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 . The 5 different parts of a computer—taking a look under the hood

By: iD Tech | Jun 11, 2019 3:11 PM

What is a computer?

A computer is any machine that can be programmed to carry out a set of algorithms and arithmetic instructions.

Of course, the computers we think of today are so much more than that—and I'm talking beyond just being machines used to play games and watch videos of cats on the internet!

5 parts of a computer

Whether it's a gaming system or a home PC, the five main components that make up a typical, present-day computer include:

- A motherboard
- A Central Processing Unit (CPU)
- A Graphics Processing Unit (GPU), also known as a video card
- Random Access Memory (RAM), also known as volatile memory
- Storage: Solid State Drive (SSD) or Hard Disk Drive (HDD)

In terms of construction, each of these main components are attached to the motherboard and then put into a protective case—resembling the clean, polished look most of us are accustomed to seeing.

Sure, most computers have their own distinct design - and different brands of hardware installed - but the components listed above are standard across all computers.

Important: A quick note before we dive into the details—I'm listing and talking about the different components of a computer. This is by no means intended to be an invitation to disassemble your computer, nor is it a set of instructions to do so. Without the proper knowledge, you can severely damage your computer, and importantly, doing so is unsafe.

1. The motherboard

What it is: All components of a computer communicate through a circuit board called the motherboard, as was mentioned above.

What it does: Think of the motherboard as the glue that holds everything else together.

(The Raspberry Pi, like the one featured in our summer course for kids, Build and Code Your Own Take-Home Laptop, is a motherboard.)

The motherboard's video card and Central Processing Unit are contained in an integrated (built-in) chipset, shown in the picture below:

This is where input/output devices such as a keyboard, mouse, and speakers get plugged in.

2. The Central Processing Unit (CPU)

What it is: The CPU is often called the "brain" of a computer, thanks to its direct plug connection to the motherboard, and communication with all of the computer's other components.

What it does: Whenever you write a line of code (in Python, Java, C++, or any other programming language), it's broken down into assembly language—which is a language that the processor can understand. It fetches, decodes, and executes these instructions.

And that's where the CPU comes in—all the processes a computer handles are taken care of by the CPU.

3. The Graphics Processing Unit (GPU)

What it is: It's not uncommon to hear gamers obsess over the next new graphics card, as these graphic cards make it possible for computers to generate high-end visuals like those found in the many different types of video games.

In addition to video games, though, good graphics cards also come in handy for those who rely on images in order to execute their craft, like 3D modelers using resource-intensive software.

What it does: Graphics cards often communicate directly with the display monitor, meaning a $1,000 graphics card won't be of much use if there isn't a high-end monitor connected to it.

4. Random Access Memory (RAM)

What it is: RAM, also known as volatile memory, stores data regarding frequently accessed programs and processes. (It's called volatile memory because it gets erased every time the computer restarts.)

What it does: RAM helps programs and games start up and close quickly.

5. Storage

What it is: All computers need somewhere to store their data. Modern computers either use a Hard Disk Drive (HDD) or Solid State Drive (SSD).

What it does: HDDs are made of an actual disk onto which data is stored. The disk is read by a mechanical arm. (HDDs are cheaper than SSDs, but are slowly becoming more and more obsolete.)

SSDs (think SIM cards) have no moving parts and are faster than a hard drive, because no time is spent waiting for a mechanical arm to find data on a physical location on the disk.

Fun, right?

Some enjoy computers from the frontend, spending time on YouTube, shopping on eBay, and playing video games (and experiencing the benefits of doing so.).

But for others, it's the "how" that proves to be more intriguing! Taking computers apart and putting them back together, adding new hardware, troubleshooting hardware assembly, and booting them up (and crossing their fingers!) is all part of such intrigue.

Does the latter sound like your child?

Our "build your own laptop" courses offer introductions to hardware, engineering, and coding, offering students the opportunity to assemble laptops, code with Python to create games, and use the Linux OS. All of this also improves soft skills like project-planning and hands-on coordination!

To learn more, visit the links below:

Raspberry Pi Summer Camp (build a laptop computer; ages 10-12)
Python Coding Summer Camp (for Machine Learning; ages 13-17)

Outside of summer, kids can still get hands-on with coding and micro:bit in online private lessons (micro:bit Included), working with JavaScript or visual coding to turn on lights and power different components.

Check out our many different online coding courses for kids and teens.

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

Ans . **Classification of Computer Based on Size and Capability**

Introduction

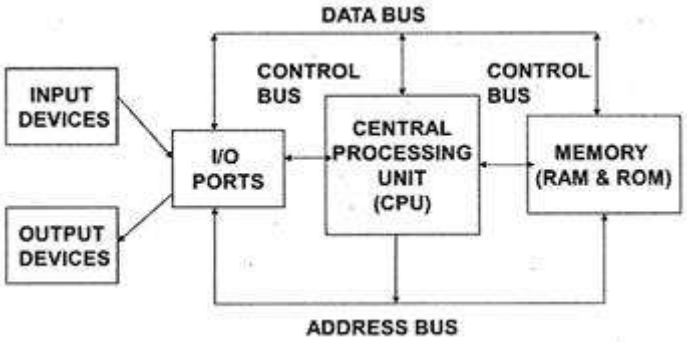
Classification of computers are based on their architecture, speed of executing commands or instructions, peripheral used and also their uses. Microcomputers are usually used in home and offices and only a single user can perform the task using a microcomputer. Its storage and data handling capacity 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

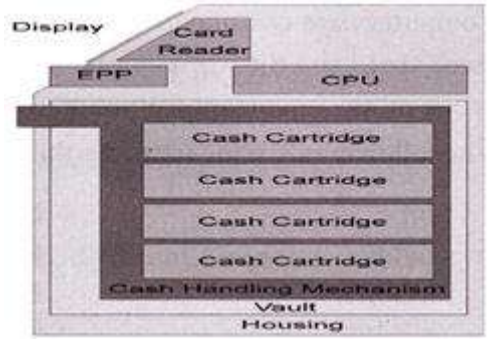
memory size, minicomputer was used in variety of applications and could support business applications along with the scientific applications. Minicomputer was a multi-user system which means more than one user could use this system simultaneously.

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

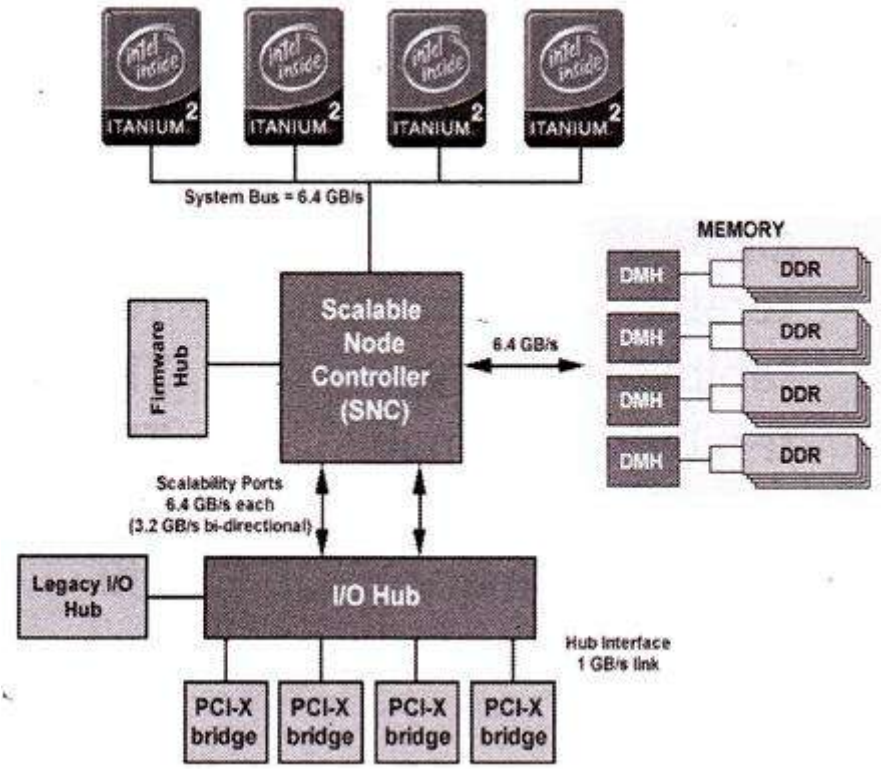
Mainframe Computers

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

Q3: What is the meaning of computer generation? How many Computer Generations aredefined? What technologies were/are used?

Ans . 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.

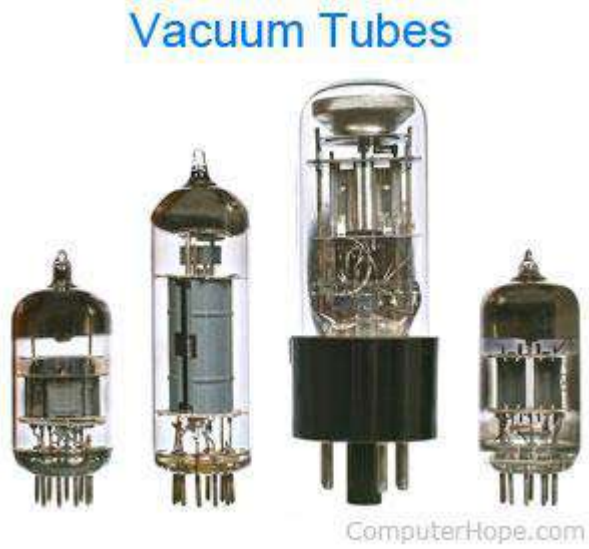
How many generations of computers are there?

Updated: 08/31/2020 by Computer Hope

Computer generations are based on when major technological changes in computers occurred, like the use of vacuum tubes, transistors, and the microprocessor. As of 2020, there are five generations of the computer.

Review each of the generations below for more information and examples of computers and technology that fall into each generation.

First generation (1940 - 1956)



The first generation of computers used vacuum tubes as a major piece of technology. Vacuum tubes were widely used in computers

from 1940 through 1956. Vacuum tubes were larger components and resulted in first generation computers being quite large in size, taking up a lot of space in a room. Some of the first generation computers took up an entire room.

The ENIAC is a great example of a first generation computer. It consisted of nearly 20,000 vacuum tubes, 10,000 capacitors, and 70,000 resistors. It weighed over 30 tons and took up a lot of space, requiring a large room to house it. Other examples of first generation computers include the EDSAC, IBM 701, and Manchester Mark 1.

Second generation (1956 - 1963)

The second generation of computers saw the use of transistors instead of vacuum tubes. Transistors were widely used in computers from 1956 to 1963. Transistors were smaller than vacuum tubes and allowed computers to be smaller in size, faster in speed, and cheaper to build.

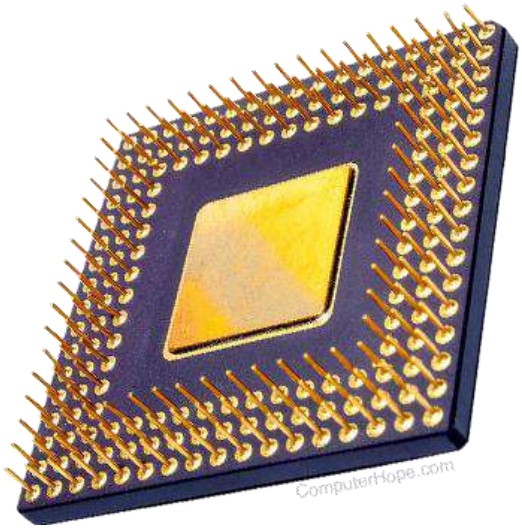
The first computer to use transistors was the TX-0 and was introduced in 1956. Other computers that used transistors include the IBM 7070, Philco Transac S-1000, and RCA 501.

Third generation (1964 - 1971)

The third generation of computers introduced the use of IC (integrated circuits) in computers. Using IC's in computers helped reduce the size of computers even more compared to second-generation computers, and make them faster.

Nearly all computers since the mid to late 1960s have utilized IC's. While the third generation is considered by many people to have spanned from 1964 to 1971, IC's are still used in computers today. Over 45 years later, today's computers have deep roots going back to the third generation.

Fourth generation (1972 - 2010)



The fourth generation of computers took advantage of the invention of the microprocessor, more commonly known as a CPU. Microprocessors, with integrated circuits, helped make it possible for computers to fit easily on a desk and for the introduction of the laptop.

Some of the earliest computers to use a microprocessor include the Altair 8800, IBM 5100, and Micral. Today's computers still use a microprocessor, despite the fourth generation being considered to have ended in 2010.

Fifth generation (2010 to present)

The fifth generation of computers is beginning to use AI (artificial intelligence), an exciting technology with many potential applications around the world. Leaps have been made in AI technology and

computers, but there is still room for much improvement.

One of the more well-known examples of AI in computers is IBM's Watson, which was featured on the TV show Jeopardy as a contestant. Other better-known examples include Apple's Siri on the iPhone and Microsoft's Cortana on Windows 8 and Windows 10 computers. The Google search engine also utilizes AI to process user searches.

Q4: Differentiate between Volatile & Non- Volatile memories.

Ans . # Difference 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 permanent.	Non-volatile memory data is permanent.

Sr. No.	Key	Volatile Memory	Non-Volatile Memory
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 . **Main Difference**

Volatile Memory refers to the temporary memory in the computer that only contains data until power is supplied, once the system is turned off the data present in the memory is lost. RAM (Random Access Memory) of the computer system is the common type of volatile memory as it only stores data of the current ongoing processes in it and as the system is turned off the data in the RAM vanishes. Non-Volatile Memory is the type of computer memory that stores the data permanently even after the power is off. Secondary storage or ROM is the kind of Non-volatile memory as the data stored in them is saved even after the system is turned off. Common examples of the Non-volatile memory includes hard discs, flash memory, optical disc, etc.

Comparison Table

	Volatile Memory	**Non-Volatile Memory**
Definition	Volatile Memory is the type of computer memory that is temporary in nature. It stores the data inside it only until the power is supplied.	Non-Volatile Memory is the t permanent in nature. The da there even after the system i
Data Stored	Volatile memory store data of the programs that are currently in process by the CPU. Frequently used data and information about the process is stored in Volatile memory.	Non-volatile memory store d computer system BIOS. All ki permanently or for the longe
Effects	Volatile Memory has effects on the system's performance. The more storage space on the volatile memory such as RAM and cache, the more efficient will be the performance of the system.	Non-Volatile Memory has eff storage space, the more amo system and can be stored pe
Speed	Volatile memories are the fastest memories in nature. They contain frequently used data inside them and data is accessed from them quickest	Non- Volatiles memories whe volatile memories. The data a

	than all.	as compared to volatile mem
Example	Common Examples of volatile memory includes the RAM of the computer, Cache, etc.	Common Examples of the No Secondary Storage, Hard disc flash memory, etc.

What is Volatile Memory?

Volatile Memory is the kind of computer memory that stores data temporarily. It is also referred as temporary memory. The data in the volatile memory is stored only until the power is supplied to the system, once the system is turned off the data present inside the volatile memory is deleted automatically. RAM and cache of the computer system are the best common example of the volatile memory. Volatile memory due to its temporary nature its stores only the frequently used data. The data of the programs running on the processor is stored in volatile memory. It is quite fast and efficient in nature and can be accessed rapidly. Volatile memory is directly linked to the performance of the computer system. The more amount of volatile memory the more effective performance the computer system will possess. Common examples of the volatile memory include RAM, Cache, etc.

What is Non-volatile Memory?

Non-volatile Memory is the kind of computer memory that stores the data permanently. The data stored in the non-volatile memory remains there even after the system is turned off. ROM of the computer is the non-volatile memory. It is not that much efficient and fast in nature as compare to volatile memory but stores data for the longer period. Non-volatile memory possesses the basic system information inside it such as the boot process information, system starting up information and BIOS. Non-volatile memory is slow regarding accessing. All such data that needs to be stored permanently or for a longer period is stored in non-volatile memory. Non-volatile memory has a direct impact on the system's storage capability. The more non-volatile memory, the more permanent storage space will be there. Common examples of non-volatile memory include a hard drive, optical discs, flash memory, etc.

Volatile Memory vs. Non-Volatile Memory

- Volatile Memory is the temporary memory of the computer system.
- Non-volatile Memory is the permanent memory of the computer system.
- Data of programs in the process and frequently used data is stored in volatile memory.
- System’s information, BIOS and all the other kind of data is stored in non-volatile memory.
- Volatile memory is fast and efficient in nature.
- Non-volatile memory is slow and permanent in nature.

What is open source?

The term open source refers to something people can modify and share because its design is publicly accessible.

The term originated in the context of software development to designate a specific approach to creating computer programs. Today, however, "open source" designates a broader set of values—what we call "the open source way." Open source projects, products, or initiatives embrace and celebrate principles of open exchange, collaborative participation, rapid prototyping, transparency, meritocracy, and community-oriented development.

What is open source software?

Open source software is software with source code that anyone can inspect, modify, and enhance.

"Source code" is the part of software that most computer users don't ever see; it's the code computer programmers can manipulate to change how a piece of software—a "program" or "application"—works. Programmers who have access to a computer program's source code can improve that

program by adding features to it or fixing parts that don't always work correctly.

What's the difference between open source software and other types of software?

Some software has source code that only the person, team, or organization who created it—and maintains exclusive control over it—can modify. People call this kind of software "proprietary" or "closed source" software.

Only the original authors of proprietary software can legally copy, inspect, and alter that software. And in order to use proprietary software, computer users must agree (usually by signing a license displayed the first time they run this software) that they will not do anything with the software that the software's authors have not expressly permitted. Microsoft Office and Adobe Photoshop are examples of proprietary software.

Open source software is different. Its authors make its source code available to others who would like to view that code, copy it, learn from it, alter it, or share it. LibreOffice and the GNU Image Manipulation Program are examples of open source software.

As they do with proprietary software, users must accept the terms of a license when they use open source software—but the legal terms of open source licenses differ dramatically from those of proprietary licenses.

Open source licenses affect the way people can use, study, modify, and distribute software. In general, open source licenses grant computer users permission to use open source software for any purpose they wish. Some open source licenses—what some people call "copyleft" licenses—stipulate that anyone who releases a modified open source program must also release the source code for that program alongside it. Moreover, some open source licenses stipulate that anyone who alters and shares a program with others must also share that program's source code without charging a licensing fee for it.

By design, open source software licenses promote collaboration and sharing because they permit other people to make modifications to source code and incorporate those changes into their own projects. They encourage computer programmers to access, view, and modify open source software whenever they like, as long as they let others do the same when they share their work.

Is open source software only important to computer programmers?

No. Open source technology and open source thinking both benefit programmers and non-programmers.

Because early inventors built much of the Internet itself on open source technologies—like the Linux operating system and the Apache Web server application—anyone using the Internet today benefits from open source software.

Every time computer users view web pages, check email, chat with friends, stream music online, or play multiplayer video games, their computers, mobile phones, or gaming consoles connect to a global network of computers using open source software to route and transmit their data to the "local" devices they have in front of them. The computers that do all this important work are typically located in faraway places that users don't actually see or can't physically access—which is why some people call these computers "remote computers."

More and more, people rely on remote computers when performing tasks they might otherwise perform on their local devices. For example, they may use online word processing, email management, and image editing software that they don't install and run on their personal computers. Instead, they simply access these programs on remote computers by using a Web browser or mobile phone application. When they do this, they're engaged in "remote computing."

Some people call remote computing "cloud computing," because it involves activities (like storing files, sharing photos, or watching videos) that incorporate not only local devices but also a global network of remote computers that form an "atmosphere" around them.

Cloud computing is an increasingly important aspect of everyday life with Internet-connected devices. Some cloud computing applications, like Google Apps, are proprietary. Others, like ownCloud and Nextcloud, are open source.

Cloud computing applications run "on top" of additional software that helps them operate smoothly and efficiently, so people will often say that software running "underneath" cloud computing applications acts as a "platform" for those applications. Cloud computing platforms can be open

source or closed source. OpenStack is an example of an open source cloud computing platform.

Why do people prefer using open source software?

People prefer open source software to proprietary software for a number of reasons, including:

Control. Many people prefer open source software because they have more control over that kind of software. They can examine the code to make sure it's not doing anything they don't want it to do, and they can change parts of it they don't like. Users who aren't programmers also benefit from open source software, because they can use this software for any purpose they wish—not merely the way someone else thinks they should.

Training. Other people like open source software because it helps them become better programmers. Because open source code is publicly accessible, students can easily study it as they learn to make better software. Students can also share their work with others, inviting comment and critique, as they develop their skills. When people discover mistakes in programs' source code, they can share those mistakes with others to help them avoid making those same mistakes themselves.

Security. Some people prefer open source software because they consider it more secure and stable than proprietary software. Because anyone can view and modify open source software, someone might spot and correct errors or omissions that a program's original authors might have missed. And because so many programmers can work on a piece of open source software without asking for permission from original authors, they can fix, update, and upgrade open source software more quickly than they can proprietary software.

Stability. Many users prefer open source software to proprietary software for important, long-term projects. Because programmers publicly distribute the source code for open source software, users relying on that software for critical tasks can be sure their tools won't disappear or fall into disrepair if their original creators stop working on them. Additionally, open source software tends to both incorporate and operate according to open standards.

Community. Open source software often inspires a community of users and developers to form around it. That's not unique to open source; many popular applications are the subject of meetups and user groups. But in the case of open source, the community isn't just a fanbase that buys in (emotionally or financially) to an elite user group; it's the people who produce, test, use, promote, and ultimately affect the software they love.

Doesn't "open source" just mean something is free of charge?

No. This is a common misconception about what "open source" implies, and the concept's implications are not only economic.

Open source software programmers can charge money for the open source software they create or to which they contribute. But in some cases, because an open source license might require them to release their source code when they sell software to others, some programmers find that charging users money for *software services and support* (rather than for the software itself) is more lucrative. This way, their software remains free of charge, and they make money helping others install, use, and troubleshoot it.

While some open source software may be free of charge, skill in programming and troubleshooting open source software can be quite valuable. Many employers specifically seek to hire programmers with experience working on open source software.

What is open source "beyond software"?

At Opensource.com, we like to say that we're interested in the ways open source values and principles apply to the world *beyond software*. We like to think of open source as not only a way to develop and license computer software, but also an *attitude*.

Approaching all aspects of life "the open source way" means expressing a willingness to share, collaborating with others in ways that are transparent (so that others can watch and join too), embracing failure as a means of improving, and expecting—even encouraging—everyone else to do the same.

It also means committing to playing an active role in improving the world, which is possible only when everyone has access to the way that world is designed.

The world is full of "source code"—blueprints, recipes, rules—that guide and shape the way we think and act in it. We believe this underlying code (whatever its form) should be open, accessible, and shared—so many people can have a hand in altering it for the better.

Here, we tell stories about the impact of open source values on all areas of life—science, education, government, manufacturing, health, law, and organizational dynamics. We're a community committed to telling others how the open source way is the *best* way, because a love of open source is just like anything else: it's better when it's shared.

Where can I learn more about open source?

We've compiled several resources designed to help you learn more about open source. We recommend you read our open source FAQs, how-to guides, and tutorials to get started.

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

Q6 b) Write steps regarding followings

To change the font style

To change the font size

To change the font color

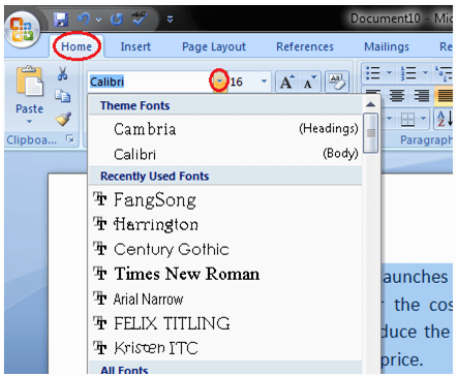
To highlight (in yellow) the line that reads “need to get IMS’s address”..

