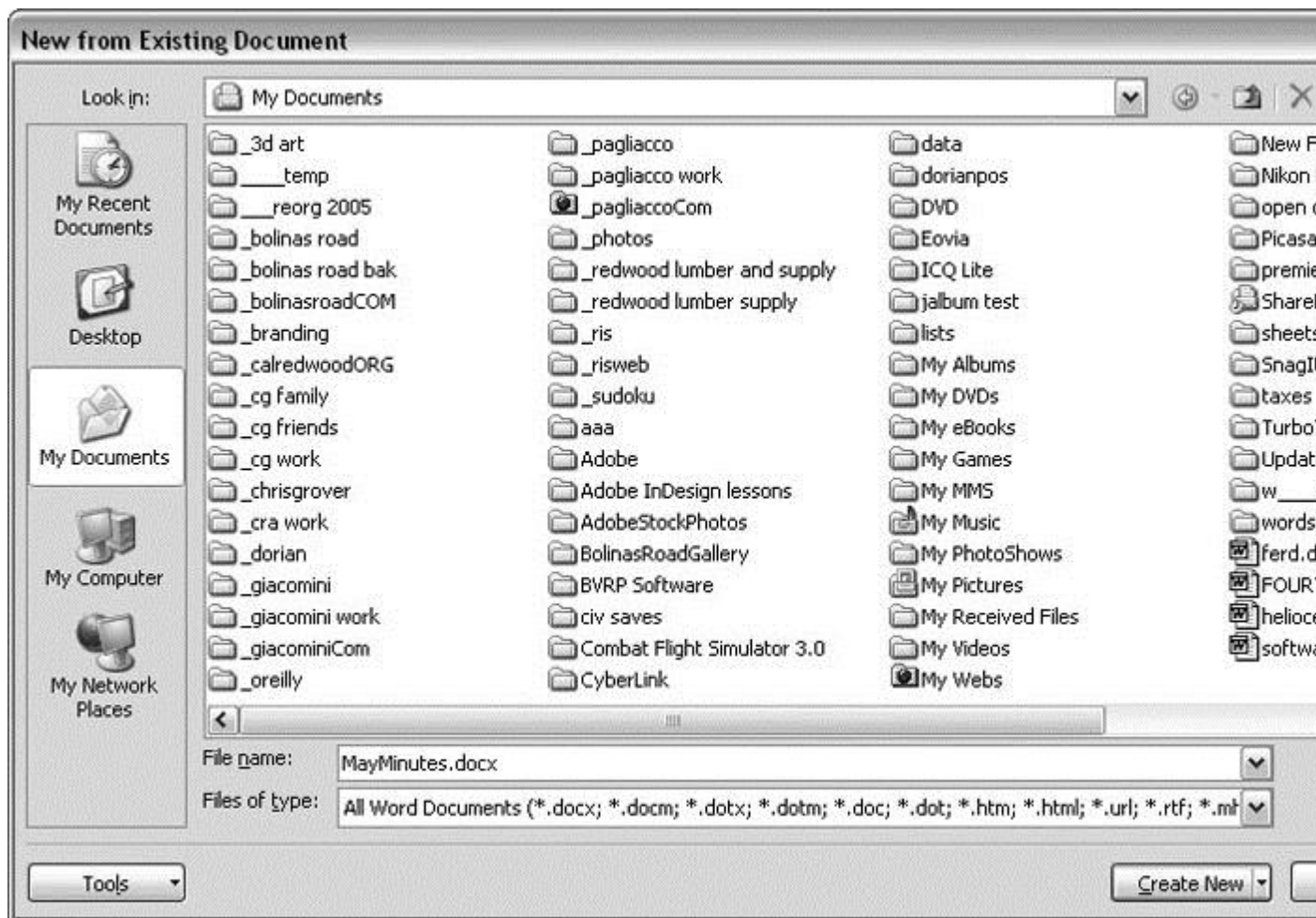


Figure 1-4. Use the New from Existing Document box to find an existing Word document that you'd like to open as a model for your new document. When you click Create New at bottom-right, Word opens a new copy of the document, leaving the original untouched. You can modify the copy to your heart's content and save it under a different file name.

TIP

Windows' Open File boxes, like New from Existing Document, let you do a lot more than just find files. In fact, they let you do just about anything you can do in Windows Explorer. Using keyboard shortcuts, you can cut (Ctrl+X), copy (Ctrl+C), and paste (Ctrl+V) files. A right-click displays a shortcut menu with even more commands, letting you rename files, view Properties dialog boxes, and much more. You can even drag and drop to move files and folders.

POWER USERS' CLINIC: WORD'S NEW FILE FORMATS: .DOCX AND .DOCM

With Office 2007, Microsoft took the drastic step of changing its file formats in hopes of improving your computer's security. Malicious programmers were using Office's macros to do nasty things to unsuspecting computers. The *.docx* format, the new standard for Word files, doesn't permit macros, making it safe from those threats. The *.docm* format indicates that a document contains macros or other bits of programming code. When opening one of these files, play it safe: If you don't know who created the *.docm* file, then don't open it.

The downside of the new file formats is that older versions of Word don't know how to open these *.docx* and *.docm* documents. To open Word 2007 files with an older version (even Word 2003), you need to install the Microsoft Office Compatibility Pack.

This software fix gives pre-2007 versions of Word the power to open documents in the new formats. Even then, you may not be able to use or edit parts of the file that use new Word features (like themes, equations, and content controls). To download the free compatibility pack, go to www.office.microsoft.com and type *office 2007 compatibility* into the search box at the top of the page.

Also, if you're preparing a Word document for someone who's using an older Word version, then you have to save it in a compatible format, as described in the tip in [Section 1.2.2](#). (Fortunately, the compatibility issue doesn't go both ways: Word 2007 can open old *.doc* docs just fine.)

Creating a New Document from a Template

Say you're creating meeting minutes for the first time. You don't have an existing document to give you a leg up, but you do want to end up with handsome, properly formatted minutes. Word is at your service—with *templates*. Microsoft provides dozens upon dozens of prebuilt templates for everything from newsletters to postcards. Remember all the busy stuff in the New Document box in [Figure 1-3](#)? About 90 percent of the items in there are templates.

In the previous example, where you use an existing document to create the meeting minutes for the Chief Executive Officer's Surfing Association (CEOSA), each month you open the minutes from the previous month. You delete the information that pertains to the previous month and enter the current month's minutes. A template works pretty much the same way, except it's a generic document, designed to be adaptable to lots of different situations. You just open it and add your text. The structure, formatting, graphics, colors, and other doodads are already in place.

NOTE

The subject of Word templates is a lengthy one, especially when it comes to creating your own, so there's a whole chapter devoted to that topic—[Chapter 20](#).

Here's how to get some help from one of Microsoft's templates for meeting minutes:

1. Choose Office button → New (Alt+F, N) to open the New Document window.

On the left of the New Document box is a Template Categories list. The top entry on this list is Installed Templates—the ones Word has installed on your computer.

You could use any of these, but you also have a world of choice waiting for you online. On its Web site, Microsoft offers hundreds of templates for all sorts of documents, and you can access them right from the New Document box. If you have a fast Internet connection, then it's just as quick and easy to use an online template as it is using the ones stored on your computer. In fact, you'll use an online template for this example.

NOTE

If you can't connect to the Internet right now, then simply choose one of the installed templates instead. Click Create, and then skip to step 4.

2. Scroll down the Template Categories list to the Microsoft Office Online heading. Under this heading, select Minutes.

In the center pane, you'll see all different types of minutes templates, from PTA minutes to Annual shareholder's meeting minutes (Figure 1-5). When you click a template's icon, a preview appears in the pane on the right.

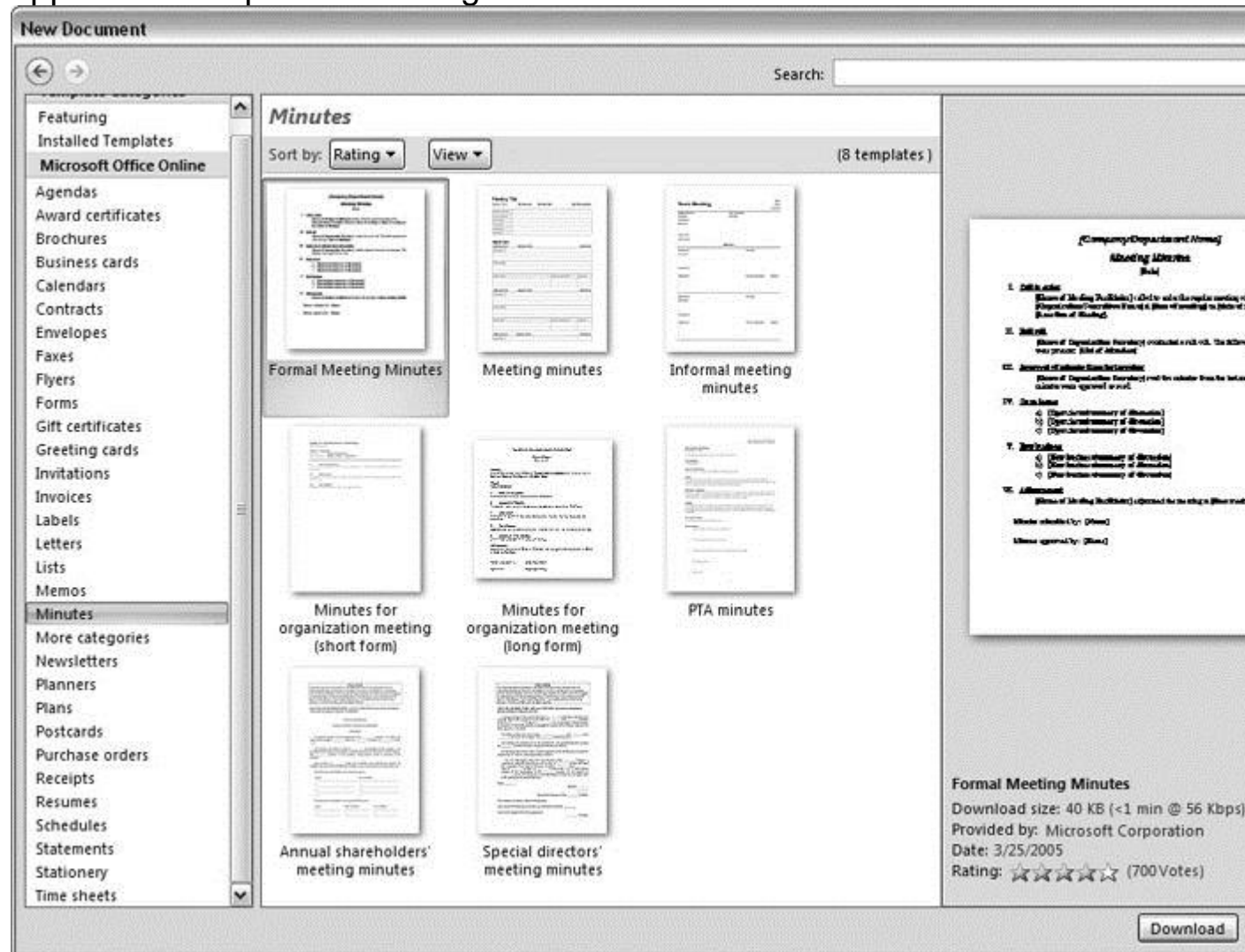


Figure 1-5. The New Document box lists prebuilt templates that live at Microsoft Office Online in categories like Agendas, Brochures, Calendars, and Minutes. Below the thumbnail you see an estimate of how long it takes to download the template from the Microsoft Office Online Web site. A rating, from 0 to 5 stars, tells you what other people think of the template (the rating system is kind of like the one at Amazon.com).

3. When you're done perusing the various styles, click the Formal Meeting Minutes icon. (After all, CEOSA is a very formal organization.) Then click Download.

Word downloads and opens the document.

4. Start writing up the minutes for the CEO Surfers.

To follow the template's structure, replace all the words in square brackets ([]) with text relevant to CEOSA.

TIP

If you'd rather not download the Formal Meeting Minutes template every time you use it, then you can save the file on your computer as a Word template. The steps for saving files are just around the corner in [Section 1.5](#).

Opening an Existing Document

If you've mastered creating a document from an existing document and creating a document from a template, you'll find that opening an existing document is a snap. The steps are nearly identical.

1. Choose Office button → Open (Alt+F, O). In the Open window ([Figure 1-6](#)), navigate to the folder and file you want to open.

The Open window starts out showing your My Documents folder, since that's where Word suggests you save your files. When your document's in a more exotic location, click the My Computer icon, and then navigate to the proper folder from there.

TIP

When you open a document you've used recently, you may see its name right on the Office button → Recent Documents menu. If so, simply click to open it without a trip to the Open dialog box.

2. With the file selected, click Open in the lower-right corner.

The Open box goes away and your document opens in Word. You're all set to get to work. Just remember, when you save this document (Alt+F, S or Ctrl+S), you write over the previous file. Essentially, you create a new, improved, and only copy of the file you just opened. If you don't want to write over the existing document, use the Save As command (Alt+F, A), and then type a new name in the File Name text box.

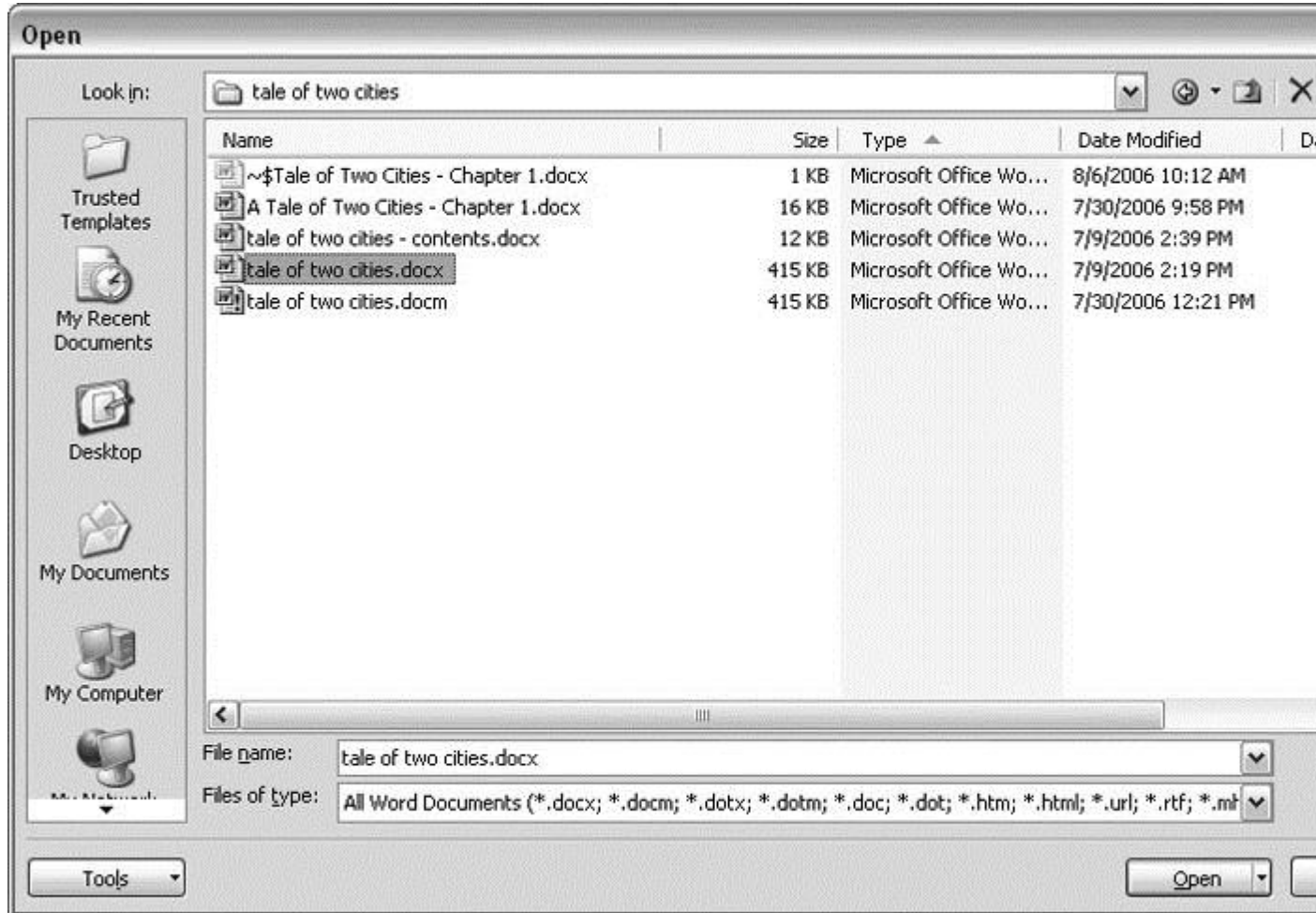


Figure 1-6. This Open dialog box shows the contents of the tale of two cities folder, according to the “Look in” box at the top. The file tale of two cities.docx is selected, as you can see in the “File name box” at the bottom of the window. By clicking Open, Mr. Dickens is ready to go to work.

TIP

Opening a file in Word doesn't mean you're limited to documents *created* in Word. You can choose documents created in other programs from the Files of Type drop-down

menu at the bottom of the Open dialog box. Word then shows you that type of document in the main part of the window. You can open Outlook messages (.msg), Web pages (.htm or .html), or files from other word processors (.rtf, .mcw, .wps).

Your Different Document Views

Now that you know a handful of ways to create and open Word documents, it's time to take a look around the establishment. You may think a document's a document—just look at it straight on and get your work done. It's surprising, though, how changing your view of the page can help you work faster and smarter. When you're working with a very long document, you can change to Outline view and peruse just your document's headlines without the paragraph text. In Outline view, you get a better feeling for the manuscript as a whole. Likewise, when you're working on a document that's headed for the Web, it makes sense to view the page as it will appear in a browser. Other times, you may want to have two documents open on your screen at once (or on each of your two monitors, you lucky dog), to make it easy to cut and paste text from one to the other.

The key to working with Word's different view options is to match the view to the job at hand. Once you get used to switching views, you'll find lots of reasons to change your point of view. Find the tools you need on the View tab ([Figure 1-7](#)). To get there, click the View tab (Alt+W) on the ribbon (near the top of Word's window). The tab divides the view commands into four groups:

- **Document Views.** These commands change the big picture. For the most part, use these when you want to view a document in a dramatically different way: two pages side by side, Outline view, Web layout view, and so on.
- **Show/Hide.** The Show/Hide commands display and conceal Word tools like rulers and gridlines. These tools don't show when you print your document; they're just visual aids that help you when you're working in Word.

- **Zoom.** As you can guess, the Zoom tools let you choose between a close-up and a long shot of your document. Getting in close makes your words easier to read and helps prevent eyestrain. But zooming out makes scrolling faster and helps you keep your eye on the big picture.

TIP

In addition to the Zoom tools on the ribbon, handy Zoom tools are available in the window's lower-right corner. Check out the + (Zoom In) and – (Zoom Out) buttons and the slider in between them. See [Section 1.4.3](#) for the details on using them.

- **Window.** In the Window group, you'll find creative ways to organize document windows on your screen—like split views of a single document or side-by-side views of two different documents.

All the commands in the View tab's four groups are covered in the following pages.

NOTE

This section provides the short course on viewing your Word documents. For even more details and options for customizing your Word environment, see [Chapter 17](#).

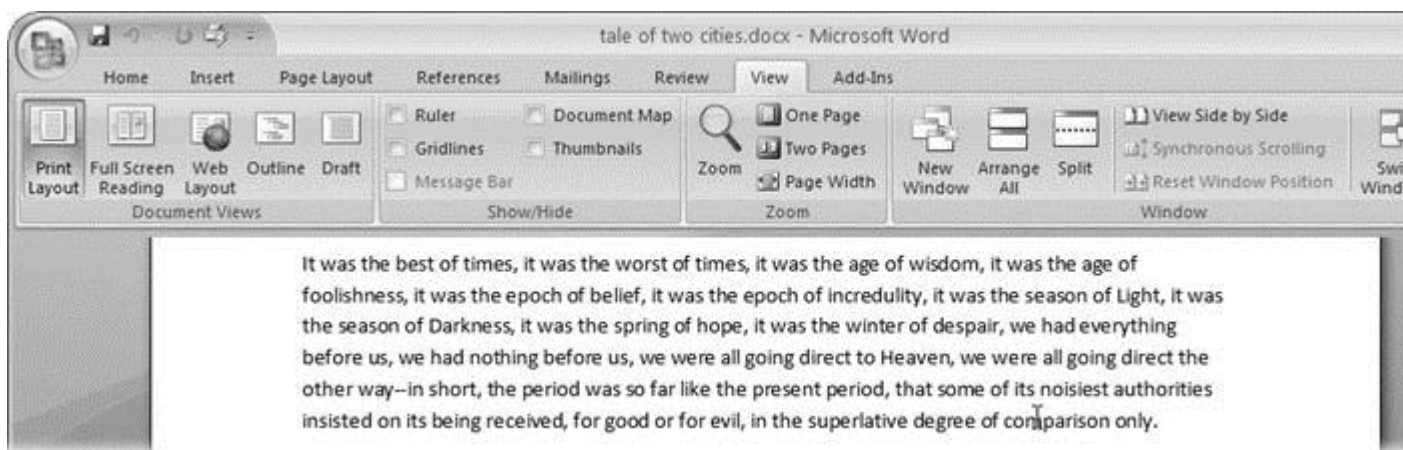


Figure 1-7. The View tab is your document-viewing control center. Look closely, and you see it's divided into four groups with names at the bottom of the ribbon: Document Views, Show/Hide, Zoom, and Window. To apply a view command, just click the button or label.

Document Views: Five Ways to Look at Your Manuscript

Word gives you five basic document views. To select a view, go to the View tab (Alt+W) and choose one of the Document Views on the left side of the ribbon (Figure 1-8). You have another great option for switching from one view to another that's always available in the lower-right corner of Word's window. Click one of the five small buttons to the left of the slider to jump between Print Layout, Full Screen Reading, Web Layout, Outline, and Draft views. Each view has a special purpose, and you can modify them even more using the other commands on the View tab.

