CCA-101:
Fundamentals of IT & Programming

Assignm

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

Ans.

Computer Block Diagram System: Mainly computer system consists of three parts, that are central processing unit (CPU), Input Devices, and Output Devices. The Central Processing Unit (CPU) is divided into two parts again: arithmetic logic unit (ALU) and the control unit (CU). The set of instruction is in the form of raw data.
A large amount of data is stored in the computer memory with the help of primary and secondary storage devices. The CPU is like the heart/brain of the computer. The user does not get the desired output, without the necessary option taken by the CPU. The Central processing unit (CPU) is responsible for the processing of all the instructions which are given by the user to the computer system.

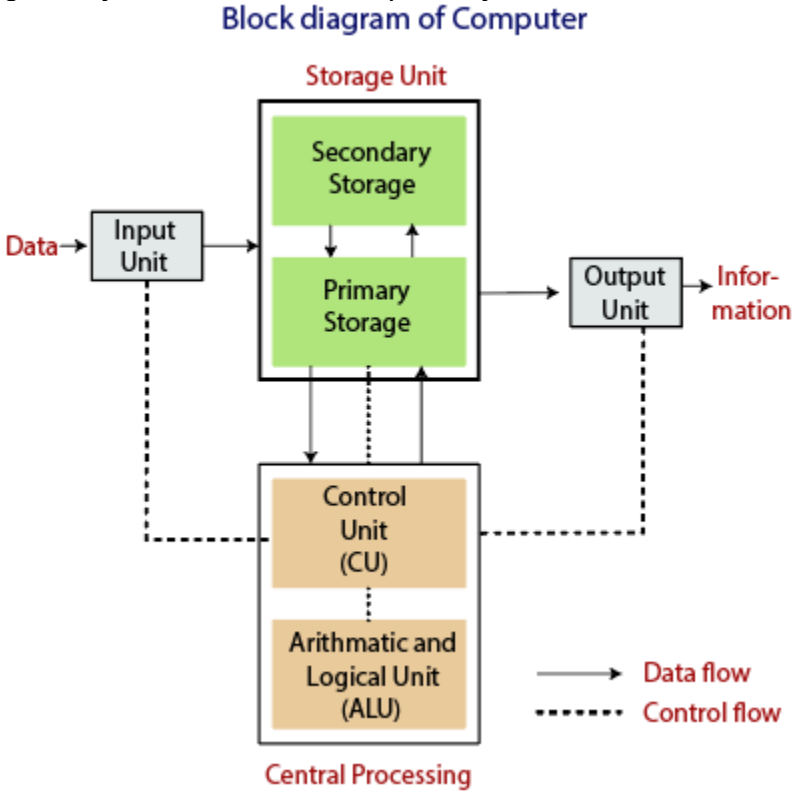


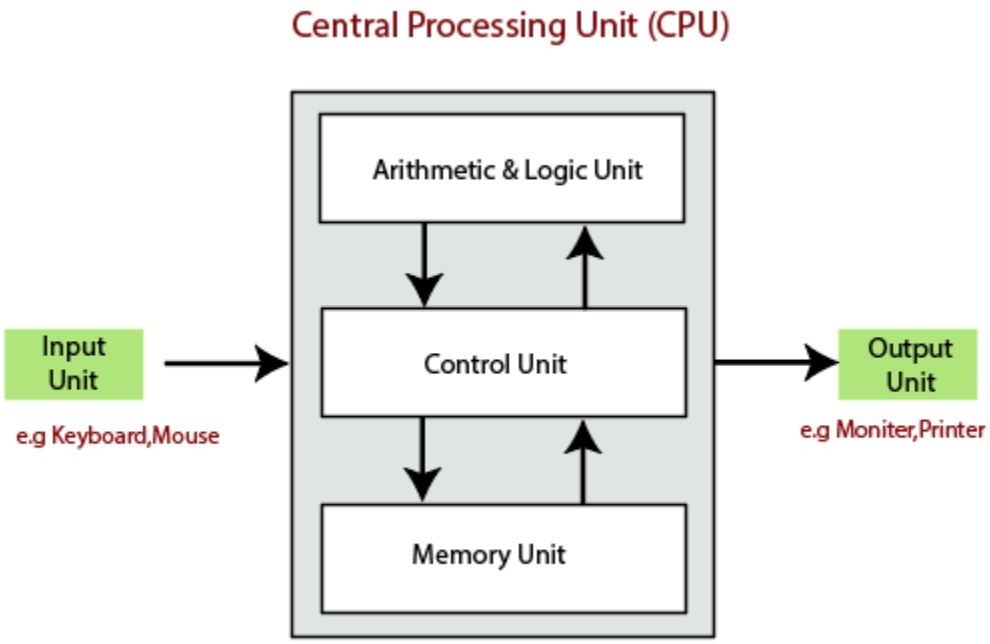
Fig: Block Diagram of the computer.

The data is entered through input devices such as the keyboard, mouse, etc. This set of instruction is processed by the CPU after getting the input by the user, and then the computer system produces the output. The computer can show the output with the help of output devices to the user, such as monitor, printer, etc.

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

Central Processing Unit (CPU)

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



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

Control Unit

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

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

Arithmetic and Logical Unit

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

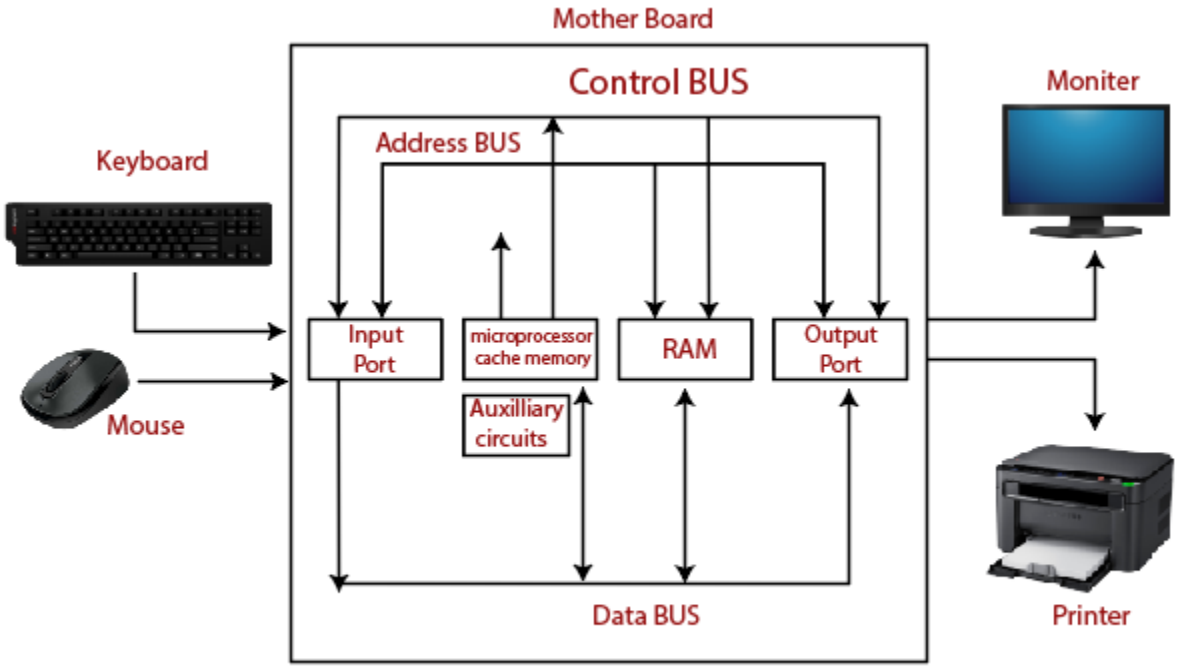
Storage Unit

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

Components of Computer System

The hardware and software exist on the computer**.** The information which is stored through the device is known as computer software. The hardware components of the computer system are related to electronic and mechanical parts, and the software component is

related to data and computer programs. Many elements are connected to the main circuit board of the computer system called a “motherboard.”



Components of a Computer System

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

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

Processor

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

Main Memory

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

Secondary memory

We can store the data and programs on a long-term basis in the secondary memory. The hard disks and the optical disks are the common secondary devices. It is slow and cheap

memory as compare to primary memory. This memory is not connected to the processor directly.

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

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

Input Devices

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

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

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

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

Output Devices

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

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

These devices have various features which are given below:

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

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

Ans .

Classification of Computer Based on Size and Capability

Introduction

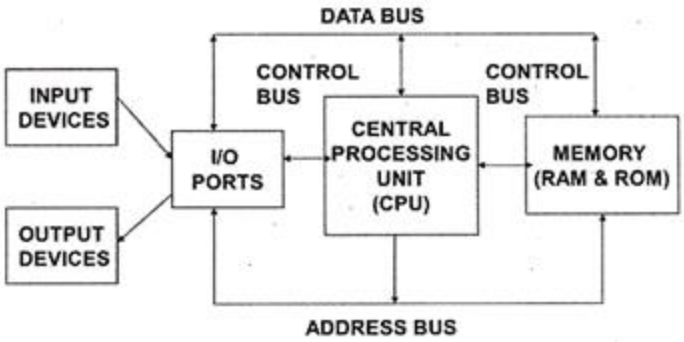
Classification of computers are based on their architecture, speed of executing commands or instructions, peripheral used and also their uses. Microcomputers are usually used in home and offices and only a single user can perform the task using a microcomputer. Its storage and data handling capacity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

Computer's Classification

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

Micro Computers

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



Desktop Computers

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

Programmable Computers (PDA)

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

Workstation

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

Mini Computers

Minicomputers were introduced in early 1960s. They were faster than micro computers. Basically these computers were mainly multi-user systems, where many users work on the systems. Generally

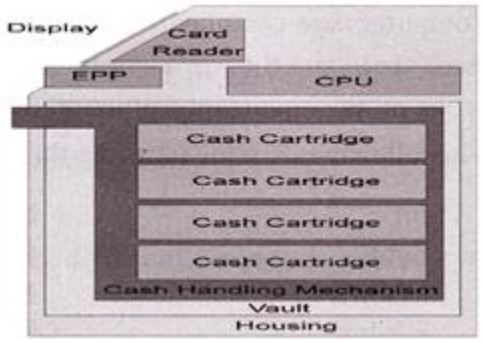
these types of computers had larger memories and greater storage capacity. They had large instruction set and address field. These kinds of computers have efficient storage for handling of text, in comparison to lower bit machines. Due to more efficient processor, speed and memory size, minicomputer was used in variety of applications and could support business applications along with the scientific applications. Minicomputer was a multi-user system which means more than one user could use this system simultaneously.

Comparison of Micro and Mini computers

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

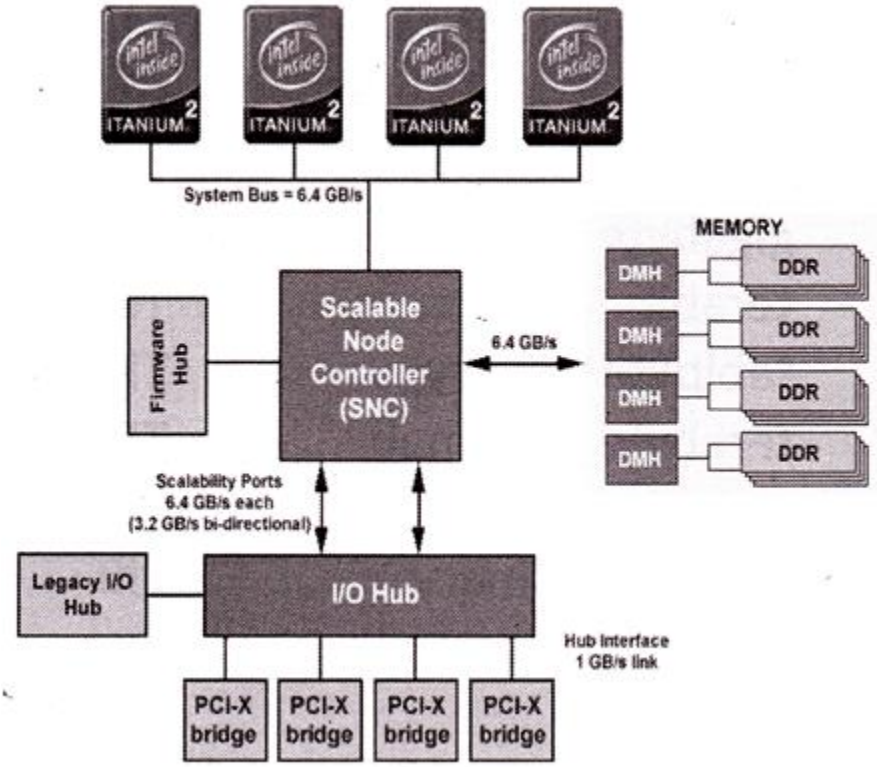
Mainframe Computers

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



Super Computers

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



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

Super computers are used for the followings:

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

- ❖ Aerodynamics

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

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

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

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

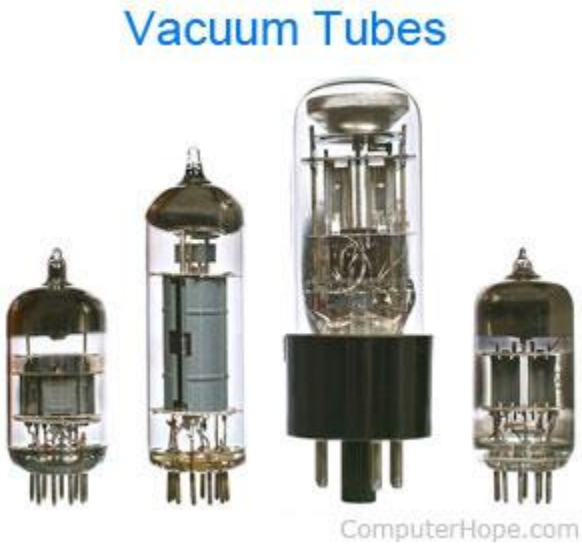
Q3: What is the meaning of computer generation? How many Computer Generations are defined? What technologies were/are used?