Ans. A # How to Change Font Style in MS Word

The basic steps to change the font of a text in a document are given below;

- Select the text you want to modify
- Select the Home tab and locate the Font group
- Click the drop-down arrow next to font style box
- Font style menu appears
- With a left click select the desired font style
- If you want to change the font to bold or italic, click the 'B' or 'I' icons on the format bar.

See the image:



Ans . B # Font size and display size

You can change your font size and display size to make your screen easier to see.

Important: Some of these steps work only on Android 7.0 and up. Learn how to check your Android version.

Change font size

To make your font size smaller or larger:

1. Open your device's Settings app
2. Tap Accessibility, then tap Font size
3. Use the slider to choose your font size

The font size setting doesn't apply to the Google Chrome app, which has its own text scaling control.

Change display size

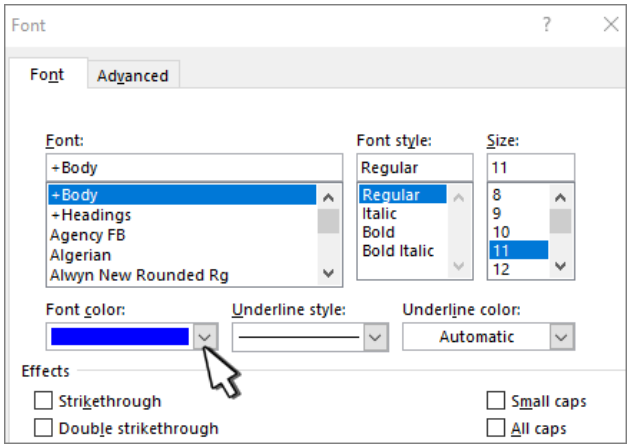
To make items on your screen smaller or larger:

1. Open your device's Settings app
2. Tap Accessibility, then tap Display size
3. Use the slider to choose your display size

Some apps on your screen might change position.

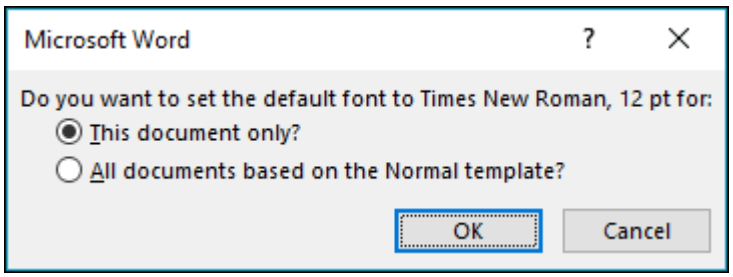
Ans .c Change the default text color (font color) in Word

1. Open the template or a document based on the template whose default settings you want to change.
2. Go to **Home** and select the Font dialog launcher .
3. Select the arrow next to **Font color**, and then choose a color.



4. Select **Set As Default** and then select one of the following:

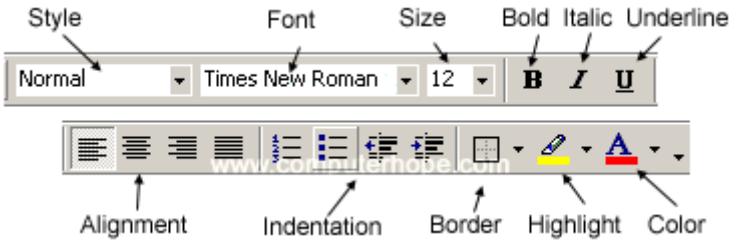
- **This document only?**
- **All document based on the Normal.dotm template?**



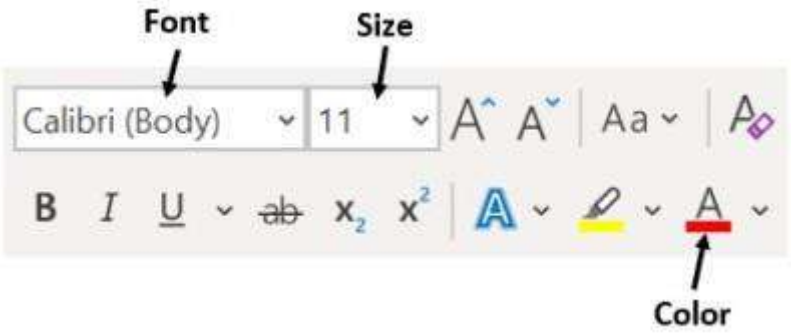
D . How do I change the font color, size, style, or type in Word?

Updated: 12/31/2020 by Computer Hope

In Microsoft Word, you can change the properties of any text, including font type, size, color, and make it bold, italic, or underlined (font style). The following illustration shows the formatting bar, and a description of the tools it contains.



The font settings placement changed after Word 2003, with all the settings placed in the *Font* section on the Ribbon's *Home* tab. An example of the font settings in Word 2016 is pictured below.



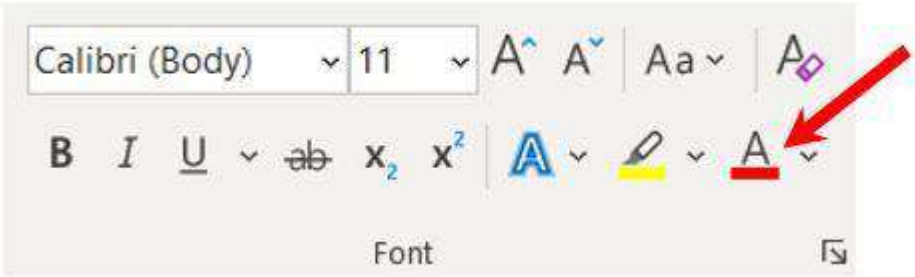
Select a link below to learn how to change font color, size, style, or type in Microsoft Word.

- Changing font color.
- Changing font size.
- Changing font style.
- Changing font type.

Changing font color

To change the font color in a Microsoft Word document, follow the steps below.

1. Highlight the text you want to change.
2. Click the down arrow next to the color icon on the formatting bar or Ribbon. It is usually displayed as the letter "A" with a red underline.

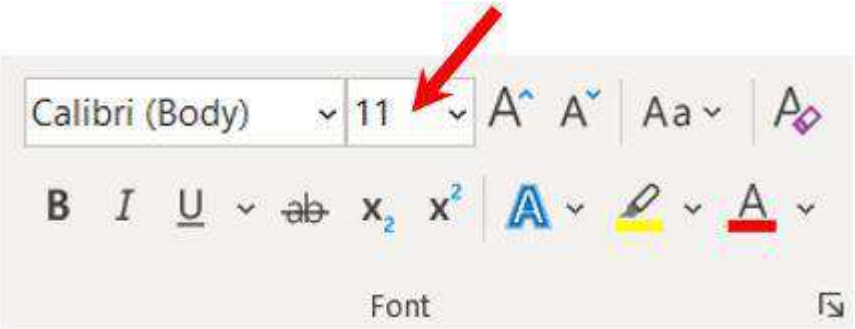


3. After clicking the down arrow, select a color for the text.

Changing font size

To change the font size in a Microsoft Word document, follow the steps below.

1. Highlight the text you want to change.
2. Click the down arrow next to the size box on the formatting bar or Ribbon. The default font size is usually 11 or 12.



3. After clicking the down arrow for the size, you'll see a list of predesignated sizes to select. Some fonts do not scale properly, so they may have limited size options.

Changing font style

To change the font style, including bold, italic, and underline, in a Microsoft Word document, follow the steps below.

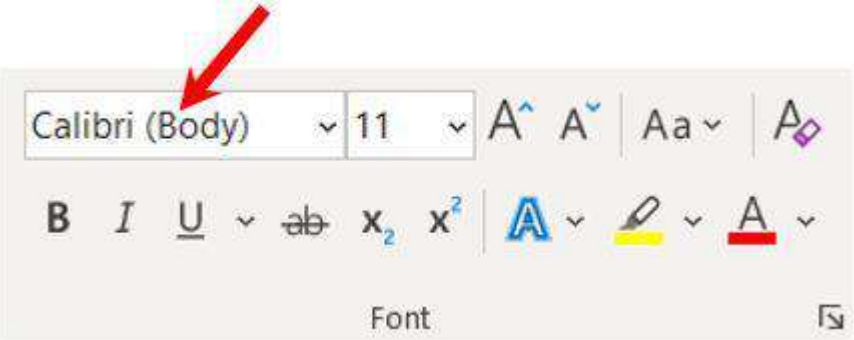
1. Highlight the text you want to change.
2. Click the B, *I*, or U option on the formatting bar or Ribbon to change the text to bold, italic, or underlined.

3. After clicking the B, *I*, or U option, the text changes to the selected font style.

Changing font type

To change the font type in a Microsoft Word document, follow the steps below.

1. Highlight the text you want to change.
2. Click the down arrow next to the font field on the formatting bar or Ribbon. (If you want to change the font to bold, italic, or underlined, click the B, I, or U on the format bar.)



3. After clicking the down arrow for the font, you can select from each of the installed fonts on your computer. Click the font you want to use, and the highlighted text I used sockets to connect two Android tablets as a network over wifi using the same router. one is a server and the other is a client.

the problems is that every time I want to connect the client and server tablets, I have to type in the server tablet's IP address in the client tablet. Is there a way to avoid this?

I have not figured out how to send the server IP address to the client tablet before they are networked.

I wish there was a way to network the two tablets without having to know the IP address of the server tablet.

One idea is to have the server tablet connect to a website written in php and have the website get the IP address and store it in a database. next i would have the client tablet get the IP address from that website. Then the client tablet having the server's IP will be abble to make the connection. All of this will avoid the user having to know the IP and typing it in every time they want to connect.

Q7. 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 voilá!

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*.

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.)

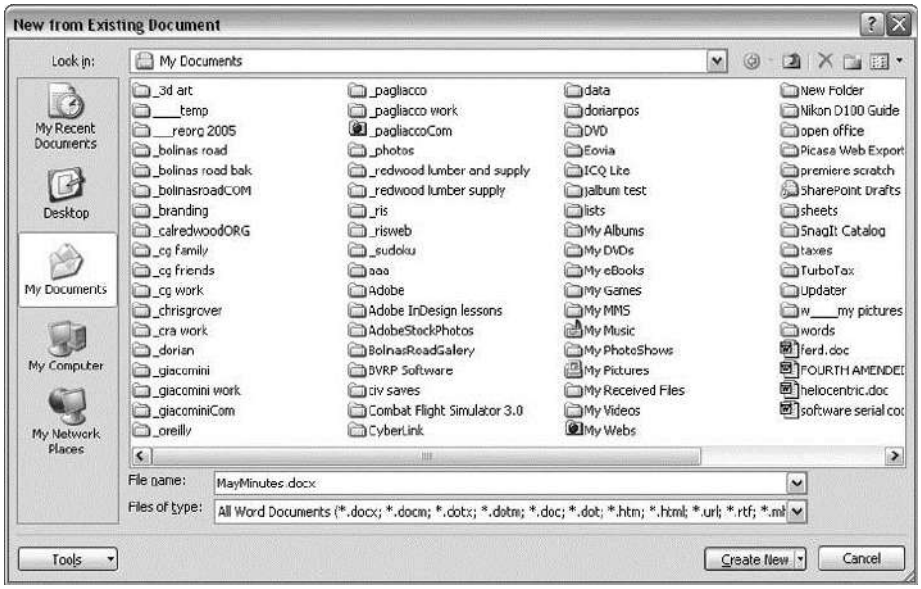


Figure 1-4. Use the New from Existing Document box to find an existing Word document that you'd like to open as a model for your new document. When you click Create New at bottom-right, Word opens a new copy of the document, leaving the original untouched. You can modify the copy to your heart's content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

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.

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.

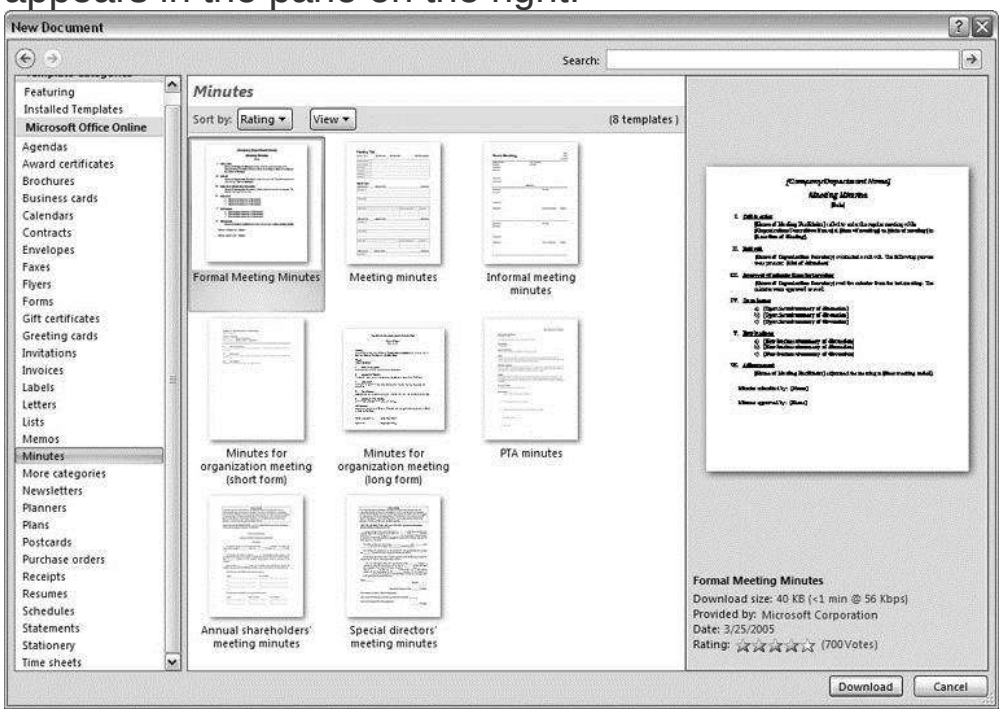


Figure 1-5. The New Document box lists prebuilt templates that live at Microsoft Office Online in categories like Agendas, Brochures, Calendars, and Minutes. Below the thumbnail you see an estimate of how long it takes to download the template from the Microsoft Office Online Web site. A rating, from 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.

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.

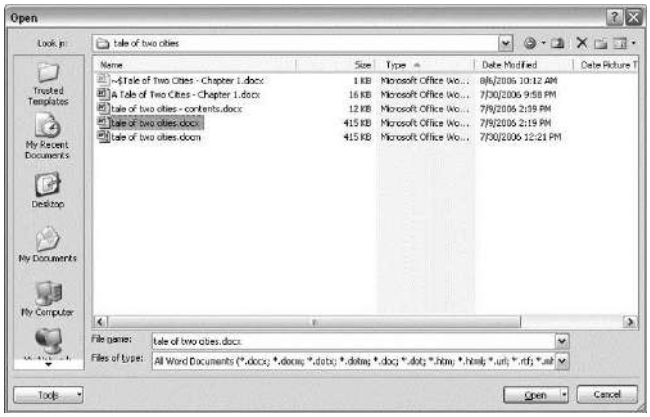


Figure 1-6. This Open dialog box shows the contents of the tale of two cities folder, according to the "Look in" box at the top. The file tale of two cities. docx is selected, as you can see in the "File name box" at the bottom of the window. By clicking Open, Mr. Dickens is ready to go to work.

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.

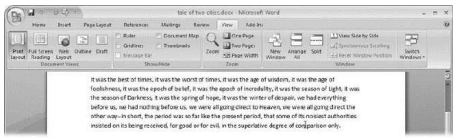


Figure 1-7. The View tab is your document-viewing control center. Look closely, and you see it's divided into four groups with names at the bottom of the ribbon: Document Views, Show/Hide, Zoom, and Window. To apply a view command, just click the button or label.

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.

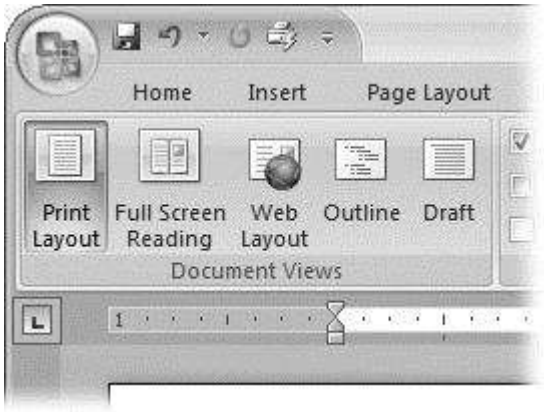


Figure 1-8. On the left side of the View tab, you find the five basic document views: Print Layout, Full Screen Reading, Web Layout, Outline, and Draft. You can edit your document in any of the views, although they come with different tools for different purposes. For example, Outline view provides a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

- **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.

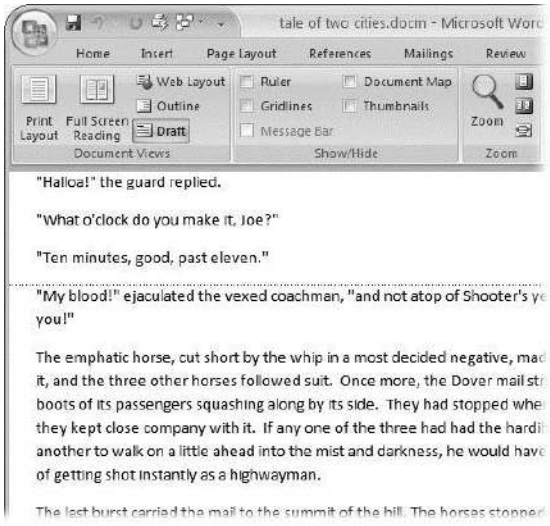


Figure 1-9. In Draft view, you see most text and paragraph formatting, but headers, footers, and other distracting page formatting features are hidden. Your text appears as a continuous scroll, with the margins hidden. Page breaks appear as dotted lines.

- **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.

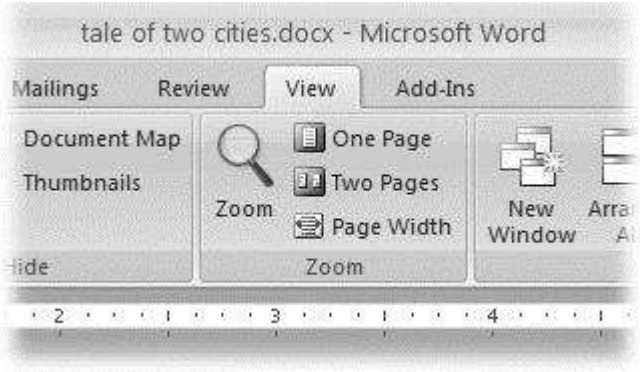


Figure 1-11. The Zoom group of options lets you view your document close up or at a distance. The big magnifying glass opens the Zoom dialog box with more controls for fine-tuning your zoom level. For quick changes, click one of the three buttons on the right: One Page, Two Pages, or Page Width.

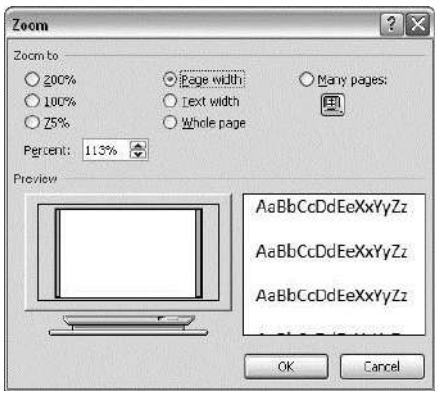


Figure 1-12. The Zoom dialog box lets you choose from a variety of views. Just click one of the option buttons, and then click OK. The monitor and text sample at the bottom of the Zoom box provide visual clues as you change the settings.

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.

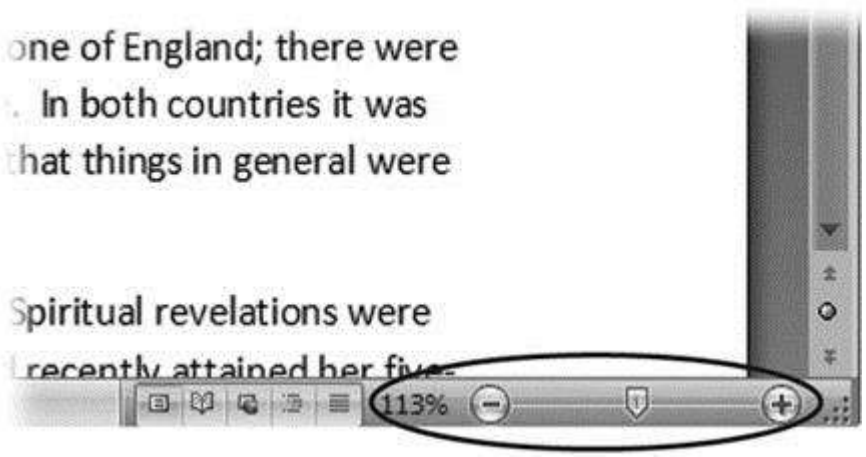


Figure 1-13. The Zoom slider at the bottom of the document window gives you a quick and easy way to change your perspective. Drag the slider to the right to zoom in on your document, and drag it to the left to zoom out. To the left of the slider are five View buttons: Print Layout, Full Screen Reading, 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.

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).

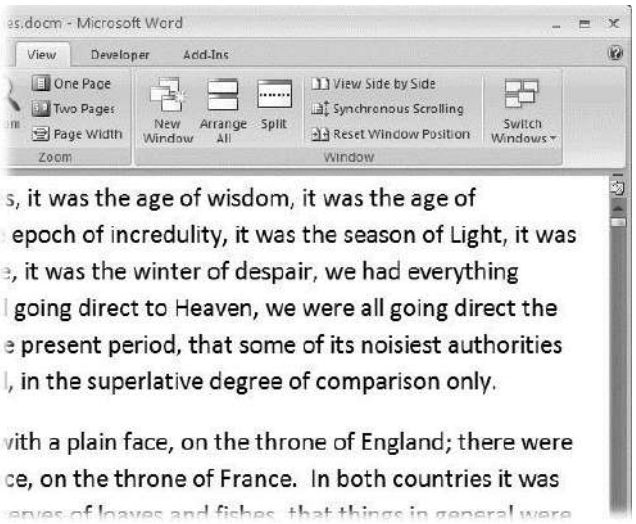


Figure 1-14. In the Window group, the three commands on the left—New Window, Arrange All, and Split—let you open and view your work from multiple vantage points. The commands in the middle—View Side by Side, Synchronous Scrolling, and Reset Window Position—are helpful when reviewing and comparing documents. 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 *F*ile *S*ave) 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 *F*ile *C*lose).

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.)

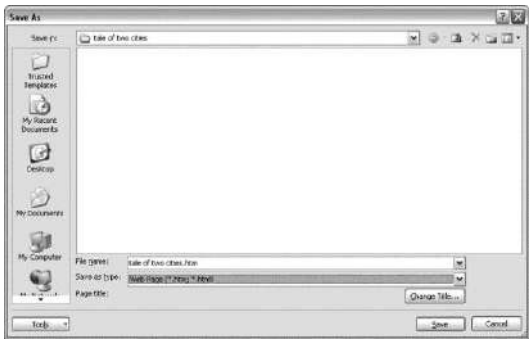


Figure 1-17. Use Office button → Save As to save your file with a new name or in a different file format. In this example, the Word file tale of two cities is being saved as an HTML type file—a format used for Web pages.

- **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).