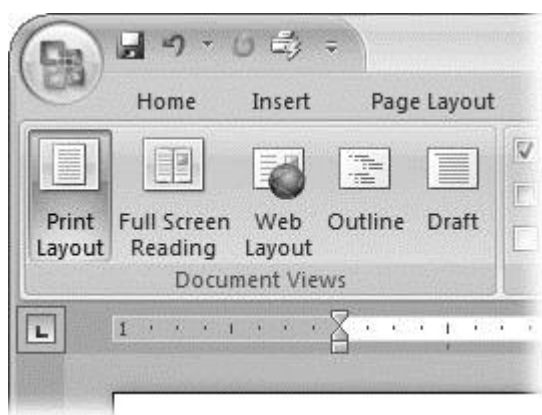


Figure 1-8. On the left side of the View tab, you find the five basic document views: Print Layout, Full Screen Reading, Web Layout, Outline, and Draft. You can edit your document in any of the views, although they come with different tools for different purposes. For example, Outline view provides a menu that lets you show or hide headings at different outline levels.

NOTE

Changing your view in no way affects the document itself—you're just looking at the same document from a different perspective.

- **Print Layout (Alt+W, P).** The most frequently used view in Word, Print Layout, is the one you see when you first start the program or create a new blank document. In this view, the page you see on your computer screen looks much as it does when you print

it. This view's handy for letters, reports, and most documents headed for the printer.

- **Full Screen Reading (Alt+W, F).** If you'd like to get rid of the clutter of menus, ribbons, and all the rest of the word-processing gadgetry, then use Full Screen Reading view. As the name implies, this view's designed primarily for reading documents. It includes options you don't find in the other views, like a command that temporarily decreases or increases the text size. In the upper-right corner you see some document-proofing tools (like a text highlighter and an insert comment command), but when you want to change or edit your document, you must first use the View Options → Allow Typing command. For more details on using Word for reviewing and proofing, see [Chapter 16](#).

- **Web Layout (Alt+W, L).** This view shows your document as if it were a single Web page loaded in a browser. You don't see any page breaks in this view. Along with your text, you see any photos or videos that you've placed in the document—just like a Web page. [Section 13.2](#) has more details on creating Web pages with Word.

- **Outline (Alt+W, U).** For lots of writers, an outline is the first step in creating a manuscript. Once they've created a framework of chapters and headings, they dive in and fill out the document with text. If you like to work this way, then you'll love Outline view. It's easy to jump back and forth between Outline view and Print Layout view or Draft view, so you can bounce back and forth between a macro and a micro view of your epic. (For more details on using Word's Outline view, see [Section 8.1](#).)

- **Draft (Alt+W, V).** Here's the no-nonsense, roll-up-your-sleeves view of your work ([Figure 1-9](#)). You see most formatting as it appears on the printed page, except for headers and footers. Page breaks are indicated by a thin dotted line. In this view, it's as if your document is on one single roll of paper that scrolls through your computer screen. This view's a good choice for longer documents and those moments when you want to focus on

the words without being distracted by page breaks and other formatting niceties.

Show and Hide Window Tools

Word gives you some visual aids that make it easier to work with your documents. Tools like rulers and gridlines don't show up when you print your document, but they help you line up the elements on the page. Use the ruler to set page margins and to create tabs for your documents.

Checkboxes on the View tab let you show or hide tools, but some tools aren't available in all the views, so they're grayed out. You can't, for example, display page rulers in Outline or Full Screen Reading views.

Use the checkboxes in the Show/Hide group of the View tab ([Figure 1-10](#)) to turn these tools on and off:

- **Ruler.** Use the ruler to adjust margins, set tabs, and position items on your page. For more detail on formatting text and paragraphs, see [Chapter 4](#).
- **Gridlines.** When you click the Gridlines box, it looks like you created your document on a piece of graph paper. This effect isn't too helpful for an all-text document, but it sure comes in handy if you're trying to line up photos on a page.

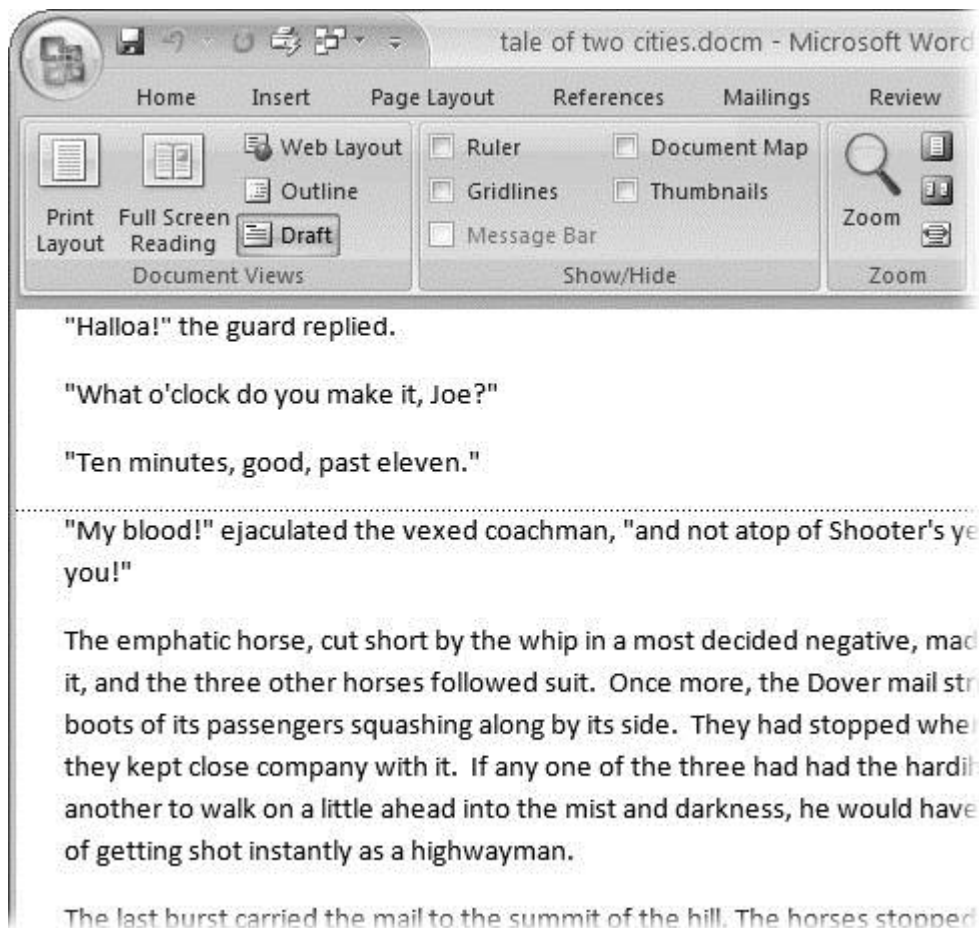


Figure 1-9. In Draft view, you see most text and paragraph formatting, but headers, footers, and other distracting page formatting features are hidden. Your text appears as a continuous scroll, with the margins hidden. Page breaks appear as dotted lines.

- **Message Bar.** The Message Bar resides directly under the ribbon, and it's where you see alerts about a document's behavior. For example, when a document is trying to run a macro and your Word settings prohibit macros, an alert appears in the Message Bar. Click the checkbox to show or hide the Message Bar.
- **Document Map.** If you work with long documents, you'll like the Document Map. This useful tool appears to the left of your text (you can see it in [Figure 1-10](#)), showing the document's headings at various levels. Click the little + and–buttons next to a heading to expand or collapse the outline. Click a heading, and you jump to that location in your document.

- **Thumbnails.** Select the Thumbnails option, and you see little icons of your document's pages in the bar on the left. Click a thumbnail to go to that page. In general, thumbnails are more useful for shorter documents and for pages that are visually distinctive. For longer documents, you'll find the Document Map easier to use for navigation.

Zooming Your View In and Out

When you're working, do you ever find that you sometimes hold pages at arm's length to get a complete view, and then, at other times, you stick your nose close to the page to examine the details? Word's Zoom options (Figure 1-11) let you do the same thing with your screen—but without looking nearly as silly.

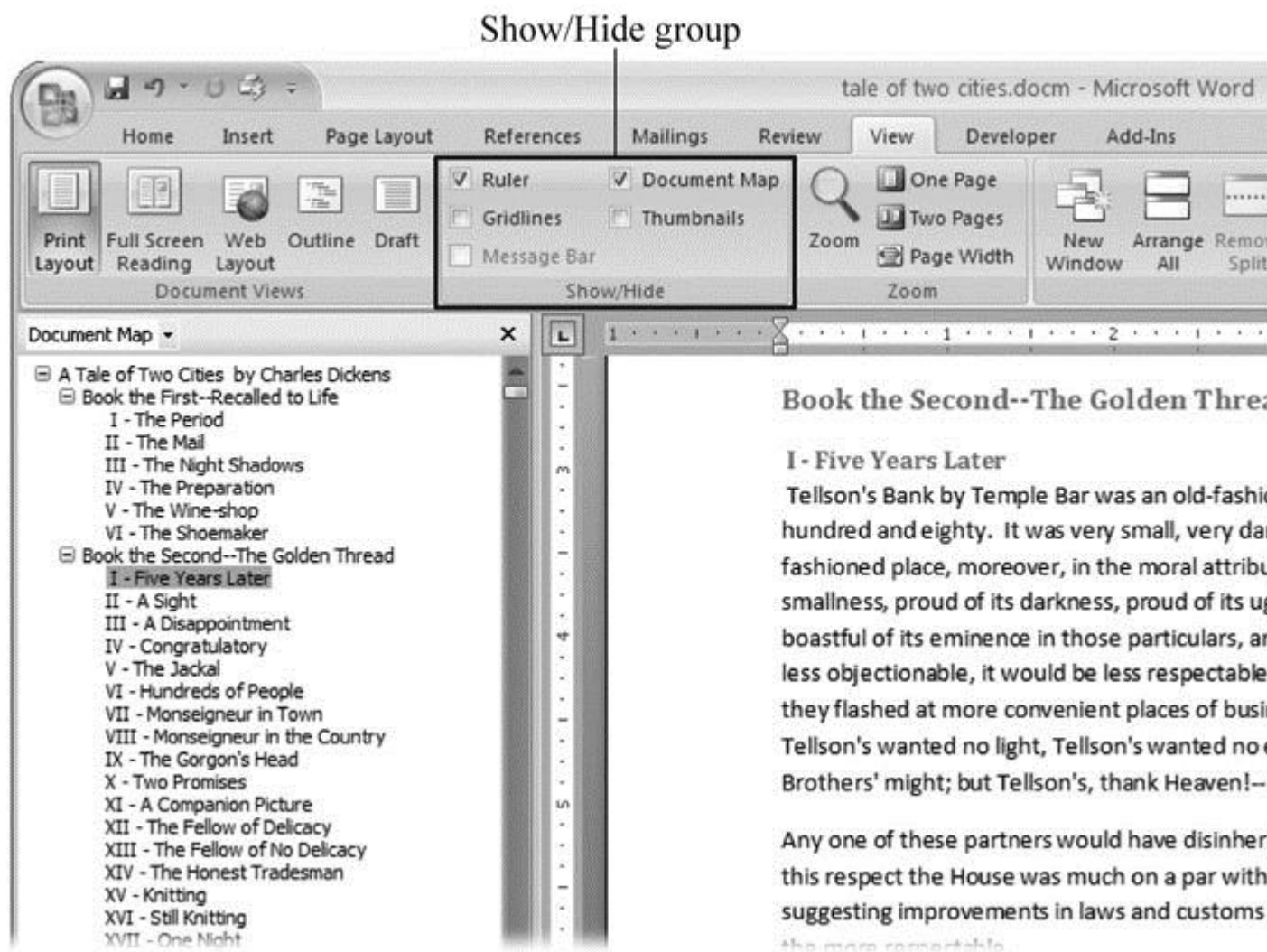


Figure 1-10. Use the Show/Hide group on the View tab to display or conceal Word tools. The Ruler gives you a quick and easy way to set tabs and margins. The Document Map is particularly helpful when you work with longer documents because it displays headings in the bar on the left of the screen. In the left pane, you can see that Mr. Dickens wrote more than his fair share of chapters.

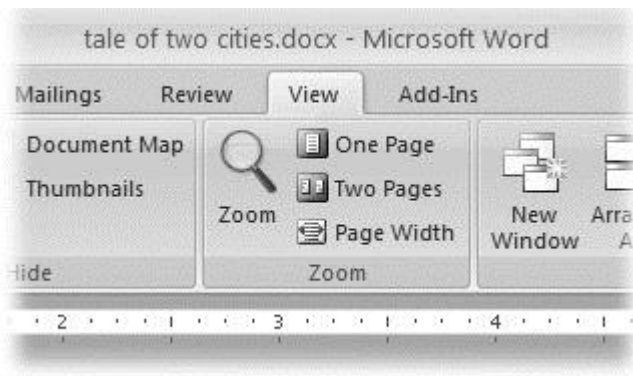


Figure 1-11. The Zoom group of options lets you view your document close up or at a distance. The big magnifying glass opens the Zoom dialog box with more controls for fine-tuning your zoom level. For quick changes, click one of the three buttons on the right: One Page, Two Pages, or Page Width.

NOTE

Even though the text appears to get bigger and smaller when you zoom, you're not actually changing the document in any way. Zoom is similar to bringing a page closer so you can read the fine print. If you want to actually change the font size, then use the formatting options on the Home tab (Alt+H, FS).

On the View tab, click the big magnifying glass to open the Zoom dialog box ([Figure 1-12](#)). Depending on your current Document View (see [Section 1.4](#)), you can adjust your view by percentage or relative to the page and text (more on that in a moment). The options change slightly depending on which Document View you're using. The Page options don't really apply to Web layouts, so they're grayed out and inactive if you're in the Web Layout view.

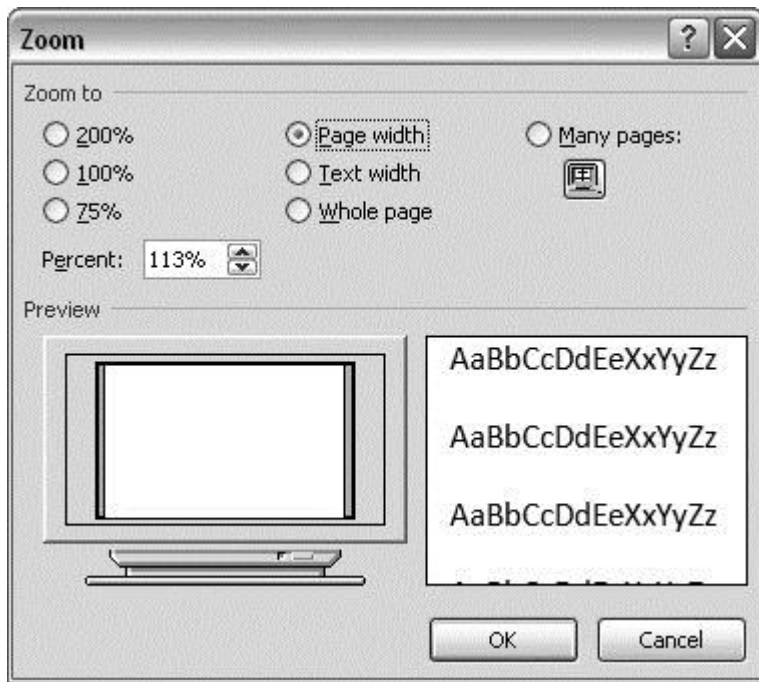


Figure 1-12. The Zoom dialog box lets you choose from a variety of views. Just click one of the option buttons, and then click OK. The monitor and text sample at the bottom of the Zoom box provide visual clues as you change the settings.

Zooming by percentage

In the box's upper-left corner, you find controls to zoom in and out of your document by percentage. The view varies depending on your computer screen and settings, but in general, 100% is a respectable, middle-of-the-road view of your document. The higher the percentage, the more zoomed in you are, and the bigger everything looks—vice versa with a lower percentage.

The three radio buttons (200%, 100%, and 75%) give you quick access to some standard settings. For in-between percentages (like 145%), type a number in the box below the buttons, or use the up-down arrows to change the value. For a quick way to zoom in and out without opening a dialog box, use the Zoom slider ([Figure 1-13](#)) in the lower-right corner of your window. Drag the slider to the right to zoom in on your document, and drag it to the left to zoom out. The percentage changes as you drag.

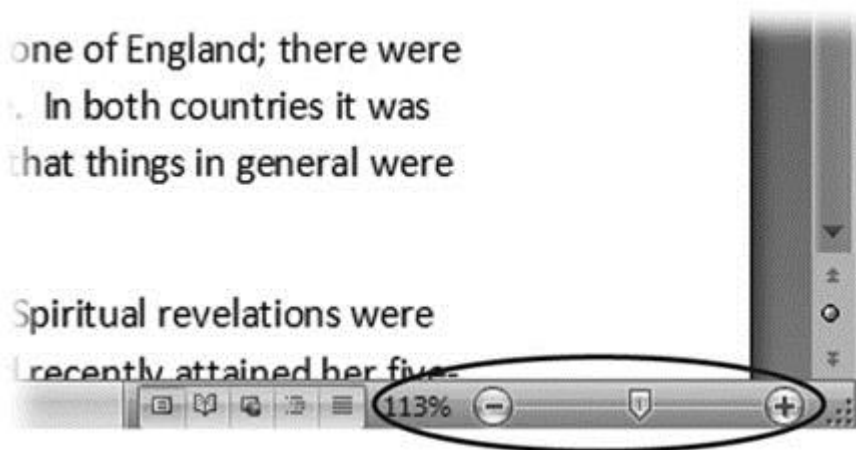


Figure 1-13. The Zoom slider at the bottom of the document window gives you a quick and easy way to change your perspective. Drag the slider to the right to zoom in on your document, and drag it to the left to zoom out. To the left of the slider are five View buttons: Print Layout, Full Screen Reading, Web Layout, Outline, and Draft ([Section 1.4.2](#)). Since the first button is selected, this document is in Print Layout view.

Zooming relative to page or text

Not everyone's a number person. (That's especially true of writers.) So you may prefer to zoom without worrying about percentage figures. The Zoom dialog box (on the View tab, click the magnifying-glass icon) gives you four radio buttons with plain-English zoom settings:

Page width. Click this button, and the page resizes to fill the screen from one side to the other. It's the fastest way to zoom to a text size that most people find comfortable to read. (You may have to scroll, though, to read the page from top to bottom.)

Text width. This button zooms in even farther, because it ignores the margins of your page. Use this one if you have a high-resolution monitor (or you've misplaced your reading glasses).

Whole page. When you want to see an entire page from top to bottom and left to right, click this button. It's great for getting an overview of how your headings and paragraphs look on the page.

Many pages. This view is the equivalent of spreading your document out on the floor, and then viewing it from the top of a ladder. You can use it to see how close you are to finishing that five-page paper, or to inspect the layout of a multi-page newsletter.

WARNING

When you're zoomed out to Whole or "Many pages" view, watch those fingers on the keyboard. You can still make changes to your text in these views, even though you can't see what you're doing.

Changing page view from the ribbon

The ribbon offers radio buttons for three popular page views. (You can see them back in [Figure 1-11](#), to the Zoom tool's right.) They're a quick and dirty way to change the number of pages you see onscreen without fiddling with zoom controls.

- **One Page.** This view shows the entire page in Word's document window. If your screen is large enough, you can read and edit text in this view.
- **Two Pages.** In this view, you see two pages side by side. This view's handy when you're working with documents that have two-page spreads, like booklets.
- **Page Width.** This button does the exact same thing as the Page Width button in the Zoom dialog box ([Section 1.4.3](#)). It's more readable than the One Page and Two Page options, because the page fills the screen from edge to edge, making the text appear larger.

The Window Group: Doing the Splits

Back when dinosaurs roamed the earth and people used typewriters (or very early word processors), you could work on only one document at a time—the one right in front of you. Although Word 2007 has more options for viewing multiple documents and multiple windows than ever, some folks forget to use them. Big mistake. If you ever find yourself comparing

two documents or borrowing extensively from some other text, then having two or more documents visible on your screen can double or triple your work speed.

The commands for managing multiple documents, views, and windows are in the View tab's Window group (Figure 1-14).

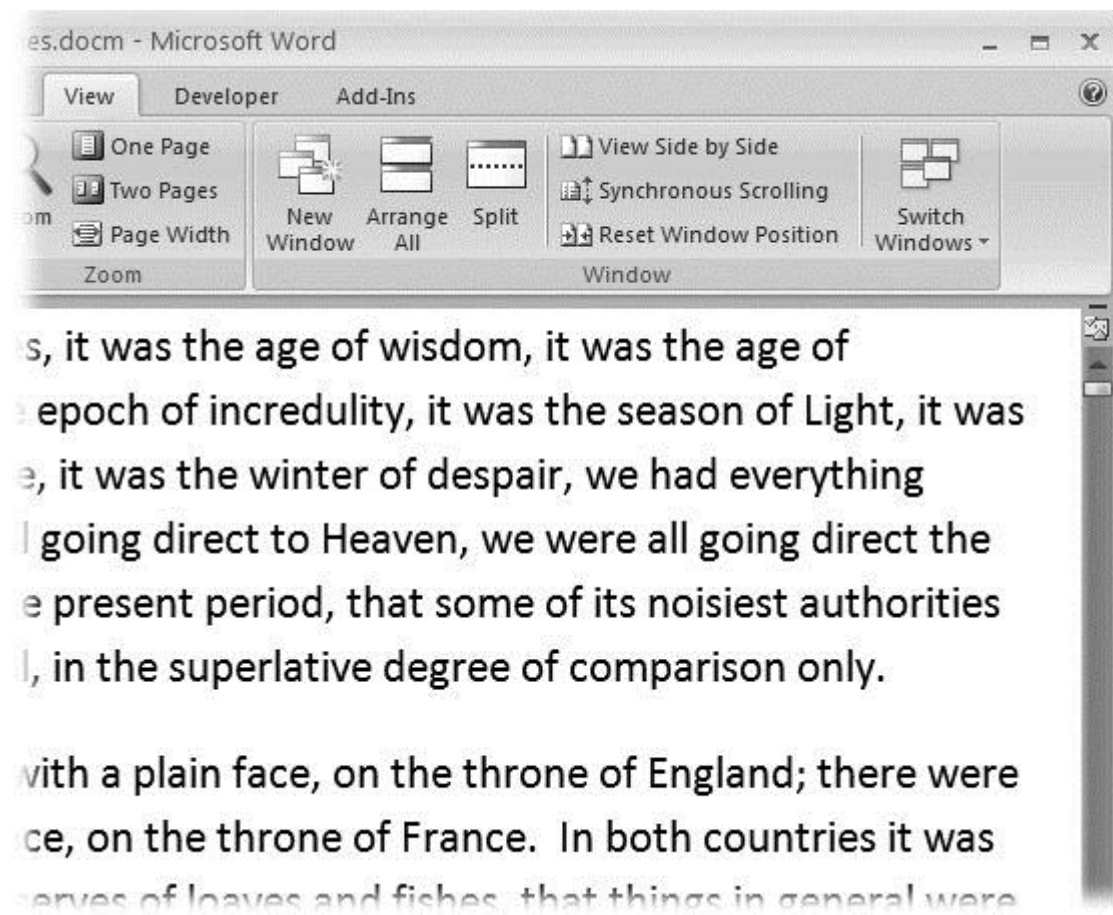


Figure 1-14. In the Window group, the three commands on the left—New Window, Arrange All, and Split—let you open and view your work from multiple vantage points. The commands in the middle—View Side by Side, Synchronous Scrolling, and Reset Window Position—are helpful when reviewing and comparing documents. The big Switch Windows button lets you hop from one document to another.