Ans. 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)
- Second generation (1956 - 1963)
- Third generation (1964 - 1971)
- Fourth generation (1972 - 2010)
- Fifth generation (2010 to present)

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 6195 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

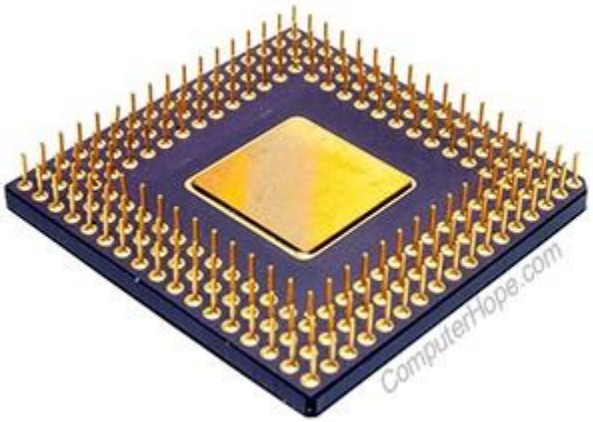
transistors include the IBM 7070, Philco Transac S-1000, and RCA 501.

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, along 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 that has 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.

Additional information

- When was the first computer invented?
- Who is the father of the computer?

- Computer history and timeline.
- Computer history questions and answers.
- See our generation definition for related links and information.

Q4: Differentiate between Volatile & Non- Volatile memories.

Ans. 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.
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	CPU can access data stored	Data to be copied from Non-Volatile memory to Volatile memory so that

Sr. No.	Key	Volatile Memory	Non-Volatile Memory
	Access	on Volatile memory.	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. As we know that software is a set of instructions or programs instructing a computer to do specific tasks. Software is basically a generic term used to describe computer programs. In general Scripts, applications, programs and a set of instructions are all terms often used to describe software.

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

Sr. No.	Key	System Software.	Application Software.
1	Definition	System Software is the type of software which is the interface between application software and system.	On other hand Application Software is the type of software which runs as per user request. It runs on the platform which is provide by system software.

Sr. No.	Key	System Software.	Application Software.
2	Development Language	In general System software are developed in low level language which is more compatible with the system hardware in order to interact with.	While in case of Application software high level language is used for their development as they are developed as some specific purpose software.
3	Usage	System software is used for operating computer hardware.	On other hand Application software is used by user to perform specific task.
4	Installation	System software are installed on the computer when operating system is installed.	On other hand Application software are installed according to user's requirements.
5	User interaction	As mentioned in above points system software are specific to system hardware so less or no user interaction available in case of system software.	On other hand in application software user can interacts with it as user interface is available in this case.
6	Dependency	System software can run independently. It provides platform for running application software.	On other hand in application software can't run independently. They can't run without the presence of system software..
7	Examples	Some examples of system software's are compiler, assembler, debugger, driver, etc.	On other hand some examples of application software's are word processor, web browser, media player, etc.

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

Ans.

Q6 b) Write steps regarding followings

⍰ To change the font style

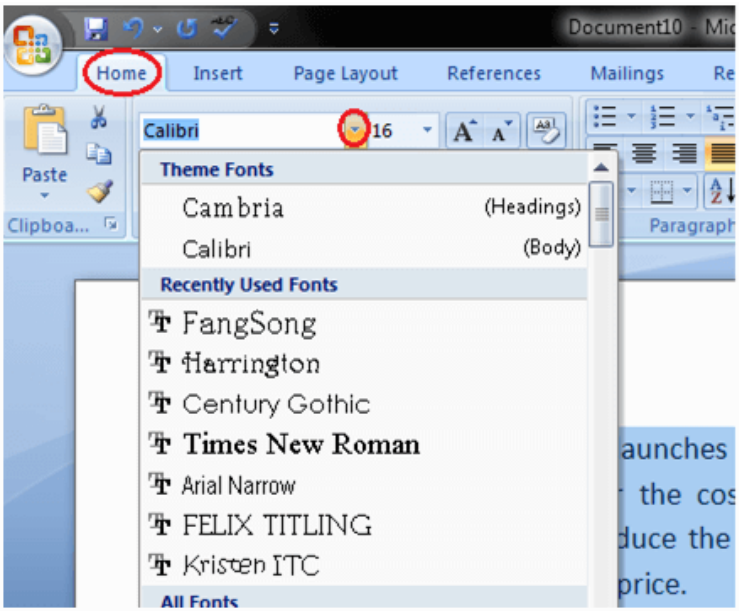
Ans.

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:

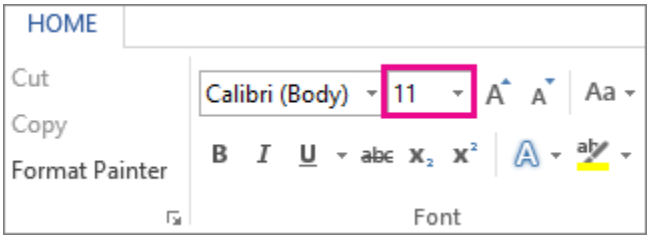


To change the font size

Ans. Change the size of selected text

To change the font size of selected text in desktop Excel, PowerPoint, or Word:

1. Select the text or cells with text you want to change. To select all text in a Word document, press Ctrl + A.
2. On the **Home** tab, click the font size in the **Font Size** box.



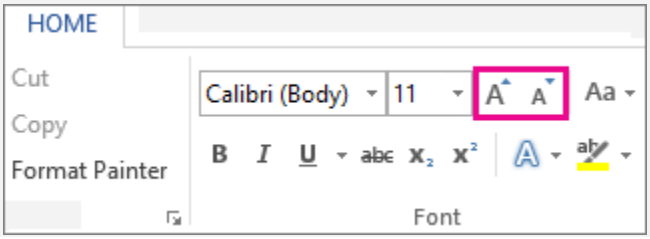
You can also type in any size you want, within the following limits:

- Excel: between 1 and 409, between 1 and 409, in multiples of .5 (such as 10.5 or 105.5)
- PowerPoint: between 1 and 3600, in multiples of .1 (such as 10.3 or 105.7)
- Word: between 1 and 1638, in multiples of .5 (such as 10.5 or 105.5)

Tips:

- When you select text, a mini toolbar appears near your cursor. You can also change the text size in this toolbar.

- You can also click the **Increase Font Size** or **Decrease Font Size** (**Grow Font** and **Shrink Font** in some earlier versions of Office programs) icons until the size you want is displayed in the **Font Size** box.



To change the font color

Ans. Change the font color

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

You can change the color of text in your Word document.

1. Select the text that you want to change.
2. On the **Home** tab, in the **Font** group, choose the arrow next to **Font Color**, and then select a color.

You can also use the formatting options on the Mini toolbar to quickly format text. The Mini toolbar appears automatically when you select text.

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

all steps involved in it.

- **Creating**
- **Editing**
- **Saving**
- **Printing any type of document**

Ans. 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:

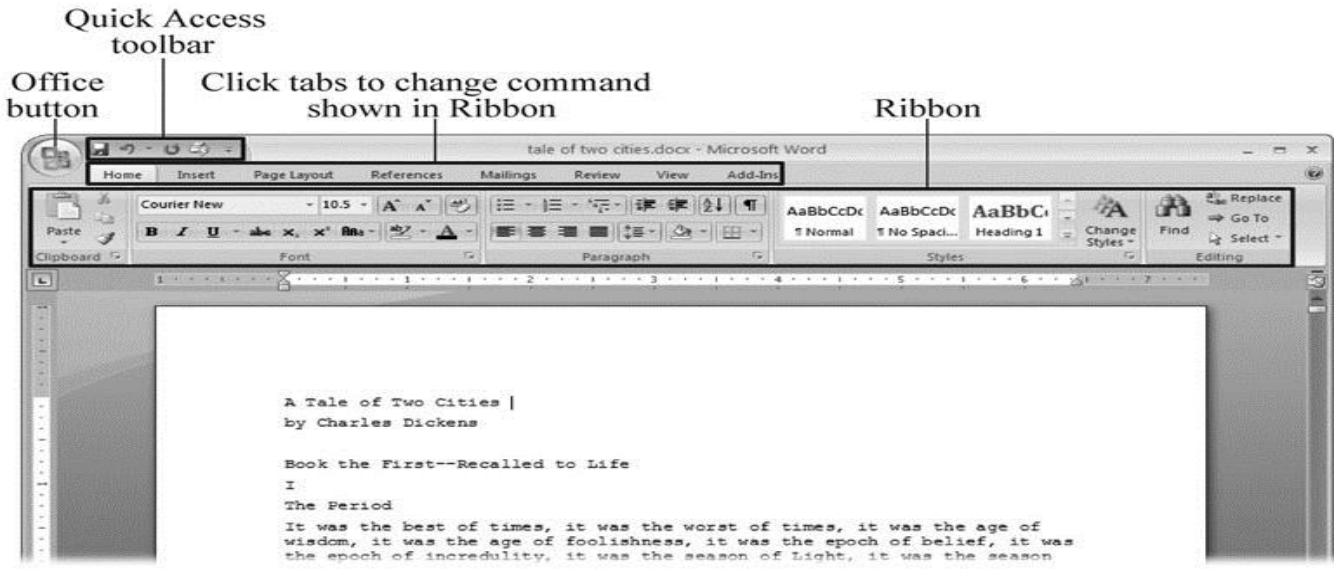
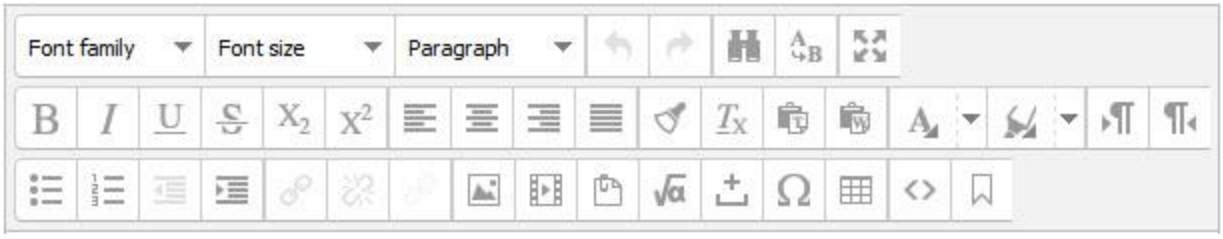


Figure 1-1. When you start Word 2007 for the first time, it may look a little top-heavy. The ribbon takes up more real estate than the old menus and toolbars. This change may not matter if you have a nice big monitor. But if you want to reclaim some of that space, you can hide the ribbon by double-clicking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

Ans. Editing Tools

This book covers:
Formatting Text, **Inserting Links**, **Edit and Remove links**, **Copy and paste from word**, **Add a table**, **Edit a table**, **HTML editor**, **Resize the edit window**, and **Additional editing toolbar functions**

Editing Tools



The editing toolbar is displayed where content can be added or edited in course sites, and provides access to commonly used functions such as:

- Format text.
- Insert/edit an image.
- Insert/edit a link.
- Paste content.
- Insert an emoticon.
- View and edit HTML.
- Page preview.

Many of the editing toolbar icons look and function the same as the editing icons in Microsoft applications. Hovering your mouse over an icon will give you a description.

Ans. 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:

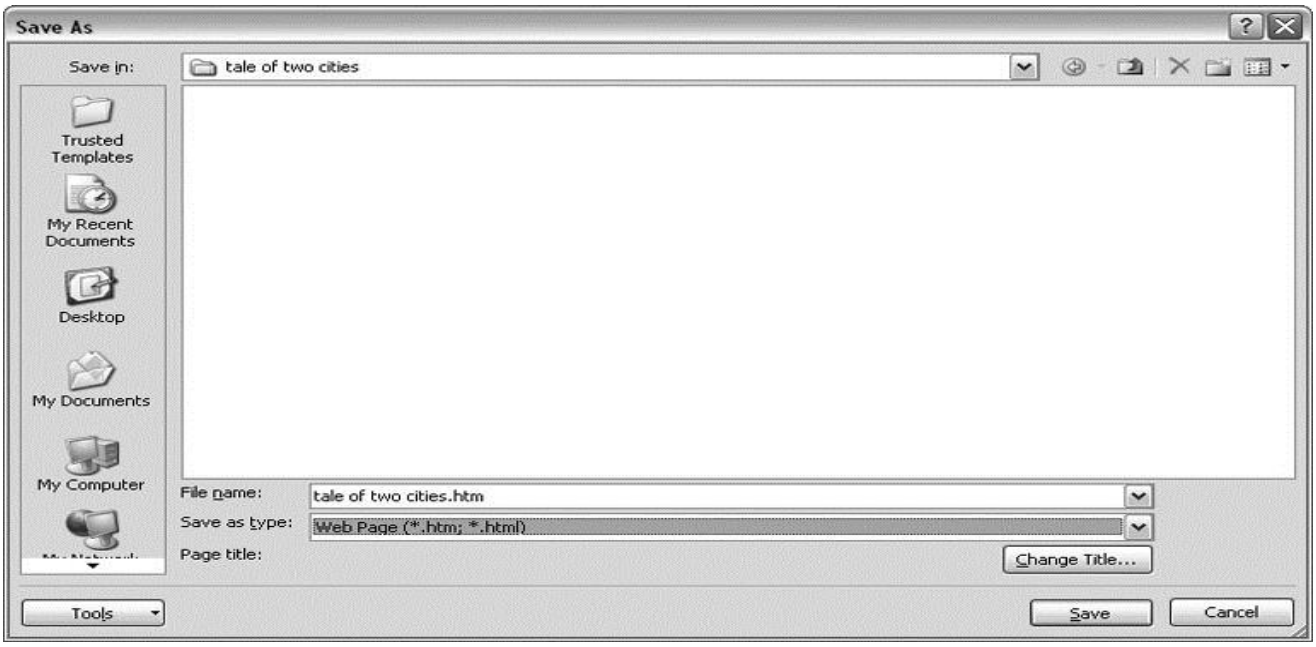
Saving by keyboard shortcut

- **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,

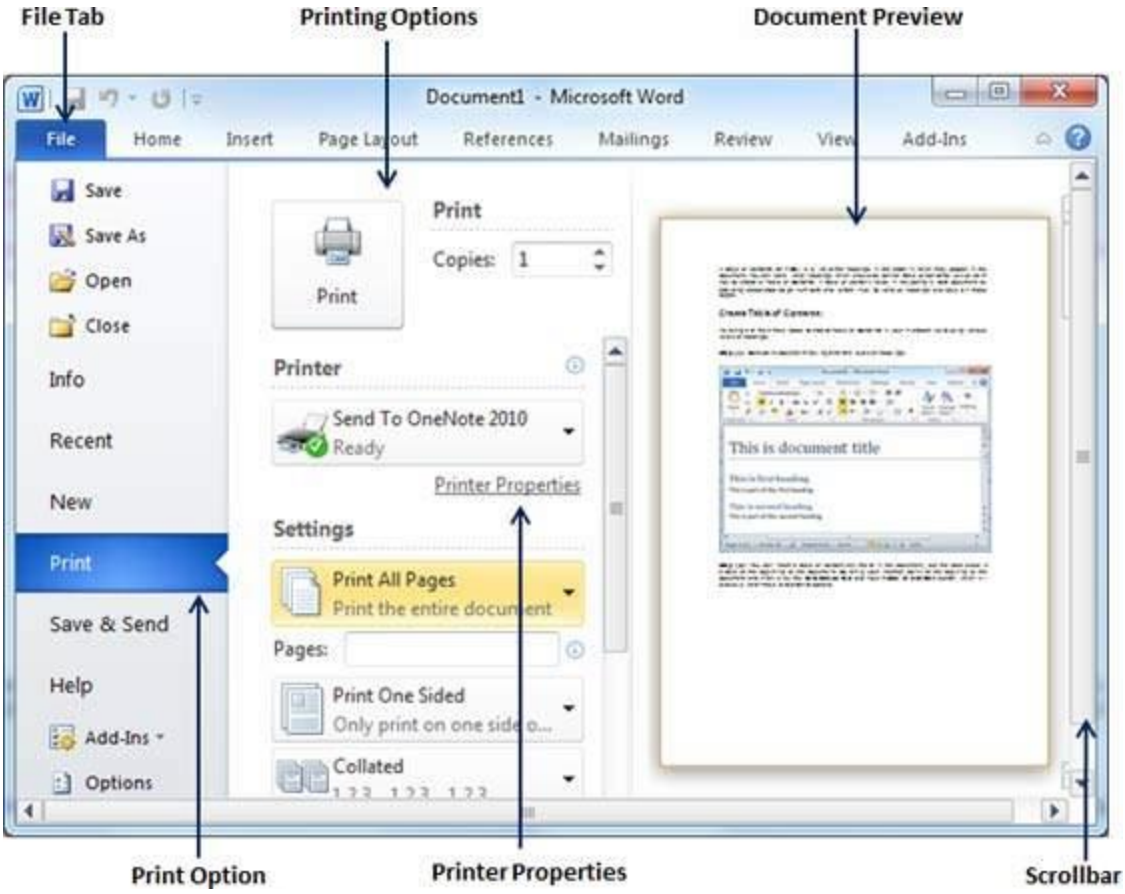
you create a new document with a new name that includes any changes you've made. (The individual steps are described in the next section.)



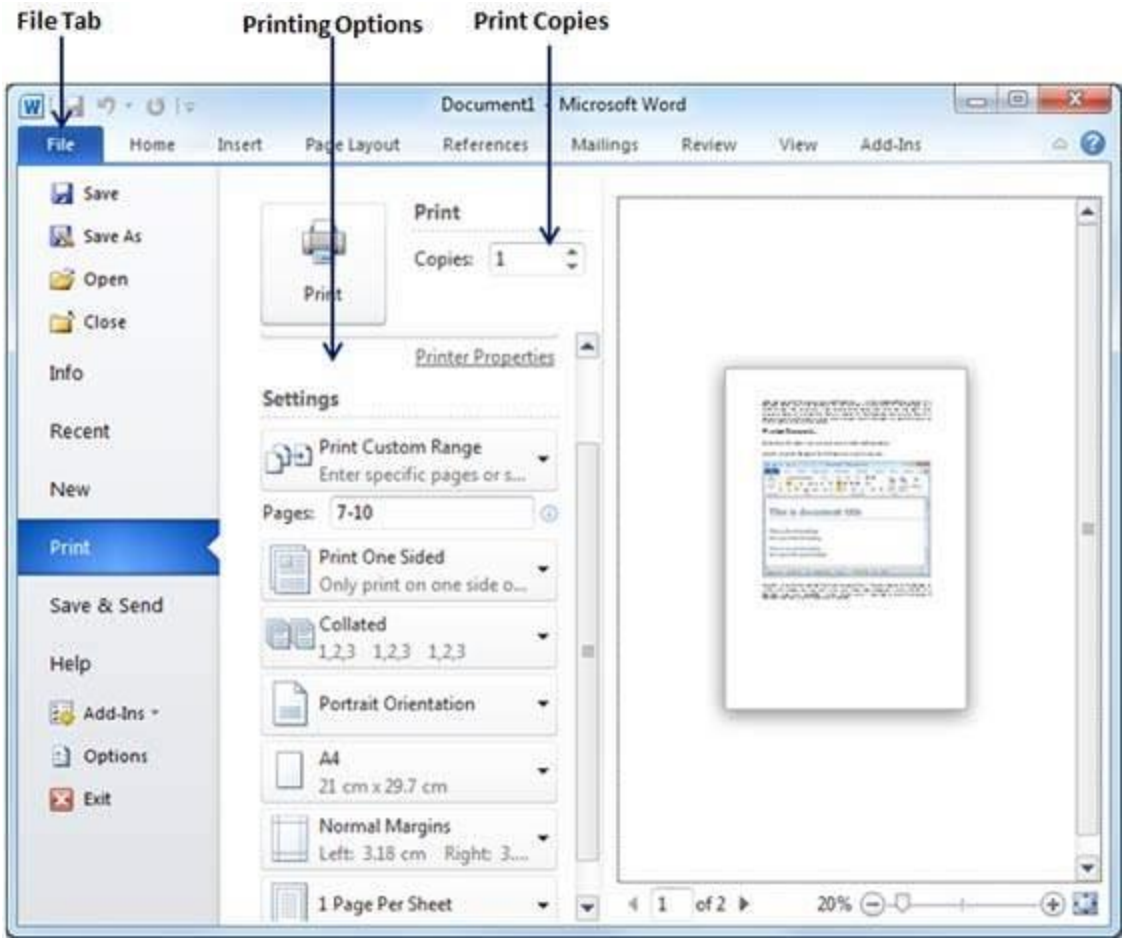
Ans. Printing Documents

The following steps will help you print your Microsoft Word document.

Step 1 − Open the document for which you want to see the preview. Next click the **File** tab followed by the **Print** option which will display a preview of the document in the right column. You can scroll up or scroll down your document to walk through the document using given **Scrollbar**. The middle column gives various options to be set before you send your document to the printer.



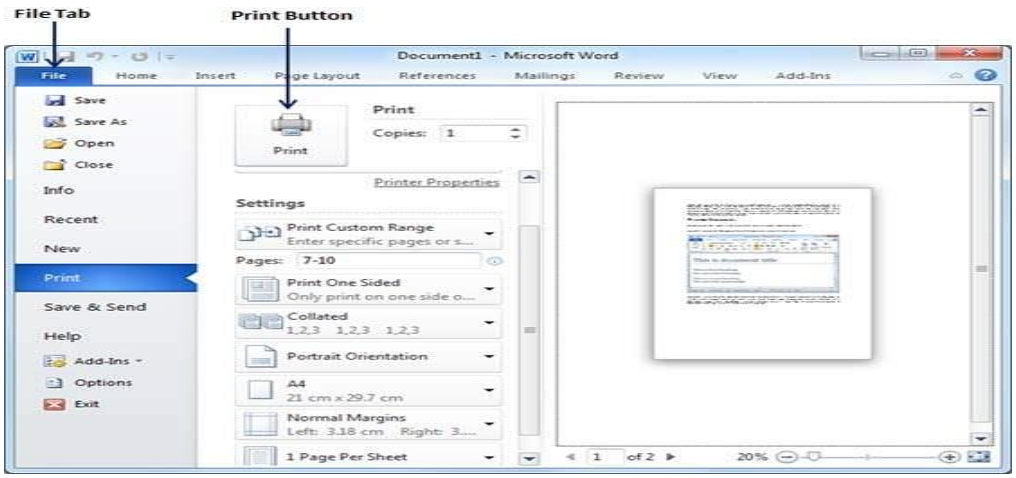
Step 2 − You can set various other printing options available. Select from among the following options, depending on your preferences.



S.No	Option and Description
1	**Copies** Set the number of copies to be printed; by default, you will have one copy of the document.
2	**Print Custom Range** This option will be used to print a particular page of the document. Type the number in **Pages** option, if you want to print all the pages from 7 till 10 then you would have to specify this option as **7-10** and Word will print only 7th, 8th, 9th and 10th pages.
3	**Print One Sided** By default, you print one side of the page. There is one more option where you will

	turn up your page manually in case you want to print your page on both sides of the page.
4	**Collated** By default, multiple copies will print **Collated**; if you are printing multiple copies and you want the copies uncollated, select the **Uncollated** option.
5	**Orientation** By default, page orientation is set to **Portrait**; if you are printing your document in landscape mode then select the **Landscape** mode.
6	**A4** By default, the page size is A4, but you can select other page sizes available in the dropdown list.
7	**Custom Margin** Click the **Custom Margins** dropdown list to choose the document margins you want to use. For instance, if you want to print fewer pages, you can create narrower margins; to print with more white space, create wider margins.
8	**1 Page Per Sheet** By default, the number of pages per sheet is 1 but you can print multiple pages on a single sheet. Select any option you like from the given dropdown list by clicking over the **1 Page Per Sheet** option.

Step 3 − Once you are done with your setting, click on the **Print** button which will send your document to the printer for final printing.



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. 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

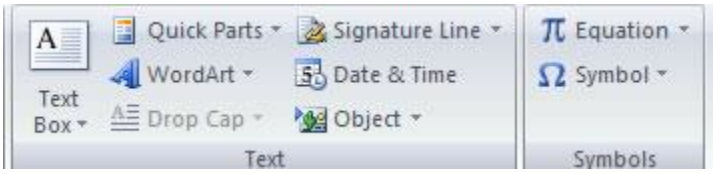
The new Office 2007 equation editor works in a different way than the old equation editor. It uses the AutoCorrect feature of MS Word to do some of the formatting, and it introduces a concept of "Linear" vs. "Professional" formats. Linear format is what you might use in a programming language to write 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.

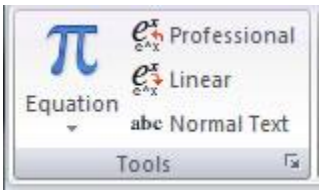
Learning how to use the equation editor

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



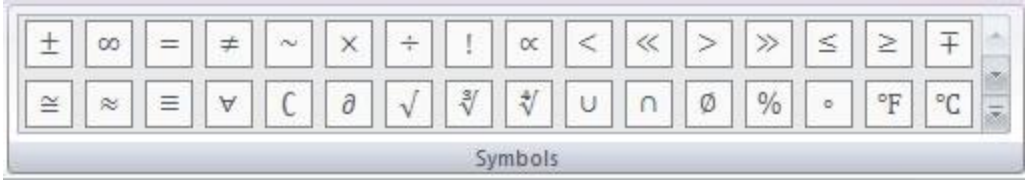
In the "Tools" section you have access to the "Equation" gallery, and you can select "Professional", "Linear" or "Normal Text" modes. Professional format is rendered two-dimensional math, as you would write on paper or a blackboard. Linear format is the equation editor's internal format. Normal text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



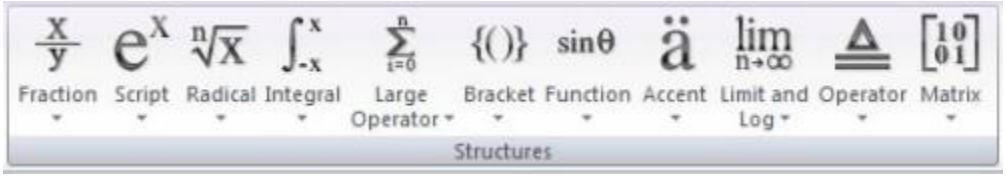
The symbols section contains commonly-used mathematical symbols. You can use the two scroll buttons to see more, or click the icon to view all of the "Basic Math" symbols. Then click on "Basic Math" to see other sections of symbols:

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	∈

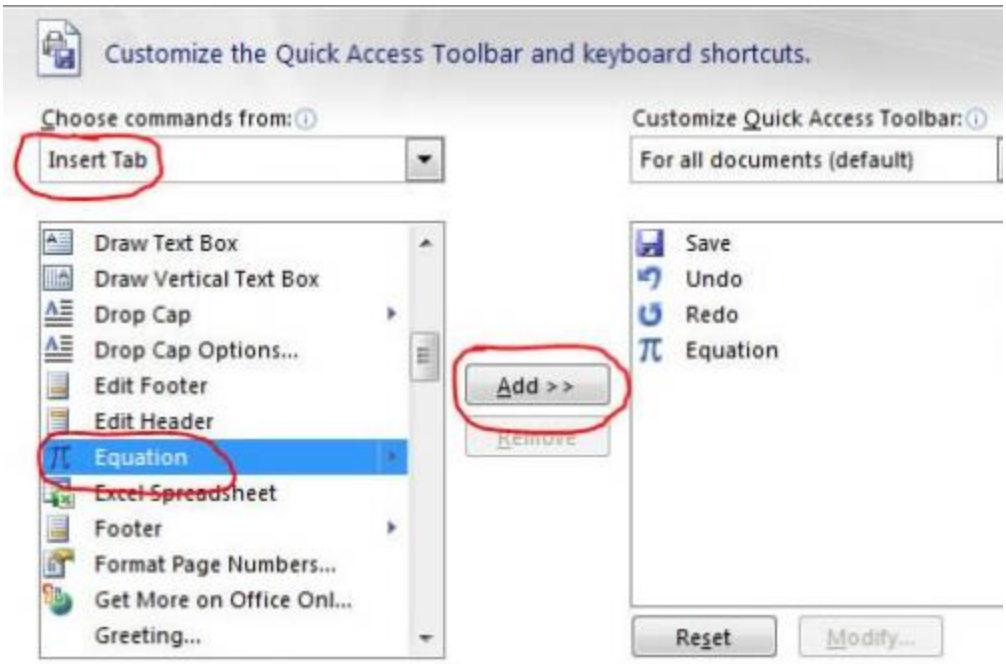
As you type, the equation editor converts recognized symbols to the corresponding graphical characters. This conversion happens as soon as you've typed enough to make the math unambiguous. You can trigger an update by pressing the space bar. You can also choose "Professional" format to force the equation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

$$\left(\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\frac{1}{2}}}}}\right)$$

(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.

$$\begin{bmatrix} 1 & 2 & 3 & 4 \\ 5 & 6 & 7 & 8 \\ 9 & 10 & 11 & 12 \\ 13 & 14 & 15 & 16 \end{bmatrix}$$

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&)

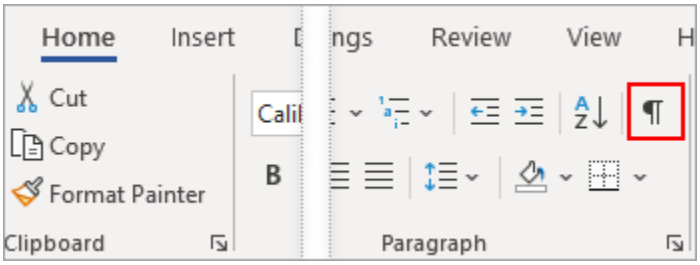
6. Press spacebar

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

Ans. # Convert text to a table or a table to text

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

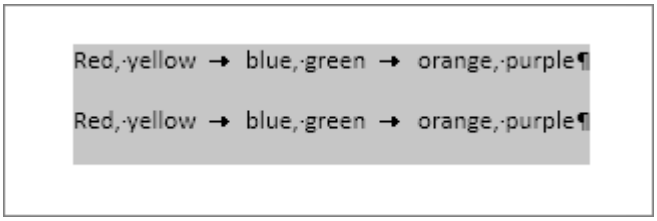
To convert text to a table or a table to text, start by clicking the **Show/Hide** paragraph mark on the **Home** tab so you can see how text is separated in your document.