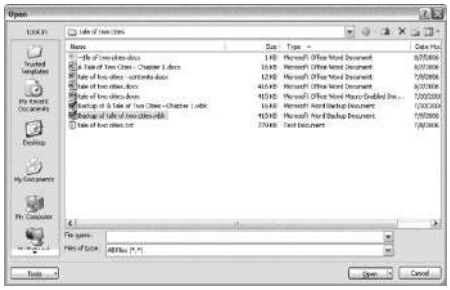


Figure 1-19. To open a backup file, choose All Files (.*) in the "Files of type" drop-down menu at the bottom of the Open dialog box. Look for a file that begins with the words "Backup of." Double-click to open the file.*

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.

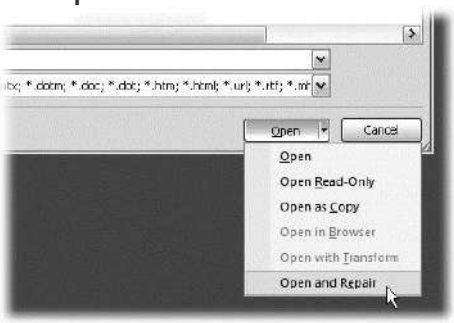


Figure 1-20. When you can't open a file with a normal Open command, click the arrow to the right of the Open button, and choose Open and Repair from the drop-down menu. Some parts of your file may still be damaged, but you can usually recover most of your work.

.

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).

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.

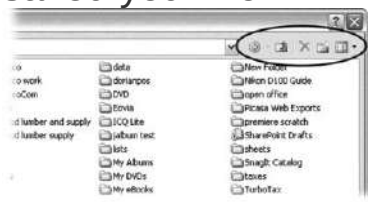


Figure 1-21. The Save As dialog box has all the controls you need to navigate to any location on your computer—including five nifty buttons in the upper-right corner. From left to right: The left arrow button steps you backward through your past locations (just like the back button in a Web browser). 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

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

all steps involved in it.

Ans .

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 . Creating and numbering equations with Microsoft Word 2007

Microsoft (MS) Word 2007 has a built-in equation editor which is now the default when you create equations. The equation editor is only available in Word 2007 and not Excel, Powerpoint or other applications.

Microsoft Equation 3.0, the default equation editor in previous versions, is still available and can also be used in Excel, PowerPoint, or any application that supports Object Linking and Embedding (OLE). See the course notes on using Microsoft Word '97 for the old equation editor for more information.

Comparison of options for equation editing

Feature	***Office 2007 built-in equation editor***	***Microsoft Equation 3.0 (old version)***
Ease of use	Very intuitive, "builds-up" equations as you type	Not as intuitive, steeper learning curve
Keyboard shortcuts	Standard math and LaTeX symbols work	Custom (e.g., Ctrl-H for superscript)

Display equations	Display equations can't be on the same line as other text	Able to use tabs on same line as display equations
Equation numbering	Need to use tables to create equation numbers	Adding equation numbers is simpler
Rendering	Very high quality	Moderate quality
Interoperability	Not accepted by some journals, no workarounds!	Commonly used and interoperable

When not to use the Office 2007 equation editor

When you convert a document that includes Office 2007 equations to the old ".doc" format, the equations are turned into graphics. They are visible, but not editable. We recommend that you do not use the Office 2007 Equation Editor if:

- You need to submit to a journal that does not accept Office 2007 .docx files
- You need to collaborate with people who do not have Office 2007
- You use Office 2007 in Compatibility Mode (.doc files)

In these situations, the recipients of your documents will not be able to edit the equations. This would make collaboration difficult, and in the case of journals, would make submission problematic and revision impossible.

Why use the Office 2007 equation editor

Word 2007's method of entering equations from the keyboard and building up equations is more natural, intuitive and efficient than earlier approaches to typesetting equations. Word's internal representation of the equations resembles mathematics, and is much more readable.

By comparison the MS Equation Editor approach takes a visual rather than mathematical approach. A markup language like LaTeX remains the best choice for complicated documents and for overall typesetting quality, yet the source code for an equation in LaTeX rarely looks like math.

How Office 2007's equation editor "builds-up" equations

The new Office 2007 equation editor works in a different way than the old equation editor. It uses the AutoCorrect feature of MS Word to do some of the formatting, and it introduces a concept of "Linear" vs. "Professional" formats. Linear format is what you might use in a programming language to write mathematics: e.g., $y = (a*x+b)/(x^2+1)$.

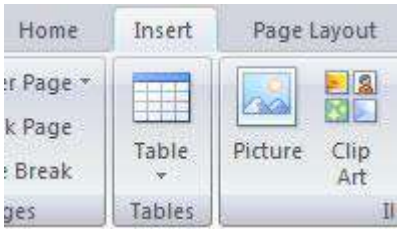
As you type an equation, Word converts it on the fly (Microsoft calls this "building up") into professional format. In order to use the equation editor efficiently, you will

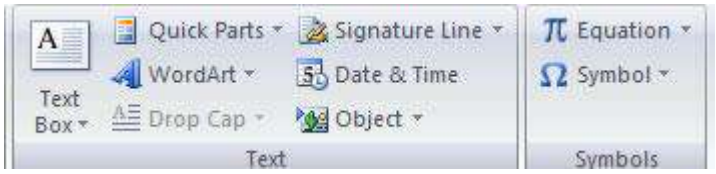
need to get used to how Word builds up equations. A good way to learn is to carefully watch what happens on screen as you push each key.

Some symbols are inserted automatically by Word as you type using AutoCorrect. And some formatting is applied as you type. The rule is that the equation is built up when you type any character than makes what you've typed so far unambigious. As a result, AutoCorrect and building up are only triggered by certain keys. The spacebar always builds up and triggers autocorrect, and using it is a good way to force Word 2007 to interpret what you've typed so far.

Learning how to use the equation editor

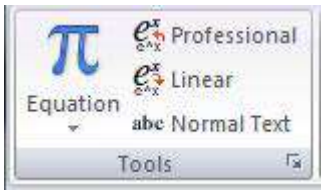
To insert an equation in a Word 2007 document, click on the "Insert" menu/tab to see the "Insert" ribbon. In the "Symbols" section, choose "Equation". You can also press "Alt+=" on your keyboard.





You will now see Equation Tools | Design Ribbon. There are three main sections.

Tools



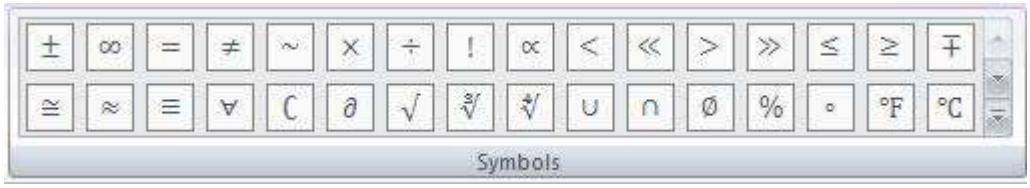
In the "Tools" section you have access to the "Equation" gallery, and you can select "Professional", "Linear" or "Normal Text" modes. Professional format is rendered two-dimensional math, as you would write on paper or a blackboard. Linear format is the equation editor's internal format. Normal text is for non-mathematical text annotations within an equation.

Professional format: $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

Linear format: $x = (-b \pm \sqrt{(b\text{^}2 - 4ac)})/2a$

Notice that linear format has redundant brackets to make the mathematical interpretation unambiguous. When the equation is formatted, Word automatically removes these brackets. The square root symbol is a single character, and its operand is the bracketed expression immediately following the square root character. You can force Word to show an expression in brackets by using two sets of brackets around the expression.

Symbols



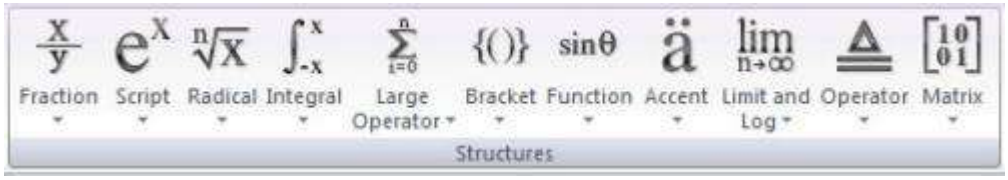
The symbols section contains commonly-used mathematical symbols. You can use the two scroll buttons to see more, or click the icon to view all of the "Basic Math" symbols. Then click on "Basic Math" to see other sections of symbols:

1. Basic math
2. Greek letters
3. Letter-like symbols
4. Operators
5. Arrows
6. Negated relations
7. Scripts
8. Geometry

Exercise

Insert an equation, explore the symbol palettes and find symbols that you will need in your manuscripts.

Structures



The "Structures" section contains the formatting tools you will use to create equations. Each section contains 'structures' which are like a template with one or more symbols, and one or more placeholders for you to place your mathematical content into.

For example, to create a fraction, choose "Fraction" then the first template. You will see a fraction where the numerator and denominator are both boxes with dotted lines. You will place your content in the place of these boxes.

The "Matrix" structures are not only useful for true matrices and arrays, but can also be used to align certain types of equations and to place notes in and around equations.

Examples of structures

The integral menu contains indefinite, definite, double and triple integrals. There will be a placeholder for the integrand. Definite integrals also include placeholders for the upper and lower limits of integration.

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

More complicated expressions can be constructed by having structures inside of other structures, for example:

$$y = \begin{cases} \frac{1}{2} & \text{if } x < -10 \\ 7 & \text{if } -10 \le x \le 10 \\ 15 & \text{if } x > 10 \end{cases}$$

The right hand side of the above equations consists of a "Bracket" structure. Inside the bracket's placeholder is a 3x2 matrix. In order for this to look right, the matrix has been modified for left alignment of the second column, and the word "if" has been changed to "Normal text".

Keyboard entry of equations

Standard characters that are on your keyboard you will type directly into the equation editor. The equation editor also recognizes many conventions for typing math:

Keyboard	*Result*
^	Superscript
_	Subscript
/	Fraction
() {} []	Standard brackets
<, >	Inequalities
<=, >=	Converted to standard less/greater than or equal to

In addition, there are a number of symbols that can be entered by typing backslash "\" and the name of the character. (These are mainly based on LaTeX codes.)

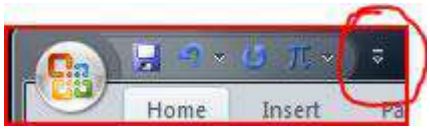
Keyboard	*Description*	*Example*
\alpha \beta \gamma \delta	Greek Letters	Αβγδ
\Alpha \Beta \Gamma \Delta	Uppercase Greek Letters	ΑΒΓΔ
\pm or +-	Plus/Minus symbol	±
\sqrt(x) \sqrt(n&x)	Square root, nth root	$\sqrt{}$, $\sqrt[n]{x}$
\le or <=	Less than or equal to	≤
\sum \prod	Sum, product	∑, ∏
\int	Integration symbol	∫
\times	Multiplication	x
\ominus \oplus \otimes	Operators in circles	⊖⊕⊗
\equiv	Congruent symbol	≡
\approx	Approximately equal to	≈
\in	Element of set	∈

As you type, the equation editor converts recognized symbols to the corresponding graphical characters. This conversion happens as soon as you've typed enough to make the math unambiguous. You can trigger an update by pressing the space bar. You can also choose "Professional" format to force the equation editor to render and interpret what you've typed so far.

Putting an equation button on the tool bar

If you are entering many equations, you may find it convenient to have an "Insert Equation" button right on the "Quick Access Toolbar".

1. Click on the arrow to the right of the "Quick Access Toolbar"



2. Choose "More Commands..."
3. Under "Choose commands from", select "Insert Tab", choose "Equation" from the list and click "Add"

4. Click "OK".

Moving around the equation

The cursor indicates where you are about to enter information on the equation. The equation editor highlights the region of the formula in which you are working, e.g. the placeholder of a bracket, a superscript, a numerator/denominator of a fraction. You can set the insertion point by clicking with the mouse, or with the keyboard. You can use the left arrow and right arrow keys to move through the equation. For more advanced editing, can you change the equation to "Linear Mode", make corrections, then switch back to "Professional Mode".

Exercise

Enter the equation:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Method 1

Start the equation editor (Insert | Symbols | Equation or ALT+=) and:

1. Type "x=" from the keyboard
2. Choose a fraction from Structures | Fraction
3. Click on the numerator, type -b from the keyboard
4. Select "plus or minus" from the Symbols ribbon
5. Select a radical from Structures | Radical

6. Click in the placeholder
7. Type b from the keyboard
8. Select "b"
9. Select a superscript from the Script palette
10. Select the superscript, Type "2" from the keyboard
11. Press the right arrow to come down a level, and type "-4ac"
12. Click the denominator (or press the right arrow twice) Type 2a

Method 2: Keyboard entry

Tip: You can use extra brackets to show Word how to interpret what you type.

Type "x=(-b+-\sqrt(b^2-4ac))/2a"

Notice:

1. When you type the second "\" Word replaces +- with the plus or minus symbol. You could also type \pm.
2. When you type the second "(" Word replace \sqrt with the square root symbol.
3. When you type "-4ac" Word turns "^2" into a superscript.
4. When you type the SECOND ")" Word expands the square root.
5. Word automatically hides redundant parentheses, we entered these to show Word how to format the equation.
6. Word puts "2a" in the denominator even though this is ambiguous the way we typed it.

Method 3: "Cheating"

Click on the Equation button, and you will find that the quadratic formula is available as a Building Block in the Equation Gallery. You can save your own equations to the Equation Gallery so that you will only have to typeset them once.

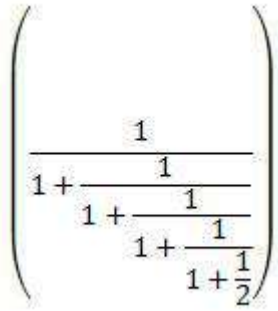
Deleting from equations

As you are entering the equation, you can backspace at any time. You can also select parts of the equation with the mouse, and delete.

Growing brackets

Brackets, parentheses and braces will automatically grow with the enclosed text. You can toggle this behave by right-clicking in the placeholder section of a bracket, and choose "Stretch Brackets".

Exercise: Typeset a continued fraction



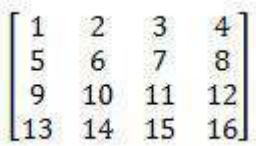
(To enter the above continued fraction from the keyboard, you can type: "1/(2+3/(4+5/(6+7/(8+9/10))))" then press the spacebar to format the final fraction.)

Matrices

Matrices of any size can be created from the Matrix section of the Structures ribbon. Once you have inserted a Matrix, you will be able to right click on it to add or delete columns and rows. You can also change the alignment settings for the rows and columns.

Exercise: Typeset a 4x4 matrix in square brackets

There is a built-in option for a matrix surrounded by square brackets. It is also possible to add the square brackets to an existing matrix.



Exercise: Format the matrix

Once you've created a matrix, you can right-click inside it to access spacing settings. These allow you to adjust the overall positioning of the matrix and the row and column spacing. You can also access settings for alignment of rows and columns.

Aligning at the equal sign character

When you are typing a derivation, you may want to show a calculation with your equals signs lining up. Compare Word's default of centering:

$$y = (x-1)(x+1)(x^2+1)$$
$$= (x^2-1)(x^2+1)$$
$$= (x^4-1)$$

to the more standard view:

$$y = (x-1)(x+1)(x^2+1)$$
$$= (x^2-1)(x^2+1)$$
$$= (x^4-1)$$

Exercise: Typeset a calculation aligned at the equals sign

1. Create an equation (Insert | Equation) or Alt+=
2. Type y=(x-1)(x+1)(x^2+1)
3. Press Shift-Enter (this tells Word to create a new line, but to group it with the current equation)
4. Type y=(x^2-1)(x^2+1)
5. Press Shift+Enter
6. Type =(x^4-1)
7. Your equations are now being centered as a group, but they are aligned on the left
8. Select the equals sign (=) in each equation, right click and choose "Align at this character"

Aligning a set of equations

In system of several variables, you may have several equations in the same variables and want the coefficients lined up:

$$\begin{aligned} 2x + 3y + z &= 10 \\ 4x + y - z &= 3 \\ x + 10y + z &= 25 \end{aligned}$$

At this time, there is no way to create an equation array from the menu interface. You would not want to use a matrix for this type of alignment, because it would be difficult to get the spacing right. In addition, an equation array automatically aligns at the equals signs. Here is how to create an equation array using the keyboard:

1. Create an equation (Insert | Equation) or ALT+=
2. Type \eqarray
3. Type (2&x + &3&y + &&z = &10& @
4. Type 4&x + &&y -&&z = &3& @
5. Type &x + &10&y+&&z = &25&)
6. Press spacebar

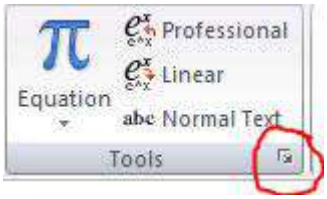
How this works

The \eqarray symbol tells Word that this is an equation array. Everything in the brackets that follows it the equation array. A new row is started with @. The & symbols are used to line up the equation. The & before a number tells Word to insert space at that position if necessary. The & after the number is the alignment point. The first, third, fifth, and every odd ampersand is an alignment point. Each even ampersand is a spacer where Word can add space to line up the equations.

Functions

Properly typeset function names should be in roman text (not italic). Word has a built-in list of recognized functions and will make this change automatically for these. If you use other function names, you can manually change them to "Normal text" or add them to Word's list of recognized functions. In the piecewise function definition above, we manually changed "if" to normal text. But you would never have a variable called "if". Here's how you add "if" to Word's list of functions.

1. Click on an equation to display the **Equation Tools | Design** ribbon.
2. In the **Tools** section, click the small arrow pointing down and to the right.



3. Click on **Recognized Function**
4. Type "if" and click **Add**
5. Click **OK** on each window to return to your document

Editing an existing equation from a legacy document

"Microsoft Office Word 2007 includes built-in support for writing and editing equations. Previous versions used the Microsoft Equation 3.0 add-in or the Math Type add-in. Equation 3.0 was included in previous versions of Word and is available in Office Word 2007. Math Type was not included in previous versions of Word but was available for purchase. If an equation was written in a previous version of Word and you want to edit the equation by using Office Word 2007, you need to use the add-in that was used to write the equation. If you purchased Math Type, you need to have Math Type installed." (from Microsoft Word 2007's help)

An existing equation can be edited either by double clicking on it, or by right clicking on it and selecting **Equation Object**, and either **Open** or **Edit**.

Positioning of equations

Equations can appear in-line $x = \sqrt{\frac{\alpha}{\beta}}$ in a line of text. The line spacing will adjust accordingly (and will likely look better than in this web-based example). If you wish to have equations appear in a paragraph by themselves, simply press Return before and after the equation.

To align an equation, click on the equation to select it, click on the equation menu, and choose the appropriate alignment under Justification. You can also choose either "Change to Inline" or "Change to Display" to change the equation's size and display position.

Display equations in Word 2007 cannot have any other text on the same line. If you add text to the line containing your equation, Word 2007 will automatically change it to an inline equation. In most cases, you do not want this, it will make your equations too small, especially if they contain complicated fractions or subscripts.

This makes numbering equations in Word 2007 more complicated than in previous versions, and the common practice of numbering equations on the right hand side requires a workaround.

Numbering equations

Equations to be numbered are usually centered with the number at the right margin. Word 2007 does not have built-in support for equation numbering, and at this time, we do not have a preferred solution.

What follows is a method of using tables suggested by Microsoft developers, but it is not perfect. There are also equation numbering macros available from a member of Microsoft Research, however they are unofficial and not supported by Microsoft.

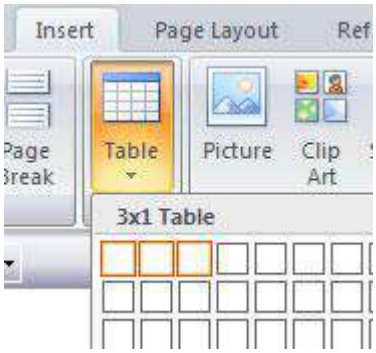
Because of these limitations, we highly recommend that you check with your thesis supervisor, department, and any journals you are planning to submit to and determine what formatting will be required. You will want to ensure that you have set this up in Word before you start typesetting your work.

Equation numbering using tables

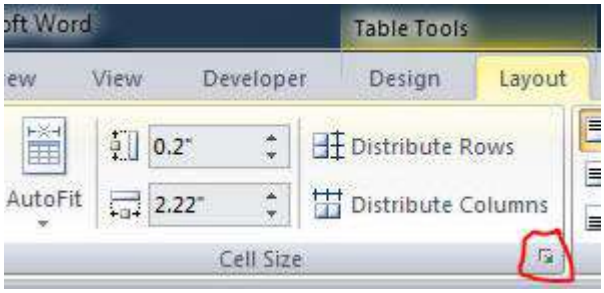
One technique is suggested by Jennifer Michelstein in a Microsoft blog.

In this approach, you create a 3x1 table, with the middle (2nd) column wide and centered. The equation goes in the middle column, and the equation number goes in the the right-most column. To use chapter numbers in your equation numbers with this technique, you will need to manually update the numbering at the beginning of each chapter.

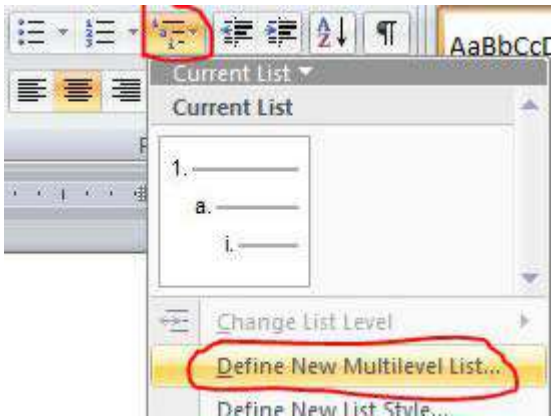
1. Insert a table with 3 columns and 1 row.



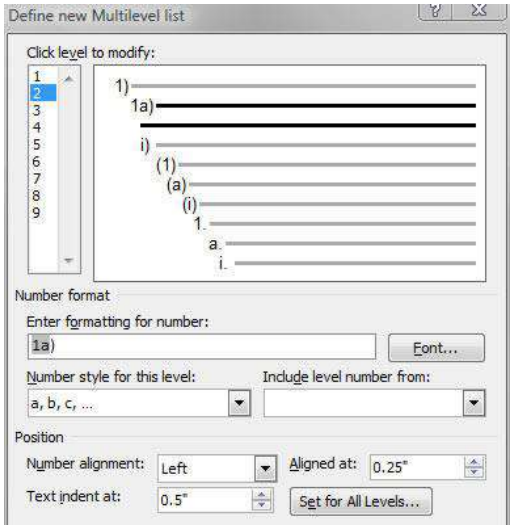
2. Click in the rightmost cell in your table. In *Table Tools* | *Layout* | *Cell Size*, click the dialog launcher icon to open **Table Properties**:



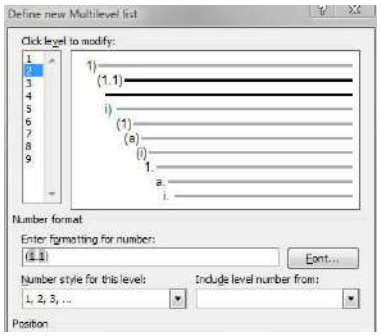
3. In *Table*, set **Preferred width** to **100%**.
4. In *Column* set **width** to **15%**, **70%** and **15%** for columns 1, 2, and 3.
5. In the *Cell* tab (for the rightmost cell) set **vertical alignment** to **Center**.
6. Click OK and select your table.
7. In *Table Tools* | *Design*, click the arrow for **Borders** then **No Border**.
8. Click in the rightmost cell. In the Home Ribbon, click the arrow for lists, and choose Define new Multilevel List:



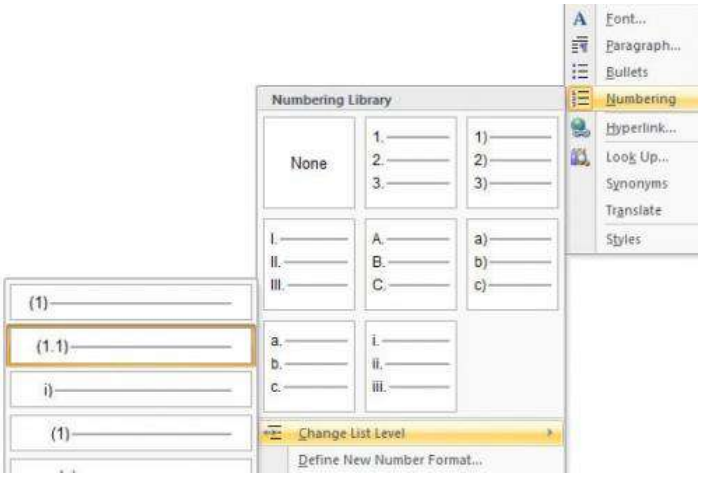
9. Add brackets to the formatting string for level 1. This will be the format for equation numbers without chapter numbers. For equation numbers with chapter numbers, select level 2 and select Include level number from Level 1.