- **New Window (Alt+W, N).** When you're working on a long document, sometimes you want to see two different parts of the document at the same time, as if they were two separate documents. You may want to keep referring to what you said in the

Introduction while you're working in Chapter 5. Or perhaps you want to keep an Outline view open while editing in Draft view. That's where the New Window command comes in. When you click this button (or hit this keystroke), you've got your document open in two windows that you can scroll independently. Make a change to one window, and it immediately appears in the other.

- **Arrange All (Alt+W, A).** Great—now you've got documents open in two or more windows, but it takes a heck of a lot of mousing around and window resizing to get them lined up on your screen at the same time. Click Arrange All and, like magic, your open Word document windows are sharing the screen, making it easy to work on one and then the other. Word takes an egalitarian approach to screen real estate, giving all windows an equal amount of property (Figure 1-15).
- **Split (Alt+W, S).** The Split button divides a single window so you can see two different parts of the same document—particularly handy if you're copying text from one part of a document to another. The other advantage of the Split command is that it gives you more room to work than using Arrange All for multiple windows because it doesn't duplicate the ribbon, ruler, and other Word tools (Figure 1-16).

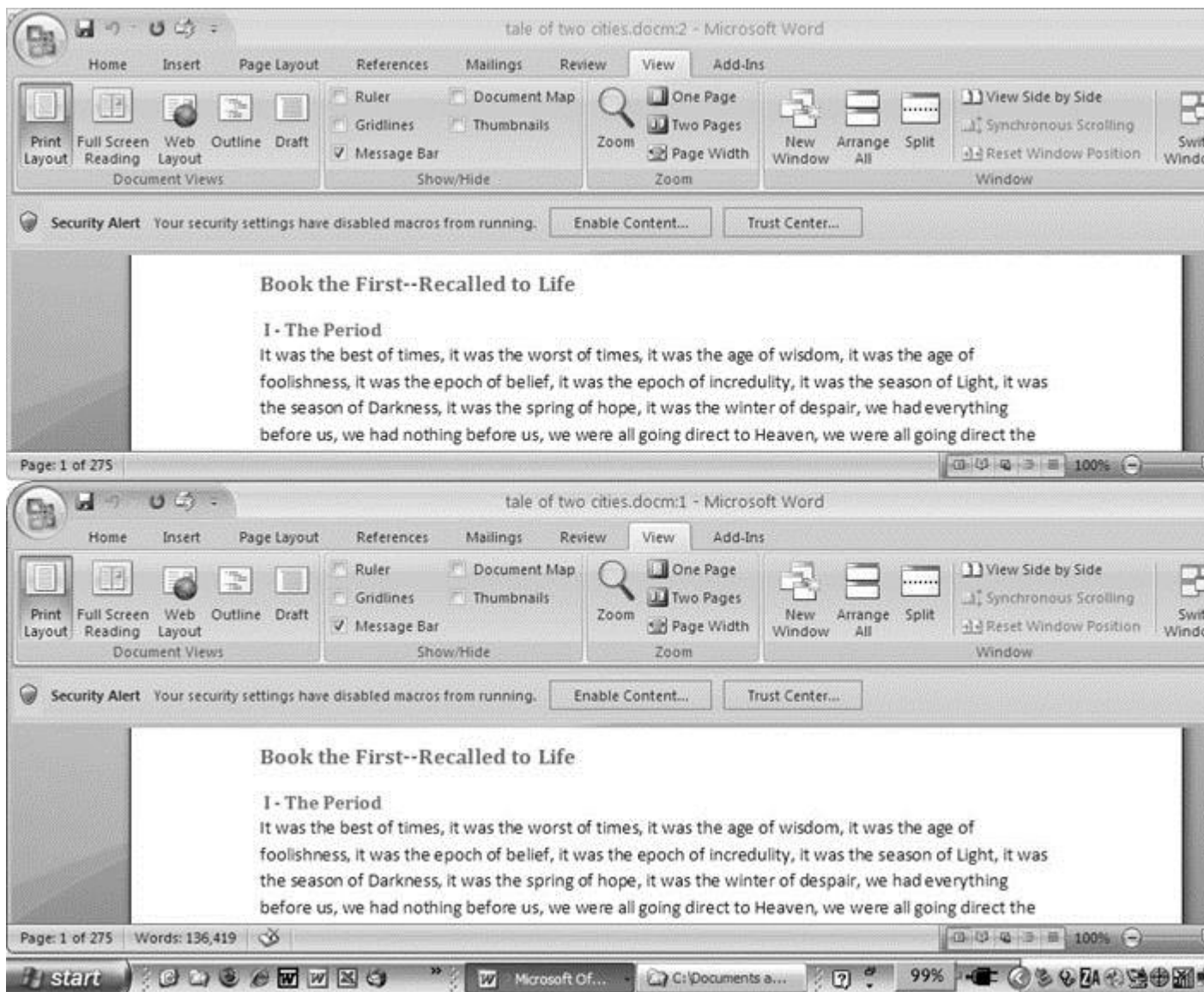


Figure 1-15. One downside of Office 2007's ribbon: It takes up more space on your computer's screen than menus or even the older button bars. When you open a couple of windows, you're not left with much space to do your work, especially when you're working on an ultra-portable laptop or a computer with a small screen. You can double-click the active tab to hide the ribbon, but in most cases, you're better off working with a split screen, as shown in [Figure 1-16](#).

Q8. Create a file in MS-word for the following document and save it with file name 'equations'. Describe

Ans.all steps involved in it.

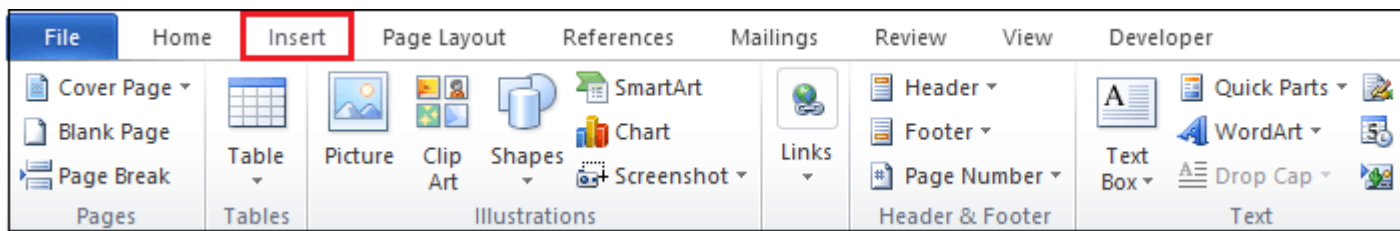
Insert a Preset Equation

To insert a preset equation in a Word document, follow the below mentioned easiest steps -

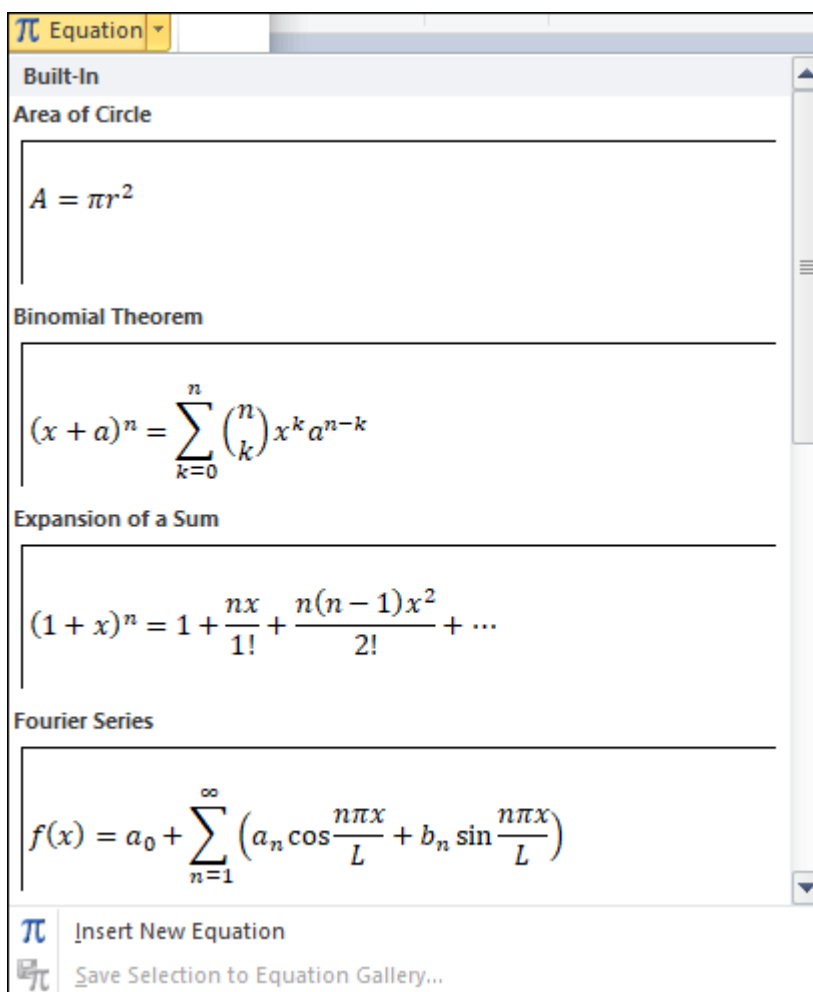
Step 1: Open the Word document.

Step 2: Place cursor in the document where you want to insert an equation.

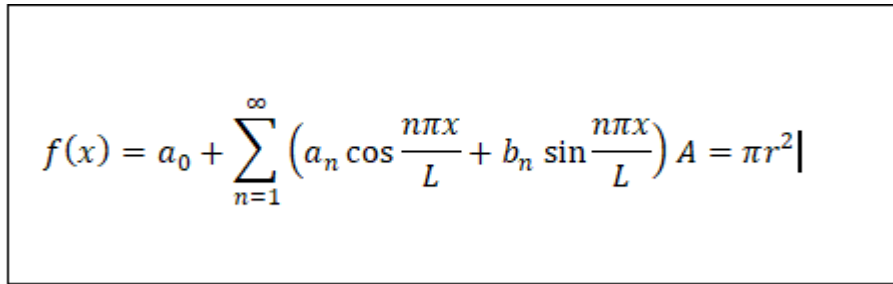
Step 3: Go **to Insert** tab in the Ribbon, click on the **Equation** drop-down icon in the **Symbols** section at the top right corner of the screen.



Step 4: The following dialog box will appear on the screen in which select the equation that you want to insert.



The screenshot below shows that a preset equation is inserted in the Word document.


$$f(x) = a_0 + \sum_{n=1}^{\infty} \left(a_n \cos \frac{n\pi x}{L} + b_n \sin \frac{n\pi x}{L} \right) A = \pi r^2$$

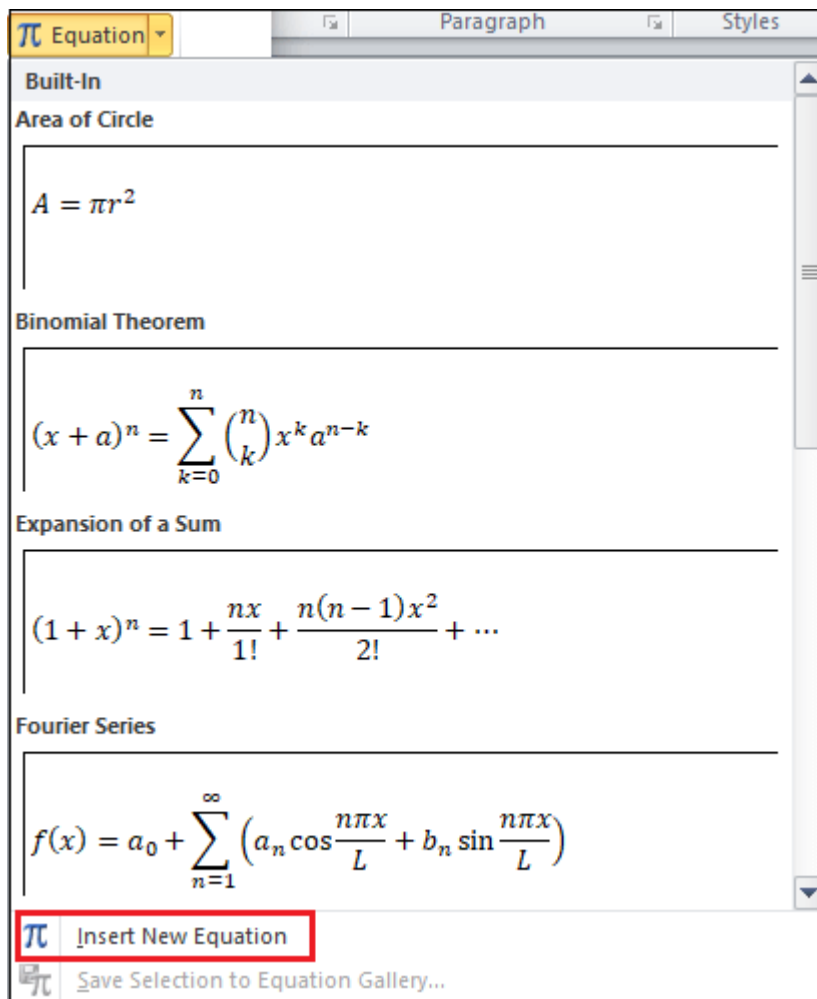
Method 2: Insert Equation Manually

Except for preset equations, you can also insert the equation manually in your Word document according to your requirement.

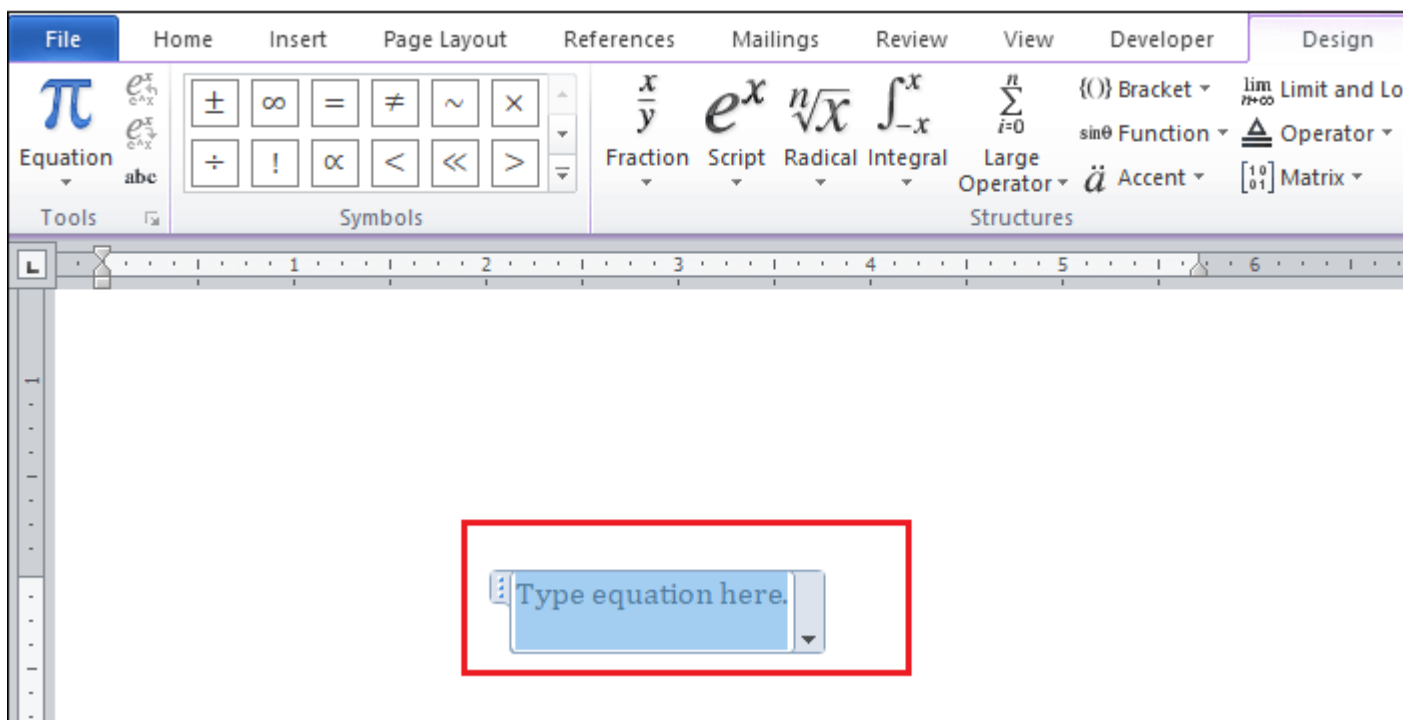
Step 1: Open the Word document.

Step 2: Go to **Insert tab** in the Ribbon, click on the **Equation** drop-down icon in the **Symbols** section at the top right corner of the screen.

Step 3: The following window will appear on the screen in which click on the **Insert New Equation** option.



Step 4: Type equation here box will appear on the screen.



Step 5: Now, the Equation tool will automatically appear in the Ribbon. Drag equation form the design tab that you want to insert in the Word document.

The screenshot below shows that an equation is manually inserted in the Word document.

$$\int_0^{\pi} x^2 \sin x dx$$

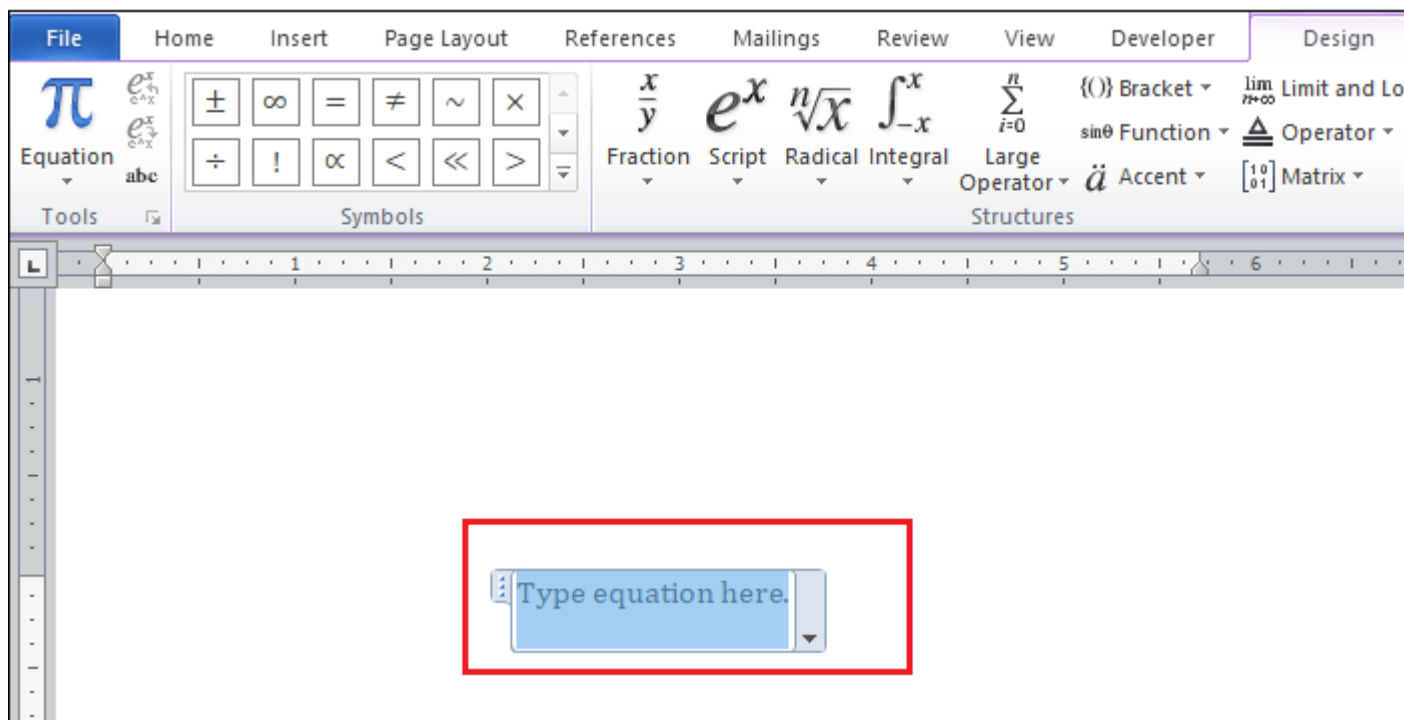
Method 3: Insert equation using keyboard keys

It is the faster way to insert an equation in the Word document -

Step 1: Open the Word document.