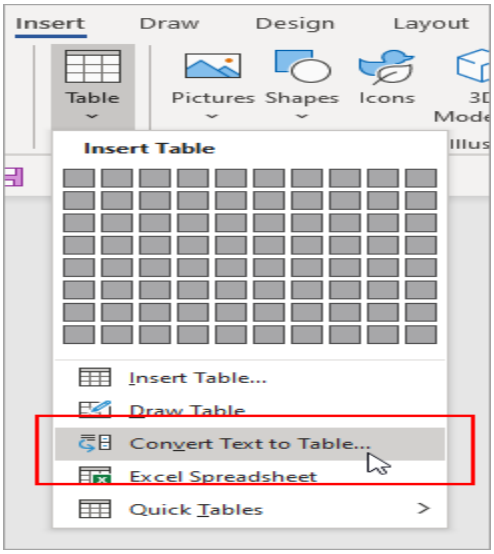
Convert text to a table

1. Insert separator characters—such as commas or tabs—to indicate where to divide the text into table columns.
2. Use paragraph marks to indicate where you want to begin a new table row.

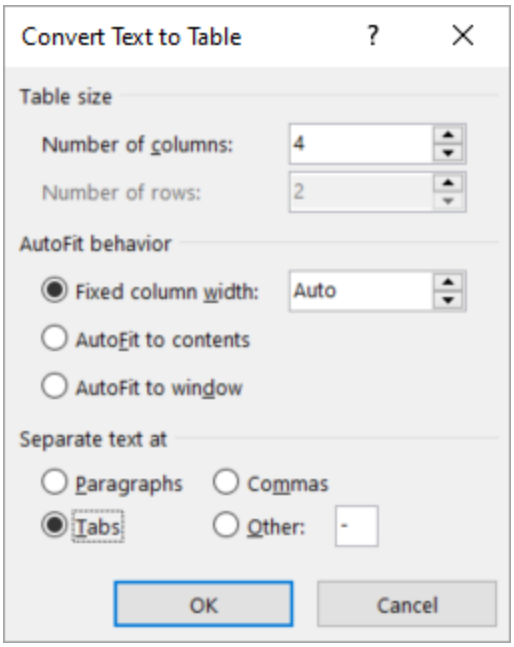
   In this example, the tabs and paragraph marks will produce a table with 3 columns and 2 rows:



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



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



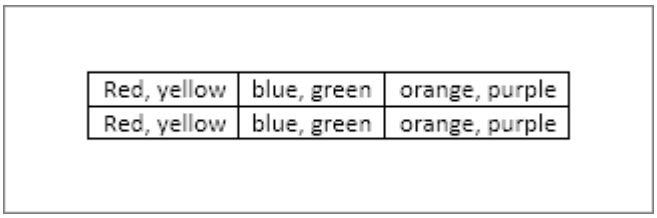
Under **Table size**, make sure the numbers match the numbers of columns and rows you want.

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

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

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

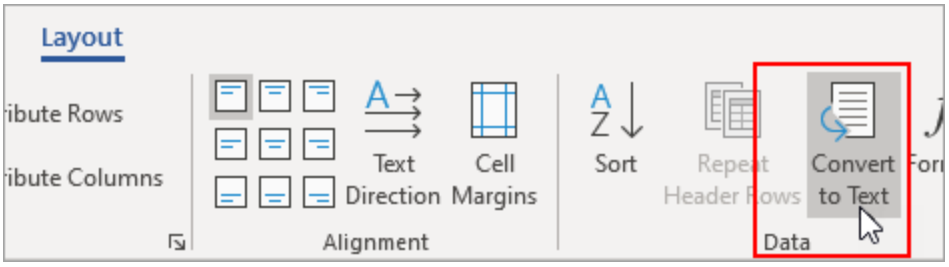
5. Click **OK**. The text converted to a table should look something like this:



Convert a table to text

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

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



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

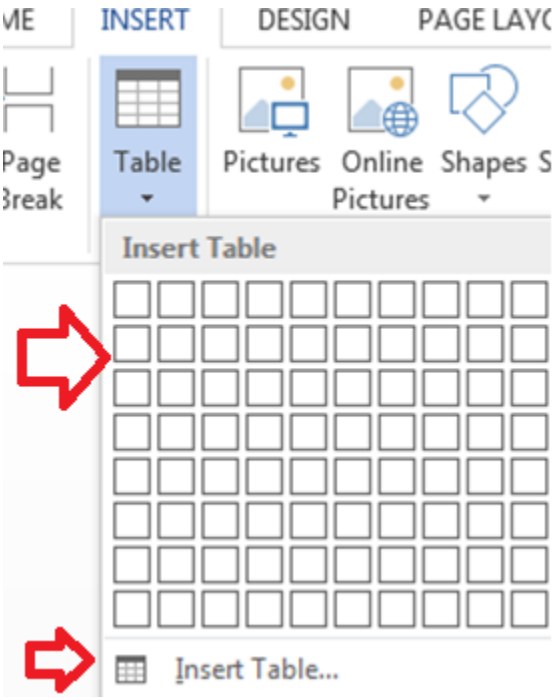
Q10. Create a file in MS-Word to insert a table in the document. Describe all steps involved in it.

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

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

3. Click on the *Table* button

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



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

6. Follow these instructions for ensuring your table meets APA formatting guidelines.

Need additional help? The tutoring service has self-paced table and chart lessons/tutorials within SkillSurfer. Follow these steps to access:

1. Log into the **tutoring service** (click on the blue hyperlink to the left to login!)

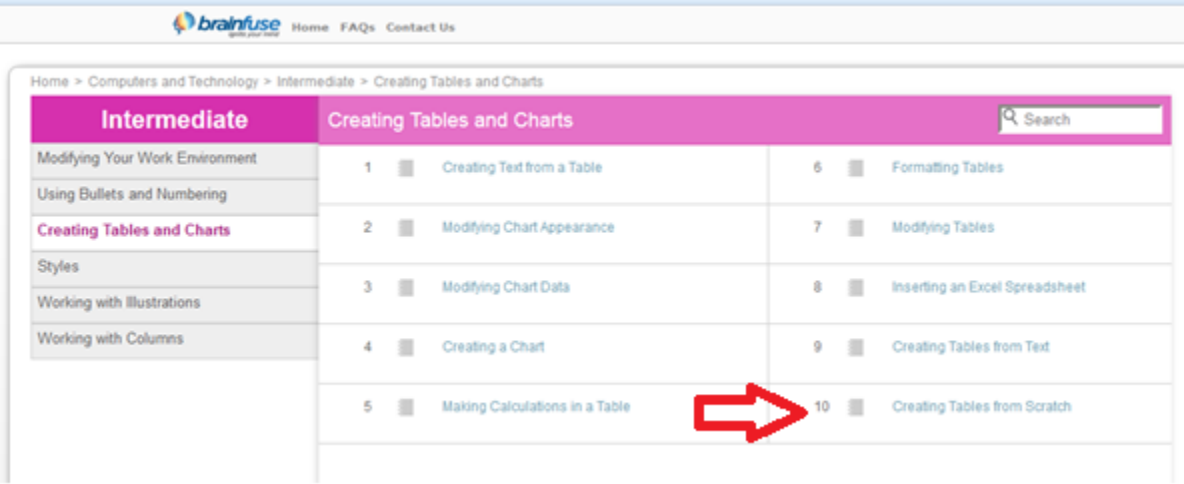
2. Click on *SkillSurfer*

3. Click on *Computers and Technology*

4. Click on *Intermediate* underneath *Microsoft Word*

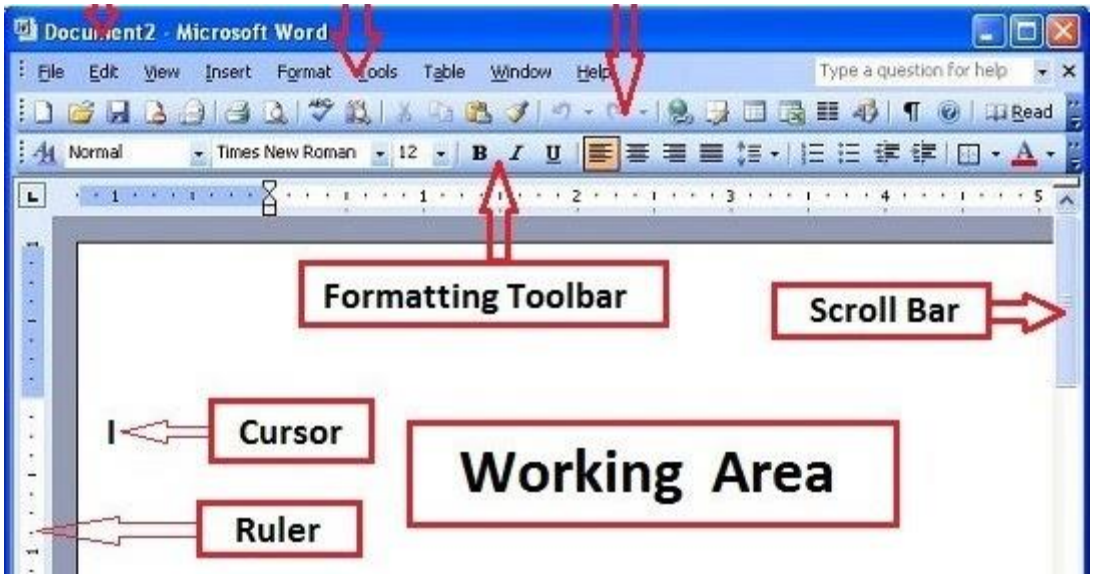
5. Select *Creating Tables and Charts*

6. Choose the exact item(s) you wish to learn about (likely *Creating Tables from Scratch*).



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

Ans.

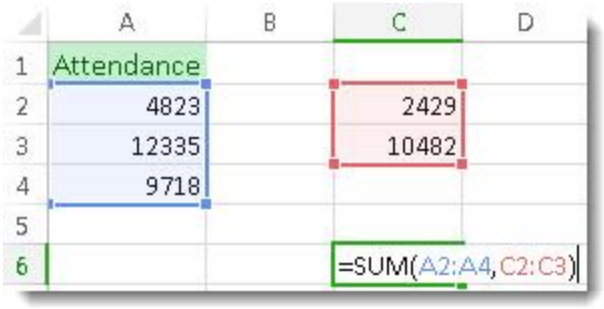


Q12. Calculate the following things of a range (C2:C11) of data in the worksheet created in question no 10.

Ans.

1. **the sum of the marks using AutoSum in a range of cells (C2:C11)**

ou 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)

2. average of the marks in a range of cells (C2:C11)

Returns the average (arithmetic mean) of the arguments. For example, if

the range A1:A20 contains numbers, the

formula =AVERAGE(A1:A20) returns the average of those numbers

3. highest marks in a range of cells (C2:C11)

MAX will return the largest value in a given list of arguments. From a given

set of numeric values, it will return the highest value. Unlike MAXA function,

the MAX function will count numbers but ignore empty cells, text, the logical

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

values TRUE and FALSE, and text values.

=MAX(number1, [number2], …)

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

The Microsoft Excel MIN function returns the smallest value from the numbers provided.

=MIN(A2, A3)

Q13 a) Describe various steps involved

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

Notes:

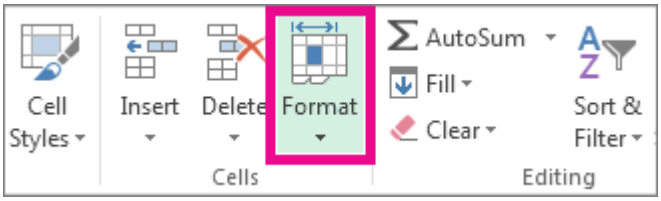
- If you are working in Page Layout view (**View** tab, **Workbook Views** group, **Page Layout** button), you can specify a column width or row height in inches, centimeters and millimeters. The measurement unit is in inches by default. Go to **File** > **Options** > **Advanced** > **Display** > select 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 versions Office 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**.

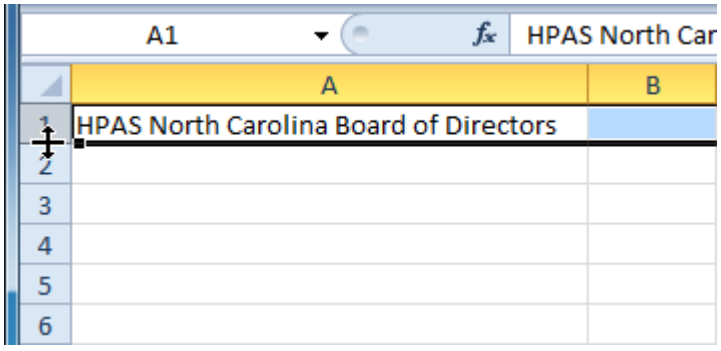


3. Under **Cell Size**, click **Column Width**.
4. In the **Column width** box, type the value that you want.
5. Click **OK**.