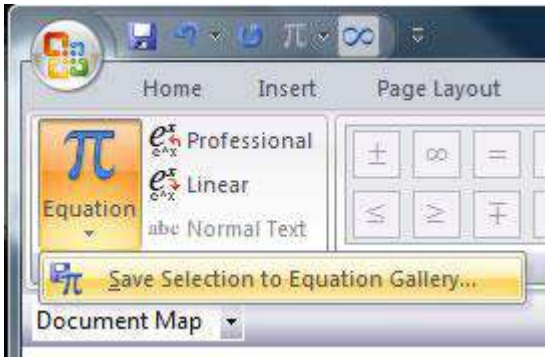
10. Now add a period between the 1 and the a and insert an open bracket at the beginning.Then change Number style to 1, 2, 3... (Leaving the "a" in place lets you see the difference between the numbers for levels 1 and 2.)



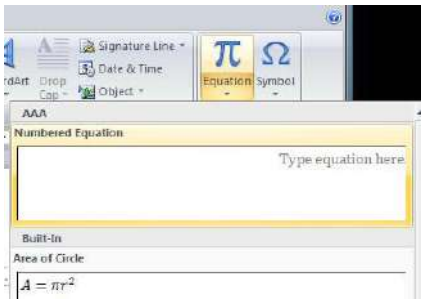
11. If necessary, change the *List Level* for your number to include or not include the chapter number.Right-click on the number, choose *Numbering*, then *Change List Level* then select the appropriate format.



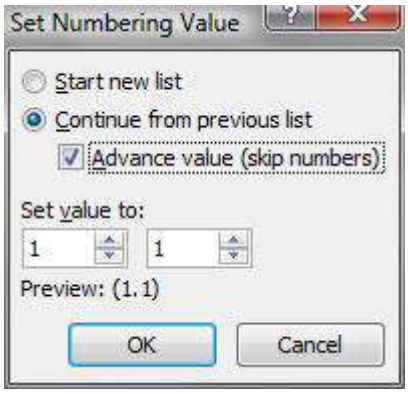
12. Click in the middle cell of your table and insert an equation (ALT+=).
13. Select your table, and choose the **Equation** menu, then **Save Selection to Equation Gallery:**



14. Give your equation a name (e.g. Numbered Equation), under *Category* choose **Create New Category** and provide a name starting with **AAA**. (This makes your equation show up first, the category has to be alphabetically before "Built-in". Click OK.
15. Now to insert a numbered equation, click on the equation button and choose **Numbered Equation** from the menu.



16. If you include the chapter numbers in your equation numbers, you will need to update these manually. At the first equation number in a new chapter, right click on the equation number and choose **Set Numbering Value**. Click on **Continue from previous list** and check off **Advance value**. Then you will be able to set the value for both the chapter number and the equation number.



Equation numbering using macros that create tables

Another technique comes from Dong Yu of Microsoft Research. He has developed macros for equation numbering that create 2x1 tables with a tab in the first column to align the equations. You can choose whether to number with or without chapter numbers. There is also a mechanism to include a chapter increase

indicator with your chapter headings so that chapter numbers increase properly. These methods should make equation numbering mostly automatic.

Although these macros come from someone who works at Microsoft Research, they are not an official feature, so are not supported and may not work in future versions or updates of Office 2007. You should only use them if you are familiar with macros and have the confidence and ability to modify them to suit your needs.

Cross referencing an equation

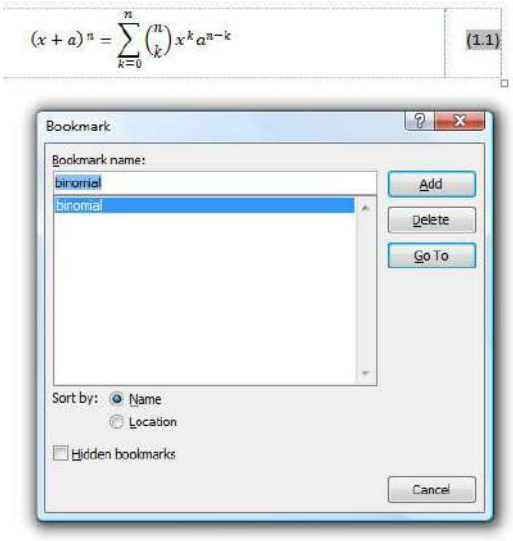
You may wish to create a cross reference to an equation, a statement in your document such as "As was shown in Equation 3..." While you could enter the equation number as text, this will quickly become out of date as you edit your document. You want Word to insert the appropriate equation number, and update it if the number of the equation should change.

At first glance it would appear that you could do an **Insert, Cross-reference** and select "Equation" as the reference type. However, this will only work if you let Word caption your equations, and Word will only caption an equation above or below the equation, which is not standard formatting.

You will need to use a Bookmark to reference the equation number.

Bookmarking an equation number

Click on the equation number to select it, then issue the command **Insert,**

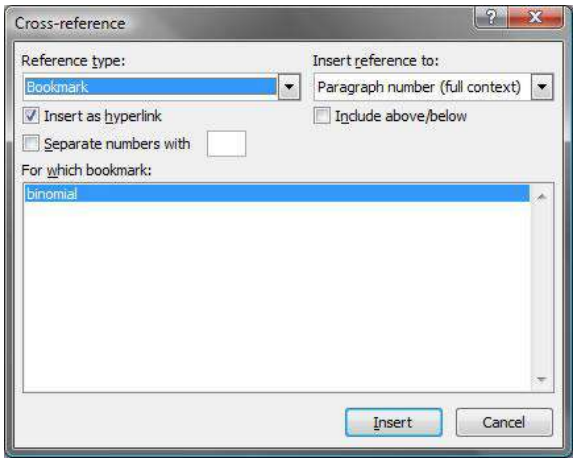


Bookmark.

2. Assign a meaningful name to the Bookmark (**bookmark names** should **start with a letter** and **should not include any spaces**), and click **Add**. Repeat this process for any equation that you wish to reference.

Creating the cross reference

1. To create a cross reference to the equation somewhere in your text, first type any introductory text, such as "As we saw in Equation" and then issue the command **Insert, Reference, Cross Reference**.



2. Under *Reference Type* select **Bookmark**, and from the presented list of bookmarks, choose the appropriate one. Under *Insert reference to* select **Paragraph number (full context)** and click **Insert**.

Updating field numbering

If you add or delete equations in the middle of the document, the numbers may not be automatically updated. To update, press **Ctrl+A** for Select All, then press **F9**.

Creating equations in PowerPoint

You can copy and paste an equation from a Word 2007 document into PowerPoint, however the equation will appear as a bitmap graphic and will not resize gracefully. To get around this, increase the font size of the equation in Word before copying it.

See the notes for Microsoft Equation Editor 3.0 for instructions on how to use the previous version of the equation editor in PowerPoint.

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

Ans. How to display the filename and path in a Word document or title bar

Image: iStockphoto.com/Jacob Ammentorp Lund

When you open a Word document, Word displays its name in the title bar. If it's a new blank document, Word displays a generic name, document*x*, until you name the file. That's adequate for most of us, but occasionally, you'll want the document's name to print with the content or you'll want the entire path in the title bar. Unfortunately, both requirements often leave users scratching their heads in frustration. That's because what seems simple has some unexpected kinks. In this article, I'll show you solutions to these requirements and warn you when they don't work as expected.
I'm using Word 2016 on a Windows 10 64-bit system, but you can apply these solutions all the way back to Word 2003. You can use any file you want or you can The solutions discussed in this article aren't compatible with 365.
Use {FILENAME} field

More about Office

When you want to display the document's name and path in the file itself, you can type it, but if you change the filename, you must remember to update the name in your document. If you use the {FILENAME} field instead, it doesn't update automatically either. You must remember to update the field--how is that any better than typing it manually? One advantage is clear when you're working with multiple instances of a filename: Updating the field once updates it throughout the document.

Let's use this field to display the filename in a document's header and see what happens:

1. Double-click the header area to open it in edit mode and position the cursor where you want to display the filename. In Word 2003, choose Header And Footer from the View menu.

2. Click the Insert tab and choose Field from the Quick Parts dropdown in the Text group (**Figure A**). In Word 2003, you'll find this setting in the AutoText options.
3. Select FileName from the Field Names list.
4. If you want to display the full path, check the Add Path To FileName Option (**Figure B**).
5. Click OK to return to the document.
6. Double-click outside the header to close the header.

Figure A

Field codes are part of the Quick Parts feature.

Figure B

You can display the filename with or without the full path.

As you can see in **Figure C**, Word displays the name and path in the document's header, so it'll be visible on every page of the document. Later, I'll show you how to display it conditionally.

Figure C

Word displays the filename and path in this document's header.

Unfortunately, if you save the file using a different name, you must update the field manually to display the new name. To do so, open the header, right-click the field, and choose Update Field (**Figure D**). If you're using our demo file, be sure to open the header and update the field to see the correct path for your system.

Figure D

Update the field if you change the file's name.

If you're likely to forget to update the field and it's important that the file print with the right name, you can set a print option to update fields before printing, as follows:

1. Click the File tab.
2. Click Print in the left pane.
3. Click Page Setup at the bottom.
4. On the Paper tab, click Print Options.
5. In the Printing Options section, check Update Fields Before Printing (**Figure E**).
6. Click OK twice.

Figure E

Set this option to update fields before printing the document.

Without a lot of effort, this is the best you can hope for. You might consider adding an ActiveDocument.Fields.Update event to the FileSaveAs event, but the timing's wrong and it won't work. VBA updates the fields before saving the new name. The file won't update the field the next time you open it either, so you might consider adding the Update event to an AutoOpen macro, so at the very least, the document displays the correct name when opened. However, doing so won't help if the field is in the header or footer. The update method updates fields only in the document body.

There's no silver bullet because each document will be unique regarding fields. Since our example field is in the header, we'll add a VBA procedure that updates fields in the header (or footer). Add the sub procedure in **Listing A** to the document's AutoOpen event in the ThisDocument module as follows:

1. Open the Visual Basic Editor (VBE) by pressing [Alt]+[F11] or clicking Visual Basic in the Code group on the Developer tab.
2. Click ThisDocument (if necessary) in the Explorer window.
3. Enter the code in Listing A. To avoid errors in the VBE, don't cut and copy the code from this web page. Enter the code manually or download the demonstration document or class file.
4. Return to the document and save it as a macro-enabled file. If you're using Word 2003, this step isn't necessary.

Opening the document triggers the AutoOpen procedure and the Update method updates only the fields in the header section. The value 1 represents the page number. If the header isn't on page 1, update this value argument. If you're using the footer section, change Headers(*x*) to Footers(*x*). It's a can of worms you'd almost rather not open, but for simple documents, this solution works.

Conditional display

You might not want to display the filename on every page; perhaps you'd like to see it only on the last page, which seems reasonable. When this is the case, you can wrap the field in an {IF} expression. For instance, the following expression will display the filename **only** on the last page of the document:
{ IF { PAGE } = { NUMPAGES } { FILENAME \P * MERGEFORMAT } }

This is just one of many possibilities. We're not going to cover an extensive list of expressions, but it's important to know that expressions give you more flexibility and control over where the document displays the field.

SEE

Use VBA for title bar display

Displaying the filename in the document will be adequate for most of us. If you need a bit more, consider using VBA to display the full path and filename in the title bar. Using the directions from above to open the VBE, add the code in **Listing B** and **Listing C** to a document when you want to display the full pathname in the title bar... except, the solution doesn't always work.
Saving the file triggers an internal event, FileSaveAs. The code is Listing B usurps this event and allows Word to display the document's FullName property in the title bar. For better or worse, this simple macro most likely will *not* display the full path; I have never seen it work consistently. Because Word will display the document's name automatically, there's little use for it. I've included it for the sake of discussion only--it's one of those kinks I mentioned. If you must have the pathname in the title bar, you can find an excellent solution by Graham Mayor, MVP in a discussion at the Microsoft Office Community. The good news is that the AutoOpen event in Listing C *does* display both the filename and path in the title bar, as you can see in **Figure F**, when you open the file. Unfortunately, you lose it as soon as you save the file.

Figure F 

The AutoOpen event displays the path; the FileSaveAs event usually doesn't.

No panacea

These solutions might satisfy your simplest requirements, but they have inherent problems that are difficult to work around. Next month, watch for a

solution that displays the file's location on the Quick Access Toolbar. It's certainly easier, even though it works only in the most recent versions.

Send me your question about Office

I answer readers' questions when I can, but there's no guarantee. Don't send files unless requested; initial requests for help that arrive with attached files will be deleted unread. When contacting me, be as specific as possible. For example, "Please troubleshoot my workbook and fix what's wrong" probably won't get a response, but "Can you tell me why this formula isn't returning the expected results?" might. Please mention the app and version that you're using. I'm not reimbursed by TechRepublic for my time or expertise when helping readers, nor do I ask for a fee from readers I help. You can contact me at susansalesharkins@gmail.com.

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

Ans . Create a following worksheet in MS-excel and save it with name ‘book1’.

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 voilá!

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.)

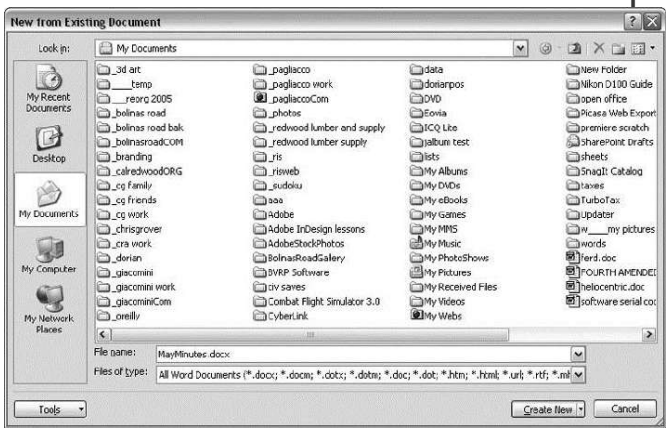


Figure 1-4. Use the New from Existing Document box to find an existing Word document that you'd like to open as a model for your new document. When you click Create New at bottom-right, Word opens a new copy of the document, leaving the original untouched. You can modify the copy to your heart's content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

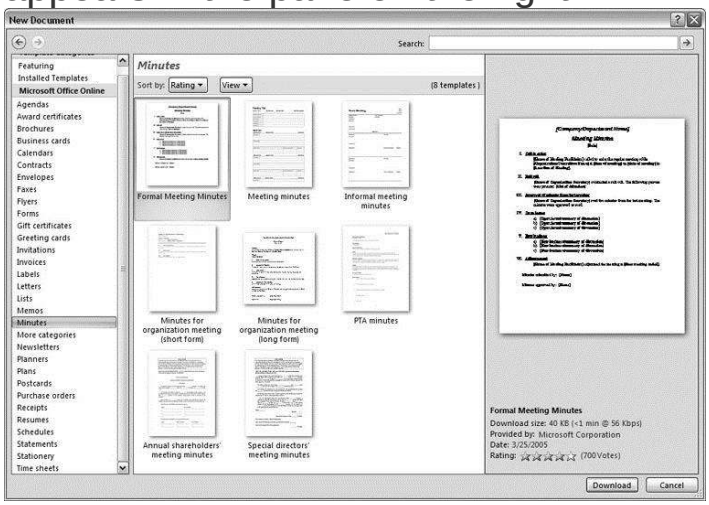


Figure 1-5. The New Document box lists prebuilt templates that live at Microsoft Office Online in categories like Agendas, Brochures, Calendars, and Minutes. Below the thumbnail you see an estimate of how long it takes to download the template from the Microsoft Office Online Web site. A rating, from 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.

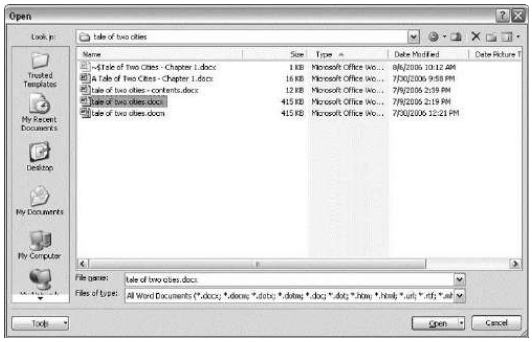


Figure 1-6. This Open dialog box shows the contents of the tale of two cities folder, according to the "Look in" box at the top. The file tale of two cities. docx is selected, as you can see in the "File name box" at the bottom of the window. By clicking Open, Mr. Dickens is ready to go to work.

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.

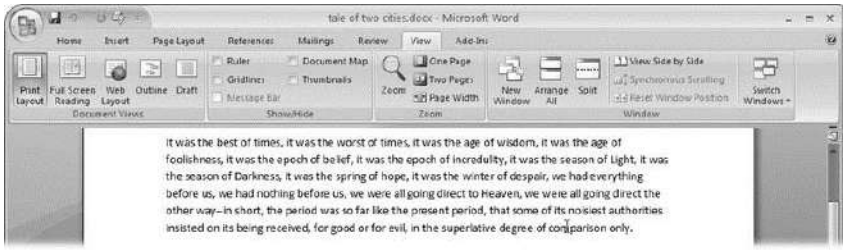


Figure 1-7. The View tab is your document-viewing control center. Look closely, and you see it's divided into four groups with names at the bottom of the ribbon: Document Views, Show/Hide, Zoom, and Window. To apply a view command, just click the button or label.

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.

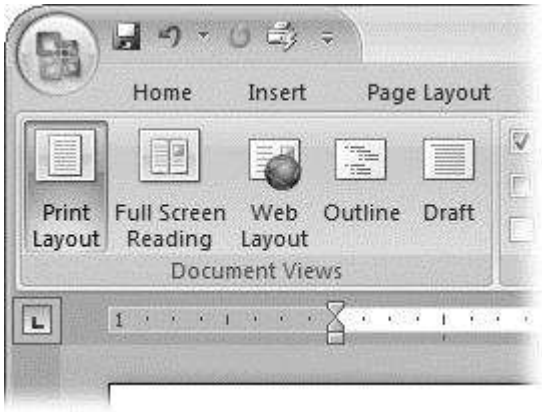


Figure 1-8. On the left side of the View tab, you find the five basic document views: Print Layout, Full Screen Reading, Web Layout, Outline, and Draft. You can edit your document in any of the views, although they come with different tools for different purposes. For example, Outline view provides a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

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

uestions and answers

Brainly.in

Question

. Given the Following Spreadsheet, Write the appropriate Formula/ Expression/ Function to be used for (a) to (e)a) Write formula to calculate the Total Qty(C4:C7)) in cell C8b) Write the feature used for arranging the Price from Highest to Lowestc) To find the Product with Maximum Price to be written in Cell D10d) To find the Average Qty to be written in cell C9e) Write formula to calculate the Total Amount in cell E8

Answer · 414 votes

a) Formula to calculate the Total Qty(C4:C7) in cell C8: =SUM(C4,C7) b) For arranging the Price from highest to lowest click on the first cell that you desired to select on the spreadsheet and then drag the mouse to the last cell that you want to select. Then right click on the selected range and click on 'Sort' option and then click on the option 'Sort Largest to Smallest'. c) Formula for finding the maximum price to be written in the cell D10: =MAX(D4,CD,D6,D7) d) Formula for finding the average Qty to be written in the cell C9: =AVERAGE(C4,C5,C6,C7) e) Formula for finding the total amount in E8: =SUM(E4,E7)

Question

2. Consider the following spreadsheet and answer the questions that follow: a. Calculate the Total Price as Price * No_of_copies in cell E2. b. Which option can be used to arrange the books in ascending order of price(lowest to highest)? c. Find the highest price of a book and display it in cell C6. d. Which option can be used to change the background color of a cell? e. Mention the feature used to display the data in a graphical form. f. Change the alignment of text in cell B2 to central alignment

Answer · 151 votes

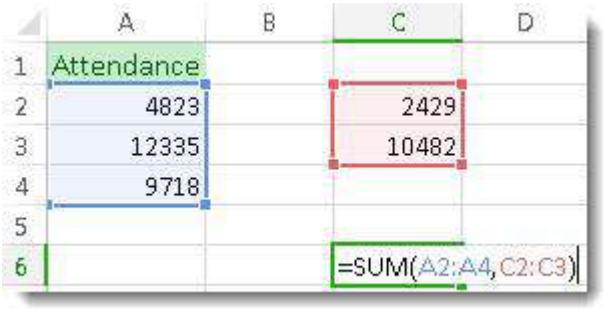
a)=product (number1:number2)b)sort smallest to largestc)=max (c2:c5)d)fill coloure)chartf)doubleclick>centre alignment Hope it helps you! Pls mark the brainliest!

More

Ans . Use the SUM function to sum numbers in a range

Excel for Microsoft 365 Excel for the web Excel 2019 Excel 2016 Excel 2013

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 =SUM(A2:A6) is less likely to have typing errors than =A2+A3+A4+A5+A6.



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**	**R**
=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 into the number 1.	21
=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) and	2

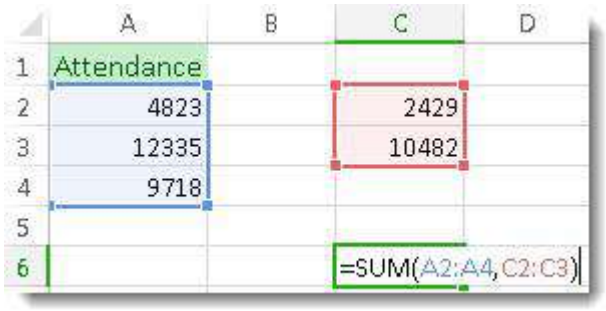
Data	
	the value in cell A6 (TRUE) are both treated as text — the values in those cells are ignored.

B . • average of the marks in a range of cells (C2:C11

Use the SUM function to sum numbers in a range

Excel for Microsoft 365 Excel for the web Excel 2019 Excel 2016 Excel 2013

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 =SUM(A2:A6) is less likely to have typing errors than =A2+A3+A4+A5+A6.



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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**	**R**
=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 into the	21

Data		
	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) and the value in cell A6 (TRUE) are both treated as text — the values in those cells are ignored.	2

Need more help?

You can always ask an expert in the Excel Tech Community or get support in the Answers community.

Oct

16

MAX function in Excel: formula examples to find and highlight highest value

by Svetlana Cheusheva | updated on March 2, 2021 10 Comments

The tutorial explains the MAX function with many formula examples that show how to find highest value in Excel and highlight largest number in your worksheet.