Step 2: Place cursor in the document where you want to insert an equation.

Step 3: Press **Alt and =** key from the keyboard. An Insert equation here box will appear on the screen.



Step 4: Type the symbols from the Design tab that you want to insert in the equation.

Edit Equations in the Word document

Once you insert an equation in Word document, you can also edit the equation based on your document's requirement.

1. To edit an equation in the Word document, first select the already inserted equation field.
2. Go to the **Design tab** of the equation tool and type the new symbols that you want to insert in your equation.

Delete an equation in the Word document

In Microsoft Word, you can easily delete the inserted equation using the below easiest steps -

Step 1: To delete the equation, first select the equation that you want to delete from the document.

Step 2: Press **Delete or Backspace** key from the keyboard.

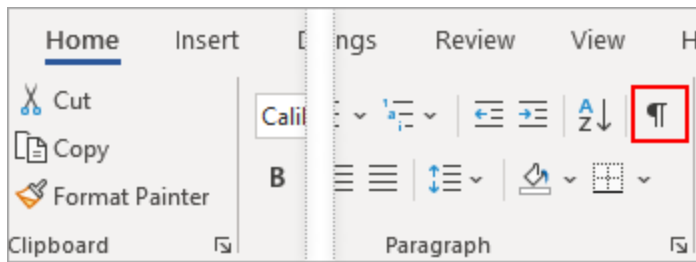
Once you complete the above two steps, you can see that an equation is deleted from the Word document.

Q9. Create a file in MS-word that convert existing highlight text to table as shown below and save it as file name 'text_to_table'. Describe all steps involved in it.

ans. Convert text to a table or a table to text

*Word for Microsoft 365 Outlook for Microsoft 365 Word
2019 Outlook 2019 More...*

To convert text to a table or a table to text, start by clicking the **Show/Hide** paragraph mark on the **Home** tab so you can see how text is separated in your document.



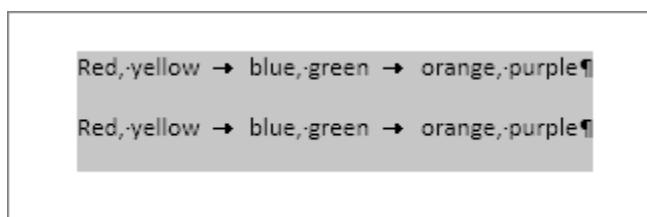
Convert text to a table

1. Insert separator characters—such as commas or tabs—to indicate where to divide the text into table columns.

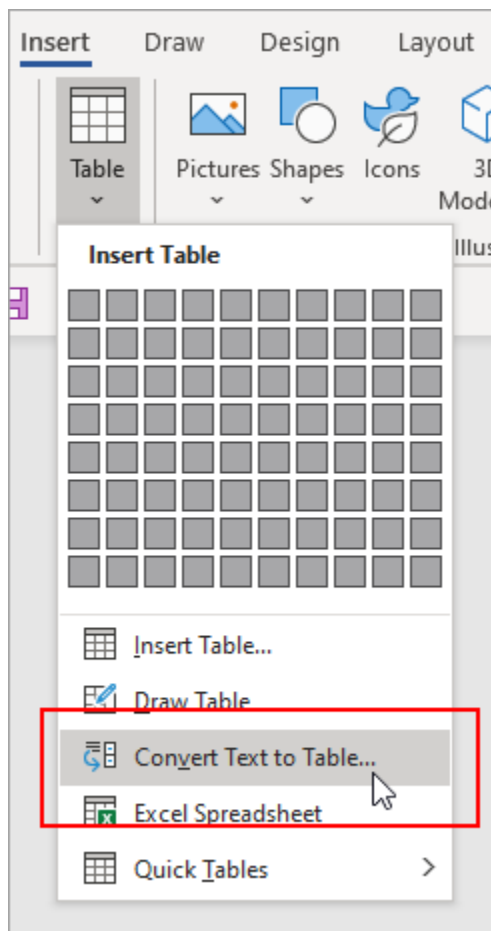
Note: If you have commas in your text, use tabs for your separator characters.

2. Use paragraph marks to indicate where you want to begin a new table row.

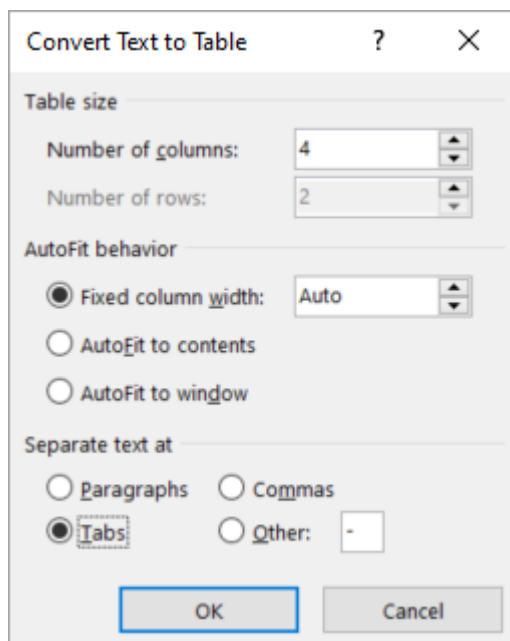
In this example, the tabs and paragraph marks will produce a table with 3 columns and 2 rows:



3. Select the text that you want to convert, and then click **Insert** > **Table** > **Convert Text to Table**.



4. In the **Convert Text to Table** box, choose the options you want.



Under **Table size**, make sure the numbers match the numbers of columns and rows you want.

Under **AutoFit behavior**, choose how you want your table to look. Word automatically chooses a width for the table columns. If you want a different column width, choose one of these options:

To do this	Choose this option
Specify a width for all the columns	In the Fixed column width box, type or select a value.
Resize the columns to fit the width of the text in each column	AutoFit to contents
Resize the table automatically in case the width of the available space changes (for example, web layout or landscape orientation)	AutoFit to window

Under **Separate text at**, choose the separator character you used in the text.

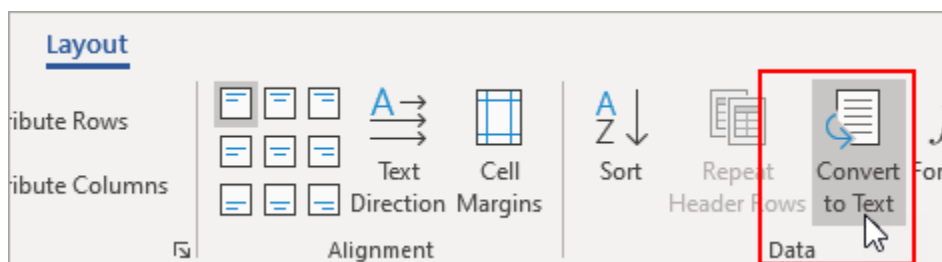
5. Click **OK**. The text converted to a table should look something like this:

Red, yellow	blue, green	orange, purple
Red, yellow	blue, green	orange, purple

Convert a table to text

1. Select the rows or table you want to convert to text.

2. On the **Layout** tab, in the **Data** section, click **Convert to Text**.



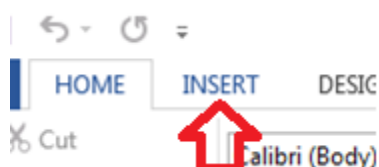
3. In the **Convert to Text** box, under **Separate text with**, click the separator character you want to use in place of the column boundaries. Rows will be separated by paragraph marks.

Q10. Create a file in MS-Word to insert a table in the document. Describe all steps involved in it.

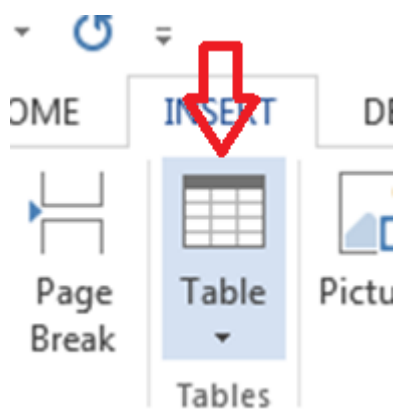
Ans.

The basic steps for creating a standard table in Microsoft Word (2013) are:

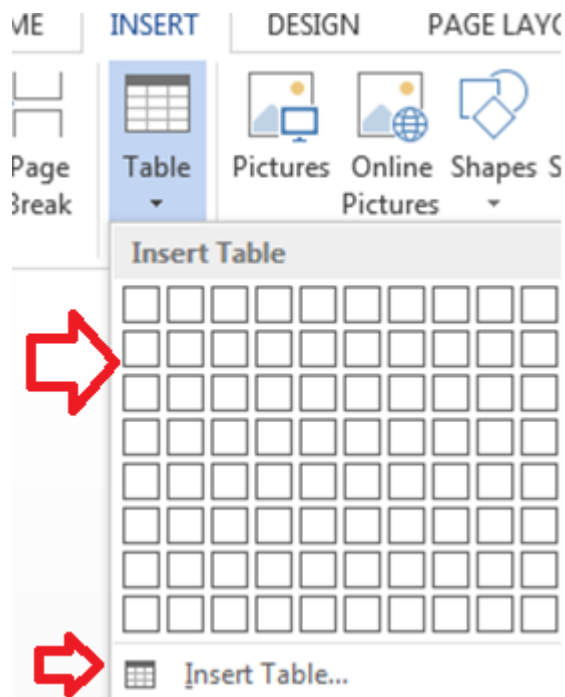
1. Open a blank Word document
2. In the top ribbon, press *Insert*



3. Click on the *Table* button



4. Either use the diagram to select the number of columns and rows you need, or click *Insert Table* and a dialog box will appear where you can specify the number of columns and rows.



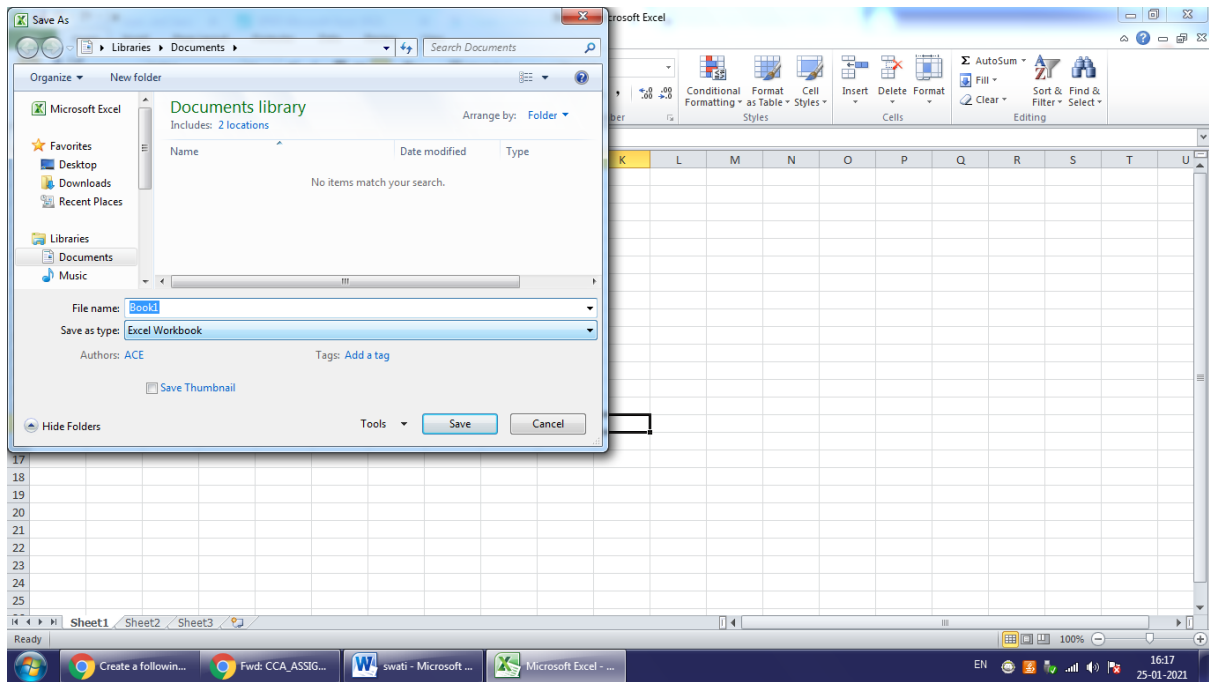
5. The blank table will now appear on the page. Alter it as necessary. Standard features like **bold**, *italics*, and underline are still available! These items may be helpful for creating headings or calling out certain items in the table.

6. Follow [these instructions](#) for ensuring your table meets APA formatting guidelines.

Q11. Create a following worksheet in MS-excel and save it with name 'book1'.

Ans. Starting a Workbook

When you first fire up Excel, you'll see a welcome page where you can choose to open an existing Excel spreadsheet or create a new one



Q12. Calculate the following things of a range (C2:C11) of data in the worksheet created in question no

10.

Use the SUM function to sum numbers in a range

Excel for Microsoft 365 More...

You can use a simple formula to sum numbers in a range (a group of cells), but the SUM function is easier to use when you're working with more than a few numbers. For example $=\text{SUM}(\text{A2:A6})$ is less likely to have typing errors than $=\text{A2}+\text{A3}+\text{A4}+\text{A5}+\text{A6}$.

	A	B	C	D
1	Attendance			
2	4823		2429	
3	12335		10482	
4	9718			
5				
6			=SUM(A2:A4,C2:C3)	

Here's a formula that uses two cell ranges: **=SUM(A2:A4,C2:C3)** sums the numbers in ranges A2:A4 and C2:C3. You'd press Enter to get the total of 39787.

To create the formula:

1. Type **=SUM** in a cell, followed by an opening parenthesis (.
2. To enter the first formula range, which is called an *argument* (a piece of data the formula needs to run), type **A2:A4** (or select cell A2 and drag through cell A6).
3. Type a comma (,) to separate the first argument from the next.
4. Type the second argument, **C2:C3** (or drag to select the cells).
5. Type a closing parenthesis), and then press Enter.

Each argument can be a range, a number, or single cell references, all separated by commas.

- =SUM(A2:A4,2429,10482)
- =SUM(4823,A3:A4,C2:C3)
- =SUM(4823,12335,9718,C2:C3)
- =SUM(A2,A3,A4,2429,10482)

Tip: If you need to sum columns or rows of numbers next to each other, use AutoSum to sum numbers.

Give it a try

If you want to play around with our sample data, here's some data to use.

You can see how the SUM function works by copying the following table into a worksheet and pasting it into cell A1.

Data		
-5		
15		
30		
'5		
TRUE		
Formula	Description	Result
=SUM(3, 2)	Adds 3 and 2.	5
=SUM("5", 15, TRUE)	Adds 5, 15 and 1. The text value "5" is first translated into a number, and the logical value TRUE is first translated	21

Data

	into the number 1.	
=SUM(A2:A4)	Adds the values in cells A2 through A4.	40
=SUM(A2:A4, 15)	Adds the values in cells A2 through A4, and then adds 15 to that result.	55
=SUM(A5,A6, 2)	Adds the values in cells A5 and A6, and then adds 2 to that result. Because non-numeric values in references are not translated — the value in cell A5 ('5)	2

Data

and the value in cell A6 (TRUE) are both treated as text — the values in those cells are ignored.

Need more help?

You can always ask an expert in the [Excel Tech Community](#), get support in the [Answers community](#), or suggest a new feature or improvement on [Excel User Voice](#).

Definition of Average

The average is defined as the mean value which is equal to the ratio of sum of number of a given set of values to the total number of values present in the set.

Check: [Mean Definition](#)

The average formula has many applications both in real-life. Suppose if we have to find the average age of men or women in a group or average male height in India, then we calculate it by adding all the values and dividing it by the number of values. Below is the formula to evaluate the average of a given set of numbers.

$$\text{Average} = \frac{\text{Sum of Numbers}}{\text{Number of Units}}$$

Symbol

The average is basically mean of the values which are represented by \bar{x} . It is also denoted by the symbol ' μ '.

Formula

The formula to find the average of given numbers or values is very easy. We just have to add all the numbers and then divide the result by the number of values given. It can be expressed as:

Average = Sum of Values/ Number of values

Suppose, we have given with n number of values such as $x_1, x_2, x_3, \dots, x_n$. The average or the mean of the given data will be equal to:

Average = $(x_1 + x_2 + x_3 + \dots + x_n)/n$

Also, read:

- [Difference Between Average And Mean](#)
- [Mean Median Mode](#)

How to Calculate Average?

We can easily calculate the average for a given set of values. We just have to add all the values and divide the outcome by the number of given values. Let us understand with an example.

If there are a group of numbers say, 20, 21, 23, 22, 21, 20, 23. Then find the average of these values.

By average formula, we know,

Average = (Sum of values)/No.of values

= $(20+21+23+22+21+20+23)/7$

= $150/7$

= 21.42

Learn more: [How to calculate Average](#)

Arithmetic Mean

The Arithmetic mean is the most common type of Average. If n numbers are given, each number denoted by a_i (where $i = 1, 2, \dots, n$), the arithmetic mean is the sum of the a_i as divided by n, then:

$$AM = \frac{1}{n} \sum_{i=1}^n a_i = \frac{1}{n} (a_1 + a_2 + a_3 + \dots + a_n)$$

where,

- n is the number of observation
- i represent index of summation
- and a_i = data value for the given index

Geometric mean

The geometric mean, is a method to find the central tendency of set of numbers by finding the nth root of product of n numbers. It is completely different from arithmetic mean, where we add

the observations and then divide the sum by number of observations. But in geometric mean, we find the product of all the observations and then find the nth root of the product, provided n number of observations.

The formula is given by:

Geometric Mean, $G.M = \sqrt[n]{x_1 \times x_2 \times \dots \times x_n}$
 $x_1, x_2, x_3, \dots, x_n$ are the individual items up to n terms

Harmonic Mean

The reciprocal of arithmetic mean of the given data values is called Harmonic mean. It means if the values are large then harmonic mean will be less and vice versa.

The formula to find the harmonic mean is given by:

Harmonic Mean, $HM = n / [(1/x_1) + (1/x_2) + (1/x_3) + \dots + (1/x_n)]$

Where $x_1, x_2, x_3, \dots, x_n$ are the individual items up to n terms.

Average of Negative Numbers

If there are negative numbers present in the list, then also the process or formula to find out the average is the same. Let's understand this with an example.

Example: Find the average of 3, -7, 6, 12, -2

Solution:- The sum of these numbers

$$= 3 + (-7) + 6 + 12 + (-2)$$

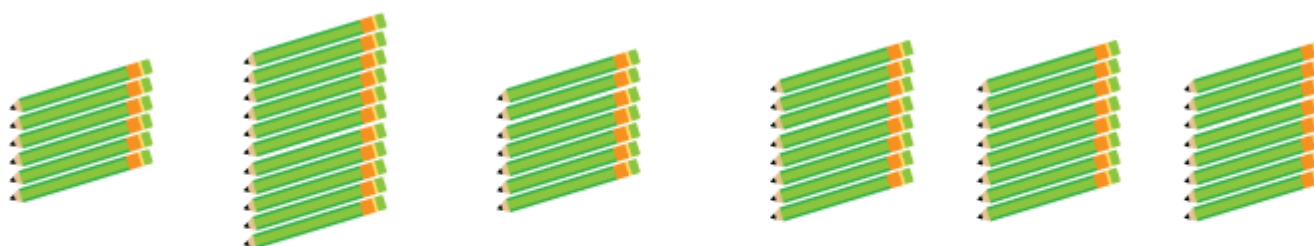
$$= 3 - 7 + 6 + 12 - 2$$

$$= 12$$

$$\text{Total Units} = 5$$

$$\text{Hence, average} = 12/5 = 2.4$$

How does this whole idea of average or mean work? Average helps you to calculate on how to make all the units present in a list equal.



$$6 + 11 + 7 = 8 + 8 + 8$$

Solved Examples

1) Find the average of 2, 4, 6, 8.

Solution:-

Add the numbers = $2 + 4 + 6 + 8 = 20$

Total Units = 4

Hence, average = $20/4 = 5$

2) Find the average of 6, 13, 17, 21, 23

Solution:-

Add the numbers =

$= 6 + 13 + 17 + 21 + 23 = 80$

Total units = 5

Hence, average = $80/5 = 16$

3) If the age of 9 students in a team is 12, 13, 11, 12, 13, 12, 11, 12, 12. Then find the average age of students in the team.

Solution: Given, the age of students are 12, 13, 11, 12, 13, 12, 11, 12, 12.

Average = Sum of ages of all the students/Total number of students

$A = (12+13+11+12+13+12+11+12+12)/9$

$A = 108/9$

$A = 12$

Hence, the average age of students in a team is 12 years.

4) If the heights of males in a group are 5.5, 5.3, 5.7, 5.9, 6, 5.10, 5.8, 5.6, 5.4, 6. Then find the average height.

Solution: Given the height of males: 5.5, 5.3, 5.7, 5.9, 6, 5.10, 5.8, 5.6, 5.4 and 6

Average = Sum of heights of males/total number of males

$A = (5.5+5.3+5.7+5.9+6+5.10+5.8+5.6+5.4+6)/10$

$A = 56.3/10$

$A = 5.63$

By closely analysing these examples, one can observe that the average of a certain list of numbers is the central value of the set. Thus, Average or mean is a quantity intermediate of a set of quantities. In Mathematics, this is also called Average Mean.

Excel MAXIFS function

The MAXIFS function returns the largest numeric value in the specified range based on one or more criteria.

The syntax of the MAXIFS function is as follows:

```
MAXIFS(max_range, criteria_range1,  
criteria1, [criteria_range2, criteria2], ...)
```

Where:

- **Max_range** (required) - the range of cells where you want to find the maximum value.
- **Criteria_range1** (required) - the first range to evaluate with *criteria1*.
- **Criteria1** - the condition to use on the first range. It can be represented by a number, text or expression.
- **Criteria_range2 / criteria2, ...**(optional) - additional ranges and their related criteria. Up to 126 range/criteria pairs are supported.

This MAXIFS function is available in Excel 2019 and Excel for Microsoft 365 on Windows and Mac.