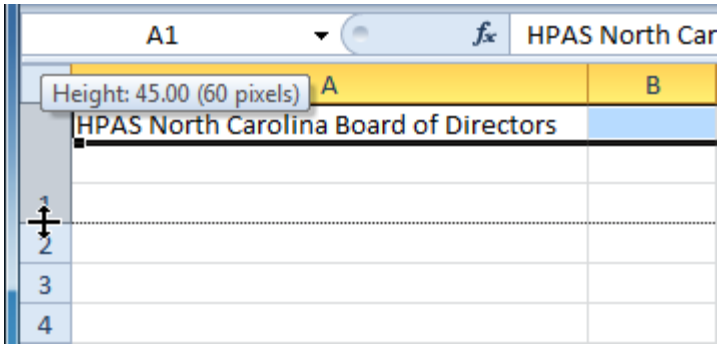
b.To modify the row height of a worksheet

Ans. To modify row height:

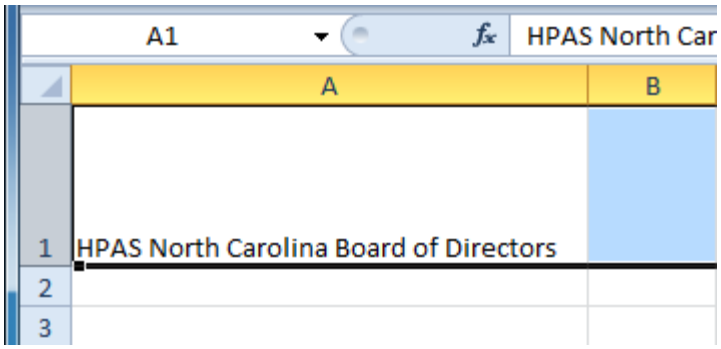
1. Position the **cursor** over the **row line** so the **white cross** ✚ becomes a **double arrow** ✢.



2. **Click and drag the row** downward to increase row height or upward to decrease height.



3. Release the mouse. The height of each selected row will be changed in your worksheet.



c. To delete rows and columns of a worksheet

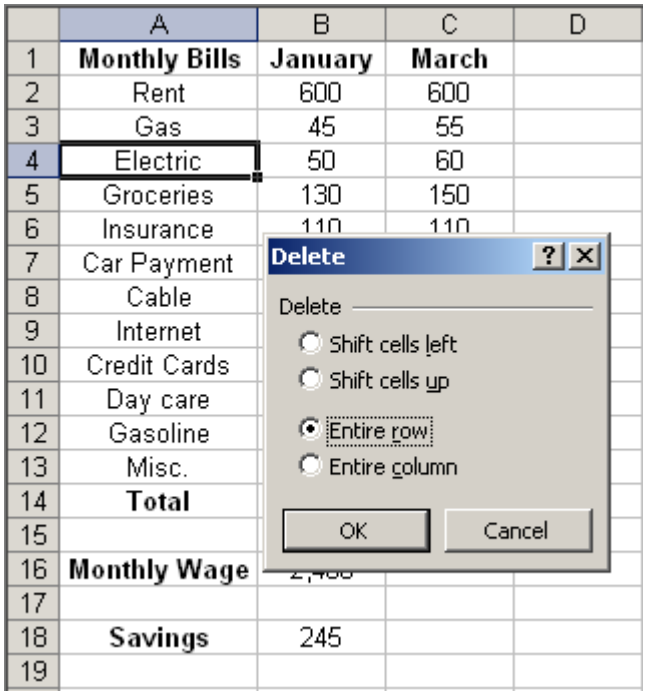
Ans. Deleting columns and rows

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.

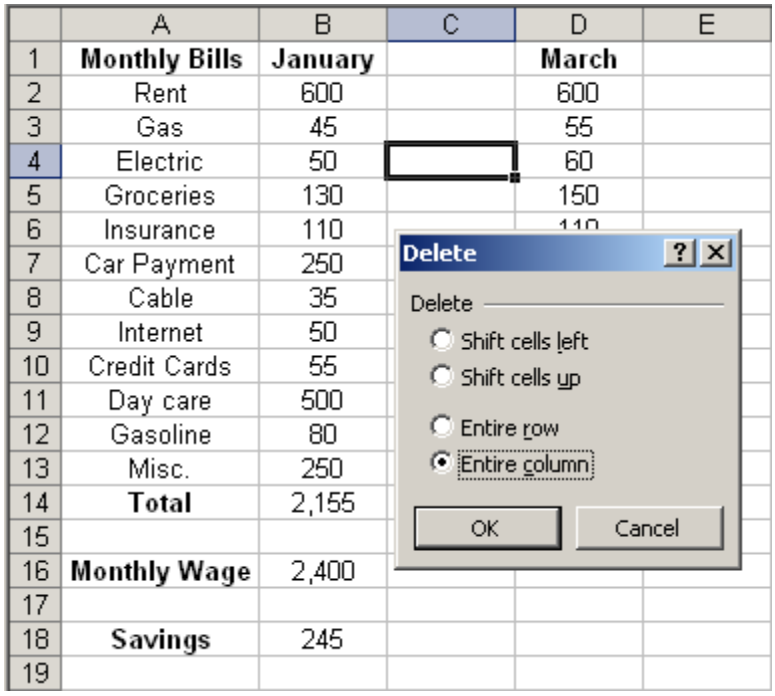


- Click **OK**.

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.



	A	B	C	D	E
1	**Monthly Bills**	**January**		**March**	
2	Rent	600		600	
3	Gas	45		55	
4	Electric	50		60	
5	Groceries	130		150	
6	Insurance	110			
7	Car Payment	250			
8	Cable	35			
9	Internet	50			
10	Credit Cards	55			
11	Day care	500			
12	Gasoline	80			
13	Misc.	250			
14	**Total**	2,155			
15					
16	**Monthly Wage**	2,400			
17					
18	**Savings**	245			
19					

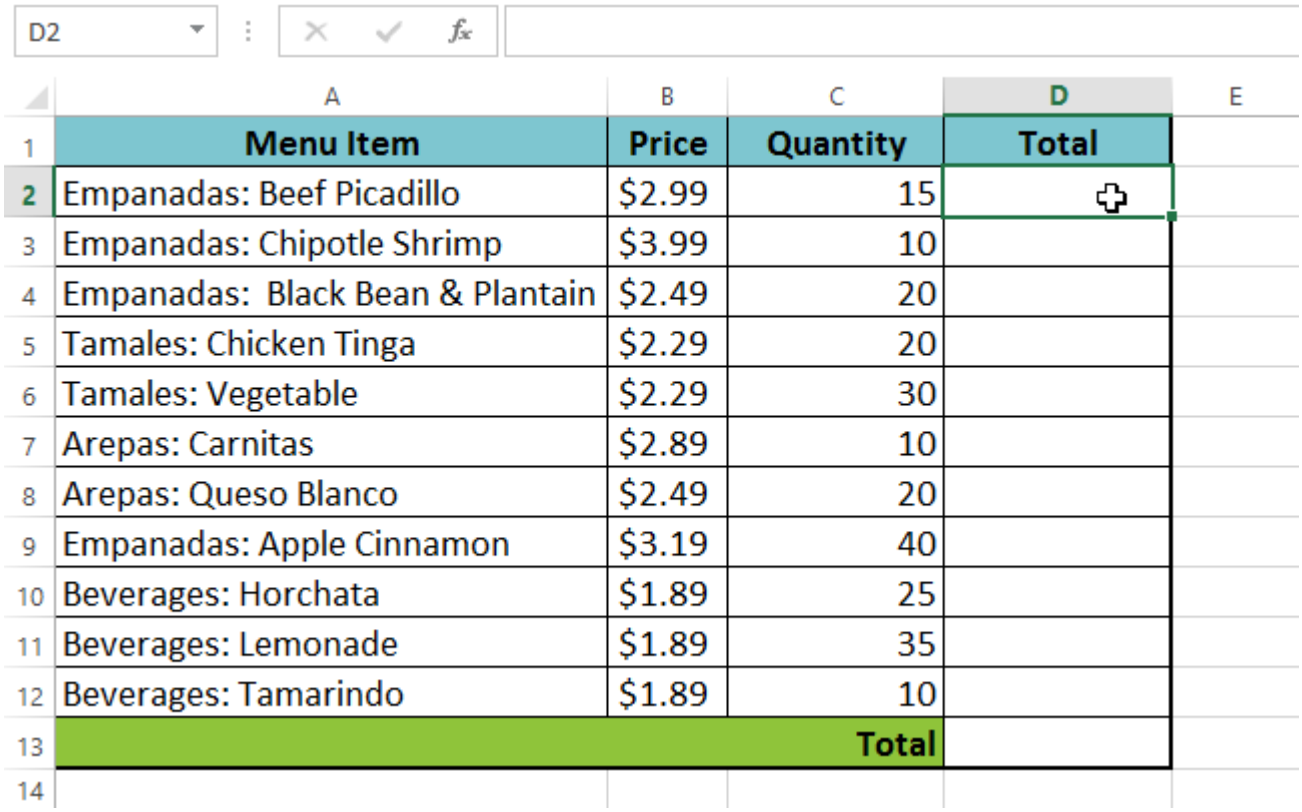
Q13 b) Describe following terms in the worksheet

a. Absolute reference and relative reference in formula

AnS. To create and copy a formula using relative references:

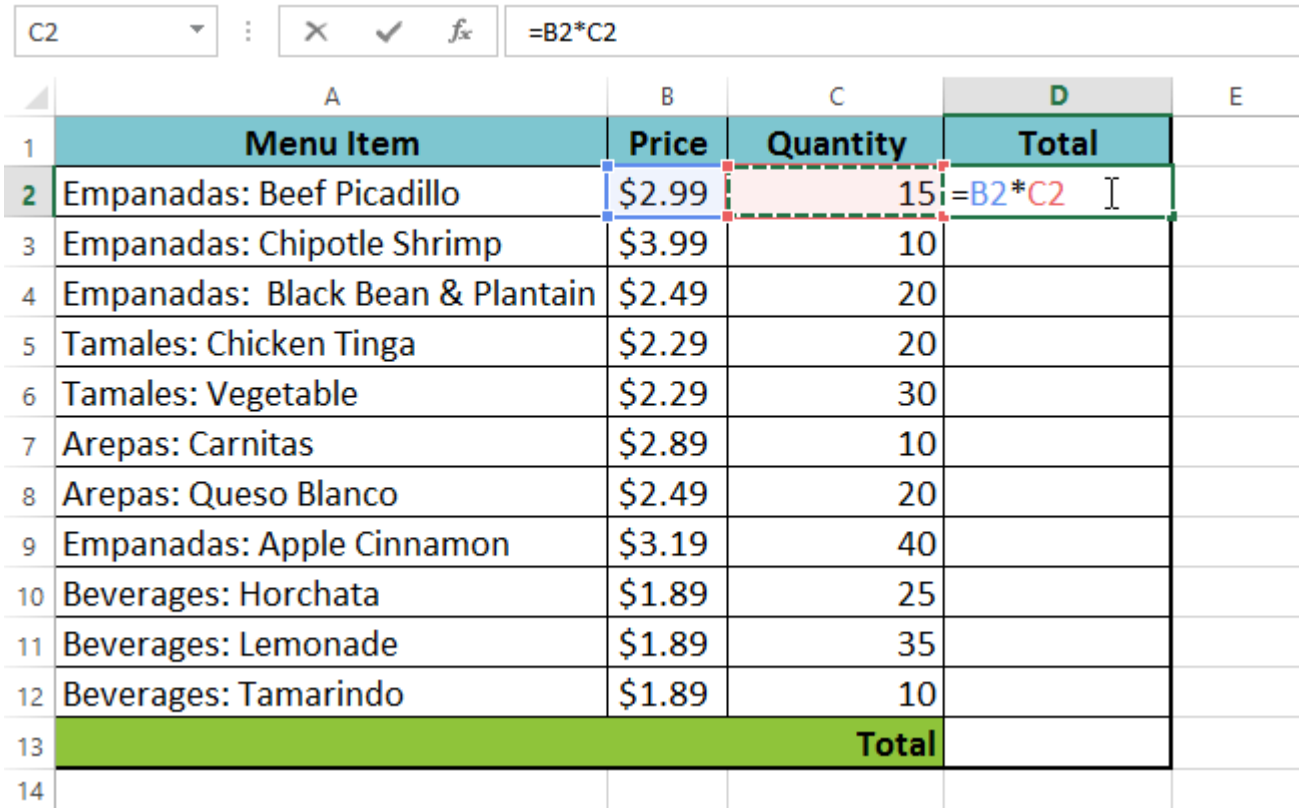
In the following example, we want to create a formula that will multiply each item's **price** by the **quantity**. Rather than create a new formula for each row, we can create a single formula in cell **D2** and then copy it to the other rows. We'll use relative references so the formula correctly calculates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

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



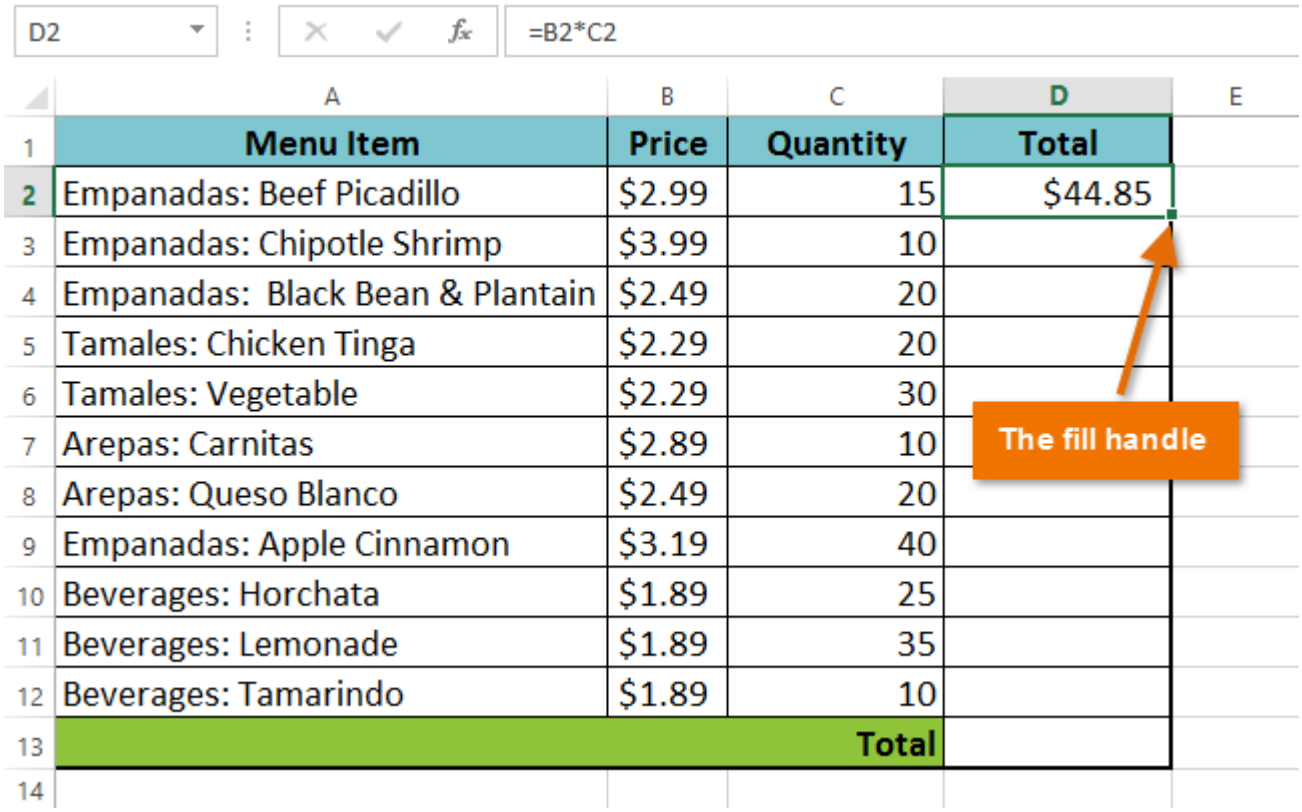
	A	B	C	D	E
1	**Menu Item**	**Price**	**Quantity**	**Total**	
2	Empanadas: Beef Picadillo	$2.99	15		
3	Empanadas: Chipotle Shrimp	$3.99	10		
4	Empanadas: Black Bean & Plantain	$2.49	20		
5	Tamales: Chicken Tinga	$2.29	20		
6	Tamales: Vegetable	$2.29	30		
7	Arepas: Carnitas	$2.89	10		
8	Arepas: Queso Blanco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