MAX is one of the most straightforward and easy-to-use Excel functions. However, it does have a couple of tricks knowing which will give you a big advantage. Say, how do you use the MAX

function with conditions? Or how would you extract the absolute largest value? This tutorial provides more than one solution for these and other related tasks.

Excel MAX function

The MAX function in Excel returns the highest value in a set of data that you specify.

The syntax is as follows:

```
MAX(number1, [number2], …)
```

Where **number** can be represented by a numeric value, array, named range, a reference to a cell or range containing numbers.

Number1 is required, *number2* and subsequent arguments are optional.

The MAX function is available in all versions of Excel for Office 365, Excel 2019, Excel 2016, Excel 2013, Excel 2010, Excel 2007, and lower.

How to make a MAX formula in Excel

To create a MAX formula in its simplest from, you can type numbers directly in the list of arguments, like this:

```
=MAX(1, 2, 3)
```

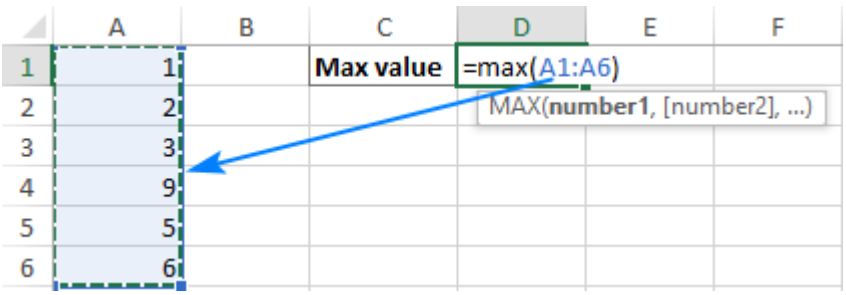
In practice, it's quite a rare case when numbers are "hardcoded". For the most part, you will deal with ranges and cells.

The fastest way to build a Max formula that finds the highest value in a range is this:

1. In a cell, type *=MAX(*
2. Select a range of numbers using the mouse.
3. Type the closing parenthesis.
4. Press the Enter key to complete your formula.

For example, to work out the largest value in the range A1:A6, the formula would go as follows:

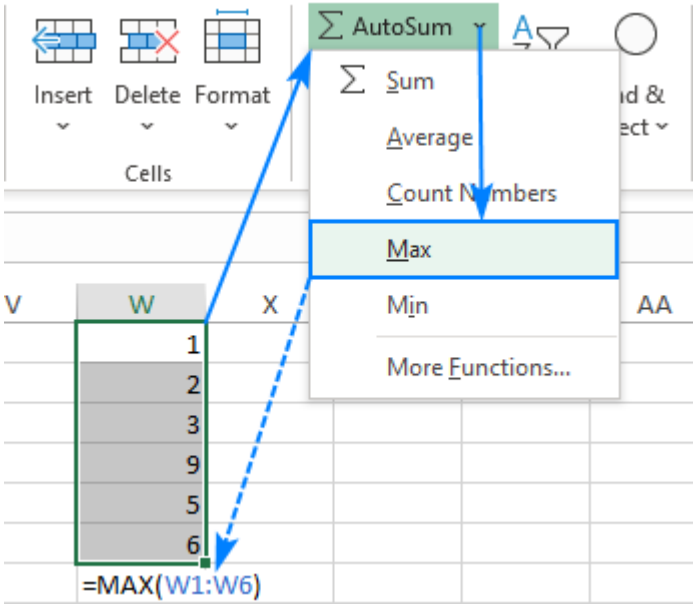
```
=MAX(A1:A6)
```



If your numbers are in a **contiguous** row or column (like in this example), you can get Excel to make a Max formula for you automatically. Here's how:

1. Select the cells with your numbers.
2. On the *Home* tab, in the *Formats* group, click *AutoSum* and pick **Max** from the drop-down list. (Or click *AutoSum* > *Max* on the *Formulas* tab in the *Function Library group.*)

This will insert a ready-to-use formula in a cell below the selected range, so please make sure there is at least one blank cell underneath the list of numbers that you've selected:



5 things to know about MAX function

To successfully use Max formulas your worksheets, please remember these simple facts:

1. In the current versions of Excel, a MAX formula can accept up to 255 arguments.
2. If the arguments do not contain a single number, the MAX function returns zero.
3. If the arguments contain one or more error values, an error is returned.
4. Empty cells are ignored.
5. Logical values and text representations of numbers supplied directly in the list of arguments are processed (TRUE evaluates as 1, FALSE evaluates as 0). In references, logical and text values are ignored.

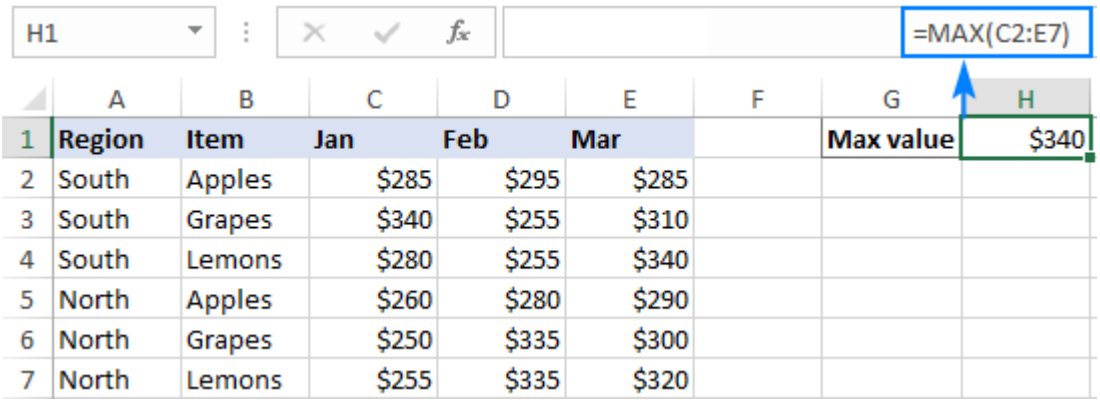
How to use MAX function in Excel – formula examples

Below you will find a few typical uses of the Excel MAX function. In many cases, there are a few different solutions for the same task, so I encourage you to test all the formulas to choose the one best suited for your data type.

How to find max value in a group

To extract the largest number in a group of numbers, supply that group to the MAX function as a range reference. A range can contain as many rows and columns as you desire. For example, to get the highest value in the range C2:E7, use this simple formula:

```
=MAX(C2:E7)
```



	A	B	C	D	E	F	G	H
1	**Region**	**Item**	**Jan**	**Feb**	**Mar**		**Max value**	$340
2	South	Apples	$285	$295	$285			
3	South	Grapes	$340	$255	$310			
4	South	Lemons	$280	$255	$340			
5	North	Apples	$260	$280	$290			
6	North	Grapes	$250	$335	$300			
7	North	Lemons	$255	$335	$320			

Find highest value in non-adjacent cells or ranges

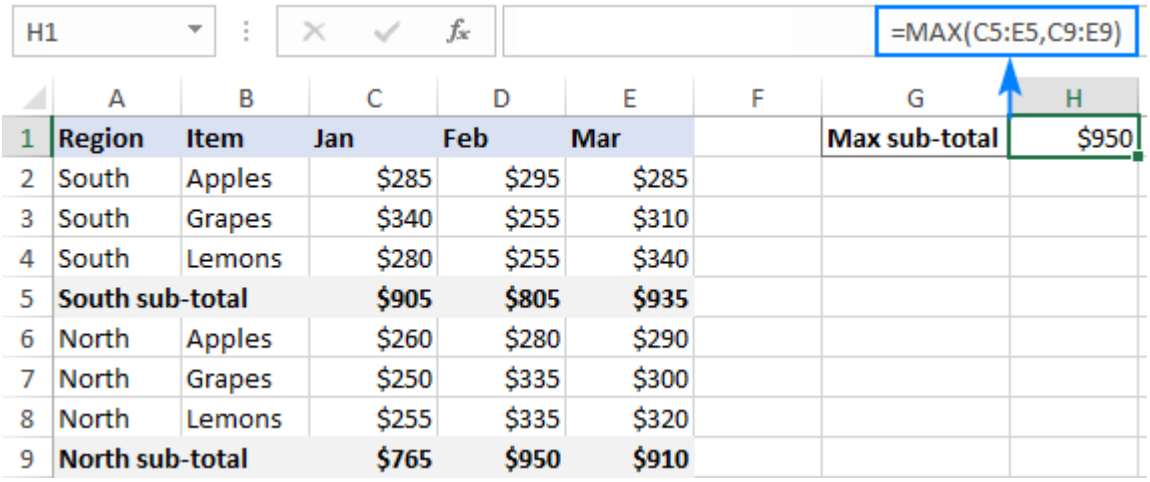
To make a MAX formula for non-contiguous cells and ranges, you need to include a reference to each individual cell and/or range. The following steps will help you to do that quickly and flawlessly:

1. Start typing a Max formula in a cell.
2. After you've typed the opening parenthesis, hold down the Ctrl key and select the cells and ranges in the sheet.
3. After selecting the last item, release Ctrl and type the closing parenthesis.
4. Press Enter.

Excel will use an appropriate syntax automatically, and you will get a formula similar to this:

```
=MAX(C5:E5, C9:E9)
```

As shown in the screenshot below, the formula returns the maximum sub-total value from rows 5 and 9:



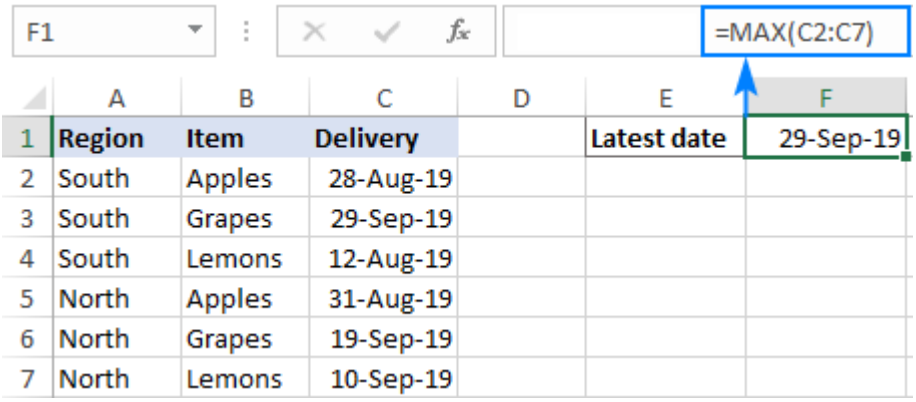
	A	B	C	D	E	F	G	H
1	**Region**	**Item**	**Jan**	**Feb**	**Mar**		**Max sub-total**	$950
2	South	Apples	$285	$295	$285			
3	South	Grapes	$340	$255	$310			
4	South	Lemons	$280	$255	$340			
5	**South sub-total**		**$905**	**$805**	**$935**			
6	North	Apples	$260	$280	$290			
7	North	Grapes	$250	$335	$300			
8	North	Lemons	$255	$335	$320			
9	**North sub-total**		**$765**	**$950**	**$910**			

How to get max (latest) date in Excel

In the internal Excel system, dates are nothing else but serial numbers, so the MAX function handles them without a hitch.

For instance, to find the latest delivery date in C2:C7, make a usual Max formula that you'd use for numbers:

```
=MAX(C2:C7)
```



	A	B	C	D	E	F
1	**Region**	**Item**	**Delivery**		**Latest date**	29-Sep-19
2	South	Apples	28-Aug-19			
3	South	Grapes	29-Sep-19			
4	South	Lemons	12-Aug-19			
5	North	Apples	31-Aug-19			
6	North	Grapes	19-Sep-19			
7	North	Lemons	10-Sep-19			

MAX function in Excel with conditions

When you wish to get the maximum value based on conditions, there are several formulas for you to choose from. To make sure that all the formulas return the identical result, we will test them on the same set of data.

The task: With the items listed in B2:B15 and sales figures in C2:C15, we aim to find the highest sale for a specific item input in F1 (please see the screenshot at the end of this section).

Excel MAX IF formula

If you a looking for a formula that works in all versions of Excel 2000 through Excel 2019, use the IF function to test the condition, and then pass the resulting array to the MAX function:

```
=MAX(IF(B2:B15=F1, C2:C15))
```

For the formula to work, it must press Ctrl + Shift + Enter simultaneously to enter it as an array formula. If all done correctly, Excel will enclose your formula in {curly braces}, which is a visual indication of an array formula.

It is also possible to evaluate several conditions in a single formula, and the following tutorial shows how: MAX IF with multiple conditions.

Non-array MAX IF formula

If you don't like using array formulas in your worksheets, then combine MAX with the SUMPRODUCT function that processes arrays natively:

```
=SUMPRODUCT(MAX((B2:B15=F1)*(C2:C15)))
```

For more information, please see MAX IF without array.

MAXIFS function

In Excel 2019 and Excel for Office 365, there is a special function named MAXIFS, which is designed to find the highest value with up to 126 criteria.

In our case, there is just one condition, so the formula is as simple as:

```
=MAXIFS(C2:C15, B2:B15, F1)
```

For the detailed explanation of the syntax, please see Excel MAXIFS with formula examples.

The below screenshot shows all 3 formulas in action:

	A	B	C	D	E	F	G	H	I
1	**Order no.**	**Item**	**Sales**		**Item**	Apples			
2	10001	Apples	$285						
3	10002	Grapes	$340		***Max sale***				
4	10003	Lemons	$280		$285	{=MAX(IF(B2:B15=F1, C2:C15))}			
5	10004	Apples	$260		$285	=SUMPRODUCT(MAX((B2:B15=F1)*(C2:C15)))			
6	10005	Grapes	$250		$285	=MAXIFS(C2:C15,B2:B15,F1)			
7	10006	Lemons	$255						
8	10007	Oranges	$295						
9	10008	Grapes	$255						
10	10009	Apples	$255						
11	10010	Grapes	$280						
12	10011	Lemons	$335						
13	10012	Oranges	$335						
14	10013	Apples	$285						
15	10014	Lemons	$310						

Get max value ignoring zeros

This is, in fact, a variation of conditional MAX discussed in the previous example. To exclude zeros, use the "not equal to" logical operator and put the expression "<>0" in either the criteria of MAXIFS or the logical test of MAX IF.

As you understand, testing this condition only makes sense in case of **negative numbers**. With positive numbers, this check is superfluous because any positive number is greater than zero.

To give it a try, let's find the lowest discount in the range C2:C7. As all the discounts are represented by negative numbers, the smallest discount is actually the largest value.

MAX IF

Be sure to press Ctrl + Shift + Enter to correctly complete this array formula:

```
=MAX(IF(C2:C7<>0, C2:C7))
```

MAXIFS

It's a regular formula, and a usual Enter keystroke will suffice.

```
=MAXIFS(C2:C7,C2:C7,"<>0")
```

	A	B	C	D	E	F	G	H	I
1	**Item**	**Sales**	**Discount**		*Smallest discount*				
2	Apples	$285	-$15		**MAX IF (array)**	-$10	{=MAX(IF(C2:C7<>0, C2:C7))}		
3	Grapes	$340	-$20		**MAXIFS**	-$10	=MAXIFS(C2:C7,C2:C7,"<>0")		
4	Lemons	$280	-$10						
5	Apples	$260	$0						
6	Grapes	$250	-$15						
7	Lemons	$255	$0						

Find highest value ignoring errors

When you work with a large amount of data driven by various formulas, chances are that some of your formulas will result in errors, which will cause a MAX formula to return an error too.

As a workaround, you can use MAX IF together with ISERROR. Given that you are searching in the range A1:B5, the formula takes this shape:

```
=MAX(IF(ISERROR(A1:B5)), "", A1:B5))
```

To simplify the formula, use the IFERROR function instead of the IF ISERROR combination. This will also make the logic a bit more obvious – if there's an error in A1:B5, replace it with an empty string (''), and then get the maximum value in the range:

```
=MAX(IFERROR(A1:B5, ""))
```

A fly in the ointment is that you need to remember to press Ctrl + Shift + Enter because this only works as an array formula.

In Excel 2019 and Excel for Office 356, the MAXIFS function can be a solution, provided that your data set contains at least one positive number or zero value:

```
=MAXIFS(A1:B5,A1:B5,">=0")
```

Since the formula searches for the highest value with the condition "greater than or equal to 0", it won't work for a data set consisting of solely negative numbers.

All these limitations are not good, and we are evidently in need of a better solution. The AGGREGATE function, which can perform a number of operations and ignore error values, fits perfectly:

```
=AGGREGATE(4, 6, A1:B5)
```

The number 4 in the 1st argument indicates the MAX function, the number 6 in the 2nd argument is the "ignore errors" option, and A1:B5 is your target range.

Under perfect circumstances, all three formulas will return the same result:

	A	B	C	D	E	F	G	H
1	1	#NAME?		MAX	#NAME?	=MAX(A1:B5)		
2	2	0						
3	#N/A	-6		AGGREGATE	9	=AGGREGATE(4,6,A1:B5)		
4	9	#DIV/0!		MAX IF	9	{ =MAX(IFERROR(A1:B5, ""))}		
5	3	7		MAXIFS	9	=MAXIFS(A1:B5,A1:B5,">=0")		

How to find absolute max value in Excel

When working with a range of positive and negative numbers, sometimes you may wish to find the largest absolute value regardless of the sign.

The first idea that comes to mind is to get the absolutes values of all numbers in the range by using the ABS function and feed those to MAX:

```
{=MAX(ABS(range))}
```

This is an array formula, so don't forget to confirm it with the Ctrl + Shift + Enter shortcut. Another caveat is that it only works with numbers and results in an error in case of non-numeric data.

Not happy with this formula? Then let us build something more viable :)

What if we find the minimum value, reverse or ignore its sign, and then evaluate along with all other numbers? Yep, that will work perfectly as a normal formula. As an extra bonus, it handles text entries and errors just fine:

With the source numbers in A1:B5, the formulas go as follows.

Array formula (completed with Ctrl + Shift + Enter):

```
=MAX(ABS(A1:B5))
```

Regular formula (completed with Enter):

```
=MAX(MAX(A1:B5), -MIN(A1:B5))
```

or

```
=MAX(MAX(A1:B5), ABS(MIN(A1:B5)))
```

The below screenshot shows the results:

	A	B	C	D	E	F	G	H	I
1	1	2		*Max absolute value*					
2	2	0		Array formula	10	{=MAX(ABS(A1:B5))}			
3	-10	-6		Regular formula	10	=MAX(MAX(A1:B5), -MIN(A1:B5))			
4	9	-5		Regular formula	10	=MAX(MAX(A1:B5), ABS(MIN(A1:B5)))			
5	3	7							

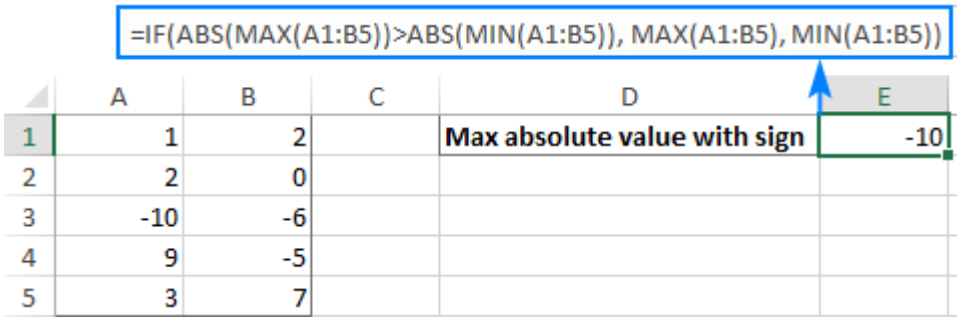
Return the maximum absolute value preserving the sign

In some situations, you may have a need to find the largest absolute value but return the number with its original sign, not the absolute value.

Assuming the numbers are in cells A1:B5, here's the formula to use:

```
=IF(ABS(MAX(A1:B5))>ABS(MIN(A1:B5)), MAX(A1:B5), MIN(A1:B5))
```

Complex at first sight, the logic is quite easy to follow. First, you find the largest and smallest numbers in the range and compare their absolute values. If the absolute max value is greater than the absolute min value, the maximum number is returned, otherwise – the minimum number. Because the formula returns the original and not absolute value, it keeps the sign information:



How to highlight max value in Excel

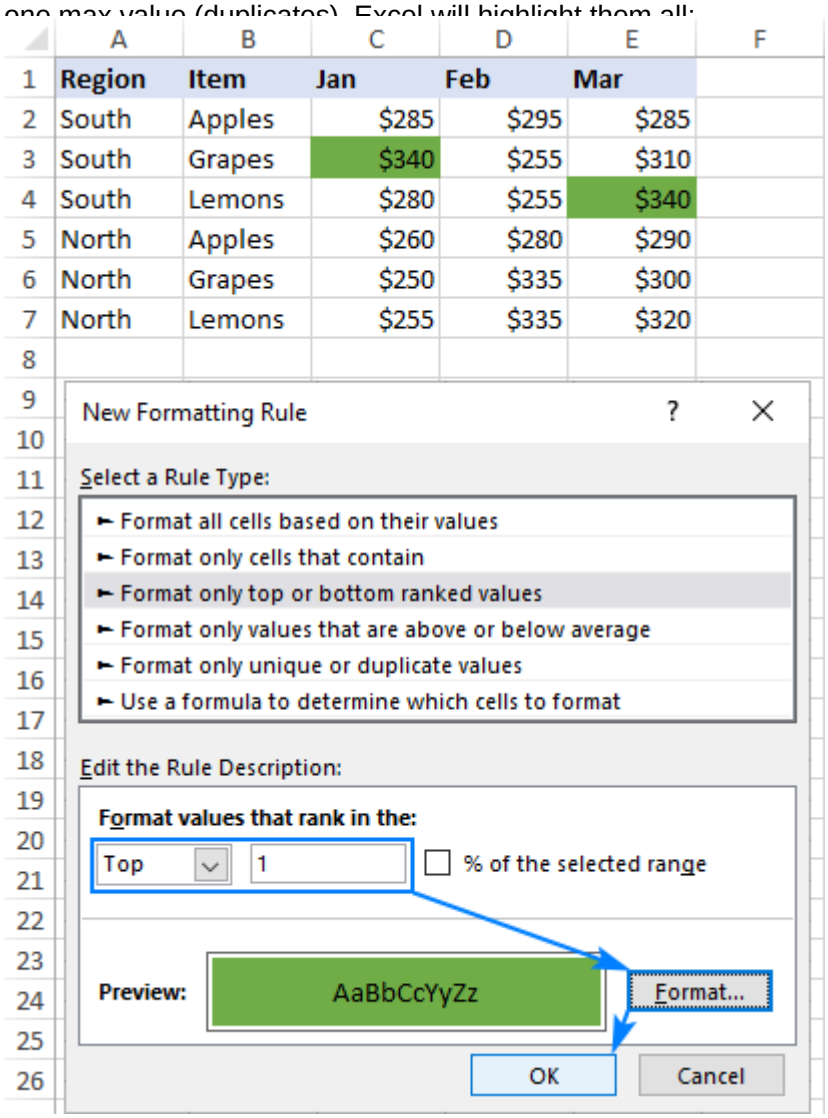
In situation when you want to identify the largest number in the original data set, the fastest way is to highlight it with Excel conditional formatting. The below examples will walk you through two different scenarios.

Highlight highest number in a range

Microsoft Excel has a predefined rule to format top ranked values, which suits our needs perfectly. Here are the steps to apply it:

1. Select your range of numbers (C2:C7 in our case).
2. On the *Home* tab, in the *Styles* group, click *Conditional formatting* > *New Rule*.
3. In the *New Formatting Rule* dialog box, choose **Format only top or bottom ranked values**.
4. In the lower pane, pick **Top** from the drop-down list and type 1 in the box next to it (meaning you want to highlight just one cell containing the largest value).
5. Click the *Format* button and select the desired format.
6. Click OK twice to close both windows.