As an example, let's find the tallest football player in our local school. Assuming the students' heights are in cells C2:C11 (max_range) and sports are in B2:B11 (criteria_range1), use the word "football" as criteria1, and you will get this formula:

```
=MAXIFS(C2:C11, B2:B11, "football")
```

To make the formula more versatile, you can input the target sport in some cell (say, G1) and include the cell reference in the *criteria1* argument:

```
=MAXIFS(C2:C11, B2:B11, G1)
```

G2	:				=MAXIFS(D2:D11, B2:B11, G1)		
	A	B	C	D	E	F	G
1	Name	Sport	School	Height, cm		Sport	Football
2	Aiden	Football	Junior	156		Max height, cm	171
3	Caden	Volleyball	Junior	165			
4	Ethan	Running	Senior	173			
5	Jackson	Running	Senior	170			
6	Jacob	Basketball	Senior	168			
7	Liam	Basketball	Junior	160			
8	Lucas	Football	Senior	171			
9	Mason	Volleyball	Senior	179			
10	Noah	Running	Senior	169			
11	Oliver	Basketball	Junior	159			

How to find minimum value with multiple criteria in Excel

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F4	:				{=MIN(IF(B2:B11="East",IF(C2:C11>50,D2:D11)))}		
	A	B	C	D	E	F	G
1	OrderDate	Region	Quantity	Price			
2	01-01-2019	North	33	\$ 58.41		Region East & Quantity above 50	
3	04-01-2019	East	87	\$ 303.63			
4	07-01-2019	West	58	\$ 108.46	Min Price	\$ 95.58	
5	10-01-2019	East	82	\$ 153.34			
6	13-01-2019	South	38	\$ 82.84			
7	16-01-2019	East	54	\$ 95.58			
8	19-01-2019	North	149	\$ 520.01			
9	22-01-2019	West	51	\$ 90.27			
10	25-01-2019	East	100	\$ 177.00			
11	28-01-2019	South	28	\$ 37.80			
12							

In this article, we will learn about how to find the minimum value if it matches multiple conditions in Excel.

Scenario:

When working with long ranges of data, we need to find the minimum value among the range where more than one condition is matching. In simple words finding out the minimum value using Excel IF function. IF function returns True or False and MIN function looks for the minimum value from the corresponding array.

Syntax to find min with multiple criteria

```
{=MIN (IF (Criteria1=match1),IF(Criteria2=match2, range_min))}
```

Note: Use **Ctrl + Shift + Enter** when working with arrays or ranges in Excel. This will generate Curly Braces on the formula by default. DO NOT try to hard code curly braces characters.

Example:

All of these might be confusing to understand. So, let's test this formula via running it on the example shown below. Here we will perform the formula over values with given criteria.

Use the formula:

```
{ =MIN( IF( B2:B11="East", IF( C2:C11 > 50 , D2:D11 )))}
```

criteria 1 is price must be from the region "East"

criteria 2 is price where quantity is greater than 50.

Explanation:

1. IF(C2:C11 > 50 , D2:D11) returns an array of FALSE values and price values where quantity is greater than 50.
{ FALSE ; 303.63 ; 108.46 ; 153.34 ; FALSE ; 95.58 ; 520.01 ; 90.27 ; 177 ; FALSE }
1. IF(B2:B11="East", IF(C2:C11 > 50 , D2:D11)) returns an array of remaining price values where region is East.
2. MIN function finds the minimum value from the returned array and that would be the required PRICE value.

LOOKUP						=MIN(IF(B2:B11="East",IF(C2:C11>50,D2:D11)))			
	A	B	C	D	E	F	G	H	I
1	OrderDate	Region	Quantity	Price					
2	01-01-2019	North	33	\$ 58.41		Region East & Quantity above 50			
3	04-01-2019	East	87	\$ 303.63					
4	07-01-2019	West	58	\$ 108.46	Min Price	=MIN(IF(B2:B11="East",IF(C2:C11>50,D2:D11)))			
5	10-01-2019	East	82	\$ 153.34					
6	13-01-2019	South	38	\$ 82.84					
7	16-01-2019	East	54	\$ 95.58					
8	19-01-2019	North	149	\$ 520.01					
9	22-01-2019	West	51	\$ 90.27					
10	25-01-2019	East	100	\$ 177.00					
11	28-01-2019	South	28	\$ 37.80					

Here we matched the range (B2:B11) with value "East" and quantity (C2:C11) greater than 50, which returns the minimum from the price range (D2:D11). Press Enter to get the minimum of the range

F4				{=MAX(IF(B2:B11="East",IF(C2:C11>50,D2:D11)))}			
	A	B	C	D	E	F	G
1	OrderDate	Region	Quantity	Price			
2	01-01-2019	North	33	\$ 58.41		Region East & Quantity above 50	
3	04-01-2019	East	87	\$ 303.63			
4	07-01-2019	West	58	\$ 108.46	Max Price	\$ 303.63	
5	10-01-2019	East	82	\$ 153.34			
6	13-01-2019	South	38	\$ 82.84			
7	16-01-2019	East	54	\$ 95.58			
8	19-01-2019	North	149	\$ 520.01			
9	22-01-2019	West	51	\$ 90.27			
10	25-01-2019	East	100	\$ 177.00			
11	28-01-2019	South	28	\$ 37.80			

As you can see we have the MIN value, if criteria match from the range of values. Here are some observational notes using the above formula.

Notes:

1. The formula returns the min value from the range.
2. Use MINIFS function in MS Excel 365 version to get the minimum value from data having multiple criteria. Learn more about [MINIFS function here](#).
3. Named range in the formula be used with correct keywords.

Hope this article about How to Find the Minimum with multiple criteria in Excel is explanatory. Find more articles on reference formulas here. If you liked our blogs, share it with your fristarts on [Facebook](#). And also you can follow us on [Twitter](#) and [Facebook](#). We would love to hear from you, do let us know how we can improve, complement or innovate our work and make it better for you. Write to us at info@exceltip.com.

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Note. The *max_range* and *criteria_range* arguments must be of the same size and shape, i.e. contain the equal number of rows and columns, otherwise the #VALUE! error is returned.

How to use MAXIFS function in Excel - formula examples

As you have just seen, the Excel MAXIFS is quite straightforward and easy to use. However, it does have a few little nuances that make a big difference. In the below examples, we will try to make the most of conditional max in Excel.

Find max value based on multiple criteria

In the first part of this tutorial, we created a MAXIFS formula in its simplest form to get the max value based on one condition. Now, we are going to take that example further and evaluate two different criteria.

Supposing, you want to find the tallest basketball player in junior school. To have it done, define the following arguments:

- *Max_range* - a range of cells containing heights - D2:D11.
- *Criteria_range1* - a range of cells containing sports - B2:B11.
- *Criteria1* - "basketball", which is input in cell G1.
- *Criteria_range2* - a range of cells defining the school type - C2:C11.
- *Criteria2* - "junior", which is input in cell G2.

Putting the arguments together, we get these formulas:

With "hardcoded" criteria:

```
=MAXIFS(D2:D11, B2:B11, "basketball", C2:C11, "junior")
```

With criteria in predefined cells:

`=MAXIFS(D2:D11, B2:B11, G1, C2:C11, G2)`

Please notice that the MAXIFS function in Excel is **case-insensitive**, so you needn't worry about the letter case in your criteria.

	A	B	C	D	E	F	G
1	Name	Sport	School	Height, cm		Sport	Basketball
2	Aiden	Football	Junior	156		School	Junior
3	Caden	Volleyball	Junior	165		Max height, cm	160
4	Ethan	Running	Senior	173			
5	Jackson	Running	Senior	170			
6	Jacob	Basketball	Senior	168			
7	Liam	Basketball	Junior	160			
8	Lucas	Football	Senior	171			
9	Mason	Volleyball	Senior	179			
10	Noah	Running	Senior	169			
11	Oliver	Basketball	Junior	159			

In case you plan to use your formula on multiple cells, be sure to lock all the ranges with absolute cell references, like this:

`=MAXIFS(D2:D11, B2:B11, G1, C2:C11, G2)`

This will ensure that the formula copies to other cells correctly - the criteria references change based on the relative position of the cell where the formula is copied

while the ranges remain unchanged:

Formula bar: `=MAXIFS(D2:D11, B2:B11, H1, C2:C11, H2)`

	A	B	C	D	E	F	G	H
1	Name	Sport	School	Height, cm		Sport	Basketball	Basketball
2	Aiden	Football	Junior	156		School	Junior	Senior
3	Caden	Volleyball	Junior	165		Max height	160	168
4	Ethan	Running	Senior	173				
5	Jackson	Running	Senior	170				
6	Jacob	Basketball	Senior	168				
7	Liam	Basketball	Junior	160				
8	Lucas	Football	Senior	171				
9	Mason	Volleyball	Senior	179				
10	Noah	Running	Senior	169				
11	Oliver	Basketball	Junior	159				

As an extra bonus, I will show you a quick way to extract a value from another cell that is associated with the max value. In our case, that will be the name of the tallest person. For this, we will be using the classic INDEX MATCH formula and nest MAXIFS in the first argument of MATCH as the lookup value:

`=INDEX(A2:A11, MATCH(MAXIFS(D2:D11, B2:B11, G1, C2:C11, G2), D2:D11, 0))`

The formula tells us that the name of the tallest basketball player in junior school is Liam:

Formula bar: `=INDEX(A2:A11, MATCH(MAXIFS(D2:D11, B2:B11, G1, C2:C11, G2), D2:D11, 0))`

	A	B	C	D	E	F	G	H	I
1	Name	Sport	School	Height, cm		Sport	Basketball		
2	Aiden	Football	Junior	156		School	Junior		
3	Caden	Volleyball	Junior	165		Max height	160		
4	Ethan	Running	Senior	173		Name	Liam		
5	Jackson	Running	Senior	170					
6	Jacob	Basketball	Senior	168					
7	Liam	Basketball	Junior	160					
8	Lucas	Football	Senior	171					
9	Mason	Volleyball	Senior	179					
10	Noah	Running	Senior	169					
11	Oliver	Basketball	Junior	159					

Excel MAXIFS with logical operators

In situation when you need to evaluate numeric criteria, use logical operators such as:

- greater than (>)
- less than (<)
- greater than or equal to (>=)
- less than or equal to (<=)
- not equal to (<>)

The "equal to" operator (=) can be omitted in most cases.

Usually, choosing an operator is not a problem, the trickiest part is to build criteria with the correct syntax. Here's how:

- A logical operator followed by a number or text must be enclosed in double quotes like ">=14" or "<>running".
- In case of a cell reference or another function, use the quotes to begin a string and an ampersand to concatenate the reference and finish the string off, e.g. ">"&B1 or "<"&TODAY().

To see how it works in practice, let's add the Age column (column C) to our sample table and find the maximum height among the boys aged between 13 and 14. This can be done with the following criteria:

Criteria1: ">=13"

Criteria2: "<=14"

Because we compare the numbers in the same column, criteria_range in both cases is the same (C2:C11):

```
=MAXIFS(D2:D11, C2:C11, ">=13", C2:C11, "<=14")
```

If you do not want to hardcode the criteria in the formula, input them in separate cells (e.g. G1 and H1) and use the following syntax:

```
=MAXIFS(D2:D11, C2:C11, ">="&G1, C2:C11, "<="&H1)
```

The screenshot below shows the result:

	A	B	C	D	E	F	G	H
1	Name	Sport	Age	Height, cm		Age between	13	14
2	Aiden	Football	13	156		Max height	165	
3	Caden	Volleyball	14	165				
4	Ethan	Running	17	173				
5	Jackson	Running	16	170				
6	Jacob	Basketball	15	168				
7	Liam	Basketball	13	160				
8	Lucas	Football	16	171				
9	Mason	Volleyball	16	179				
10	Noah	Running	15	169				
11	Oliver	Basketball	13	159				

Aside from numbers, logical operators can also work with text criteria. In particular, the "not equal to" operator comes in handy when you wish to exclude something from your calculations. For example, to find the tallest student in all sports excluding volleyball, use the following formula:

```
=MAXIFS(D2:D11, B2:B11, "<>volleyball")
```

Or this one, where G1 is the excluded sport:

```
=MAXIFS(D2:D11, B2:B11, "<>"&G1)
```

G2		:	✕	✓	<i>f_x</i>	=MAXIFS(D2:D11, B2:B11, "<>"&G1)	
	A	B	C	D	E	F	G
1	Name	Sport	Age	Height, cm		Sport excluding	Volleyball
2	Aiden	Football	13	156		Max height	173
3	Caden	Volleyball	14	165			
4	Ethan	Running	17	173			
5	Jackson	Running	16	170			
6	Jacob	Basketball	15	168			
7	Liam	Basketball	13	160			
8	Lucas	Football	16	171			
9	Mason	Volleyball	16	179			
10	Noah	Running	15	169			
11	Oliver	Basketball	13	159			

MAXIFS formulas with wildcard characters (partial match)

To evaluate a condition that contains a specific text or character, include one of the following wildcard character in your criteria:

- Question mark (?) to match any single character.
- Asterisk (*) to match any sequence of characters.

For this example, let's find out the tallest guy in game sports. Because the names of all game sports in our dataset end with the word "ball", we include this word in the criteria and use an asterisk to match any previous characters:

```
=MAXIFS(D2:D11, B2:B11, "*ball")
```

You can also type "ball" in some cell, e.g. G1, and concatenate the wildcard character with the cell reference:

```
=MAXIFS(D2:D11, B2:B11, "*" & G1)
```


The result will look as follows:

G2		✕ ✓ fx		=MAXIFS(D2:D11, B2:B11, "*" & G1)			
	A	B	C	D	E	F	G
1	Name	Sport	Age	Height, cm		Sport	ball
2	Aiden	Football	13	156		Max height	179
3	Caden	Volleyball	14	165			
4	Ethan	Running	17	173			
5	Jackson	Running	16	170			
6	Jacob	Basketball	15	168			
7	Liam	Basketball	13	160			
8	Lucas	Football	16	171			
9	Mason	Volleyball	16	179			
10	Noah	Running	15	169			
11	Oliver	Basketball	13	159			

Get max value within a date range

Because dates are stored as serial numbers in the internal Excel system, you work with the dates criteria in the same manner as you work with numbers.

To illustrate this, we will replace the *Age* column with *Date of Birth* and try to work out the max height among the boys born in a particular year, say in 2004. To accomplish this task, we need to "filter" the birth dates that are greater than or equal to 1-Jan-2004 and less than or equal to 31-Dec-2004.

When building your criteria, it is important that you provide the dates in the format that Excel can understand:

```
=MAXIFS(D2:D11, C2:C11, ">=1-Jan-2004", C2:C11, "<=31-Dec-2004")
```

Or

```
=MAXIFS(D2:D11, C2:C11, ">=1/1/2004", C2:C11, "<=12/31/2004")
```

To prevent misinterpretation, it makes sense to utilize the DATE function:

`=MAXIFS(D2:D11, C2:C11, ">="&DATE(2004,1,1), C2:C11, "<="&DATE(2004,12,31))`

For this example, we will type the target year in G1, and then use the DATE function to supply the dates:

`=MAXIFS(D2:D11, C2:C11, ">="&DATE(G1,1,1), C2:C11, "<="&DATE(G1,12,31))`

G2	=MAXIFS(D2:D11, C2:C11, ">="&DATE(G1,1,1), C2:C11, "<="&DATE(G1,12,31))					
	A	B	C	D	E	F
1	Name	Sport	Birth date	Height, cm		Birth date
2	Aiden	Football	22-Jan-06	156		Max height
3	Caden	Volleyball	5-Oct-05	165		
4	Ethan	Running	24-Sep-02	173		
5	Jackson	Running	3-Nov-03	170		
6	Jacob	Basketball	14-Dec-04	168		
7	Liam	Basketball	15-Aug-06	160		
8	Lucas	Football	8-Jul-03	171		
9	Mason	Volleyball	10-Feb-03	179		
10	Noah	Running	10-Apr-04	169		
11	Oliver	Basketball	12-Mar-06	159		

Note. Unlike numbers, dates should be enclosed in quotation marks when used in the criteria on their own. For example:

`=MAXIFS(D2:D11, C2:C11, "10/5/2005")`

Find maximum value based on multiple criteria with OR logic

The Excel MAXIFS function is designed to test the conditions with the AND logic - i.e. it processes only those numbers in *max_range* for which all the criteria are TRUE. In some situations, however, you may need to evaluate the conditions with the OR logic - i.e. process all the numbers for which any of the specified criteria is TRUE.

To make things easier to understand, please consider the following example. Supposing you want to find the maximum

height of the guys who play either basketball or football. How would you do that? Using "basketball" as criteria1 and as "football" criteria2 won't work, because Excel would assume that both criteria should evaluate to TRUE.

The solution is to make 2 separate MAXIFS formulas, one per each sport, and then use the good old MAX function to return a higher number:

```
=MAX(MAXIFS(C2:C11, B2:B11, "basketball"), MAXIFS(C2:C11, B2:B11, "football"))
```

The screenshot below shows this formula but with the criteria in predefined input cells, F1 and H1:

F2		:	=MAX(MAXIFS(C2:C11, B2:B11, F1), MAXIFS(C2:C11, B2:B11, H1))					
	A	B	C	D	E	F	G	H
1	Name	Sport	Height, cm		Sport	Basketball	or	Football
2	Aiden	Football	156		Max height	171		
3	Caden	Volleyball	165					
4	Ethan	Running	173					
5	Jackson	Running	170					
6	Jacob	Basketball	168					
7	Liam	Basketball	160					
8	Lucas	Football	171					
9	Mason	Volleyball	179					
10	Noah	Running	169					
11	Oliver	Basketball	159					

Another way is to use a MAX IF formula with OR logic.

7 things to remember about Excel MAXIFS

Below you will find a few remarks that will help to improve your formulas and avoid common errors. Some of these observations have already been discussed as tips and notes in our examples, but it might be helpful to get a short summary of what you've already learned:

1. The MAXIFS function in Excel can get the highest value based on **one** or **multiple criteria**.
2. By default, Excel MAXIFS works with the **AND logic**, i.e. returns the maximum number that meets all of the specified conditions.
3. For the function to work, the max range and criteria ranges must have the **same size** and **shape**.
4. The SUMIF function is **case-insensitive**, i.e. it does not recognize the letter case in text criteria.
5. When writing a MAXIFS formula for multiple cells, remember to **lock the ranges** with absolute cell references for the formula to copy correctly.
6. Mind the **syntax of your criteria**! Here are the main rules:
 - When used on their own, text and dates should be enclosed in quotation marks, numbers and cell references should not.
 - When a number, date or text is used with a logical operator, the whole expression must be enclosed in double quotes like ">=10"; cell references and other functions must be concatenated by using an ampersand like ">"&G1.
7. MAXIFS is only available in Excel 2019 and Excel for Office 365. In earlier versions, this function is not available.

That's how you can find the maximum value in Excel with conditions. I thank you for reading and hope to see you on our blog soon!

Q13 a) Describe various steps involved in the following

Change the column width and row height

Excel for Microsoft 365 [More...](#)

If you find yourself needing to expand or reduce Excel's row widths and column heights, there are several ways to adjust them. The table below shows the minimum, maximum and default sizes for each based on a point scale.

Type	Min	Max	Default
Column	0 (hidden)	255	8.43
Row	0 (hidden)	409	15.00

Notes:

- If you are working in Page Layout view (**View** tab, **Workbook Views** group, **Page Layout** button), you can specify a column width or row height in inches, centimeters and millimeters. The measurement unit is in inches by default. Go to **File** > **Options** > **Advanced** > **Display** > select an option from the **Ruler Units** list. If you switch to **Normal** view, then column widths and row heights will be displayed in points.
- Individual rows and columns can only have one setting. For example, a single column can have a 25 point width, but it can't be 25 points wide for one row, and 10 points for another.

The tutorial shows different ways to change row height and resize cells in Excel.

By default, all rows on a new workbook have the same height. However, Microsoft Excel allows you to resize rows in different ways such as changing row height by using the mouse, auto fitting rows and wrapping text. Further on in this tutorial, you will find full details on all these techniques.

- [Excel row height - the basics](#)
- [Change row height using the mouse](#)
- [Set row height in Excel numerically](#)
- [AutoFit row height in Excel](#)
- [Adjust row height in inches](#)
- [Excel row height tips](#)

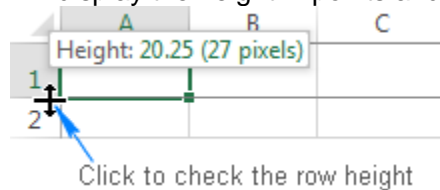
Excel row height

In Excel worksheets, the default row height is determined by the font size. As you increase or decrease the font size for a specific row(s), Excel automatically makes the row taller or shorter.

According to Microsoft, with the default font *Calibri 11*, the row height is 12.75 points, which is approximately 1/6 inch or 0.4 cm. In practice, in the latest versions of Excel 2016 and Excel 2013, row height varies depending on the display scaling (DPI) from 15 points on a 100% dpi to 14.3 points on a 200% dpi.

You can also set a row height in Excel manually, from 0 to 409 points, with 1 point equal to approximately 1/72 inch or 0.035 cm. A hidden row has zero (0) height.

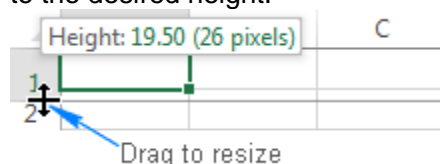
To check the current height of a given row, click the boundary below the row heading, and Excel will display the height in points and pixels:



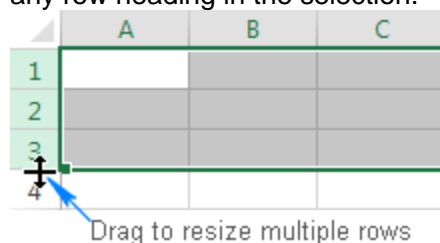
How to change row height in Excel using the mouse


The most common way to adjust row height in Excel is by dragging the row border. It allows you to quickly resize a single row as well as change the height of multiple or all rows. Here's how:

- To change the height of **one row**, drag the lower boundary of the row heading until the row is set to the desired height.



- To change the height of **multiple row**, select the rows of interest and drag the boundary below any row heading in the selection.