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



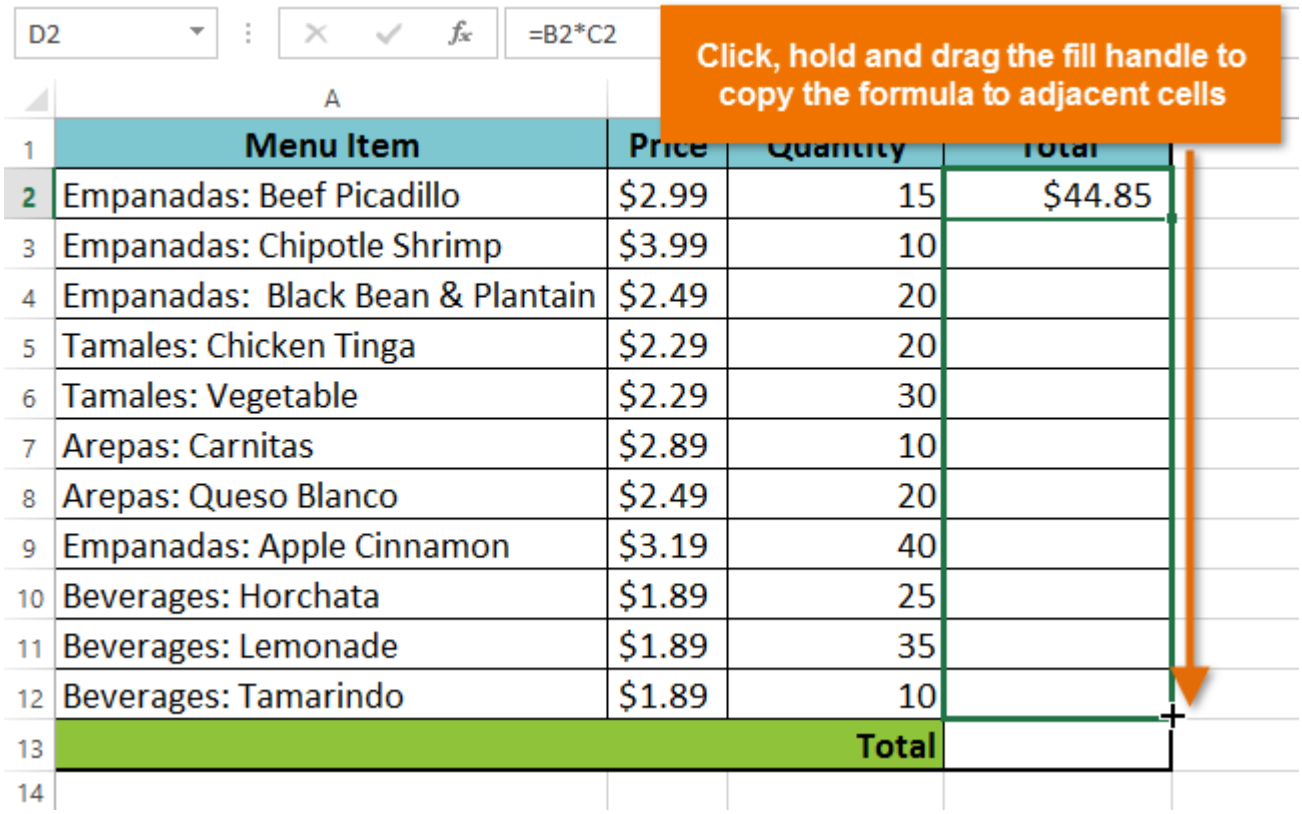
Press **Enter** on your keyboard. The formula will be **calculated**, and the result will be displayed in the cell.

3. Locate the **fill handle** in the lower-right corner of the desired cell.
   In our example, we'll locate the fill handle for cell **D2**.

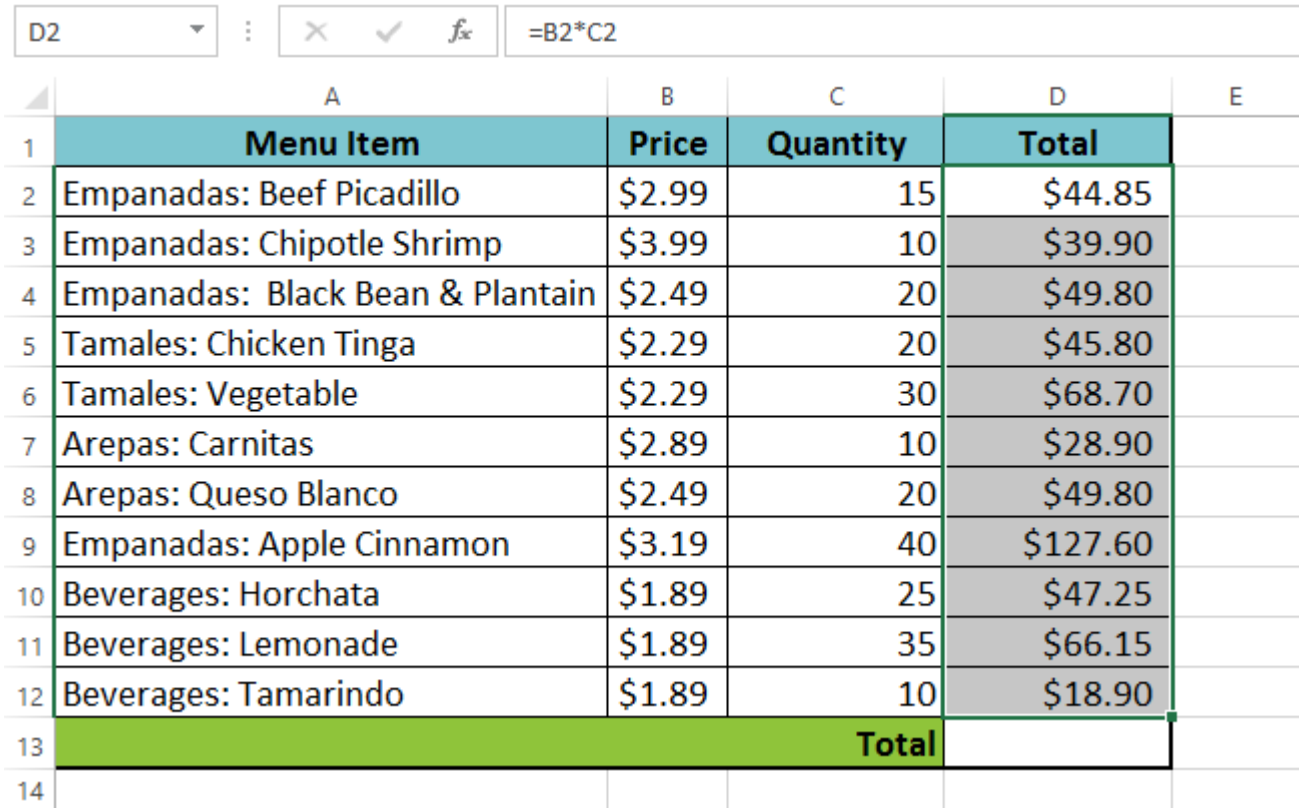


	A	B	C	D	E
1	**Menu Item**	**Price**	**Quantity**	**Total**	
2	Empanadas: Beef Picadillo	$2.99	15	$44.85	
3	Empanadas: Chipotle Shrimp	$3.99	10		
4	Empanadas: Black Bean & Plantain	$2.49	20		
5	Tamales: Chicken Tinga	$2.29	20		
6	Tamales: Vegetable	$2.29	30		
7	Arepas: Carnitas	$2.89	10		
8	Arepas: Queso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

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

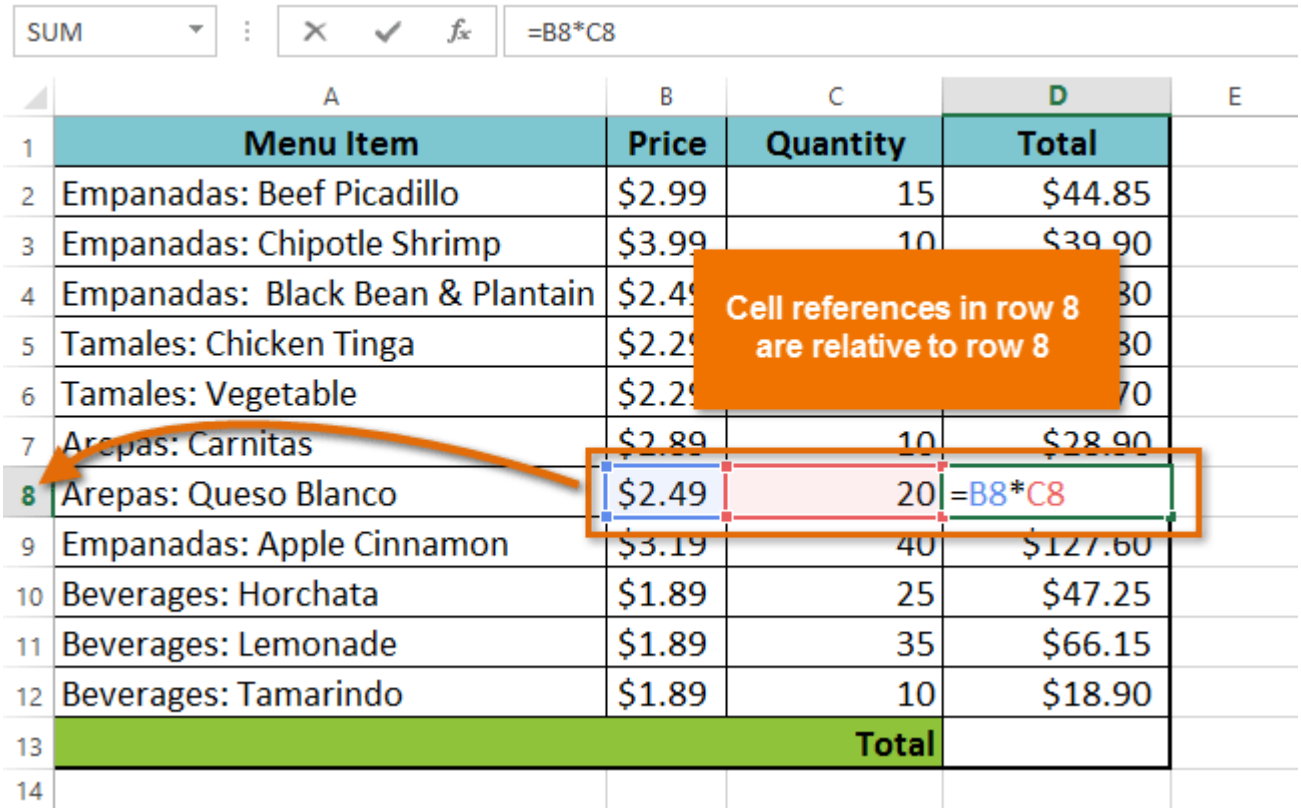


5. Release the mouse. The formula will be **copied** to the selected cells with **relative references** and the values will be calculated in each cell.



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

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



	A	B	C	D	E
1	Menu Item	Price	Quantity	Total	
2	Empanadas: Beef Picadillo	$2.99	15	$44.85	
3	Empanadas: Chipotle Shrimp	$3.99	10	$39.90	
4	Empanadas: Black Bean & Plantain	$2.49		30	
5	Tamales: Chicken Tinga	$2.29		30	
6	Tamales: Vegetable	$2.29		70	
7	Arepas: Carnitas	$2.89	10	$28.90	
8	Arepas: Queso Blanco	$2.49	20	=B8*C8	
9	Empanadas: Apple Cinnamon	$3.19	40	$127.60	
10	Beverages: Horchata	$1.89	25	$47.25	
11	Beverages: Lemonade	$1.89	35	$66.15	
12	Beverages: Tamarindo	$1.89	10	$18.90	
13			Total		
14					

b. Cell address

Ans. A cell reference, or cell address, is an alphanumeric value used to identify a specific cell in a spreadsheet. Each cell address contains "one or more letters" followed by a number. The letter or letters identify the column and the number represents the row.

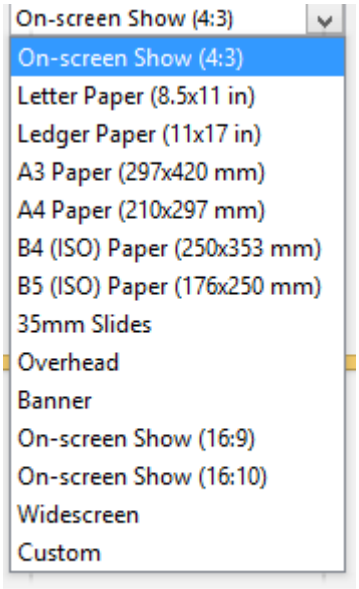
Q14. a) What tools are available to customize our PowerPoint presentation?

Ans. PowerPoint is a very practical presentation tool. But no matter how many times you have worked with PowerPoint before, there are a few tips and tricks that can help customize your presentation. The first part of this article will explain how to customize presentation options and views and in the second part we will show you how to navigate by using presentation views. Please read on..