Done! The highest value in the selected range is automatically highlighted. If there is more than one max value (duplicates), Excel will highlight them all:



Highlight max value in each row

Since there is no built-in rule to make the highest value stand out from each row, you will have to configure your own one based on a MAX formula. Here's how:

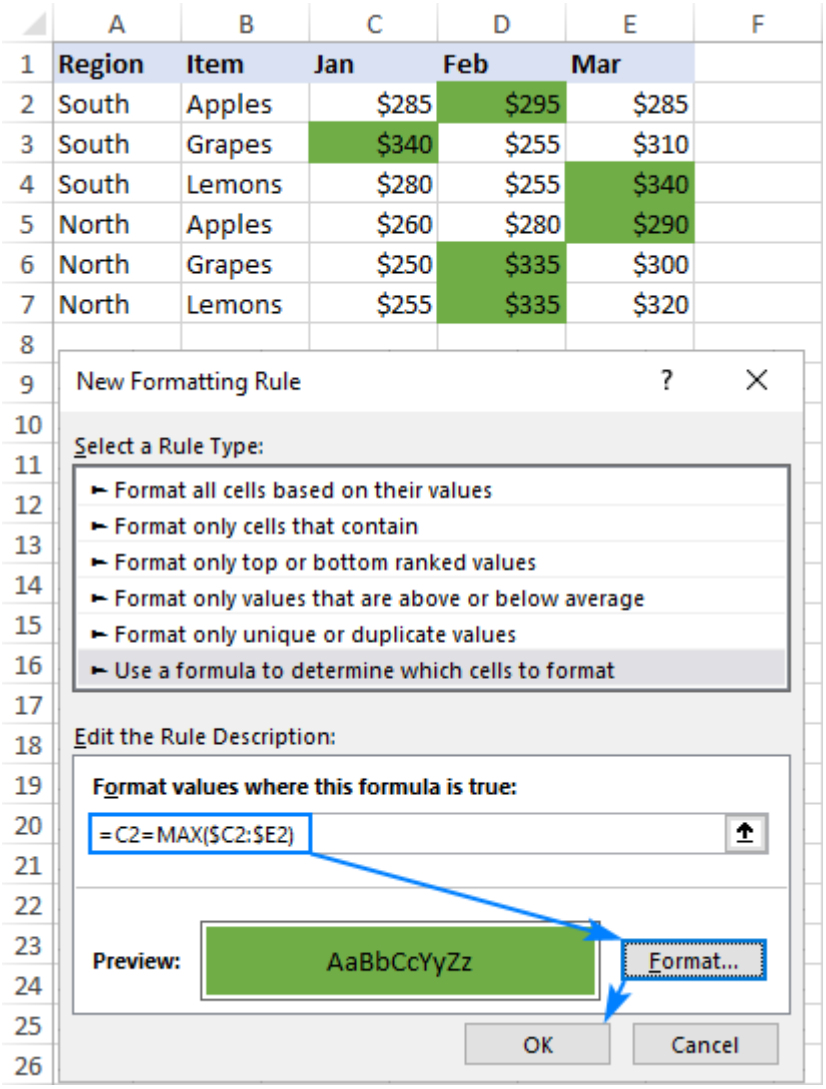
1. Select all the rows in which you want to highlight max values (C2:C7 in this example).
2. On the *Home* tab, in the *Styles* group, click *New Rule* > *Use a formula to determine which cells to format*.
3. In the *Format values where this formula is true* box, enter this formula:

   ```
   =C2=MAX($C2:$E2)
   ```

   Where C2 is the leftmost cell and $C2:$E2 is the first row range. For the rule to work, be sure to lock the column coordinates in the range with the $ sign.

4. Click the *Format* button and choose the format you want.

5. Click OK twice.



Tip. In a similar manner, you can highlight the **highest value** in **each column**. The steps are exactly the same, except that you write a formula for the first column range and lock the row coordinates: `=C2=MAX(C$2:C$7)`

For more information, please see How to create a formula-based conditional formatting rule.

Excel MAX function not working

MAX is one of the most straightforward Excel functions to use. If against all expectations it does not work right, it's most likely to be one of the following issues.

MAX formula returns zero

If a normal MAX formula returns 0 even though there are higher numbers in the specified range, chances are those numbers are formatted as text. It's especially the case when you run the MAX function on data driven by other formulas. You can check this by using the ISNUMBER function, for example:

```
=ISNUMBER(A1)
```

If the above formula returns FALSE, the value in A1 is not numeric. Meaning, you should troubleshoot the original data, not a MAX formula.

MAX formula returns #N/A, #VALUE or other error

Please check the referenced cells carefully. If any of the referenced cells contains an error, a MAX formula will result in the same error. To bypass this, see That's how to find max value in Excel. I thank you for reading and hope to see you on our blog soon!

Available downloads:

Excel MAX sample workbook

You may also be interested in

- MAX IF formula in Excel
- Excel MAXIFS function to find highest value with multiple criteria
- Excel MIN function - usage and formula examples
- How to find average in Excel

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10 responses to "MAX function in Excel: formula examples to find and highlight highest value"

1. *Khan* says:

   October 21, 2019 at 7:24 am

Well nd easy

Reply

2.  *Tony O'Brien* says:

May 15, 2020 at 12:41 am

How to find max, 2nd, 3rd & 4th latest dates by name in another sheet?
Results e;
Names in column A
Dates in column B
Distance in column C
& so on

Regards
Tony

Reply

3.  *Adrienne Adams* says:

July 6, 2020 at 5:19 pm

THANK YOU!!! Do you know how complicated I have been making this for years?! And it was as simple as =Max!!!
You have made my day!

Reply

4.  *Gurpreet Kaur* says:

July 24, 2020 at 3:19 am

which one of the following functions is designed to display the maximum value in a range of cells with question answer

Reply

5.  *Graham* says:

September 17, 2020 at 2:34 am

This is excellent, thanks for saving me a ton of time!

Reply

6.  *Nalin* says:

   October 25, 2020 at 3:50 pm

   Dear Sir

   can you help me to do a formula to find highest value of 1st numbers letters

   Reply

7.  *Maria* says:

   December 18, 2020 at 2:44 pm

   Hi, is it possible to create a formula to find the max value if some of the cells contain ranges please?
   i.e. working out that the max value is 505 from the following cells:
   Cell 1. 490
   Cell 2. 500,
   Cell 3. 490-505

   Reply

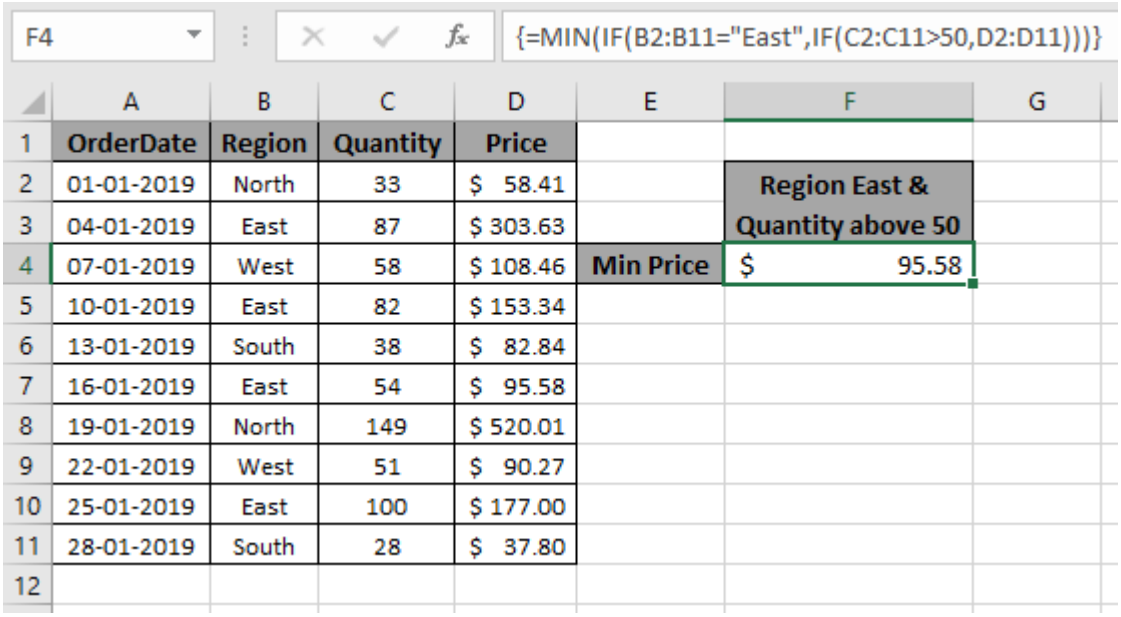
8.  *Michele Ostrofsky* says:

   March 1, 2021 at 2:51 am

   I am trying to find a formula that returns for example to find which State had the highest sales for a specific month. Column A is the State and Column B is the sales for the specific month. Does anyone know a formula for this? Thanks.

- minimum marks in a range of cells (C2:C11)

How to find minimum value with multiple criteria in Excel



	A	B	C	D	E	F	G
1	OrderDate	Region	Quantity	Price			
2	01-01-2019	North	33	$ 58.41		Region East &	
3	04-01-2019	East	87	$ 303.63		Quantity above 50	
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:

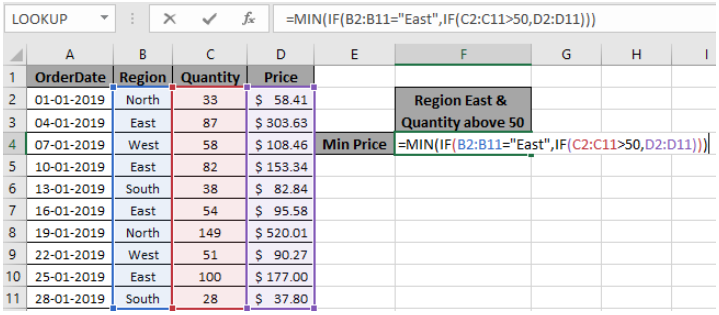
```
{ =MIN( IF( B2:B11="East", IF( C2:C11 > 50 , D2:D11 )))}
```

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.

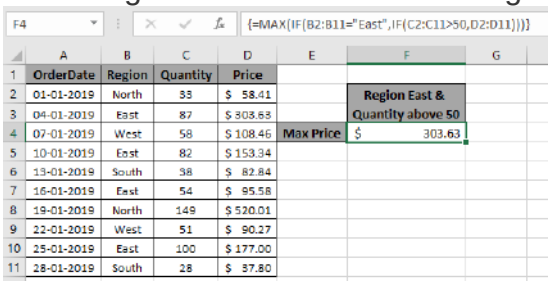
{ FALSE ; 303.63 ; 108.46 ; 153.34 ; FALSE ; 95.58 ; 520.01 ; 90.27 ; 177 ; FALSE }

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.



OrderDate	Region	Quantity	Price
01-01-2019	North	33	$ 58.41
04-01-2019	East	87	$ 303.63
07-01-2019	West	58	$ 108.46
10-01-2019	East	82	$ 153.34
13-01-2019	South	38	$ 82.84
16-01-2019	East	54	$ 95.58
19-01-2019	North	149	$ 520.01
22-01-2019	West	51	$ 90.27
25-01-2019	East	100	$ 177.00
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



OrderDate	Region	Quantity	Price
01-01-2019	North	33	$ 58.41
04-01-2019	East	87	$ 303.63
07-01-2019	West	58	$ 108.46
10-01-2019	East	82	$ 153.34
13-01-2019	South	38	$ 82.84
16-01-2019	East	54	$ 95.58
19-01-2019	North	149	$ 520.01
22-01-2019	West	51	$ 90.27
25-01-2019	East	100	$ 177.00
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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Q13 a) Describe various steps involved in the following

Business Studies

Explain the various steps involved in the process of organising.

Medium

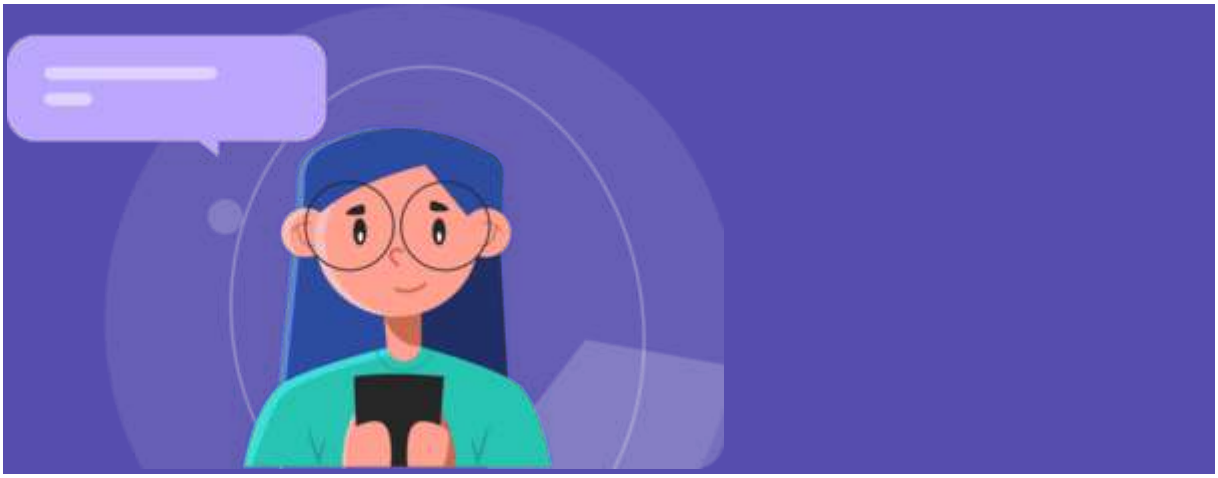
Answer

Main steps involved in the process of organizing an Organisation are: 1. Identification and Division of Work 2. Departmentalisation 3. Assignment of Duties 4. Establishing Reporting Relationships!

Answer verified by Toppr
3288 Views

Was this answer helpful?

answr



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The feature of management which deals with the optimum use of human resource is _____.

Medium

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Job Evaluation is a technique which aims at _____.

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  - To modify column width of a worksheet

Change the column width and row height

Excel for Microsoft 365 Excel 2019 Excel 2016 Excel 2013 Excel 2010 Excel 2007

sIf 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

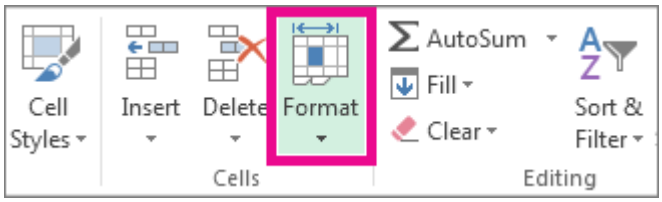
Notes:

- 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.

Newer versionsOffice 2007 – 2010

Set a column to a specific width

1. Select the column or columns that you want to change.
2. On the **Home** tab, in the **Cells** group, click **Format**.



3. Under **Cell Size**, click **Column Width**.
4. In the **Column width** box, type the value that you want.
5. Click **OK**.

Tip: To quickly set the width of a single column, right-click the selected column, click **Column Width**, type the value that you want, and then click **OK**.

Change the column width to automatically fit the contents (AutoFit)

Match the column width to another column

Change the default width for all columns on a worksheet or workbook

Change the width of columns by using the mouse

Set a row to a specific height

Change the row height to fit the contents

Change the height of rows by using the mouse

See Also

Change the column width and row height in Excel for Mac

Change the column width and row height in Excel Online

Overview of formulas in Excel

How to avoid broken formulas

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Excel functions (alphabetical)

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To modify the row height of a worksheet

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How to change the Row height in Excel worksheet

If you are new to spreadsheet concepts like Row, Column and Cell, please visit following link to learn the terms Row, Column and Cell in Excel worksheet before reading the tutorial lesson.

If the default font in your copy of Excel is Calibri and font size is 11, then the default Row height for all the rows in all new worksheets of Excel workbooks is 15 Points (20 Pixels). If you change the default font type or size, the default Row height also will change in new worksheets.

Following are the values related with Row height in Excel 2019.

Minimum	Maximum	Default
0 (For hidden Row)	409	15 (for default font Calibri, Size 11)

If you try to increase the Row height beyond 409, Excel will show below dialog box.

Once you start editing the Excel worksheet, the Row height will change according to the largest font a Cell can accommodate in a Row. You can verify it by selecting a Row and then by increasing the font size from Excel Ribbon. As you increase the font size, the Row height also will increase.

If you have different font sizes in an Excel Row, the Row height of Excel will be according to the height of the largest font in any of the cells in that Row.

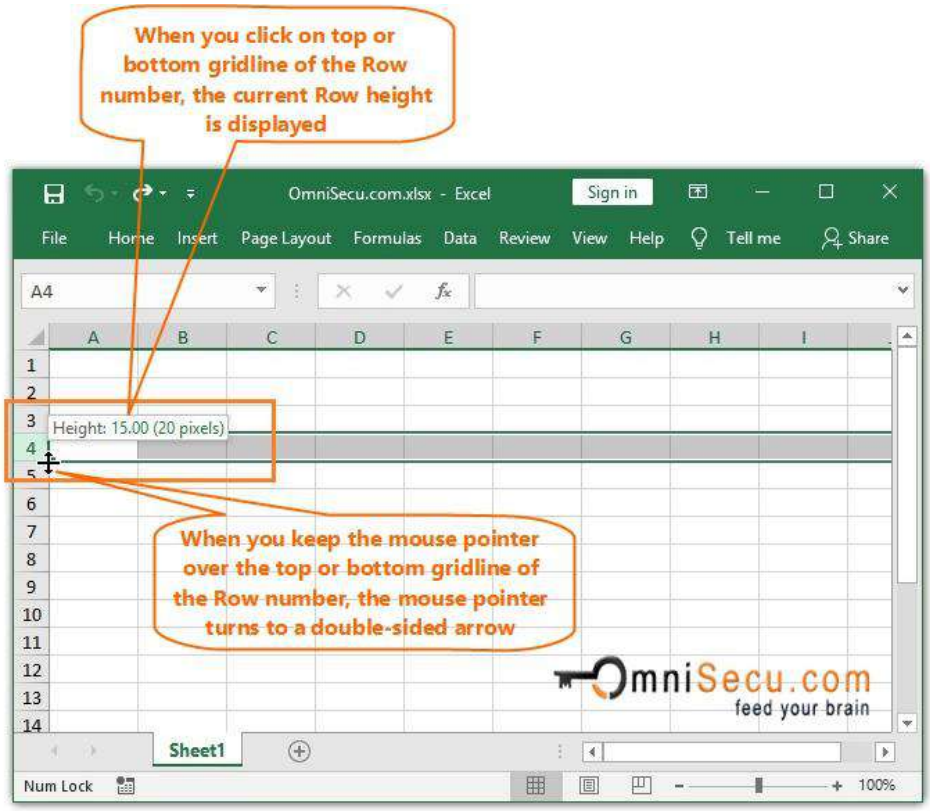
Two methods for changing the Row height in Excel worksheet are explaind below.

Method 1 - How to change Row height by clicking and dragging on boundary gridline

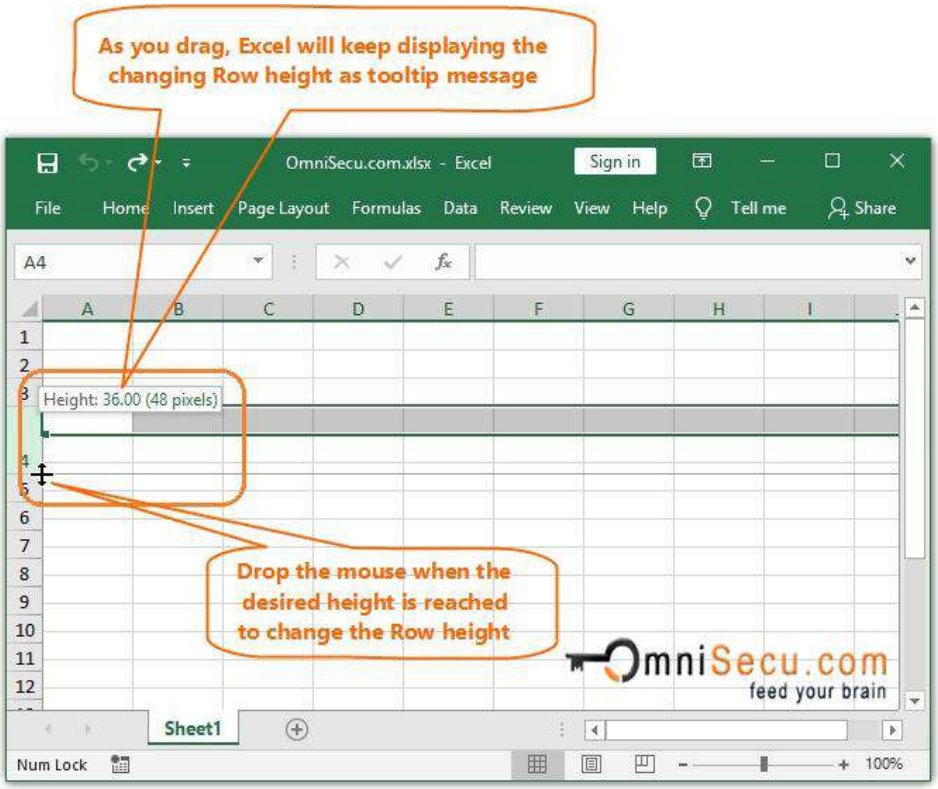
To change the Row height of a single Row by clicking and dragging on Row boundary gridline, follow these steps.

Step 1 - Select the Row you want to change its height by clicking on Row number. Place the mouse pointer on top or bottom gridline of the Row number until the mouse pointer turns to a double-sided arrow. You need to place the mouse pointer on top or bottom gridline depending on to top or bottom direction you want to change the Row height. In this example, Row number 4 and bottom gridline are selected.

Now click on the bottom gridline of Row number, as shown below.



Step 2 - Drag the mouse till the desired height is reached and then drop the mouse to change the Row height. As you drag, Excel will keep displaying the changing Row height as tooltip message.

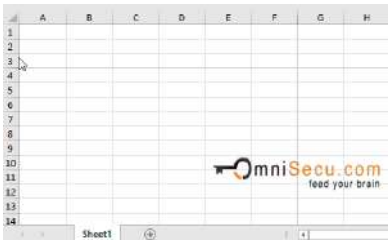


An animation about how to change the Row height of a single Row by drag and drop is copied below.

.

Similarly, you can change the height of multiple Rows simultaneously by click, drag and drop. Select multiple Rows and then click, drag and drop on top-most or bottom-most gridline of the Rows selection for changing the height of multiple Rows simultaneously.

An animation about how to change the Row height of multiple Rows by drag and drop is copied below



Method 2 - How to change Row height by entering the exact Row height value

Sometimes it is difficult to select the exact Row height by using drag and drop method described above, because the Row height value keep changing as you drag. Follow below steps to change single Row height by entering the exact Row height value.

Step 1 - Right-click the Row you want to change the height and click the "Row Height" to open "Row Height" dialog box from the context menu, as shown in below image.

You can open the "Row Height" dialog box also from Excel Ribbon > "Home" Tab > "Cells" > "Format" as shown below.

Step 2 - Enter exact value for Row height in Row height dialog box and click "OK" to change the Row height, as shown below.

Similarly, you can change the height of multiple Rows simultaneously by typing-in the Row height value. Select multiple Rows and then right-click on any Row in the selection. Click the "Row Height" from the context menu and type the Row height value in dialog box. Click "OK" button.

Do you have any suggestions? Please let us know!