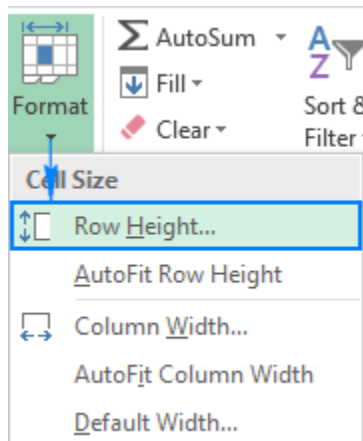


- To change height of **all rows** on the sheet, select the entire sheet by pressing **Ctrl + A** or clicking the *Select All* button , and then drag the row separator between any row headings.

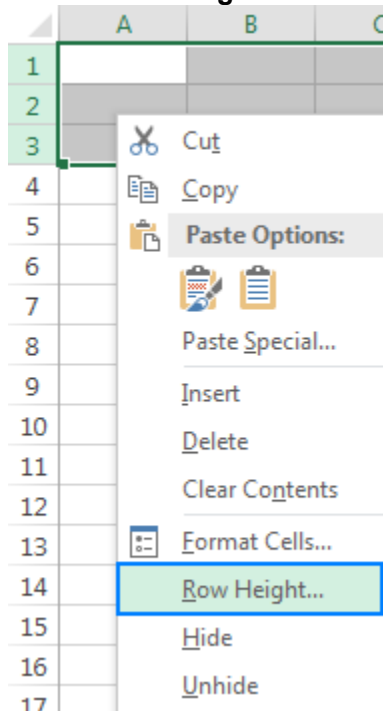
How to set row height in Excel numerically

As mentioned a few paragraphs above, Excel row height is specified in points. So, you can adjust a row height by changing the default points. For this, select any cell in the row(s) you'd like to resize, and do the following:

1. On the *Home* tab, in the *Cells* group, click **Format** > **Row Height**.
2. In the **Row height** box, type the desired value, and click **OK** to save the change.



Another way to access the *Row Height* dialog is to select a row(s) of interest, right-click, and choose **Row Height...** from the context menu:



Tip. To make all rows on the sheet the same size, either press Ctrl+A or click the *Select All* button to select the entire sheet, and then perform the above steps to set row height.

How to AutoFit row height in Excel

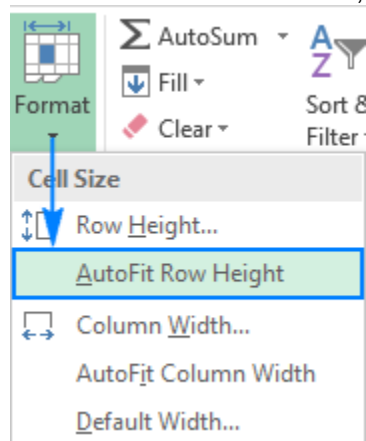
When copying data into Excel sheets, there are times when a row height does not adjust automatically. As the result, multi-line or unusually tall text is clipped like shown on the right-hand part of the screenshot below. To fix this, apply the Excel AutoFit feature that will force the row to expand automatically to accommodate the largest value in that row.

To AutoFit rows in Excel, select one or more rows, and do one of the following:

Method 1. Double-click the lower boundary of any row heading in the selection:



Method 2. On the *Home* tab, in the *Cells* group, click **Format** > **AutoFit Row Height**:



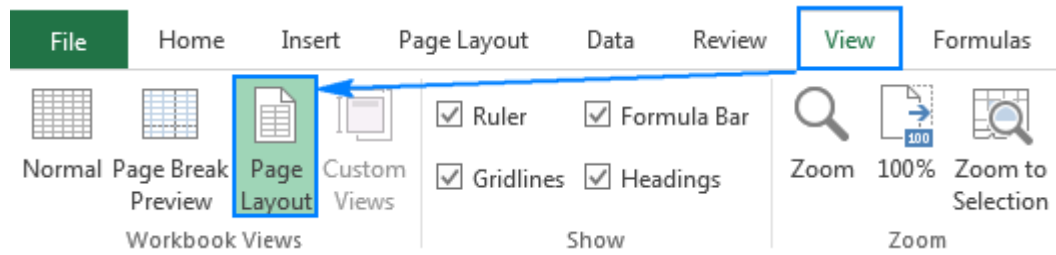
Tip. To auto fit **all rows** on the sheet, press **Ctrl + A** or click the *Select All* button, and then either double click the boundary between any two row headings or click **Format** > **AutoFit Row Height** on the ribbon.

How to adjust row height in inches

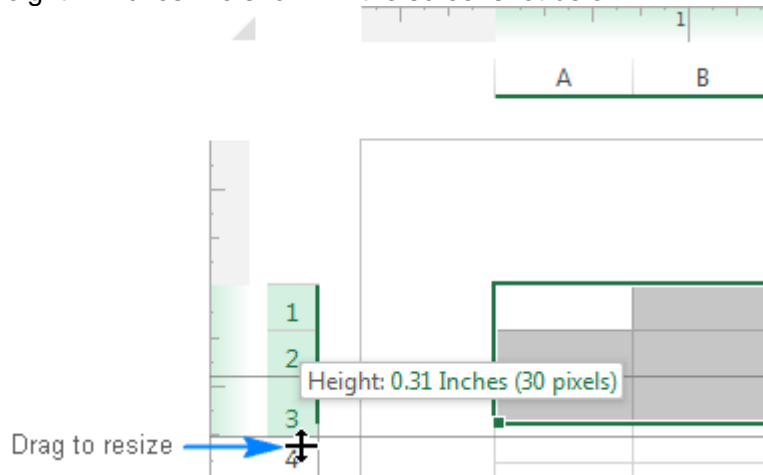
In some situations, for example when preparing the worksheet for printing, you may want to set the row height in inches, centimeters or millimeters. To have it done, please follow these steps:

1. Go to the *View* tab > *Workbook Views* group and click the **Page Layout** button. This will display the rulers showing the column width and row height in the default measurement unit:

inches, centimeters or millimeters.



2. Select one, several or all rows on the sheet, and set the desired row height by dragging the boundary below one of the selected row headings. As you do this, Excel will display the row height in inches like shown in the screenshot below:



Tip. To change the default measurement unit on the ruler, click *File > Options > Advanced*, scroll down to the *Display* section, select the unit you want (**inches**, **centimeters** or **millimeters**) from the **Ruler Units** drop-down list, and click *OK*.

Excel row height tips

As you have just seen, changing row height in Excel is easy and straightforward. The following tips might help you resize cells in Excel even more efficiently.

1. How to change cell size in Excel

Resizing cells in Excel boils down to changing column width and row height. By manipulating these values, you can increase cell size, make cells smaller, and even create a square grid. For example, you can use the following sizes to make **square cells**:

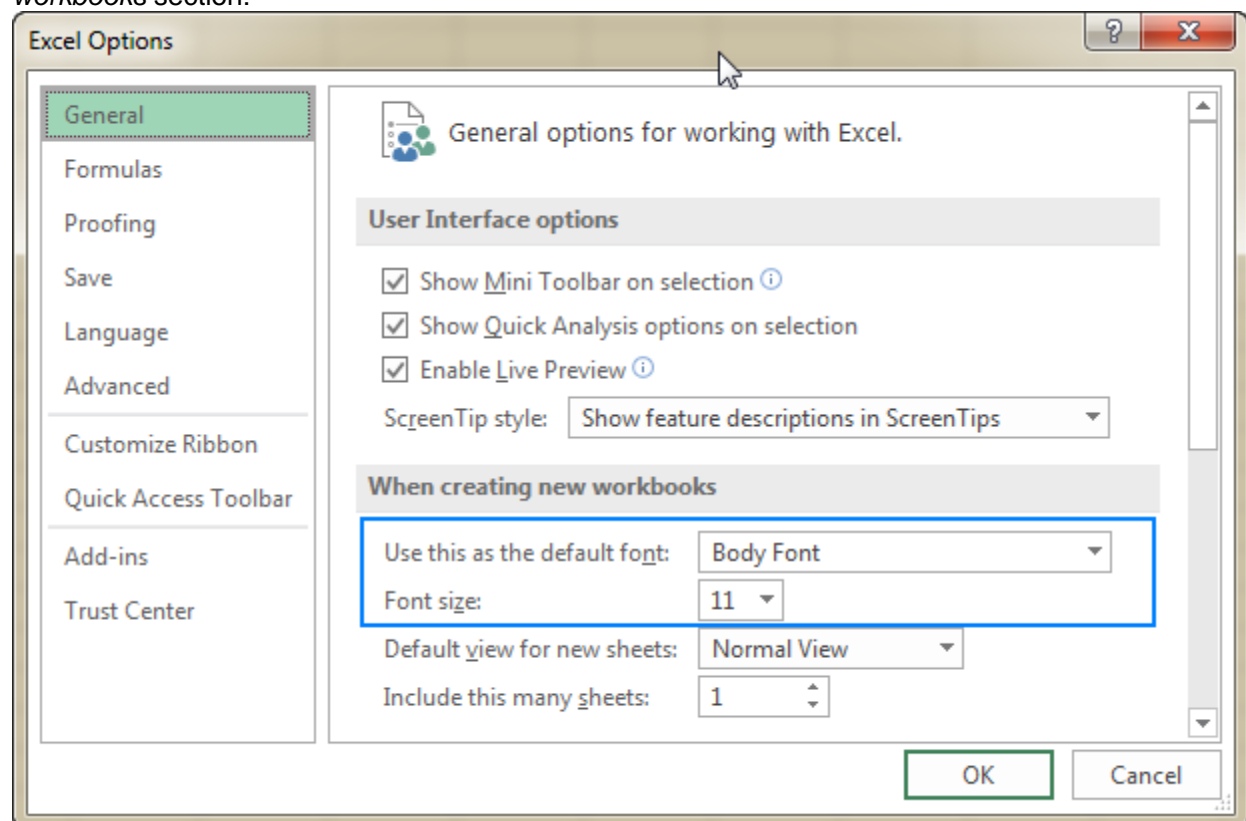
Font	Row height	Column width
Arial 10 pt	12.75	1.71

Arial 8 pt	11.25	1.43
------------	-------	------

Alternatively, to make all cells the same size, press **Ctrl + A** and drag rows and columns to a desired **pixel size** (as you drag and resize, Excel will display the row height and column width in points / units and pixels). Please keep in mind that this method can only show square cells on the screen, however, it does not guarantee a square grid when printed.

2. How to change the default row height in Excel

As mentioned in the beginning of this tutorial, the row height in Excel is dependent on the font size, more precisely, on the size of the largest font used in the row. So, in order to increase or decrease the default row height, you can simply change the default font size. For this, click *File > Options > General* and specify your preferences under the *When creating new workbooks* section:



If you are not quite happy with the optimal row height set by Excel for your newly established default font, you can select the entire sheet, and change row height numerically or by using the mouse. After that, save an empty workbook with your custom row height as an Excel template and base new workbooks on that template.

This is how you can change row height in Excel. I thank you for reading and hope to see you on our blog next week!

You may also be interested in

- [How to change column width in Excel](#)
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- [How to AutoFit in Excel](#)
- [How to align text in Excel](#)

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26 responses to "How to change and AutoFit row height in Excel"

Row & columns

Insert or delete rows, and columns

In this course:

- Insert or delete rows, and columns
Article
- Select cell contents in Excel
Article
- Freeze panes to lock rows and columns
Article
- Hide or show rows or columns
Article
- Filter for unique values or remove duplicate values
Article
- Split text into different columns with the Convert Text to Columns Wizard
Article
- Create a list of sequential dates
Article

Introduction

There are two types of cell references: **relative** and **absolute**. Relative and absolute references behave differently when copied and filled to other cells. Relative references **change** when a formula is copied to another cell.

Absolute references, on the other hand, remain **constant** no matter where they are copied.

Optional: Download our **example file** for this lesson.

Watch the video below to learn more about cell references.

Relative references

By default, all cell references are **relative references**. When copied across multiple cells, they change based on the relative position of rows and columns. For example, if you copy the formula **=A1+B1** from row 1 to row 2, the formula will become **=A2+B2**. Relative references are especially convenient whenever you need to **repeat** the same calculation across multiple rows or columns.

To create and copy a formula using relative references:

In the following example, we want to create a formula that will multiply each item's **price** by the **quantity**. Rather than create a new formula for each row, we can create a single formula in cell **D2** and then copy it to the other rows. We'll use relative references so the formula correctly calculates the total for each item.

1. Select the **cell** that will contain the formula. In our example, we'll select cell **D2**.

D2				
	A	B	C	D
1	Menu Item	Price	Quantity	Total
2	Empanadas: Beef Picadillo	\$2.99	15	
3	Empanadas: Chipotle Shrimp	\$3.99	10	
4	Empanadas: Black Bean & Plantain	\$2.49	20	
5	Tamales: Chicken Tinga	\$2.29	20	
6	Tamales: Vegetable	\$2.29	30	
7	Arepas: Carnitas	\$2.89	10	
8	Arepas: Queso Blanco	\$2.49	20	
9	Empanadas: Apple Cinnamon	\$3.19	40	
10	Beverages: Horchata	\$1.89	25	
11	Beverages: Lemonade	\$1.89	35	
12	Beverages: Tamarindo	\$1.89	10	
13	Total			
14				

- Enter the **formula** to calculate the desired value. In our example, we'll type **=B2*C2**.

C2				=B2*C2
	A	B	C	D
1	Menu Item	Price	Quantity	Total
2	Empanadas: Beef Picadillo	\$2.99	15	=B2*C2
3	Empanadas: Chipotle Shrimp	\$3.99	10	
4	Empanadas: Black Bean & Plantain	\$2.49	20	
5	Tamales: Chicken Tinga	\$2.29	20	
6	Tamales: Vegetable	\$2.29	30	
7	Arepas: Carnitas	\$2.89	10	
8	Arepas: Queso Blanco	\$2.49	20	
9	Empanadas: Apple Cinnamon	\$3.19	40	
10	Beverages: Horchata	\$1.89	25	
11	Beverages: Lemonade	\$1.89	35	
12	Beverages: Tamarindo	\$1.89	10	
13	Total			
14				

- Press **Enter** on your keyboard. The formula will be **calculated**, and the result will be displayed in the cell.
- Locate the **fill handle** in the lower-right corner of the desired cell. In our example, we'll locate the fill handle for cell **D2**.

D2 : ✕ ✓ *f_x* =B2*C2

	A	B	C	D	E
1	Menu Item	Price	Quantity	Total	
2	Empanadas: Beef Picadillo	\$2.99	15	\$44.85	
3	Empanadas: Chipotle Shrimp	\$3.99	10		
4	Empanadas: Black Bean & Plantain	\$2.49	20		
5	Tamales: Chicken Tinga	\$2.29	20		
6	Tamales: Vegetable	\$2.29	30		
7	Arepas: Carnitas	\$2.89	10		
8	Arepas: Queso Blanco	\$2.49	20		
9	Empanadas: Apple Cinnamon	\$3.19	40		
10	Beverages: Horchata	\$1.89	25		
11	Beverages: Lemonade	\$1.89	35		
12	Beverages: Tamarindo	\$1.89	10		
13	Total				
14					

The fill handle

- Click, hold, and drag the **fill handle** over the cells you wish to fill. In our example, we'll select cells **D3:D12**.

D2 : X ✓ fx =B2*C2

Click, hold and drag the fill handle to copy the formula to adjacent cells

	A			
1	Menu Item	Price	Quantity	Total
2	Empanadas: Beef Picadillo	\$2.99	15	\$44.85
3	Empanadas: Chipotle Shrimp	\$3.99	10	
4	Empanadas: Black Bean & Plantain	\$2.49	20	
5	Tamales: Chicken Tinga	\$2.29	20	
6	Tamales: Vegetable	\$2.29	30	
7	Arepas: Carnitas	\$2.89	10	
8	Arepas: Queso Blanco	\$2.49	20	
9	Empanadas: Apple Cinnamon	\$3.19	40	
10	Beverages: Horchata	\$1.89	25	
11	Beverages: Lemonade	\$1.89	35	
12	Beverages: Tamarindo	\$1.89	10	
13	Total			
14				

6. Release the mouse. The formula will be **copied** to the selected cells with **relative references** and the values will be calculated in each cell.

D2 : X ✓ fx =B2*C2

	A	B	C	D	E
1	Menu Item	Price	Quantity	Total	
2	Empanadas: Beef Picadillo	\$2.99	15	\$44.85	
3	Empanadas: Chipotle Shrimp	\$3.99	10	\$39.90	
4	Empanadas: Black Bean & Plantain	\$2.49	20	\$49.80	
5	Tamales: Chicken Tinga	\$2.29	20	\$45.80	
6	Tamales: Vegetable	\$2.29	30	\$68.70	
7	Arepas: Carnitas	\$2.89	10	\$28.90	
8	Arepas: Queso Blanco	\$2.49	20	\$49.80	
9	Empanadas: Apple Cinnamon	\$3.19	40	\$127.60	
10	Beverages: Horchata	\$1.89	25	\$47.25	
11	Beverages: Lemonade	\$1.89	35	\$66.15	
12	Beverages: Tamarindo	\$1.89	10	\$18.90	
13	Total				
14					

You can double-click the **filled cells** to check their formulas for accuracy. The relative cell references should be different for each cell, depending on its row.

SUM					:	X	✓	fx	=B8*C8
	A	B	C	D	E				
1	Menu Item	Price	Quantity	Total					
2	Empanadas: Beef Picadillo	\$2.99	15	\$44.85					
3	Empanadas: Chipotle Shrimp	\$3.99	10	\$39.90					
4	Empanadas: Black Bean & Plantain	\$2.49		\$30.80					
5	Tamales: Chicken Tinga	\$2.29		\$30.80					
6	Tamales: Vegetable	\$2.29		\$17.00					
7	Arepas: Carnitas	\$2.89	10	\$28.90					
8	Arepas: Queso Blanco	\$2.49	20	=B8*C8					
9	Empanadas: Apple Cinnamon	\$3.19	40	\$127.60					
10	Beverages: Horchata	\$1.89	25	\$47.25					
11	Beverages: Lemonade	\$1.89	35	\$66.15					
12	Beverages: Tamarindo	\$1.89	10	\$18.90					
13	Total								
14									

Cell references in row 8 are relative to row 8

Let's practice!

Question 1 of 1

Which of the following is a relative cell reference?

\$C\$2

!C2

\$C2

C2

Submit

Absolute references

There may be times when you do not want a cell reference to change when filling cells. Unlike relative references, **absolute references** do not change when copied or filled. You can use an absolute reference to keep a row and/or column **constant**.

An absolute reference is designated in a formula by the addition of a **dollar sign (\$)** before the column and row. If it precedes the column or row (but not both), it's known as a **mixed reference**.

\$A\$2	The column and the row do not change when copied
A\$2	The row does not change when copied
\$A2	The column does not change when copied

You will use the relative (**A2**) and absolute (**\$A\$2**) formats in most formulas. Mixed references are used less frequently.

When writing a formula in Microsoft Excel, you can press the **F4** key on your keyboard to switch between relative, absolute, and mixed cell references, as shown in the video below. This is an easy way to quickly insert an absolute reference.

To create and copy a formula using absolute references:

In our example, we'll use the 7.5% sales tax rate in cell **E1** to calculate the sales tax for all items in **column D**. We'll need to use the absolute cell reference **\$E\$1** in our formula. Because each formula is using the same tax rate, we want that reference to remain constant when the formula is copied and filled to other cells in column D.

1. Select the **cell** that will contain the formula. In our example, we'll select cell **D3**.

D3					
	A	B	C	D	E
1	Sales Tax				7.5%
2	Menu Item	Price	Quantity	Sales Tax	Total
3	Empanadas: Beef Picadillo	\$2.99	15		
4	Empanadas: Chipotle Shrimp	\$3.99	10		
5	Empanadas: Black Bean & Plantain	\$2.49	20		
6	Tamales: Chicken Tinga	\$2.29	20		
7	Tamales: Vegetable	\$2.29	30		
8	Arepas: Carnitas	\$2.89	10		
9	Arepas: Queso Blanco	\$2.49	20		
10	Empanadas: Apple Cinnamon	\$3.19	40		
11	Beverages: Horchata	\$1.89	25		
12	Beverages: Lemonade	\$1.89	35		
13	Beverages: Tamarindo	\$1.89	10		
14	Total				
15					

2. Enter the **formula** to calculate the desired value. In our example, we'll type **=(B3*C3)*\$E\$1**.

SUM		:	X	✓	<i>f_x</i>	=(B3*C3)*\$E\$1	
	A	B	C	D	E		
1	Sales Tax				7.5%		
2	Menu Item	Price	Quantity	Sales Tax	Total		
3	Empanadas: Beef Picadillo	\$2.99		= (B3*C3)*\$E\$1			
4	Empanadas: Chipotle Shrimp	\$3.99	10				
5	Empanadas: Black Bean & Plantain	\$2.49	20				
6	Tamales: Chicken Tinga	\$2.29	20				
7	Tamales: Vegetable	\$2.29	30				
8	Arepas: Carnitas	\$2.89	10				
9	Arepas: Queso Blanco	\$2.49	20				
10	Empanadas: Apple Cinnamon	\$3.19	40				
11	Beverages: Horchata	\$1.89	25				
12	Beverages: Lemonade	\$1.89	35				
13	Beverages: Tamarindo	\$1.89	10				
14	Total						
15							

3. Press **Enter** on your keyboard. The formula will calculate, and the result will display in the cell.
4. Locate the **fill handle** in the lower-right corner of the desired cell. In our example, we'll locate the fill handle for cell **D3**.