Changing page setup options

Presentations are created mainly to project either on a projector or more and more frequently to a plasma or TV screen. There are times when a presentation can be created for delivery in different formats.

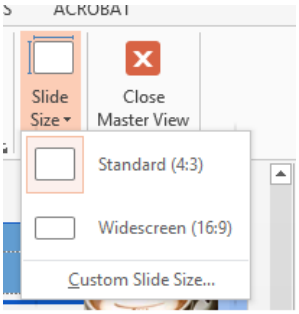
- On-screen show (4:3)
- Letter Paper (8.5 x 11 in)
- Ledger Paper (11 x 17 in)
- A3 Paper (297 x 420 mm)
- A4 Paper (210 x 297 mm)
- B4 (ISO) Paper (250 x 353 mm)
- B5 (ISO) Paper (176 x 250 mm)
- 35mm Slides
- Overhead
- Banner
- On-screen Show (16:9)
- On-screen Show (16:10)
- Widescreen
- Custom



Slide Sizes

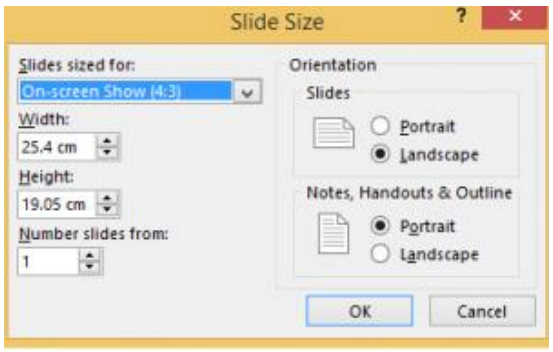
To select a slide size other than the standard one:

1. In Slide Master View
2. Click on Slide Size
3. Select from one of the two options
4. For more choices, click Custom
5. Select one of the options



Slide Size

Figure 89- standard or widescreen



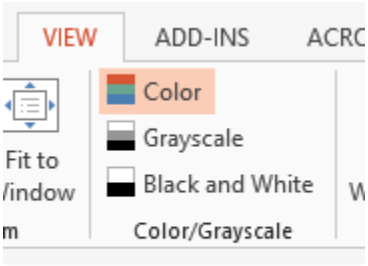
Slide Size box

Figure 90 – other options

If you change the orientation to Portrait for the presentation it will apply to all the slides.

Changing to view in color/grayscale

Why change to view the presentation in grayscale? You might want to print the presentation and to print in colour is more expensive than printing to greyscale, so you need to see what the presentation looks like in grayscale before you print.

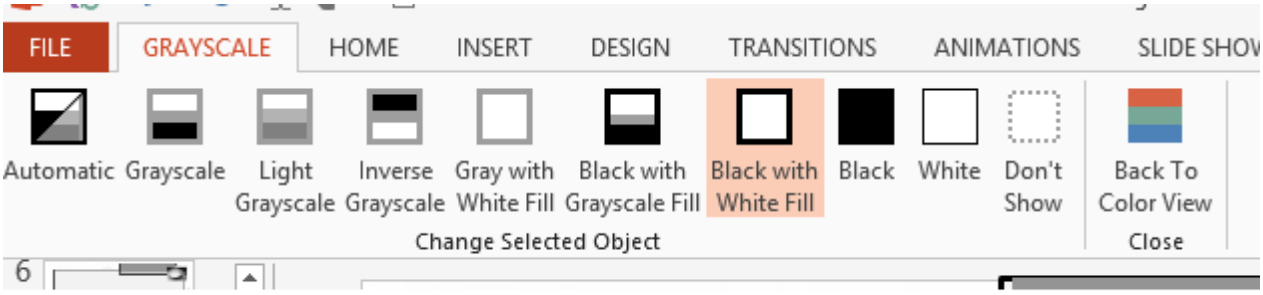


View Grayscale

Figure 91- colour/grayscale options

On the View Ribbon, click on the option you want, Colour, Grayscale or Black and White.

Then from the Grayscale Ribbon select the option you want to see:



Grayscale Ribbon

Figure 92- grayscale options

To get back to the colour view, click Back to Colour View.

Navigating using presentation views

There are several different views in PowerPoint as we saw earlier and you can navigate through the presentation in each in different ways.

In Normal View

- Click on the thumbnail of the slide you want to see
- Use the Vertical Scrollbar to move between slides
- Use the up and down arrow keys on the keyboard to move one slide backwards or forwards

In Slide Sorter View

- Click on the slide you want to select
- Use the arrow keys to move up, down, left and right

In Reading View

Use the next and back icons in the status bar to move back or forwards or use the menu which is accessed from the icon in the middle

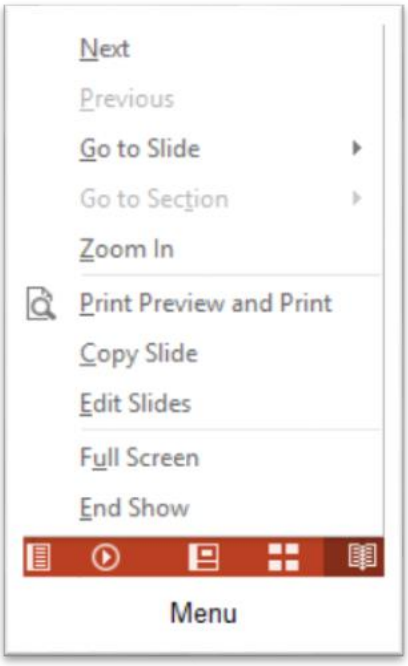


Figure 93- reading view

Pick from the menu – you can use Go to Slide to pick the slide number

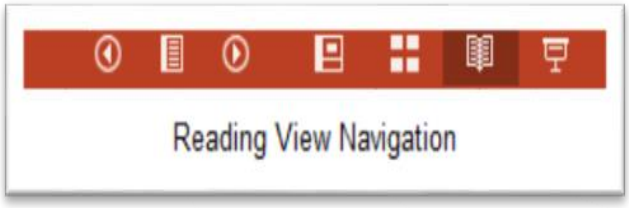


Figure 94 – icons

Back and Next icons move between slides.

In Slide Show view

When presenting you can use the mouse or the arrows on the keyboard to move through the presentation one slide at a time.

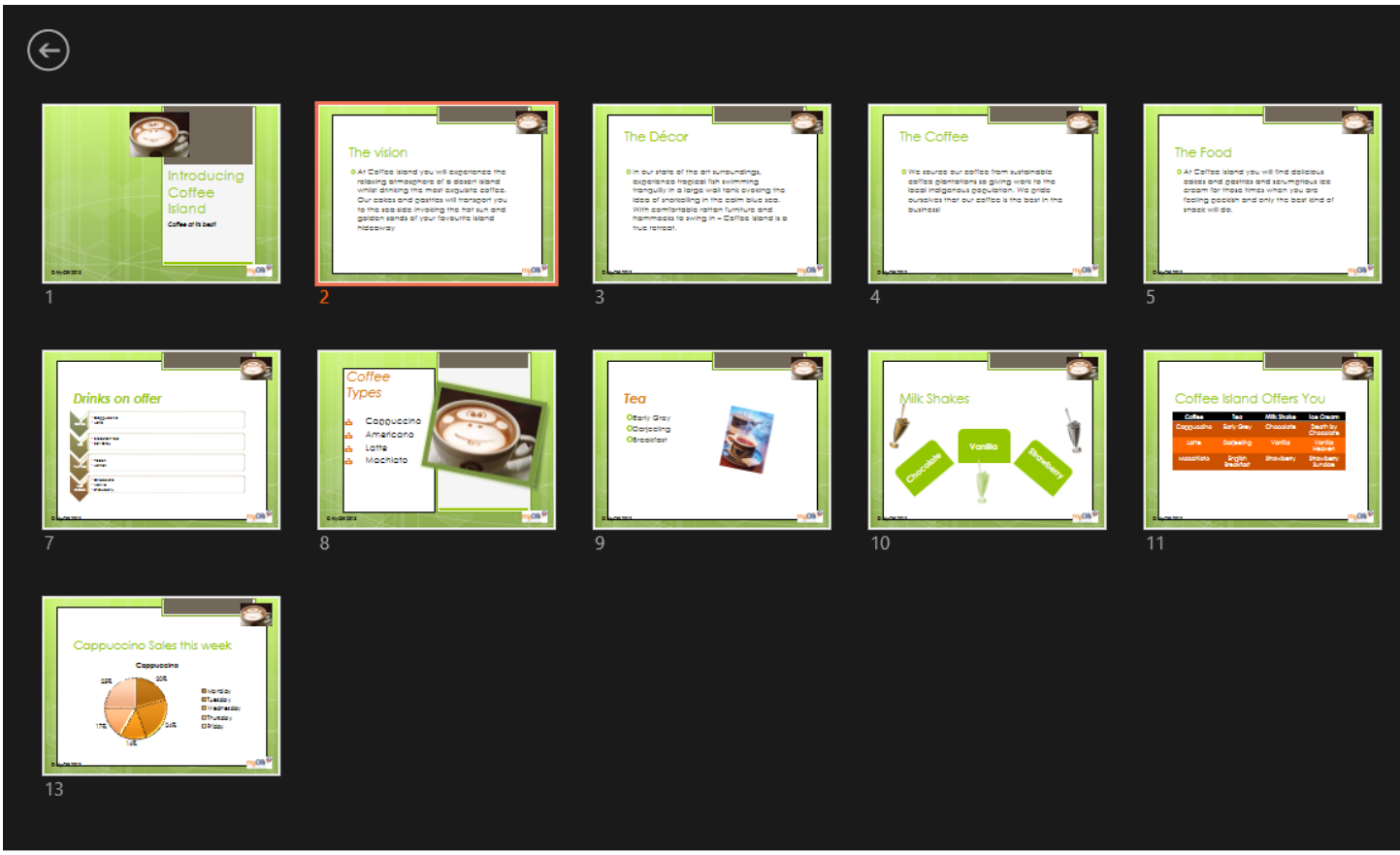
You can also type the number of the slide you want to see and press Enter.

When you hover the mouse over the bottom left corner of the slide on display you will notice some faint icons, there is a back arrow and forward arrow which move you through one slide at a time.

Slide show icons

Figure 95- slide show icons

Use the fourth icon along to show the slides in a presentation view of Slide Sorter View. This lays the slides on the screen and you can click on the one you want to see



Slide Sorter In Presentation View

Figure 96- Slide Sorter in presentation view

Use the back arrow at the top left to get back to the slide you started from.

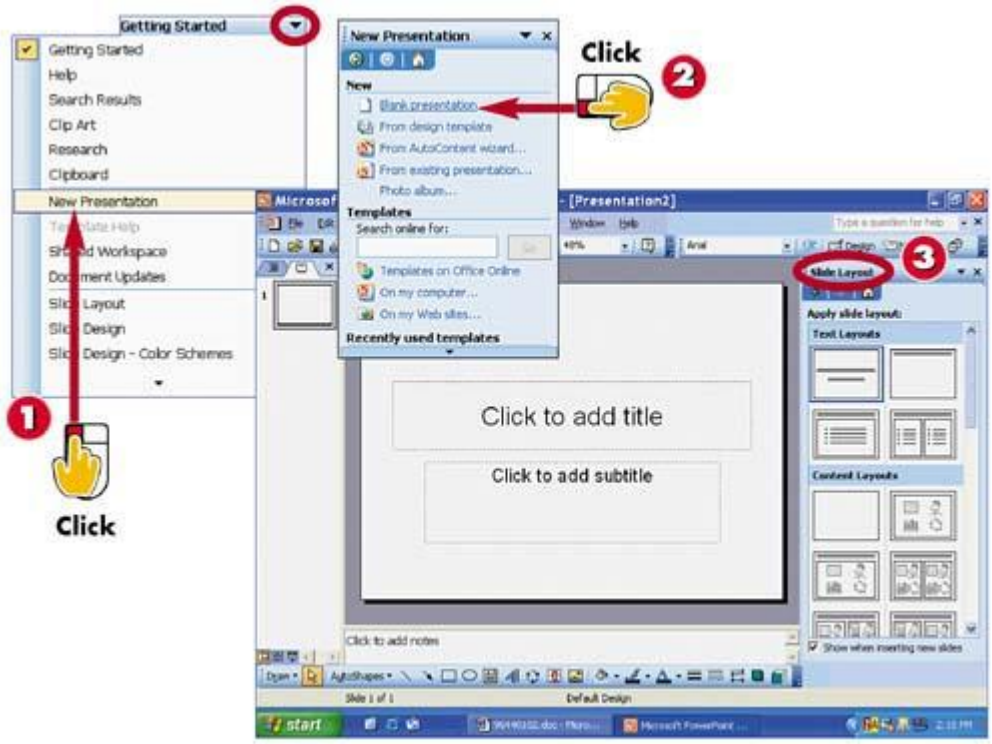
To end the slide show, press the Escape Key on the keyboard – this takes you back to PowerPoint in the edit mode which means that your audience will see the back end of your presentation.

You can also use the End Presentation option which is on the small ellipse icon on the bottom left of the slide when you hover the mouse

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

A . Open a Blank presentation

Ans.



1. Click the Other Task Panes button and click New Presentation.

2. Click the Blank Presentation link in the New Presentation pane.

3. PowerPoint immediately starts a new presentation with a single slide and a default layout. The Slide Layout pane also opens.

INTRODUCTION

When you create a blank presentation, PowerPoint starts with a single slide and a plain white background. You can add a background, graphics, and other objects to the slide later. You can use the Slide Layout pane to assign a layout for the slide. A *layout* is simply the arrangement of slide objects.