<< Row, Column and Cell in Excel worksheet

Excel AutoFit Row Height >>

Related Tutorials

Introduction

By the end of this lesson, you should be able to:

- Insert rows and columns
- Delete rows and columns

Inserting a row

You can insert a **row** in a spreadsheet anywhere you need it. Excel moves the existing rows down to make room for the new one.

To insert a row:

- Click anywhere in the row **below** where you want to insert the new row.
- Choose **Insert → Rows** from the menu bar.

- A new row is inserted above the cell(s) you originally selected.

OR

- Click anywhere in the row **below** where you want to insert the new row.
- **Right-click** and choose **Insert** from the shortcut menu.

- dialog box opens.

- Choose **Entire Row**.
- Click **OK**.
- A new row is inserted above the cell(s) you originally selected.

✓ Select multiple rows before choosing **Insert** to add rows quickly. Excel inserts the same number of new rows you originally selected.

Inserting a column

In Excel, you can insert a **column** anywhere you need it. Excel moves the existing columns to make room for the new one.

To insert a column:

- Click anywhere in the column where you want to insert a new column.
- Choose **Insert → Columns** from the menu bar.

- A new column is inserted to the **left** of the existing column.

OR

- Click anywhere in the column where you want to insert a new column.
- **Right-click** and choose **Insert** from the shortcut menu.

- The **Insert** dialog box opens.

  Click **Entire Column** in the Insert dialog box.
- Click **OK**.
- A new column is inserted to the **left** of the existing column.

✓You can also select multiple columns before choosing **Insert** to add columns quickly. Excel inserts the same number of new columns you originally selected.

Deleting columns and rows

Columns and rows are deleted in much the same manner as inserting columns and rows.

To delete a row and all information in it:

- Select a cell in the row to be deleted.
- Choose **Edit → Delete** from the menu bar.
- Click **Entire Row** in the **Delete** dialog box.

- Click **OK**.

To delete a column and all information in it:

- Select a cell in the column to be deleted.
- Choose **Edit → Delete** from the menu bar.
- Click **Entire Column** in the **Delete** dialog box.

- Click **OK**.

Challenge!

- In column A, type the following names in cells A1, A2, A3, and A4, respectively:

  Mary in cell A1
  Bob in cell A2
  Susan in cell A3
  John in cell A4

- In column B, type the following numbers next to each name entered in column A:

  44 in cell B1 to the right of Mary's name
  28 in cell B2 to the right of Bob's name
  36 in cell B3 to the right of Susan's name
  89 in cell B4 to the right of John's name

- **Insert a column** between columns A and B. Type the following numbers in the new column B:

  76 in cell B1 to the right of Mary's name
  57 in cell B2 to the right of Bob's name
  29 in cell B3 to the right of Susan's name
  61 in cell B4 to the right of John's name

- **Insert a row** between rows 2 and 3. Type the following numbers in the new row 3:
  Rick in cell A3
  45 in cell B3
  58 in cell C3

Q13 b) Describe following terms in the worksheet

- Helping Hand
- **24** answers
- **1.1K** people helped

Answer:

Microsoft Excel terminology

Workbook — The workbook refers to an Excel spreadsheet file. The workbook houses all of the data that you have entered and allows you to sort or calculate the results. A workbook that is available to be viewed and edited by multiple users on a network is known as a Shared Workbook.

Worksheet — Within the workbook is where you'll find documents called worksheets. Also known as spreadsheets, you can have multiple worksheets nestled in a workbook. Tabs at the bottom of the of the screen will indicate which of your worksheets you are currently working on. This is also known as an active worksheet or active sheet.

Cell — A cell is a rectangle or block housed in a worksheet. Any data that you want to enter into your worksheet must be placed in a cell. Cells can be color coded, display text, numbers and the results of calculations, based on what you want to accomplish. An Active Cell is one that is currently opened for editing.

punineep and 24 more users found this answer helpful

THANKS 15

4.6

(9 votes)

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New questions in Computer Science

How many times of data can be entered I an excelsheet

https://buddysupplement-com/ultramax-rise/

the___ process the data

MS excel is used for a)savingfiles b)calculation c)transformation

jisko aana hai aa jaoo no forcedness for coming vwq-dzzk-xmi

4. Ca_si__k5. S_i_tk_y

1. Write down to thenames of the meetingwindos field in outlook

The pages of the presentation are called slide. true or false

Good Evening everyone plss don't Answer

The pages of the presentation you are called slide.

For example, A1 would refer to the first row (specified as 1) and the first column (specified as A). Similarly, B3 would be the third row and second column.

The power of Excel lies in the fact that you can use these cell references in other cells when creating formulas.

Now there are three kinds of cell references that you can use in Excel:

- Relative Cell References
- Absolute Cell References
- Mixed Cell References

Understanding these different types of cell references will help you work with formulas and save time (especially when copy-pasting formulas).

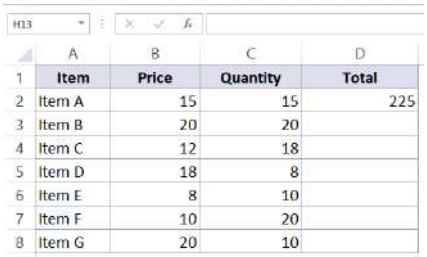
e cell references in Excel.

Suppose I have a data set shown below:

To calculate the total for each item, we need to multiply the price of each item with the quantity of that item.

For the first item, the formula in cell D2 would be B2* C2 (as shown below):

Now, instead of entering the formula for all the cells one by one, you can simply copy cell D2 and paste it into all the other cells (D3:D8). When you do it, you will notice that the cell reference automatically adjusts to refer to the corresponding row. For example, the formula in cell D3 becomes B3*C3 and the formula in D4 becomes B4*C4.



	A	B	C	D
1	Item	Price	Quantity	Total
2	Item A	15	15	225
3	Item B	20	20	
4	Item C	12	18	
5	Item D	18	8	
6	Item E	8	10	
7	Item F	10	20	
8	Item G	20	10	

These cell references that adjust itself when the cell is copied are called **relative cell references in Excel**.

When to Use Relative Cell References in Excel?

Relative cell references are useful when you have to create a formula for a range of cells and the formula needs to refer to a relative cell reference.

In such cases, you can create the formula for one cell and copy-paste it into all cells.

What are Absolute Cell References in Excel?

Unlike relative cell references, absolute cell references don't change when you copy the formula to other cells.

For example, suppose you have the data set as shown below where you have to calculate the commission for each item's total sales.

The commission is 20% and is listed in cell G1.

	A	B	C	D	E	F	G
1	Item	Price	Quantity	Total	Commission		20%
2	Item A	15	15	225			
3	Item B	20	20	400			
4	Item C	12	18	216			
5	Item D	18	8	144			
6	Item E	8	10	80			
7	Item F	10	20	200			
8	Item G	20	10	200			

To get the commission amount for each item sale, use the following formula in cell E2 and copy for all cells:

=D2*G1

Note that there are two dollar signs ($) in the cell reference that has the commission – G2.

What does the Dollar ($) sign do?

A dollar symbol, when added in front of the row and column number, makes it absolute (i.e., stops the row and column number from changing when copied to other cells).

For example, in the above case, when I copy the formula from cell E2 to E3, it changes from =D2*G1 to =D3*G1.

Note that while D2 changes to D3, G1 doesn't change.

Since we have added a dollar symbol in front of 'G' and '1' in G1, it wouldn't let the cell reference change when it's copied.

Hence this makes the cell reference absolute.

When to Use Absolute Cell References in Excel?

Absolute cell references are useful when you don't want the cell reference to change as you copy formulas. This could be the case when you have a fixed value that you need to use in the formula (such as tax rate, commission rate, number of months, etc.)

While you can also hard code this value in the formula (i.e., use 20% instead of G2), having it in a cell and then using the cell reference allows you to change it at a future date.

For example, if your commission structure changes and you're now paying out 25% instead of 20%, you can simply change the value in cell G2, and all the formulas would automatically update.

What are Mixed Cell References in Excel?

Mixed cell references are a bit more tricky than the absolute and relative cell references.

There can be two types of mixed cell references:

- The row is locked while the column changes when the formula is copied.
- The column is locked while the row changes when the formula is copied.

Let's see how it works using an example.

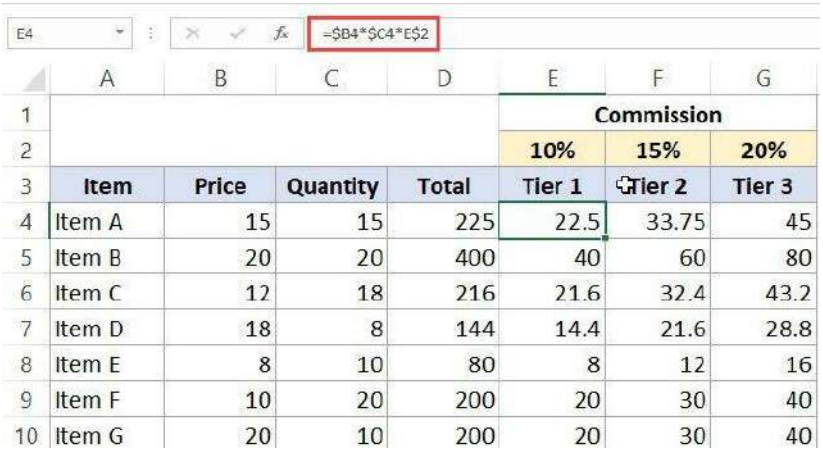
Below is a data set where you need to calculate the three tiers of commission based on the percentage value in cell E2, F2, and G2.

	A	B	C	D	E	F	G
1					Commission		
2					10%	15%	20%
3	Item	Price	Quantity	Total	Tier 1	Tier 2	Tier 3
4	Item A	15	15	225			
5	Item B	20	20	400			
6	Item C	12	18	216			
7	Item D	18	8	144			
8	Item E	8	10	80			
9	Item F	10	20	200			
10	Item G	20	10	200			

Now you can use the power of mixed reference to calculate all these commissions with just one formula.

Enter the below formula in cell E4 and copy for all cells.

=$B4*$C4*E$2



E4 | =$B4*$C4*E$2

	A	B	C	D	E	F	G
1					Commission		
2					10%	15%	20%
3	Item	Price	Quantity	Total	Tier 1	Tier 2	Tier 3
4	Item A	15	15	225	22.5	33.75	45
5	Item B	20	20	400	40	60	80
6	Item C	12	18	216	21.6	32.4	43.2
7	Item D	18	8	144	14.4	21.6	28.8
8	Item E	8	10	80	8	12	16
9	Item F	10	20	200	20	30	40
10	Item G	20	10	200	20	30	40

The above formula uses both kinds of mixed cell references (one where the row is locked and one where the column is locked).

Let’s analyze each cell reference and understand how it works:

- **$B4 (and $C4)** – In this reference, the dollar sign is right before the Column notation but not before the Row number. This means that when you copy the formula to the cells on the right, the reference will remain the same as the column is fixed. For example, if you copy the formula from E4 to F4, this reference would not change. However, when you copy it down, the row number would change as it is not locked.
- **E$2** – In this reference, the dollar sign is right before the row number, and the Column notation has no dollar sign. This means that when you copy the formula down the cells, the reference will not change as the row number is locked. However, if you copy the formula to the right, the column alphabet would change as it’s not locked.

How to Change the Reference from Relative to Absolute (or Mixed)?

To change the reference from relative to absolute, you need to add the dollar sign before the column notation and the row number.

For example, A1 is a relative cell reference, and it would become absolute when you make it A1.

If you only have a couple of references to change, you may find it easy to change these references manually. So you can go to the formula bar and edit the formula (or select the cell, press F2, and then change it).

However, a faster way to do this is by using the keyboard shortcut – F4.

When you select a cell reference (in the formula bar or in the cell in edit mode) and press F4, it changes the reference.

Suppose you have the reference =A1 in a cell.

Here is what happens when you select the reference and press the F4 key.

- **Press F4 key once:** The cell reference changes from A1 to A1 (becomes 'absolute' from 'relative').
- **Press F4 key two times:** The cell reference changes from A1 to A$1 (changes to mixed reference where the row is locked).
- **Press F4 key three times:** The cell reference changes from A1 to $A1 (changes to mixed reference where the column is locked).
- **Press F4 key four times:** The cell reference becomes A1 again.

You May Also Like the Following Excel Tutorials:

12 thoughts on “Absolute, Relative, and Mixed Cell References in Excel”

1. **Ely Wagan**
   March 2020 at 12:01 pm

   I have these 2 sheets, and I want to copy the exact data from sheet 1 to sheet 2.
   Note that in sheet 2 it should have those spaces in between before I put the name

   Sheet 1 Sheet 2

   Name1 Name1
   Name 2
   Name 3
   Name 4 Name 2

   Name3

   Name 4

   In sheet 2 , I will use the formula to copy a cell it will will just have =B7
   but if I will copy this formula to Sheet2 in the next line which is the position of Name 2 it will give me the
   value of Name 4 instead because it skips 2 lines from sheet 1, what will I put in the formula so that
   it will tell just to skip one row at a time when copied to Sheet2.

   Thanks for your answer
2. **Mohamed**
   August 2019 at 6:39 pm

   Thank you so much, it helps me a lot
3. **Sham**

August 2019 at 10:38 am

Wonderful

4. **Jaspreet Kaur**
   July 2019 at 2:19 pm

   Really very helpful, you decribe this in a very easiest way.. Thank you!!
5. **A SOCRATES**
   July 2019 at 9:23 pm

   VERY NICE
6. **Maxwell**
   June 2019 at 6:35 pm

   This tutorial has make understand the three terms better
7. **Swastik**
   June 2019 at 12:51 pm

   It’s good but would be better if added the differences
8. **Eka**
   May 2019 at 12:49 am

   Very helpful tutorial!
9. **Mohammad A**
   August 2017 at 10:03 am

   Thanks! I’m always looking forward to your tutorials, getting notifications by email is very useful!! Thanks again
   - **Sumit Bansal**
     August 2017 at 12:41 pm

     Thanks for commenting.. Happy to know that you find the tutorials useful
10. **Bhanwar Singh Choudhary**
    August 2017 at 12:34 am

    Very vital and informative in a simple manner. I like flow of the article.

Cell address

-
-
-
-
-

What is the Cell ADDRESS Function?

The cell ADDRESS function is categorized under Excel Lookup and Reference functions. It will provide a cell reference (its "address") by taking the row number and column letter. The cell reference will be provided as a string of text. The function can return an address in a relative or absolute format and can be used to construct a cell reference inside a formula.

As a financial analyst, cell ADDRESS can be used to convert a column number to a letter, or vice versa. We can use the function to address the first cell or last cell in a range.

Formula

=ADDRESS(row_num, column_num, [abs_num], [a1], [sheet_text])

The formula uses the following arguments:

1. **Row_num** (required argument) – This is a numeric value specifying the row number to be used in the cell reference.
2. **Column_num** (required argument) – A numeric value specifying the column number to be used in the cell reference.
3. **Abs_num** (optional argument) – This is a numeric value specifying the type of reference to return:

4. **A1**(optional argument) – This is a logical value specifying the A1 or R1C1 reference style. In R1C1 reference style, both columns and rows are labeled numerically. It can either be TRUE (reference should be A1) or FALSE (reference should be R1C1).

When omitted, it will take on the default value TRUE (A1 style).

5. **Sheet_text** (optional argument) – Specifies the sheet name. If we omit the argument, it will take the current worksheet.

How to use the ADDRESS Function in Excel?

To understand the uses of the cell ADDRESS function, let us consider a few examples:

Example 1

Suppose we wish to convert the following numbers into Excel column references:

The formula to use will be:

We get the results below:

The ADDRESS function will first construct an address containing the column number. It was done by providing 1 for row number, a column number from B6, and 4 for the abs_num argument.

After that, we use the SUBSTITUTE function to take out the number 1 and replace with “”.

Example 2

The ADDRESS function can be used to convert a column letter to a regular number, e.g., 21, 100, 126, etc. We can use a formula based on the INDIRECT and COLUMN functions.

Suppose we are given the following data:

The formula to use will be:

We get the results below:

The INDIRECT function transforms the text into a proper Excel reference and hands the result off to the COLUMN function. Then, the COLUMN function evaluates the reference and returns the column number for the reference.

A few notes about the Cell ADDRESS Function

1. If we wish to change the reference style that Excel uses, we should go to the File tab, click Options, and then select Formulas. Under Working with formulas, we can select or clear the R1C1 reference style checkbox.
2. #VALUE! error – Occurs when any of the arguments are invalid. We would get this argument if:
    - The row_num is less than 1 or greater than the number of rows in the spreadsheet;
    - The column_num is less than 1 or greater than the number of columns in the spreadsheet; or
    - Any of the supplied row_num, column_num or [abs_num] arguments are non-numeric or the supplied [a1] argument is not recognized as a logical value.

Click here to download the sample Excel file

Additional resources

Thanks for reading CFI's guide to important Excel functions! By taking the time to learn and master these functions, you'll significantly speed up your financial analysis. To learn more, check out these additional CFI resources:

- Excel Functions for Finance
- Advanced Excel Formulas Course
- Advanced Excel Formulas You Must Know
- Excel Shortcuts for PC and Mac

Free Excel Tutorial

To master the art of Excel, check out CFI's FREE Excel Crash Course, which teaches you how to become an Excel power user. Learn the most important formulas, functions, and shortcuts to become confident in your financial analysis.

Launch CFI's Free Excel Course now

to take your career to the next level and move up the ladder!

CFI logo

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

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Over the last few years, Bangladeshi businesses have begun to put more focus on soft skills training. With events and organisations centred around soft the importance of soft skills, Bangladesh is moving towards a soft skills focused workforce. Interpersonal skills, employability skills, leadership, and entrepreneurial development have become more important to organisations than ever before. The Learning and Development industry is growing and so is the need for information on soft skills training for leaders and managers. Here are four ways to train your employees in soft skills. …

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

ow to Make & Give Great PowerPoint Presentations (In 5 Simple Steps)

by Andrew Childress15 Nov 2019

Difficulty:BeginnerLength:LongLanguages:

That strong response is usually rooted in our personal horror stories, like an embarrassing slip-up in a presentation for a class, or a talk at work that

fell flat. **Giving a great PowerPoint presentation is a skill. And it's one that anyone can build and improve upon.**

Are you ready to learn how to make a great presentation in PowerPoint and present it like a pro? (graphic source)

Giving presentations can feel overwhelming. It's hard to know where to start, even if you're willing to put in the time. This tutorial can help:

-

PRESENTATIONS

Make an Impact—How to Start a Presentation Strong and End Powerfully

Julia Melymbrose

Becoming a motivational speaker or renowned presenter doesn't have to be your main goal. You can become a proficient and effective speaker in a variety of contexts.

You can learn a professional process that'll help you make a great presentation and present like a pro. That's why I've broken down the art of building a presentation into lists and actionable steps you can readily follow in this tutorial.

We combine technical skills in Microsoft PowerPoint with best practices for presenting information. This tutorial explains how to do a PowerPoint presentation, step by step.

Guide to Making Great Presentations (Free eBook Download)

Also, take what you'll learn in this tutorial further. Download our free eBook: The Complete Guide to Making Great Presentations. In it, you'll

learn the complete presentation process of how to write your presentation effectively, design it like a pro, and more.

Now follow along to learn step-by-step how to make a great presentation in PowerPoint that's ready to present to an eager audience.

1. Content Comes First

The first part of writing a successful PowerPoint-based presentation has nothing to do with PowerPoint. It's all about the content that you'll put inside of it.

You're making a mistake if you start by looking at the design of your PowerPoint presentation or by making animations for your slides. Instead, prioritize writing the **content** for your presentation first. Write your content before you even open PowerPoint.

Plan the content of your presentation first (Image source: Envato Elements)

In summary, keep these two simple points in mind when you start writing the content for your presentation:

1. **Bad**. You start off creating a PowerPoint presentation by opening the app and choosing a theme and your favorite colors.
2. **Good**. Put yourself in your audience's shoes. Decide what they should feel and know at the end of your presentation.

I use a simple note-taking app like Notes for Mac or Evernote to help me organize my thoughts. I also jot down my content ideas on a spare napkin or the back of a notebook. For this exercise, grab a piece of paper and follow each of the content-writing steps.

Remember: The point is that we decide on what we want to say before we begin saying it in PowerPoint.

Let's break down the detailed steps I use when writing presentations using Microsoft PowerPoint:

Step 1. Write Down Your Presentation's Goal

I've been guilty of throwing all my data or ideas into a PowerPoint file and seeing what it looks like when I'm finished.

This directionless wandering is a surefire recipe for presentations that'll bore your audience and lose their attention. That's why it's so important to **set your presentation goal first.**

Here are some examples of goal setting for a presentation:

- To **educate** the audience on the latest developments with the Swift programming language.
- To **update** my team on the progress of a major project at the company.
- To **persuade** the audience to use your product to grow their own freelance business.

PRESENTATIONS

15 Bad Business Presentation Mistakes (And How to Avoid Poor Results)

Brad Smith

You could break these main types of presentations down into other categories. But I find that this is a simple and helpful way to start setting your goal.

Before you ever open PowerPoint, start by first writing down (or typing) the goal for your presentation.

Before you start writing your presentation or pulling together all the data and visuals do this. **Write the goal for your presentation on a piece of paper**, or the app taking note of choice. Put it in front of you throughout the content writing process so you won't lose track of your ultimate goal for your presentation.

Step 2. Define Your Audience

Who will you be speaking to? What do they already know about the topic at hand?

It seems so obvious, but many presenters use a one-size-fits all approach to sharing information. Instead, you've got to tailor your content to who will hear it and what they know about the topic beforehand.

A presentation about the future of blockchain should be different if I'm speaking to a room of PhD economists that it would be if I were presenting to a group of high school students. Tailoring your content to the audience helps them get the most from your presentation.

Do This: Describe your primary audience below the goal you wrote in step one. Write down what their level of familiarity with the topic is, and anything they might have in common.

After you've established the goal, add your target audience to your presentation plan.

Consider all the following when defining your audience:

- What do they know about the topic before attending your presentation?
- What do they know about *you* coming into the presentation? Your presentation could range from your daily colleagues to a complete group of strangers.

- Decide upon their expectations for the presentation. Are they coming to find a solution to a problem, learn something new, or to be entertained?

Consider all these factors when you're writing content. You'll approach an audience of your peers differently than an unfamiliar audience.

Best of all, you can create many versions of your presentation if your audience changes. Each time your audience changes, you can tweak the presentation to match.

Learn more about how to put your audiences needs first, as well as how to make a great PowerPoint presentation that's memorable and persuasive:

-

PRESENTATIONS

How to Make a Persuasive PowerPoint Presentation (With Powerful Tips)

Celine Roque

Step 3. Set Your Key Presentation Points

We've defined the presentation's goal and considered our audience. Now, it's time to write a presentation outline that fits with both.

I used to blow off the idea of writing an outline for my presentations. I thought I had all the ideas and key points clearly defined in my own mind. Unfortunately, this is a false sense of clarity. We're biased to understand our own ideas far better than anyone else is.

Below the audience we defined, start writing down the key supporting ideas for your presentation. Aim for four to five major points that'll be the cornerstone of your presentation.

Set the major points as bullet points for your outline - in your note taking app of choice.

If I'm writing a persuasive speech each of the major bullet points will be key ideas that reinforce my goal. Again, **tie everything you write back to that original goal.**

There are no rules for writing an outline, and there's no reason to belabor the process. The goal is to solidify the structure of our content and lay out the road map for our presentation with each key idea as its own bullet point.

Step 4. Build Your Supporting Points

Let's keep working on that outline. We've identified the main points. It's time to go one level deeper.

For each of our *major* ideas, let's add a second level of detail. These are the supporting points for each of the major ideas, or basically the second level of your outline.