D3	:	X	✓	f_x	=(B3*C3)*\$E\$1
	A	B	C	D	E
1	Sales Tax				7.5%
2	Menu Item	Price	Quantity	Sales Tax	Total
3	Empanadas: Beef Picadillo	\$2.99	15	\$3.36	
4	Empanadas: Chipotle Shrimp	\$3.99	10		
5	Empanadas: Black Bean & Plantain	\$2.49	20		
6	Tamales: Chicken Tinga	\$2.29	20		
7	Tamales: Vegetable	\$2.29	30		
8	Arepas: Carnitas	\$2.89	10		
9	Arepas: Queso Blanco	\$2.49	20		
10	Empanadas: Apple Cinnamon	\$3.19	40		
11	Beverages: Horchata	\$1.89	25		
12	Beverages: Lemonade	\$1.89	35		
13	Beverages: Tamarindo	\$1.89	10		
14	Total				
15					

5. Click, hold, and drag the **fill handle** over the cells you wish to fill, cells **D4:D13** in our example.

D3	:	X	✓	<i>f_x</i>	=(B3*C3)*\$E\$1
	A	Click, hold and drag the fill handle to copy the formula to adjacent cells			
1					%
2	Menu Item	Price	Quantity	Sales Tax	Total
3	Empanadas: Beef Picadillo	\$2.99	15	\$3.36	
4	Empanadas: Chipotle Shrimp	\$3.99	10		
5	Empanadas: Black Bean & Plantain	\$2.49	20		
6	Tamales: Chicken Tinga	\$2.29	20		
7	Tamales: Vegetable	\$2.29	30		
8	Arepas: Carnitas	\$2.89	10		
9	Arepas: Queso Blanco	\$2.49	20		
10	Empanadas: Apple Cinnamon	\$3.19	40		
11	Beverages: Horchata	\$1.89	25		
12	Beverages: Lemonade	\$1.89	35		
13	Beverages: Tamarindo	\$1.89	10		
14	Total				
15					

6. Release the mouse. The formula will be **copied** to the selected cells with an **absolute reference**, and the values will be calculated in each cell.

D3	:	X	✓	<i>f_x</i>	=(B3*C3)*\$E\$1
	A	B	C	D	E
1	Sales Tax				7.5%
2	Menu Item	Price	Quantity	Sales Tax	Total
3	Empanadas: Beef Picadillo	\$2.99	15	\$3.36	
4	Empanadas: Chipotle Shrimp	\$3.99	10	\$2.99	
5	Empanadas: Black Bean & Plantain	\$2.49	20	\$3.74	
6	Tamales: Chicken Tinga	\$2.29	20	\$3.44	
7	Tamales: Vegetable	\$2.29	30	\$5.15	
8	Arepas: Carnitas	\$2.89	10	\$2.17	
9	Arepas: Queso Blanco	\$2.49	20	\$3.74	
10	Empanadas: Apple Cinnamon	\$3.19	40	\$9.57	
11	Beverages: Horchata	\$1.89	25	\$3.54	
12	Beverages: Lemonade	\$1.89	35	\$4.96	
13	Beverages: Tamarindo	\$1.89	10	\$1.42	
14	Total				
15					

You can double-click the **filled cells** to check their formulas for accuracy. The absolute reference should be the same for each cell, while the other references are relative to the cell's row.

SUM		X ✓ fx		=(B9*C9)*\$E\$1	
	A	B	C	D	E
1	Sales Tax				7.5%
2	Menu Item	Price	Quantity	Sales Tax	Total
3	Empanadas: Beef Picadillo				
4	Empanadas: Chipotle Shrimp				
5	Empanadas: Black Bean & P				
6	Tamales: Chicken Tinga	\$2.29	20	\$5.44	
7	Tamales: Vegetable	\$2.29	30	\$5.15	
8	Arepas: Carnitas	\$2.89	10	\$2.17	
9	Arepas: Queso Blanco	\$2.49		= (B9*C9)*\$E\$1	
10	Empanadas: Apple Cinnamon	\$3.19	40	\$0.00	
11	Beverages: Horchata	\$1.89	25	\$3.54	
12	Beverages: Lemonade	\$1.89	35	\$4.96	
13	Beverages: Tamarindo	\$1.89	10	\$1.42	
14	Total				
15					

Be sure to include the **dollar sign (\$)** whenever you're making an absolute reference across multiple cells. The dollar signs were omitted in the example below. This caused the spreadsheet to interpret it as a relative reference, producing an incorrect result when copied to other cells.

SUM		X ✓ fx		=(B10*C10)*E8	
	A	B	C	D	E
1	Sales Tax				7.5
2	Menu Item	Price	Quantity	Sales Tax	Tot
3	Empanadas: Beef Picadillo	\$2.99	15	\$3.36	\$4
4	Empanadas: Chipotle Shrimp	\$3.99	10	#VALUE!	\$4
5	Empanada			\$2,401.04	\$5
6	Tamales: C			#VALUE!	\$4
7	Tamales: V			\$168,373.03	\$7
8	Arepas: Ca			#VALUE!	\$3
9	Arepas: Qu			\$8,388,398.37	\$5
10	Empanadas: Apple Cinnamon	\$3.19	40	= (B10*C10)*E10	\$12
11	Beverages: Horchata	\$1.89	25	\$396,354,176.00	\$5
12	Beverages: Lemonade	\$1.89	35	#VALUE!	\$7
13	Beverages: Tamarindo	\$1.89	10	\$7,491,094,819.49	\$2
14	Total				
15					

Without the dollar sign (\$), the reference to cell E1 was interpreted as a relative reference, leading to incorrect results

Let's practice!

Question 1 of 1

If you wanted to make an absolute reference to cell E2, what would it look like?

E2

@E2

[E2]

\$E\$2

Submit

Using cell references with multiple worksheets

Most spreadsheet programs allow you to refer to any cell on any **worksheet**, which can be especially helpful if you want to reference a specific value from one worksheet to another. To do this, you'll simply need to begin the cell reference with the **worksheet name** followed by an **exclamation point (!)**. For example, if you wanted to reference cell **A1** on **Sheet1**, its cell reference would be **Sheet1!A1**.

Note that if a worksheet name contains a **space**, you will need to include **single quotation marks (' ')** around the name. For example, if you wanted to reference cell **A1** on a worksheet named **July Budget**, its cell reference would be **'July Budget'!A1**.

To reference cells across worksheets:

In our example below, we'll refer to a cell with a calculated value between two worksheets. This will allow us to use the **exact same value** on two different worksheets without rewriting the formula or copying data between worksheets.

1. Locate the cell you wish to reference, and note its worksheet. In our example, we want to reference cell **E14** on the **Menu Order worksheet**.

	A	B	C	D	E
5	Empanadas: Black Bean & Plantain	\$2.49	20	\$3.74	\$53.5
6	Tamales: Chicken Tinga	\$2.29	20	\$3.44	\$49.2
7	Tamales: Vegetable	\$2.29	30	\$5.15	\$73.8
8	Arepas: Carnitas	\$2.89	10	\$2.17	\$31.0
9	Arepas: Queso Blanco	\$2.49	20	\$3.74	\$53.5
10	Empanadas: Apple Cinnamon	\$3.19	40	\$9.57	\$137.5
11	Beverages: Horchata	\$1.89	25	\$3.54	\$50.7
12	Beverages: Lemonade	\$1.89	35	\$4.96	\$71.1
13	Beverages: Tamarindo	\$1.89	10	\$1.42	\$20.3
14	Total				\$587.6
15					
16					

Menu Order
Catering Invoice
+

2. Navigate to the desired **worksheet**. In our example, we'll select the **Catering Invoice** worksheet.

12	Beverages: Lemonade	\$1.89	35	\$4.96	\$71.1
13	Beverages: Tamarindo	\$1.89	10	\$1.42	\$20.3
14	Total				\$587.6
15					
16					

Menu Order
Catering Invoice
+

3. The **selected worksheet** will appear.
4. Locate and select the **cell** where you want the value to appear. In our example, we'll select cell **B2**.

B2			
	A	B	C
1	Total Cost for Requested Services		
2	Menu Items		
3	Paper Items (Plates, silverware, cups)	\$110.87	
4	Rental Equipment (Tables, Chairs, Linens)	\$249.95	
5	Service Fee (18% of menu items ordered)	\$0.00	
6	Total Cost	\$360.82	
7			
	Menu Order	Catering Invoice	

5. Type the **equals sign (=)**, the **sheet name** followed by an **exclamation point (!)**, and the **cell address**. In our example, we'll type **= 'Menu Order'!E14**.

SUM			= 'Menu Order'!E14
	A	B	C
1	Total Cost for Requested Services		
2	Menu Items	= 'Menu Order'!E14	
3	Paper Items (Plates, silverware, cups)	\$110.87	
4	Rental Equipment (Tables, Chairs, Linens)	\$249.95	
5	Service Fee (18% of menu items ordered)	\$113.63	
6	Total Cost	\$1,105.72	
7			
	Menu Order	Catering Invoice	

6. Press **Enter** on your keyboard. The **value** of the referenced cell will appear. If the **value** of cell E14 changes on the Menu Order

worksheet, it will be **updated** automatically on the Catering Invoice worksheet.

B2	:	X	✓	<i>f_x</i>	= 'Menu Order'!E14
	A	B	C		
1	Total Cost for Requested Services				
2	Menu Items	\$587.65			
3	Paper Items (Plates, silverware, cups)	\$110.87			
4	Rental Equipment (Tables, Chairs, Linens)	\$249.95			
5	Service Fee (18% of menu items ordered)	\$113.63			
6	Total Cost	\$1,105.72			
7					
	Menu Order	Catering Invoice	+		

If you **rename** your worksheet at a later point, the cell reference will be updated automatically to reflect the new worksheet name.

Challenge!

1. Open an existing Excel workbook. If you want, you can use the **example file** for this lesson.
2. Create a formula that uses a **relative reference**. If you are using the example, use the **fill handle** to fill in the formula in cells **E4** through **E14**. Double-click a cell to see the copied formula and the relative cell references.
3. Create a formula that uses an **absolute reference**. If you are using the example, correct the formula in cell **D4** to refer only to the tax rate in cell **E2** as an **absolute reference**, then use the fill handle to fill the formula from cells **D4** to **D14**.

4. Try referencing a cell across **worksheets**. If you are using the example, create a cell reference in cell **B3** on the **Catering Invoice** worksheet for cell **E15** on the **Menu Order** worksheet.

Q14. a) What tools are available to customize our PowerPoint presentation?

Q14 b) Write the steps for the following action for creation of power point presentation

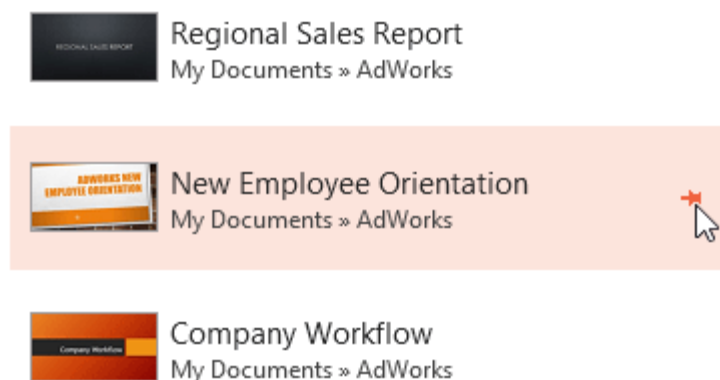
- ☐ Open a Blank presentation

To pin a presentation:

If you frequently work with the **same presentation**, you can **pin** it to Backstage view for easy access.

1. Select the **File** tab to go to **Backstage view**. Click **Open**. Your **Recent Presentations** will appear.
2. Hover the mouse over the **presentation** you want to pin. A **pushpin icon** ✂ will appear next to the presentation. Click the **pushpin icon**.

Recent Presentations



3. The presentation will stay in Recent Presentations. To **unpin** a presentation, simply click the pushpin icon again.

Recent Presentations



New Employee Orientation
My Documents » AdWorks



Regional Sales Report
My Documents » AdWorks



Company Workflow
My Documents » AdWorks

You can also **pin folders** to Backstage view for easy access.
From Backstage view, click **Open**, locate the **folder** you want to pin, then click the **pushpin icon**.

Open



Recent Presentations



Javier Flores's OneDrive



Computer



Add a Place



Computer

Recent Folders



AdWorks
My Documents » AdWorks



My Documents



Desktop



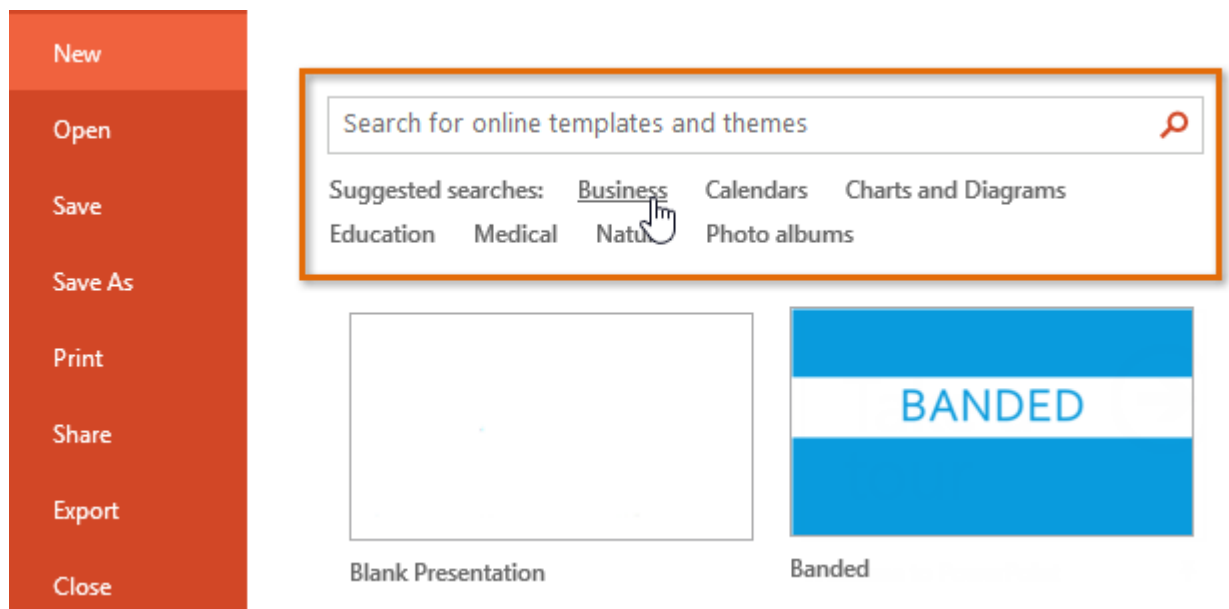
Browse

Using templates

A **template** is a **predesigned presentation** you can use to create a new slide show quickly. Templates often include **custom formatting** and **designs**, so they can save you a lot of time and effort when starting a new project.

To create a new presentation from a template:

1. Click the **File** tab to access **Backstage view**.
2. Select **New**. You can click a suggested search to find templates or use the **search bar** to find something more specific. In our example, we'll search for **Business** presentations.



3. Select a **template** to review it.



Business strategy presentation



Business strategy prese...



Business cards, vertica...



Business plan presentat...

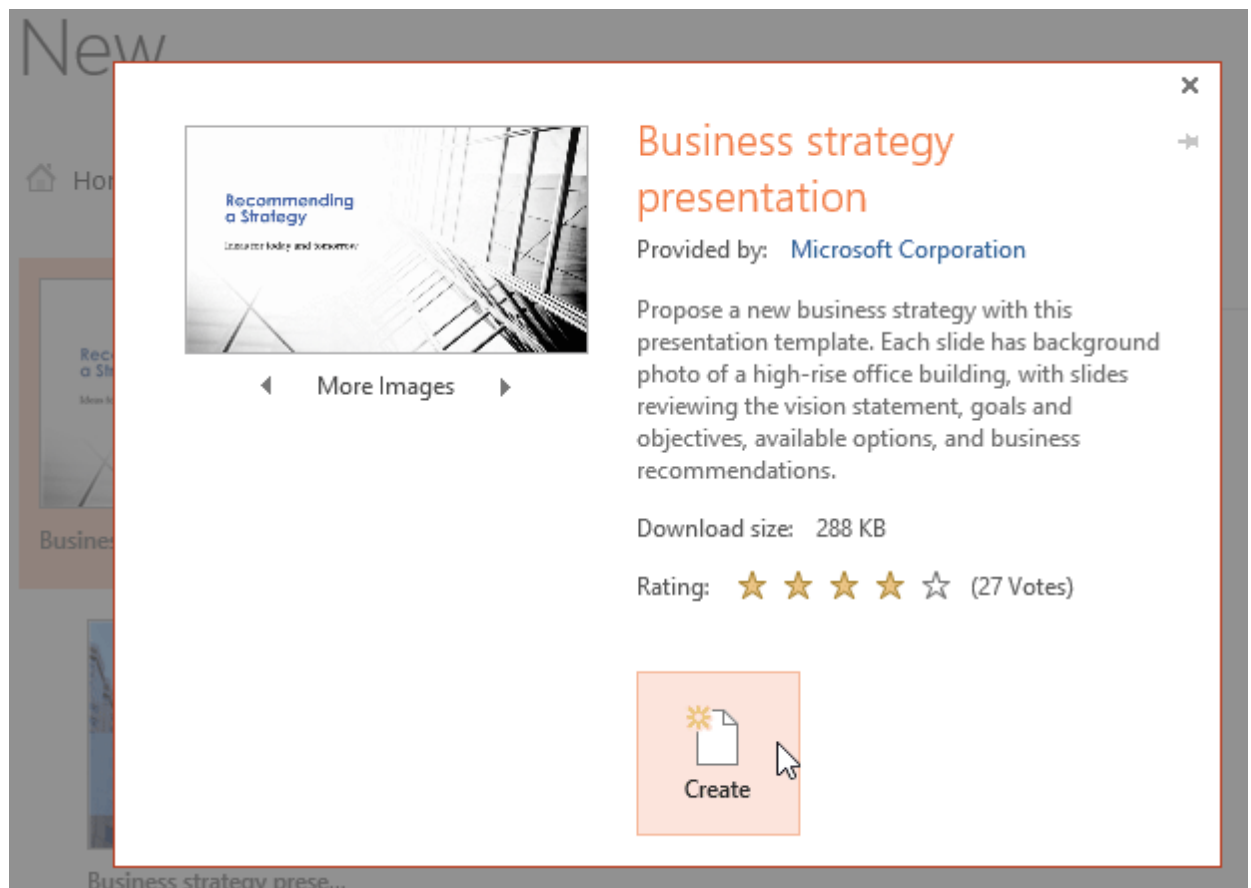


Business contrast presentation (...)



Business plan presentat...

4. A **preview** of the template will appear, along with **additional information** on how the template can be used.
5. Click **Create** to use the selected template.



6. A new presentation will appear with the **selected template**.

It's important to note that not all templates are created by Microsoft. Many are created by third-party providers and even individual users, so some templates may work better than others.

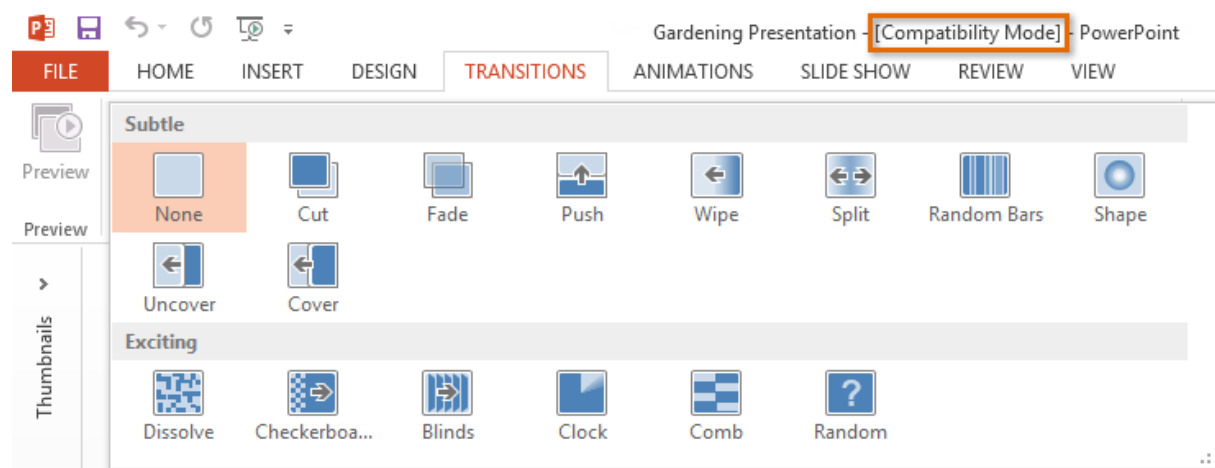
Compatibility mode

Sometimes you may need to work with presentations that were created in earlier versions of PowerPoint, such as PowerPoint 2003 or PowerPoint 2000. When you open these types of presentations, they will appear in **Compatibility mode**.

Compatibility mode **disables** certain features, so you'll only be able to access commands found in the program that was used

to create the presentation. For example, if you open a presentation created in PowerPoint 2003, you can only use tabs and commands found in PowerPoint 2003.

In the image below, you can see that the presentation is in Compatibility mode. This will disable some PowerPoint 2013 features, such as newer types of slide transitions.



To exit Compatibility mode, you'll need to **convert** the presentation to the current version type. However, if you're collaborating with others who only have access to an earlier version of PowerPoint, it's best to leave the presentation in Compatibility mode so the format will not change.

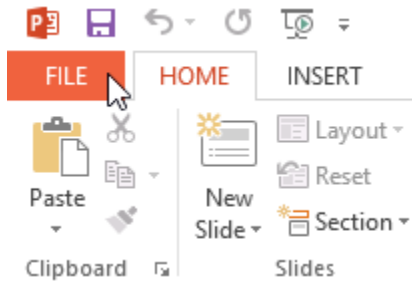
You can review this [support page](#) from Microsoft to learn more about which features are disabled in Compatibility mode.

To convert a presentation:

If you want access to all PowerPoint 2013 features, you can **convert** the presentation to the 2013 file format.

Note that converting a file may cause some changes to the **original layout** of the presentation.