We've built a pyramid of content now. The bottom of the pyramid that guides the entire presentation is the goal. On top of it is the outline, with supporting points that drive the goal.

For more detail, learn more about the presentation writing process in this helpful tutorial:

-

In many ways, the hard work is finished. We now have all the pieces to build a great PowerPoint presentation. We just need to assemble them.

2. Add Your Content

At this point, you should have four key items written down. Now we're ready to use them to start putting together our presentation. These key items are:

- **The Presentation Goal**. The driving force of why you're presenting and what your audience should understand at the end.
- **The Audience Defined**. Who are you presenting to? What do they know coming into this presentation?
- **The Outline**. The road map for your presentation, the guideposts that keep us on track when designing and giving a presentation.
- **The Support**. The individual facts, ideas, and data that build the case for what you'll share with your audience.

With that in hand, it's now time to jump over to PowerPoint and start building your presentation. Let's open PowerPoint and start working.

Step 1. Work With PowerPoint's Outline View

So far, we've been building an outline on paper or in another app. But PowerPoint actually allows you to build a presentation from outline view. Take the outline you've written down on paper and start loading it into your PowerPoint presentation.

To switch to outline view, find the **View** tab on the PowerPoint ribbon and click on **Outline View.** On the left side of the window, click next to one of the white boxes to get started.

To add a new major point, press **Enter**. As you add a new bullet point to the outline view, PowerPoint will update the slide with the points.

Press **Control + Enter** to add a second level of outline points. Type your outline points, and PowerPoint will populate the slides with your data.

Using **Outline** view in PowerPoint allows you to build your PowerPoint slides using a traditional presentation **Outline** view in the sidebar.

Use the outline you wrote in the first half of this tutorial to build the content on your PowerPoint slides. Of course, you'll want to rewrite what's in your outline in a presentation-friendly way. For example, keep the bullet points short and succinct to hold your audience's attention.

Learn more about working with PowerPoint views in our guide:

-

MICROSOFT POWERPOINT

How to Work With Views in Microsoft PowerPoint

Andrew Childress

Step 2. Use Short Tips for Each Slide

We've all sat through enough presentations where the speaker read the contents of a presentation word-for-word.

This is the fastest way to lose your audience's attention. If I wanted to read slides, I would do it on my own and skip listening to someone do it for me.

Bullet points shouldn't be full sentences, pulled from your outline. They should be **summaries** of your ideas that you'll elaborate on while speaking.

Make the font size large for the best readability. And keep sentences short for your audience's attention span. Keeping your bullet points concise helps make a great PowerPoint presentation that's more memorable.

Step 3. Put Layouts in PowerPoint to Use

Layouts are the preset combination of elements like content boxes and placeholders for images and media. There are several choices to work with. When used well, they can make a good PowerPoint presentation great.

To choose a layout, find the **Layout** button on the **Home** tab of the PowerPoint ribbon. Click on the dropdown option to choose a different layout for a different arrangement of the content on your slides.

-

MICROSOFT POWERPOINT

How to Change Slide Layouts in PowerPoint in 60 Seconds

Andrew Childress

These layouts are different ways to adapt your content. No matter what content you've typed in **Outline** view, changing the outline will keep the content but adapt it to a new arrangement.

Layouts are combinations of elements on a PowerPoint slide.

Depending on the PowerPoint presentation theme you're using, you should select a layout that gives you the elements that you want. If I know that my

slide will include images, I'll make sure to pick a layout with an image placeholder.

To make a great PowerPoint presentation, choose the best slide layout that fits the content of each of your slides. It should also fit the overall flow of your presentation.

3. Build the Look of Your PowerPoint Presentation

You'll be much more confident if you know that your presentation's theme looks great. PowerPoint has some built-in themes that are a good starting point. But there are much better alternatives that are unique.

Step 1. Work With a Custom PowerPoint Theme

My favorite resource right now for giving a PowerPoint presentation is Envato Elements. This is really an incredible, all-you-can-eat buffet of great looking PowerPoint presentation themes. **For one flat rate fee, you get access to a huge library of creative assets:**

Envato Elements has great PowerPoint presentation templates.

That access includes hundreds of PowerPoint templates that you can use. If you're a subscriber, you can download an unlimited number of great PowerPoint presentation themes for your next big presentation.

The best part about custom themes is that they include ideas for your slides. They'll include layouts that you can easily place your own content into.

I'm almost always preparing a presentation on a tight deadline. I hardly have the time to build all my own illustrations, graphics and visuals from scratch. Elements has enough presentation themes for any type of presentation.

You can also find great PowerPoint templates for individual sale on Envato Market to download one-at-a-time. Discover more trending presentation designs in this curated selection:

-

MICROSOFT POWERPOINT

40+ Awesome PowerPoint Templates (With Cool PPT Presentation Designs 2020)

Sean Hodge

Step 2. Change Themes and Styles for Your Presentation

To change your PowerPoint theme, navigate to the **Design** tab on PowerPoint's ribbon. Click the drop-down arrow. Choose one of the thumbnails to change your PowerPoint theme to the best one for your presentation.

Change theme designs in PowerPoint.

Using themes and adding your content goes hand-in-hand. As you change your theme, you might need to rework the content so that it appears correctly. Learn more about how to work with professional PowerPoint templates to make your presentation:

-

MICROSOFT POWERPOINT

How to Create a PowerPoint Presentation From a PPT Template

Sven Lenaerts

4. Add Visualizations to Your Presentation

Visualizations are a great way to break up the monotony of bullet points in your PowerPoint presentation. A well-placed chart or stunning image can hold your audience's attention or provide a visual representation of a fact.

Check out the tutorials below to learn about several key visualization techniques in PowerPoint. You'll also learn how to use them to make great PowerPoint presentations for class or work:

- **How to Add Videos to Your PowerPoint Presentations**

  Videos are a tad harder to add to your PowerPoint presentations than it'd seem at first glance. In this detailed tutorial, you'll learn step-by-step how to...

  Bob Flisser

  18 Mar 2014

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- **How to Make Great PPT Charts & Graphs in Microsoft PowerPoint**

  PowerPoint charts and graphs are powerful visual aids. Learn how to create great looking charts and graphs right inside of Microsoft PowerPoint using this...

Andrew Childress

23 Apr 2020

MICROSOFT POWERPOINT

- ## How to Get Started With Using SmartArt in PowerPoint

Discover how to use SmartArt to create great looking charts, diagrams, process maps, and graphic visualizations inside of Microsoft PowerPoint quickly.

Andrew Childress

14 Feb 2017

MICROSOFT POWERPOINT

- ## How to Insert an Excel File into PowerPoint in 60 Seconds

In this quick-fire video, learn how to take your spreadsheet file and copy it from Excel over to embed in PowerPoint. Also, control how you style your data.

Andrew Childress

06 Feb 2017

MICROSOFT POWERPOINT

I add visualizations near the end of the process after I've selected the theme for the entire presentation.

5. Prepare in PowerPoint and Then Present

It's finally showtime. All your hard work to write your content and package it into an attractive presentation is about to pay off.

Let's look at how to get ready to give a great presentation using PowerPoint. For many of us, this is the most intimidating stage in the process—where we step up and deliver.

PowerPoint has several great features to cut down on your presentation anxiety. Use these while preparing to speak.

Step 1. Prepare Your Speaker Notes

Since our slides don't contain exactly what we'll say while presenting, the **Speaker Notes** is where to place that information.

At the bottom of PowerPoint is a **Notes** button. Click it to open the speaker notes. This is a great place to type in and capture your cues or key speaking points for your presentation.

Use PowerPoint speaker notes.

Learn how to add Speaker Notes to your PowerPoint presentation quickly:

- MICROSOFT POWERPOINT

  How to Add Speaker Notes to PowerPoint in 60 Seconds

  Andrew Childress

Where do these notes show up? You'll see them in either presentation mode (more on that in a minute) or if you print a copy of the slides out. Either way, I use these to prompt my speech and remember my essential talking points.

Step 2. Work With Presenter View in PowerPoint

Presentation mode is perfect for those times when you've connected your device to an external display. What you see on your own screen can be different than what your audience sees.

To enter this mode, check the **Use Presenter View** box on the **Slide Show** tab of PowerPoint's ribbon. When you enter **Slide Show** view (F5 is the keyboard shortcut), you'll enter a **Custom Presenter** view.

Use Presenter View in PowerPoint.

When you enter the **Slide Show** view, you'll have a different view on your own monitor, complete with the speaker notes below.

Example of speaker notes in your own monitor view.

If you've got a second screen, this is the best way to present. You'll keep your notes in front of you and have a quick view of the next slide in your deck.

5 Quick PowerPoint Presentation Tips

Now that you know how to make and give great PowerPoint presentations for class or work, here are a few extra tips. These will help you nail down your presentation and leave a great impression on your audience.

1. Use Legible Fonts

The first tip is to use legible fonts. This will ensure that your audience can read the contents of your presentation without having to squint their eyes.

Stick to traditional serif and sans-serif fonts and avoid using decorative or script fonts.

Batagor PowerPoint Template

2. Make Eye Contact With Your Audience

Maintaining eye contact with your audience is a great way to establish a connection with them and keep them interested. Focus on a few people in each section of the room and look at them often throughout the presentation.

3. Be Careful With Colors

It goes without saying that your presentation should include your brand or company colors. But, be careful not to overdo it. Otherwise your audience will have a hard time focusing on the topic of your presentation.

Healthy - Medical PowerPoint Template

4. Embrace White Space

Ensure that there's plenty of space between different elements on your slides. This will help them stand out more instead of making your slide appear cluttered.

5. Use Visual Aids

Finally, don't be afraid of using visual aids to help present information and data in your presentation. Photos, charts, graphs, infographics, and even illustrations will make it easier for everyone to envision what you're talking about.

Find More Great PowerPoint Templates: 5 Top Designs

Finding a great PowerPoint template isn't hard once you know where to go. We've mentioned earlier that Envato Elements has thousands of great PowerPoint templates to choose from. Take a look at some of our best-selling PowerPoint templates from Envato Elements below:

1. Sparrow - Creative Agency PowerPoint Template

The Sparrow is a creative and colorful PowerPoint template best suited for agencies or freelancers such as designers or artists. The template comes with over 100 unique slides that are based on master slides. Customize fonts and colors and use the drag and drop placeholders to quickly add your images.

2. Yura PowerPoint Template

Yura is a clean and minimal PowerPoint template. Use it for any type of presentation thanks to its versatile design. The template has 100 unique slides and was designed in widescreen format. You'll also get plenty of charts, graphs, and other infographic elements to create a powerful presentation.

3. Cleira - Elegant PowerPoint Template

The Cleira template is a perfect choice if you need to create a stylish and elegant presentation. The template has more than 150 slides and five color variations. It's entirely based on master slides, so you'll have an easy time editing it.

4. Mild - Vibrant PowerPoint Template

The Mild is a vibrant PowerPoint template. It can be used for business or portfolio presentations. The template comes with 35 unique slides and 50 premade color schemes. Use these as a starting point for your presentation design. The template is easy to customize and was designed in full HD resolution.

5. Lekro PowerPoint Template

The Lekro is a professional PowerPoint template. It’s perfect for any type of corporate or business presentation. It's got more than 60 unique slides and comes with editable charts. The template is based on master slides for easier editing.

To see even more great PowerPoint templates, be sure to check out these roundups:

- MICROSOFT POWERPOINT

  25+ Best Brochure PowerPoint Templates Free + Pro to Download for 2020

  Andrew Childress

- BUSINESS

  30 Best SWOT Analysis PowerPoint Templates (Free & Premium PPTs 2020)

  Sarah Joy

- MICROSOFT POWERPOINT

  40+ Awesome PowerPoint Templates (With Cool PPT Presentation Designs 2020)

Sean Hodge

Download Our Free eBook on Making Great Presentations

Grab ***The Complete Guide to Making Great Presentations*** now for FREE with a subscription to the Tuts+ Business Newsletter. Get your ideas formed into a powerful presentation that'll move your audience!

Explore More PowerPoint Tutorials on Tuts+

Also, we've been building a library of PowerPoint and presentation skills here on Envato Tuts+. Check out more great PowerPoint tutorials to keep learning:

-

OFFICE

How to Use and Edit PowerPoint Master Slides

Bob Flisser

-

How to Make Good PowerPoint Slide Designs Even Better in 2020

Sven Lenaerts

-

MICROSOFT POWERPOINT

How to Make PPT Slide Layouts in Microsoft PowerPoint

Andrew Childress

What's your top tip for how to make a great PowerPoint presentation? Let me

B Save the presentation as Lab1.pptx.

Ans . **ASSIGNMENT: PowerPoint Lab 1**

ITEMS COVERED IN THIS LAB

- Create a Blank Presentation
- Save a Presentation
- Apply a Design Theme
- Compare Presentation Views
- Format Text
- Insert SmartArt
- Insert & Modify Shapes
- Edit & Duplicate Slides

Instructions

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

 Add a Title to the first slide: the name of your college

Ans.

Type your first name and last name in the Subtitle section

Ans.

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.

Add a New Slide which has a Title and Content

Ans . Title a slide

*PowerPoint for Microsoft 365 PowerPoint for Microsoft 365 for Mac More..*There are multiple way to add titles to your slides in PowerPoint. Use the **Layout** option to create a standalone title slide or to add a title to a slide that contains other text. You can also use the Outline view to create and update the titles of your slides.

Select a heading below to open it and see the detailed instructions.

Microsoft 3652013-2019macOSWeb

Select a heading below to open it and see the detailed instructions.

Find missing slide titles and edit them

Use the Layout option to title a slide

Use Outline view to title a slide

Put a title on a slide, but make the title invisible

Systematically hide slide titles

Put the same title on every slide

Why slide titles are important

See Also

Q.no 15 Write steps for creation of a set of PowerPoint slides that demonstrates your skill to use

the tools of PowerPoint. It should include the following things

Ans . How to Create a PowerPoint Presentation

By nelsone2 in CircuitsComputers

1,528,234

54

28

Introduction: How to Create a PowerPoint Presentation

The possible uses of PowerPoint are countless. A slide show can help a teacher teach a lesson, illustrate an event in history, easily display statistical information, or be used for training in corporations. A slide show can be a valuable tool for teaching, sharing and learning. Whether presenting at a conference or convincing your parents to get a puppy, PowerPoint presentations are useful no matter what the topic and help communicate ideas to an audience. The invention of PowerPoint by Gaskins has saved presenters hours of painstakingly handcrafting displays, and created a professional and easy way to relay information. The following are steps on how to create a basic PowerPoint presentation, however certain steps may vary slightly depending upon what version of PowerPoint you are using. This tutorial is specifically using PowerPoint 2007.

Add TipAsk QuestionCommentDownload

Step 1: Launch the PowerPoint Program

When you launch the PowerPoint program, you may be prompted to pick what kind of document you want to create. Choose to create a blank presentation. If it does not ask you this, a blank presentation will automatically launch.

Add TipAsk QuestionCommentDownload

Step 2: Choosing a Design

The next thing you want to do is decide what design you want for the presentation. To do this, go to the 'Design' tab at the top of the page. Scroll through all the options and decide which one looks best for the presentation you want. To get a preview of what the design will look like before applying it to the presentation, hover over the design you want to preview. This design will be automatically continued throughout the rest of your presentation. Once you have more than one slide, you can add a different design for just one slide. To do this, select the slide you want to change the design on by clicking on it. It will pop-up as the big slide in the screen. Then you can right-click the design you want for this slide and select 'Apply to Selected Slide'. It will appear on that slide, but will not change the design of the other slides.

Step 3: Create Title Page

Click the first box that says 'Click to add title' and add the title of your presentation. Click the bottom box to add your name, or any other subtitle that you choose. Once you have your text in the boxes, you can change their font, size, color, etc. with the toolbar options at the top. You can change the size of the text box by selecting it, and then dragging the corners of the box. To move the text boxes, select the box, and move your arrow over the border of the box. A four-arrow icon will appear, and clicking with this icon will allow you to move the text boxes wherever you choose.

Step 4: Add More Slides

Chances are, you are going to need more than one slide. There are a few ways you can add more slides. Notice that there is a separate area to the left of the screen where your first slide is located. The first way to add a slide is to right-click the area under where your first slide is located and select 'New Slide'. A new slide will appear. The second way to add another slide it to click 'New Slide' in the toolbar above the slides. This button is divided into two parts,. The top will insert a new slide with a default layout. You can also click the bottom half of this button, which will allow you to

choose what type of layout you want. You can choose a slide with two text-boxes and a title, one text-box, only a title, and many other options. You will see your new slide appear to the left under the first, as well become the large slide that you can edit. The design you picked earlier will have carried over to this slide. The design will carry over for the rest of the slides you create unless you decide to change just one, like described earlier. The guideline layout you chose will appear, and you can then add in your information.

Step 5: Add Charts, Pictures, Graphs, Etc.

If you want to insert a chart, picture, graph, or any other graphic, click on the 'Insert' tab at the top of the window. Here you will see buttons of all the options of what you can insert into your slide. Click the designated box and insert what it is you want to have on that slide. A second way you can insert pictures and graphs is when you have an empty text or image box. Little pictures of the same options you saw in the toolbox will show up in the middle of the box, and you can click any of these to insert as well. Once you have your chart or picture, you can add a border or edit it however you want in the 'Format' tab.

Step 6: Add Transitions

To add transitions in between your slides, click the 'Animations' tab at the top of the page. Here you can scroll through all the options of transitions, and hover over them to see a preview. Select the slide you want the transition applied to, and then click the transition you chose. You can do this for every slide, selecting the same or different transitions.

Step 7: Changing the Order

Once you have all your slides made, you can change the order of the slides. To do this, click and drag the slides from where they are to where you want them in the order. Another possibility, which is

particularly useful if you presentation is longer, is to click the 'Outline' button. You can find this small button above the left area where all your slides are located smaller, directly to the right of the 'Slides' button. Here you will see a list of all your slides and you can click and drag your slides to where you want them.

Step 8: Play the Presentation

Once you have all your slides completed and in the order you want, view your slideshow. Click the 'Slide Show' tab at the top of the page and select 'From Beginning'. You can go through your entire slideshow, and change slides by clicking or pressing the right arrow. A shortcut to this is pressing F5. Congratulations! You have now made a PowerPoint presentation.

jesus7872928ass

Inserting Excel Sheet

Ans. How to Insert an Excel Worksheet into a Word Doc

Very useful and very easy to do

Written by: Ryan Dube, Twitter: @rdube

Posted on: April 27th, 2020 in: Office Tips

> If you've ever wanted to include data that you have in an Excel file into a Word document, you've probably just copied the data from Excel and pasted it into Word.
>
> While this works, there are a number of limitations. One of the most important is that if the original data file ever changes, your Word document will never reflect those changes.

If either of those issues matter to you, there are better ways to insert an Excel worksheet into a Word doc. In this article, you'll learn every way possible to do that as well as the pros and cons.

Also, be sure to check out our YouTube video where we show you the same steps as in the article:

Insert An Excel Worksheet Into A Word Doc Via Copy/Paste

Of course, the fastest and easiest way to get data from an Excel worksheet into a Word document is just using Window's copy and paste feature.

If you place your cursor into your Word document and press **Ctrl-V** on the keyboard, you'll notice that the cells you've selected appear perfectly in the Word document.

There are a few caveats here.

The imported Excel cells become a Microsoft Word table. So if you want to format this table after the data is imported, you can't do things like use Excel formulas or other Excel formatting features.

The second issue is that it only works well for smaller tables of data. If you want to copy and paste data further down the Excel spreadsheet, you'll lose the headers.

This isn't really very useful. In this case, you'll want to try one of the options below to insert an Excel worksheet into a Word doc instead.

- **Pros**: Fast and convenient, good for small tables.
- **Cons**: Doesn't update with source data, and lose headers on large tables, doesn't fully conserve original formatting.

Insert An Excel Worksheet As An Embedded Object

If you want to be able to use Excel functions and other Excel formatting features later to update the table, you're better off pasting the Excel data as an embedded object.

To do this:

1. Select the section of Excel worksheet that you want to copy and press Ctrl-C.
2. In Microsoft Word, place the cursor where you want to insert the data table.
3. In the Home menu, select the down arrow under Paste and select Paste Special.

4. You'll see a Paste Special dialogue box appear. Select **Microsoft Excel Worksheet Object** and select **OK.**

This will insert the copied cells into your Word document. The new object won't behave like a Microsoft Word table at all, and you won't be able to edit the data inside the table from inside Microsoft Word.

However, you can resize the entire object so that it fits inside the margins of your document.

If you do want to edit the data, just double-click on the object and it will open the entire original spreadsheet inside Microsoft Excel.

Keep in mind this is an entirely new Excel file (not the original). But any edits you make and save in that Excel file will update in your Word document.

How this works:

- When you use an embedded object to paste Excel data, Word creates a copy of the original Excel file.
- When you double-click the object, Word opens the copied file for editing.
- You can use all of Excel's functions and formatting features to make any changes.

What is nice about this approach is that none of the original formatting gets changed during the conversion to a Microsoft Word table. It also gives you

an “attached” Excel data file of the original data file in case you ever want to modify the data or add additional data to your pasted Excel object in Word.

- **Pros**: Fast and convenient, good for large tables, and conserves original formatting
- **Cons**: Doesn’t update with source data, and can’t edit table directly inside Word

Insert An Excel Worksheet As A Linked Object

The best way to insert an Excel worksheet into a Word doc is by pasting it as a linked embedded object.

The procedure to do this is identical to the one above, except in the Paste Special window you want to make sure to select the Paste Link checkbox.

You’ll see that the inserted Excel data looks the same as in the previous section, but there’s a significant difference.

If you return to your original Excel file and make any changes to the data in any of the cells you pasted, you'll see those changes immediately update in your Microsoft Word document.

The changes take effect in Word even if you haven't saved the changes in the Excel file. This essentially lets you create a live view from Word into changes someone is actively making in any Excel file.

If you wanted to, you could use this feature to create a realtime dashboard in Word to display any important data points that someone may change in an Excel file.

- **Pros**: Fast and convenient, good for large tables, conserves original formatting, and updates instantly with source data updates.
- **Cons**: Can't edit table directly inside Word.

As you can see, there are multiple ways to insert an Excel worksheet into a Word doc. The option you choose really only depends on how you intend to use that data and whether you want to see or use data changes in the original Excel file.

How have you imported Excel data into Word before? Have you had any issues when you tried to do so? Share your experience in the comments section below.

Ryan has been writing how-to and other technology-based articles online since 2007. He has a BSc degree in Electrical Engineering and he's worked 13 years in automation engineering, 5 years in IT, and now is an Apps Engineer. Read Ryan's Full Bio

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Worth Trying

Clip art and Text

Ans. Images are a great way to liven up a document, and Word offers a few methods to insert them. There are built-in **clip art** images for just about every topic, so you may be able to find a perfect clip art image for your document. If you have a more specific image in mind, you can **insert a picture from a file**.

In this lesson, you will learn how to **search for and insert clip art**, how to **insert an image from a file**, and how to change the **text wrapping settings** for your images.

Inserting clip art and pictures

Adding **clip art** and **pictures** to your document can be a great way to **illustrate important information** or add **decorative accents** to existing text. You can insert images from your computer or search Microsoft's extensive selection of clip art to find the image you need. Once an image has been inserted, you can format text to **wrap** around the image.

Slide show effects

Ans. Slideshow Templates for After Effects

13 Free After Effects Templates for Slideshow. Show off your portfolio or collect your special memories with these stunning slideshow templates for After Effects. From weddings and birthdays to simple and cinematic style templates, you can create your very own slideshow and always hold a ticket to go down memory lane. All of our After Effects Templates are free to download and ready to use in your next video project, under the Mixkit License.

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

all steps involved in it.

Ans .