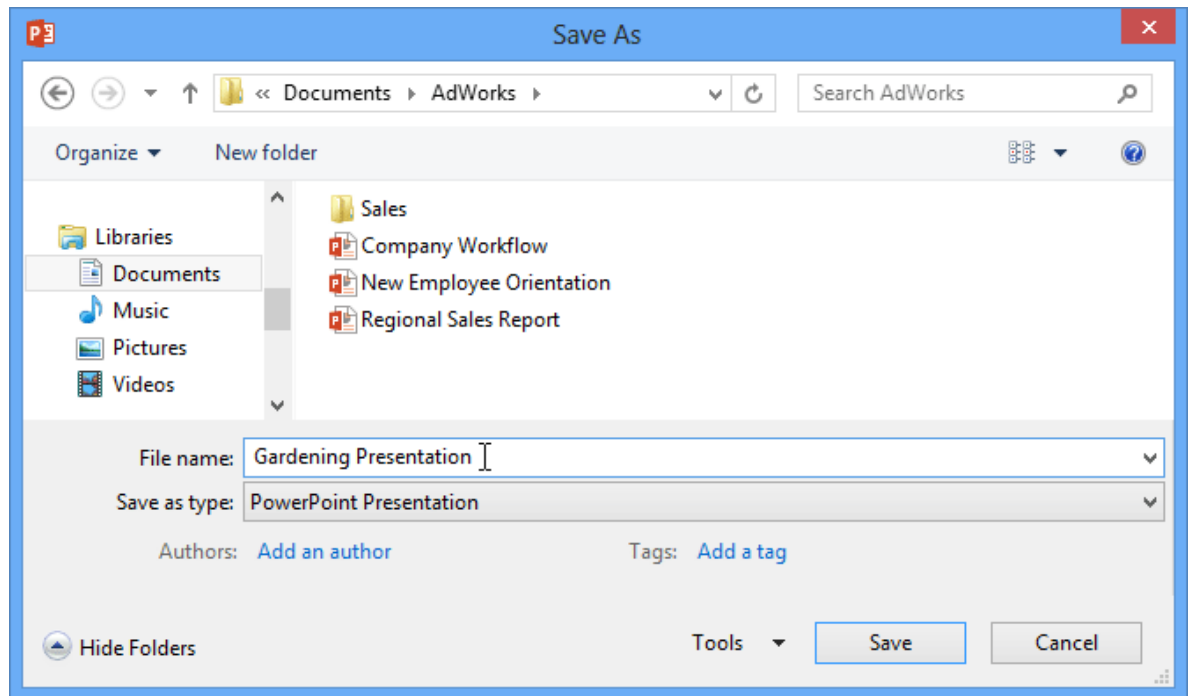
1. Click the **File** tab to access Backstage view.



2. Locate and select the **Convert** command.



3. The **Save As** dialog box will appear. Select the **location** where you want to save the presentation, enter a **file name**, and click **Save**.



4. The presentation will be converted to the newest file type.

Challenge!

1. Create a **new blank presentation**.
2. Open an **existing presentation** from your computer or OneDrive.
3. **Pin** a folder to Backstage view.
4. Create a new presentation using a **template**.

1. Open a **Blank presentation**
2. Save the presentation as **PowerPointLabOne.pptx**
3. Add a **Title** to the first slide: **the name of your college**
4. Type your first name and last name in the **Subtitle** section
5. Add a **New Slide** which has a **Title and Content**
6. Add a title to the second slide "**My Future Goals**"
7. In the Content section of the second slide, add at least three Personal Goals
8. Right click on the second slide from the left panel, then choose **Duplicate Slide**
9. Highlight the text in the Content area of the third slide. Under the Home tab, click **Convert to SmartArt**, then choose **Basic Cycle**
10. Change the SmartArt Colors to **Colorful—Accent Colors**
11. Change the SmartArt Styles to **3D Polished**

12. From the left panel, **drag** the third slide between the first and second slide
13. Change the **layout** of the third slide, the slide that does not have the SmartArt, to **Comparison**
14. Leave the title “**My Future Goals**”
15. In the head of the first column, type “**Goals in College,**” then center the heading
16. In the head of the second column, type “**Goals after College,**” then center the heading
17. Add at least **three goals** in each section
18. Make sure that **slide #3** is selected from the left panel, then add a **New Slide**
19. Change the layout of the new slide to **Blank**
20. Insert a Graduation **Online Picture** from the **Office ClipArt**—Choose any image of your choice
21. Change the ClipArt **size to 3” X 3”** and position it in the middle of the slide
22. Apply the **Wisp Design Theme**
23. Save and upload **PowerPointLabOne.pptx** to your instructor

LICENSES AND ATTRIBUTIONS

[PreviousNext](#)

TITLE Subtitle First name Last name Institutional affiliation (in original language) English), Country (in English) Abstract A short abstract (summary) of your contribution is inserted here. Please limit this to 300 words. Do not use references, footnotes or images in this section. It should be as concise as possible. It should be complete, self paper itself. The abstract should be informative, giving the scope and emphasizing the main conclusions, results, or significance of the work described. Use verdana, 10, italic to write this part of the text. Keywords: Maximum 5. Use Subheading (if necessary) Full papers will be published in conference proceeding Only papers formatted according to the guidelines indicated in this document can be accepted for publication. The other condition for paper is registered for the conference. Additionally, a signed "copyright license agreement" form must be sent at the same time of the paper submission. Paper guidelines Please change 'language' in the 'tools' The average length of a paper Please set all notes at the end of page, in Arabic numbers sequentially throughout the article with a superscript numeral corresponding to the list of notes placed at the end. Footnotes should A maximum of 5 images can be included in the text. 1 Please don't use footnotes to bibliographic references. Institutional affiliation (in original language) / Institutional affiliation (in English) A short abstract (summary) of your contribution is inserted here. Please limit this to 300 words. Do not use references, footnotes or images in this section. It should be as concise as possible. It should be complete, self-explanatory and should not requir

paper itself. The abstract should be informative, giving the scope and emphasizing the main conclusions, results, or significance of the work described. Use verdana, 10, italic to write Maximum 5. Use arial 10 to write this part of the text. Full papers will be published in conference proceedings. Only papers formatted according to the guidelines indicated in this document can be n. The other condition for publication is that at least one author of the paper is registered for the conference. Additionally, a signed "copyright license agreement" form must be sent at the same time of Please change 'language' in the 'tools' menu to UK English. The average length of a paper should be 2500 words plus footnotes. Please set all notes at the end of page, in Arabic numbers¹ . Notes should be numbered sequentially throughout the article with a superscript numeral corresponding to the list of notes placed at the end. Footnotes should not be used for citations. A maximum of 5 images can be included in the text. Please don't use footnotes to bibliographic references. The Site of Discourse. Conference Proceedings. 1 ional affiliation (in English), City (in A short abstract (summary) of your contribution is inserted here. Please limit this to 300 words. Do not use references, footnotes or images in this section. It should be as concise as explanatory and should not require reference to the paper itself. The abstract should be informative, giving the scope and emphasizing the main conclusions, results, or significance of the work described. Use verdana, 10, italic to write Only papers formatted according to the guidelines indicated in this document can be publication is

that at least one author of the Additionally, a signed “copyright license agreement” form must be sent at the same time of . Notes should be numbered sequentially throughout the article with a superscript numeral corresponding to the list of Author’s name, Paper Title Figure 1. Each image should have a Figure Number in 10pt bold, i.e. Figure 1. Insert Title of image, brief d (source of image following given citation style should be complete enough to allow understanding of the image without referring to th images should be 10cm or less for consistency. Width of image shall be less than or equal to the width of the body text. For captions use Verdana, 10pt, single line spacing, centre aligned, justified and indented 2.5cm o two returns after caption. Note: do not insert author/s names in captions. For example, if you are citing a work of art you created, attribute the work to ‘the author’ Expenses with images copyrights cannot be addressed to publication will be credit to authors. The final text should be sent in a presented in this document. drawn up for publication. Quotations shorter than three lines should be embedded in the text, e.g. according to Lawrence J. Vale (2008: 63), text, using italic.’ In quotations the punctuations, capitalis Each image should have a Figure Number in 10pt bold, i.e. Figure 1. Insert Title of image, brief description. source of image following given citation style). Captions should be complete enough to allow understanding of the image without referring to the text. Centre image. Height of all images should be 10cm or less for consistency. Width of image shall be less than or equal to the width of the body text. For captions use Verdana, 10pt,

single line spacing, centre aligned, justified and indented 2.5cm on left and right margins. Insert two returns after caption. Note: do not insert author/s names in captions. For example, if you are citing a work of art you created, attribute the work to 'the author' Expenses with images copyrights cannot be addressed to editors. Full responsibility for their publication will be credit to authors. The final text should be sent in a Word document, formatted according to the guidelines presented in this document. Pdf documents cannot be accepted, as they cannot be Quotations shorter than three lines should be embedded in the text, e.g. according to Lawrence J. Vale (2008: 63), 'Quotations shorter than three lines should be embedded in the

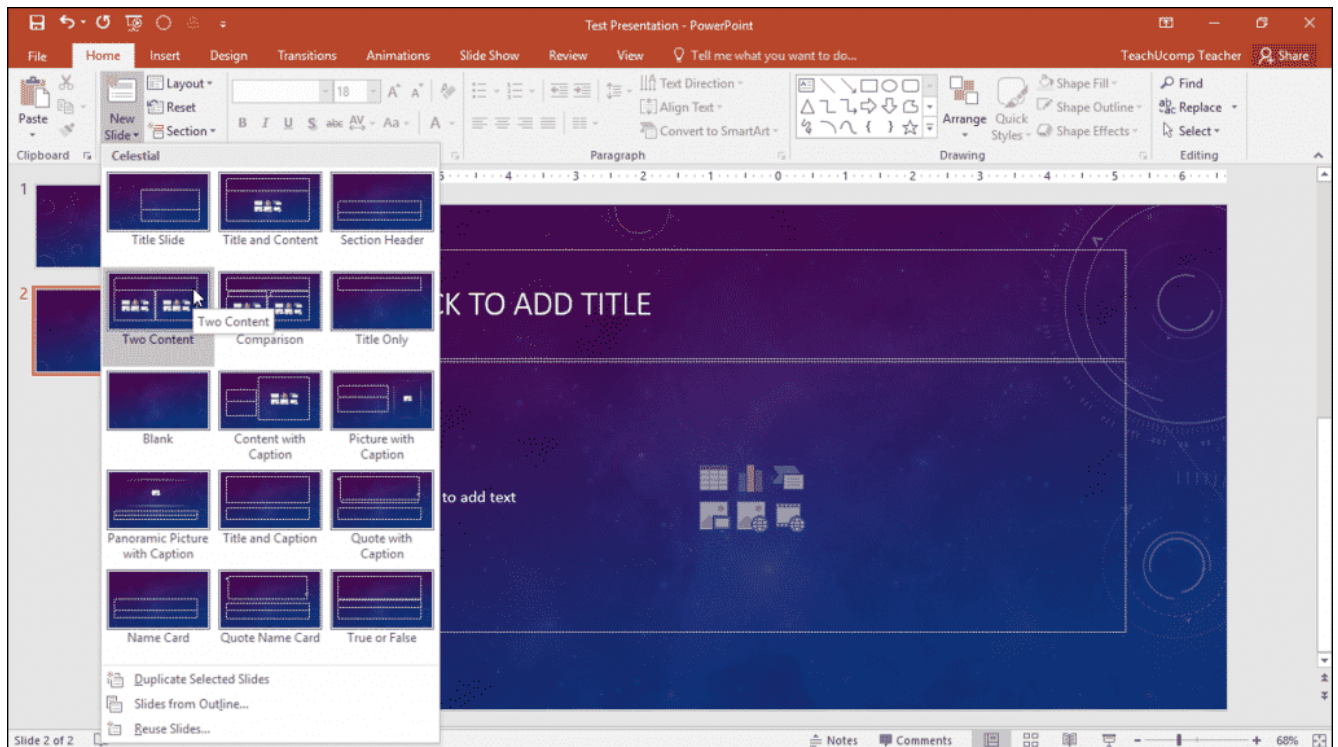
Insert a New Slide in PowerPoint: Overview

In this tutorial, you will learn how to insert a new slide in PowerPoint. When you create a new presentation, PowerPoint gives you one default slide that contains a "Title Slide" layout. You can click into the placeholders shown in the title slide. Then type the text you want to appear as the title and subtitle of your presentation.

To add another presentation slide, you must then insert a new slide and determine which placeholders appear in it. The slide layout you apply determines which placeholders appear within the new slide. However, you can also change the slide layout to change the placeholders after it is applied.

To insert a new slide in PowerPoint with a "Title and Content" slide layout, click the "Home" tab in the Ribbon. Then click the "New Slide" button in the "Slides" button group.

To insert a new slide in PowerPoint with a different slide layout, click the drop-down part of this button. Doing this then shows a drop-down menu that displays the different slide layouts you can apply. You can click one of these slide layouts in the drop-down menu to create a new slide with that layout.



Insert a New Slide in PowerPoint- Instructions: A picture of a user inserting a new slide into a presentation in PowerPoint.

Insert a New Slide in PowerPoint: Instructions

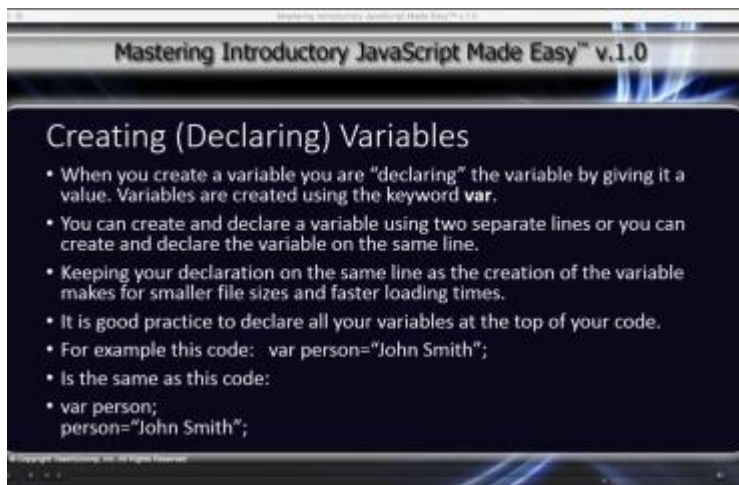
1. To insert a new slide that contains a “Title and Content” slide layout, click the “Home” tab in the Ribbon.
2. Then click the “New Slide” button in the “Slides” button group.
3. To insert a new slide and choose the slide layout, click the drop-down part of this button.
4. Doing this then shows a drop-down menu that displays the different slide layouts you can apply.
5. Then click one of the slide layouts in the drop-down menu to create a new slide with that layout.

Insert a New Slide in PowerPoint: Video Lesson

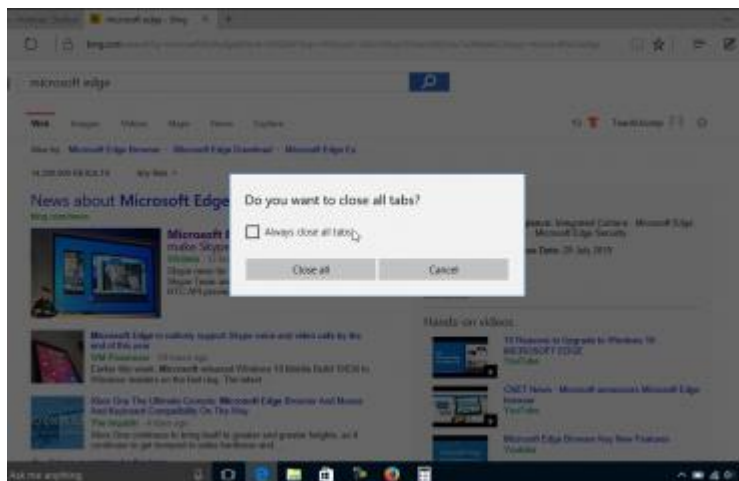
The following video lesson, titled “Inserting New Slides,” shows how to insert a new slide in PowerPoint. This video lesson on how to insert a new slide in PowerPoint is from our complete PowerPoint tutorial, titled “Mastering PowerPoint Made Easy v.2016-2013.”

TAGGED UNDER: ADD, HELP, HOW-TO, INSERT, INSERT A NEW SLIDE IN POWERPOINT, INSTRUCTIONS, LEARN, LESSON, MICROSOFT, NEW, OVERVIEW, POWERPOINT, POWERPOINT 2013, POWERPOINT 2016, PRESENTATION, PRESENTATIONS, SLIDE, SLIDE LAYOUT,

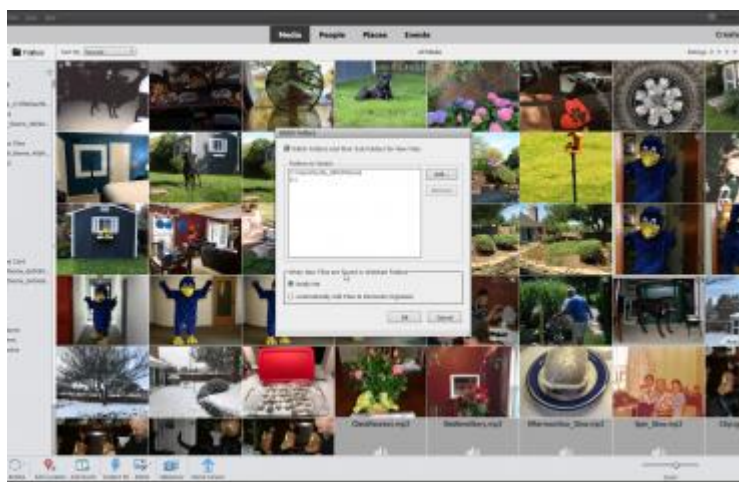
WHAT YOU CAN READ NEXT



JAVASCRIPT VARIABLES- TUTORIAL



VIEW A WEB PAGE IN MICROSOFT EDGE – TUTORIAL

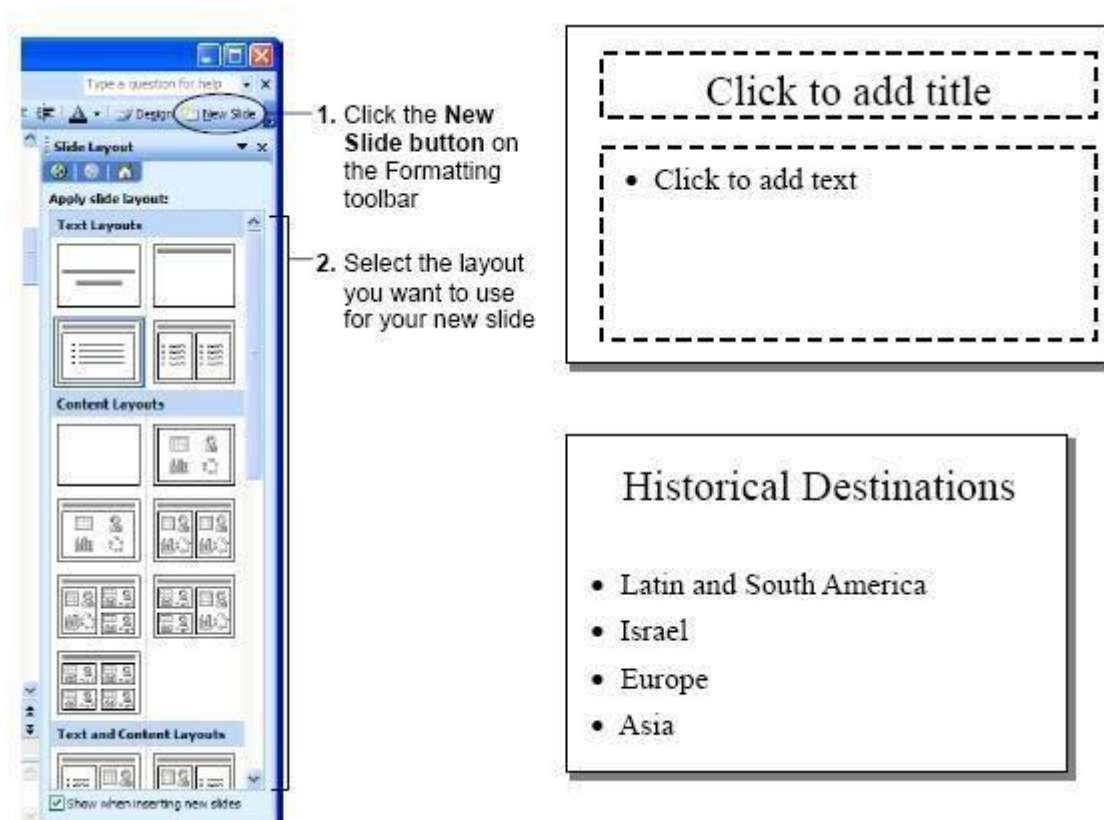


Q15. Write steps for creation of a set of PowerPoint slides that demonstrates your skill to use

Ans.

the tools of PowerPoint. It should include the following things

Creating a simple bulleted list slide



This lesson will walk you through adding a simple bulleted list slide to an existing presentation.

1. Start Microsoft PowerPoint.
2. Open arbitrary existing PowerPoint presentation.
3. Click the New Slide button on the Formatting toolbar.

The Slide Layout task pane appears as shown in the above figure. The Slide Layout task pane lets you select from numerous layouts that determine what you want to appear on the new slide. We want to add a Bulleted List Slide.

4. Click the Bulleted List layout, as shown in the above figure.

A new slide appears after the current slide in your presentation as shown in the figure.

Notice there are two placeholders on this slide: one for the title of the slide and the other for the bulleted list. To add text to a placeholder, all you have to do is click and type.

5. Click the title placeholder (where it says: "Click to Add Title").

An insertion point (I) appears in the placeholder, indicating that you can add text to the placeholder.

6. Type some text.

Now let's add some text to the bulleted list placeholder.

7. Click the bulleted list placeholder and type something and press <Enter>.

PowerPoint adds another bullet to the list when you press the <Enter> key.

8. Repeat the following three times: Type some text and press <Enter>

9. Click the Slide Layout pane's Close button.

If you are not planning to use the Slide Layout Pane again for a while, it is usually a good idea to close it so you can have extra viewing space for your presentation.

Insert or delete a worksheet

In this course:

- Create a new workbook

Article

- Insert or delete a worksheet

Article

- Move or copy worksheets or worksheet data

Article

- Print a worksheet or workbook

Article

- Use Excel as your calculator

Article

- Fill data automatically in worksheet cells
Article