TIP

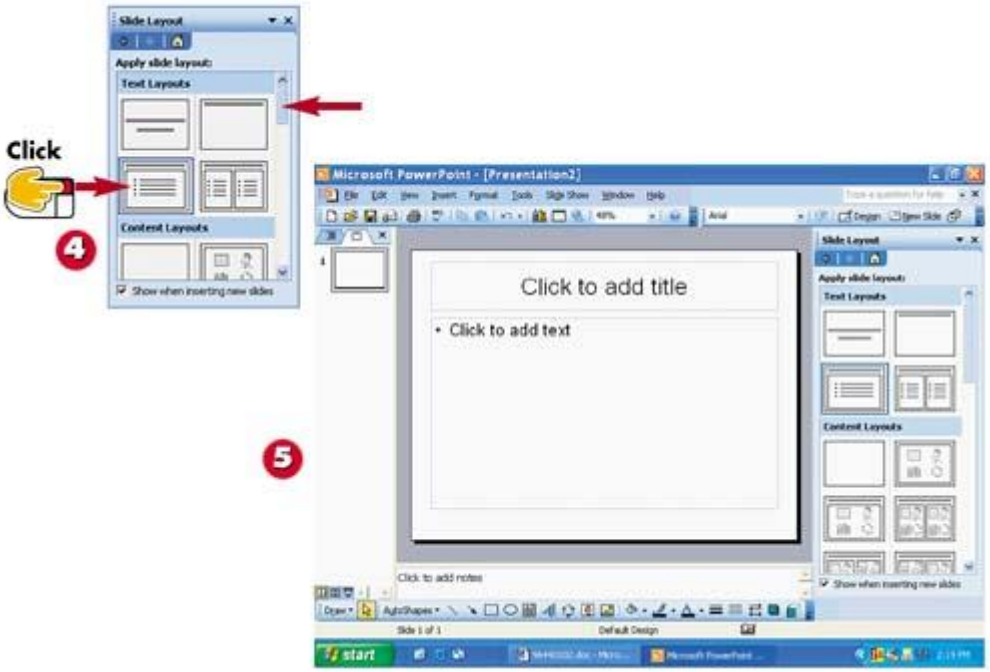
Other Ways to Start a Blank Presentation

You can also click the New button on the Standard toolbar, or select File, New to create a blank presentation. Alternatively, you can click the Blank Presentation link on the New Presentation pane.

TIP

Where Is My Task Pane?

If you closed your Task pane, you must open it again to click the Blank Presentation option. See Part 1, "Getting Started with PowerPoint," to learn how to display and hide the Task pane and how to view different panes in the Task pane.



4. Use the scroll arrows on the right side of the pane to scroll through the Slide Layout pane to view layouts. When you find a layout you like, click it.

5. PowerPoint changes the blank slide's layout.

TIP

Adding Text

You can click placeholder text and start typing your own text for the slide. To learn more about adding text, see the task "Replacing Placeholder Text" later in this part.

TIP

Do I Have to Choose a Layout?

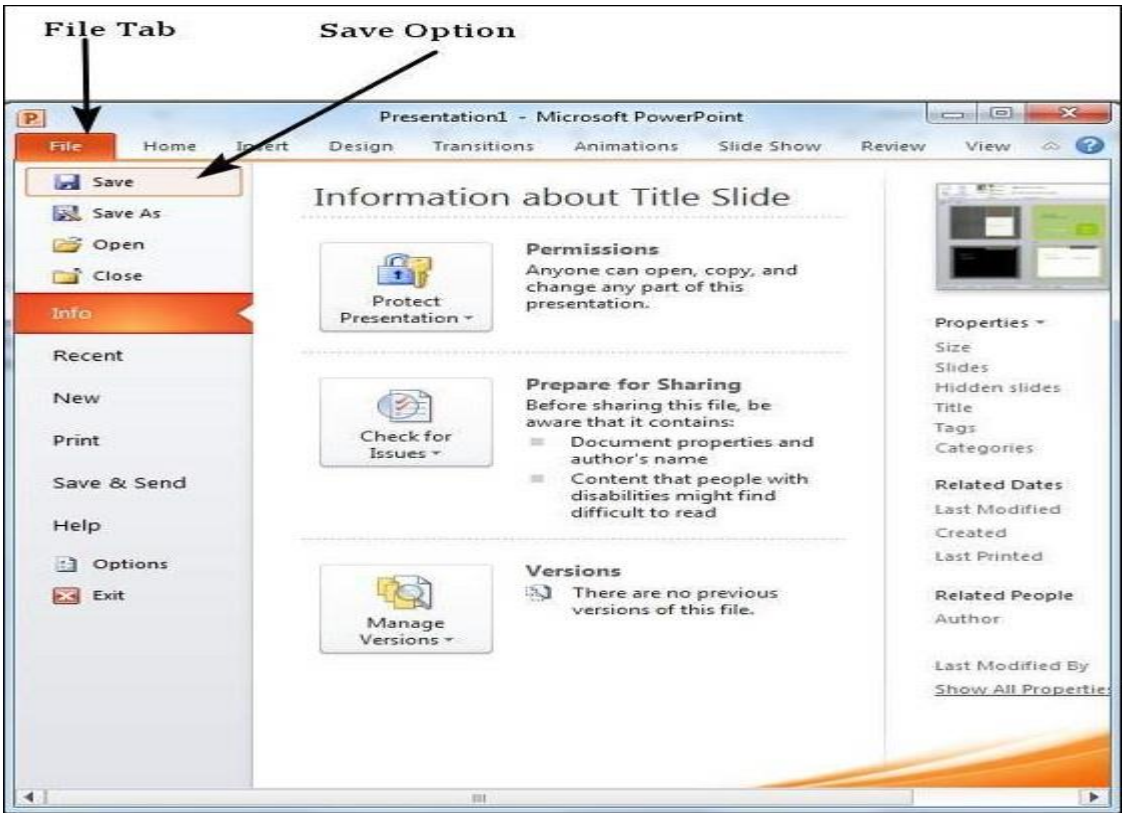
If you prefer to design your own layout from scratch, you can select the Blank layout, located in the Content Layout section of the Slide Layout pane, and add your own text boxes and other slide objects later.

b. Save the presentation as Lab1.pptx

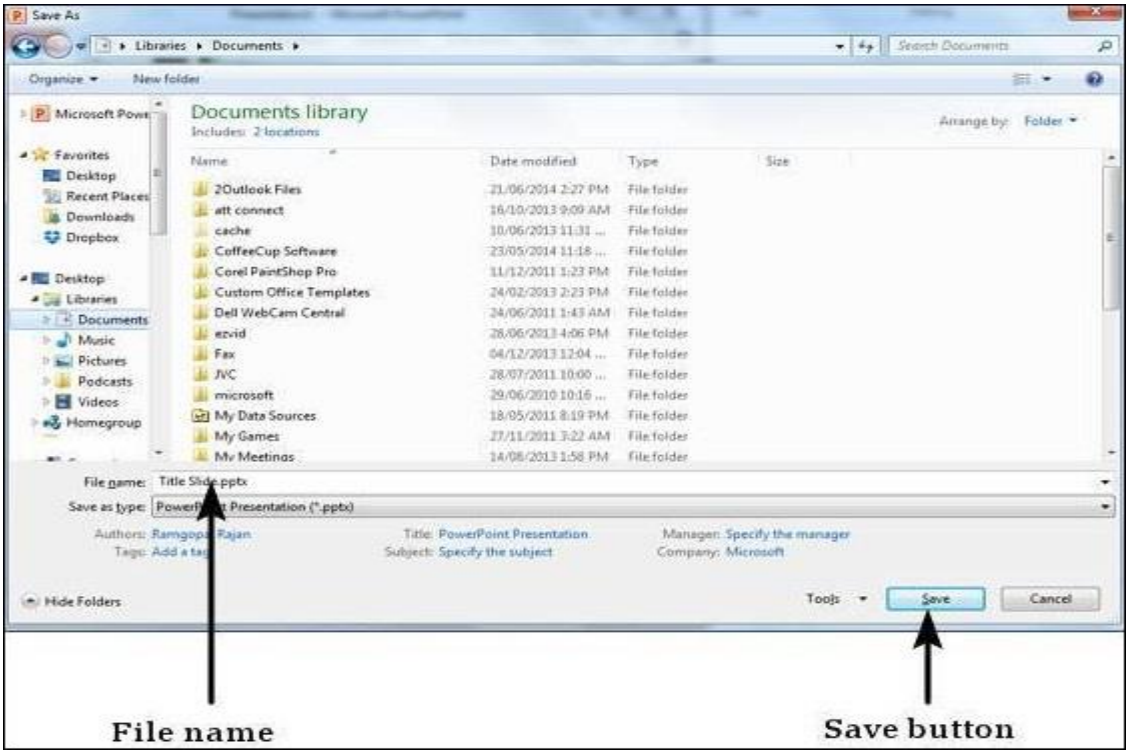
ANS.

One of the most basic tasks in PowerPoint is being able to save your work; this is probably the most important task as well. There are many users who have burnt their fingers for not saving their work in time and losing hours of hard work. The following are the basic steps to save a presentation.

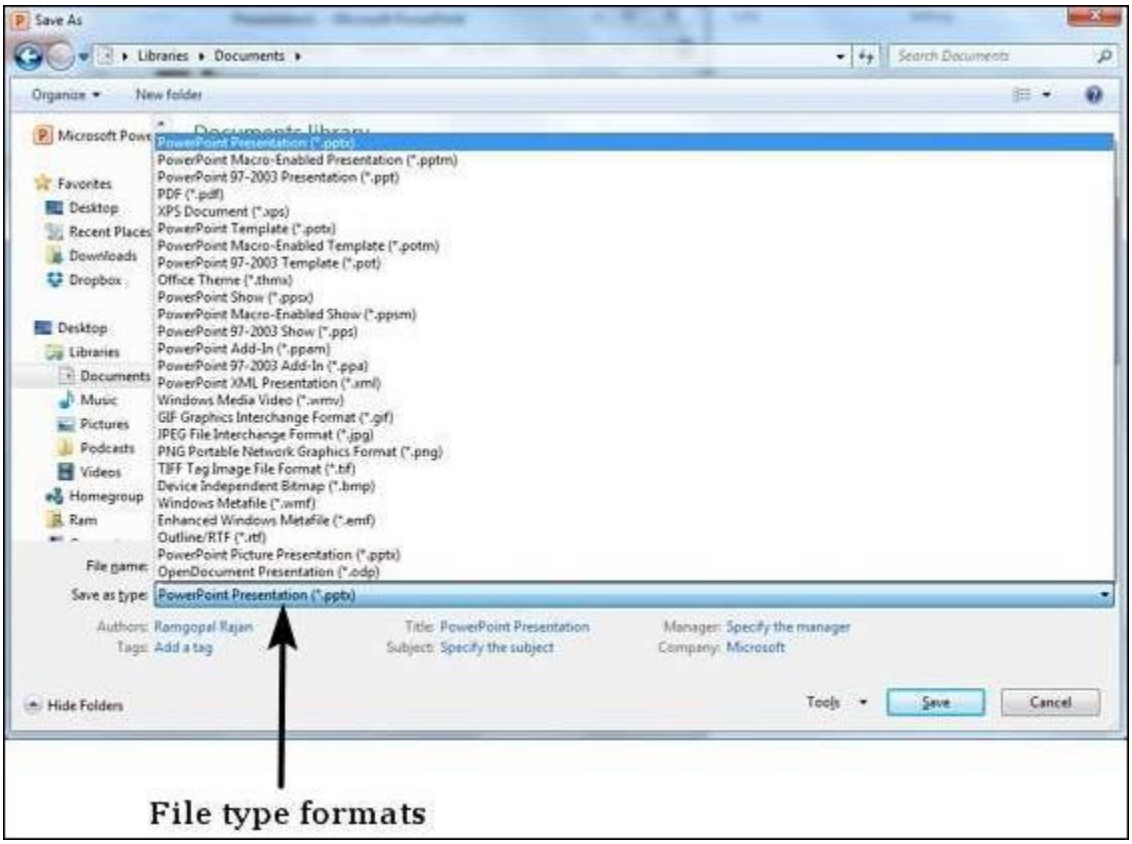
Step 1 − Click on the **File** tab to launch the **Backstage** view and select **Save**.



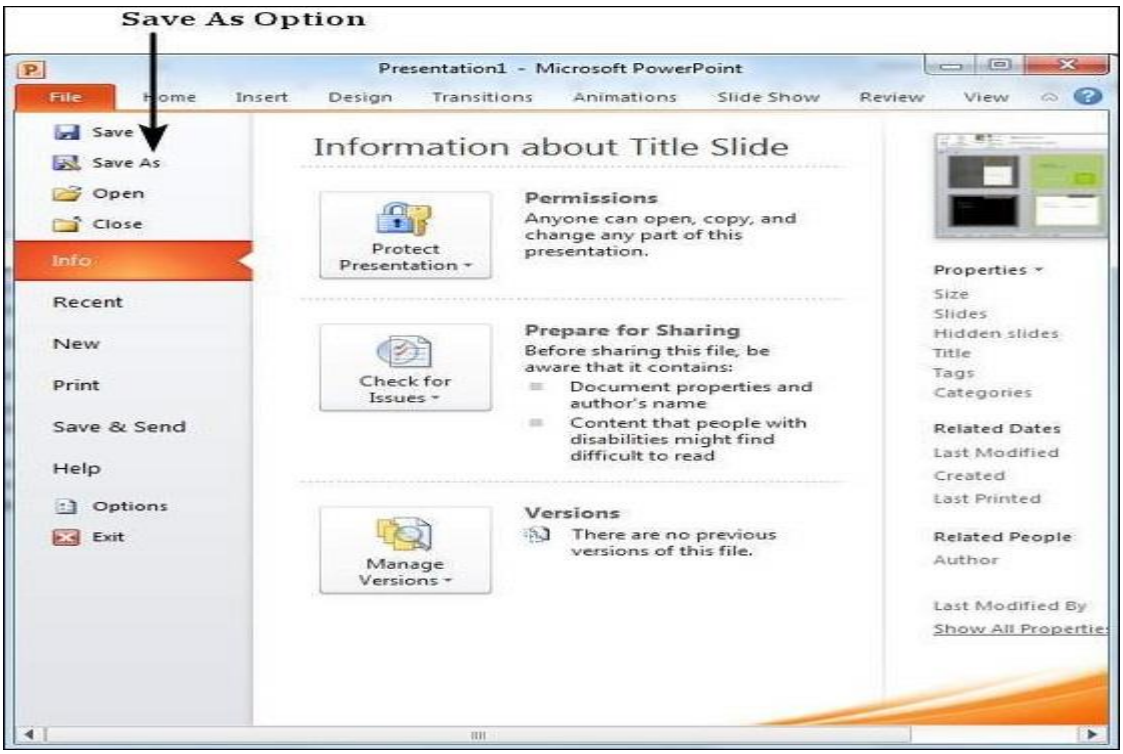
Step 2 − In the **Save As** dialog, type in the file name and click "Save".



Step 3 − The default file format is **.pptx**. If you want to save the file with a different name, choose one of the file types from the "**Save as type**" dropdown list.



If you are working on an already saved file, the "Save" option in the **Backstage** view will directly save the file in the existing format with the existing name. If you want to change the format or filename of an existing file, use the **Save As** option instead.



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

Ans. 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

5. Add a New Slide which has a Title and

Content

Ans.

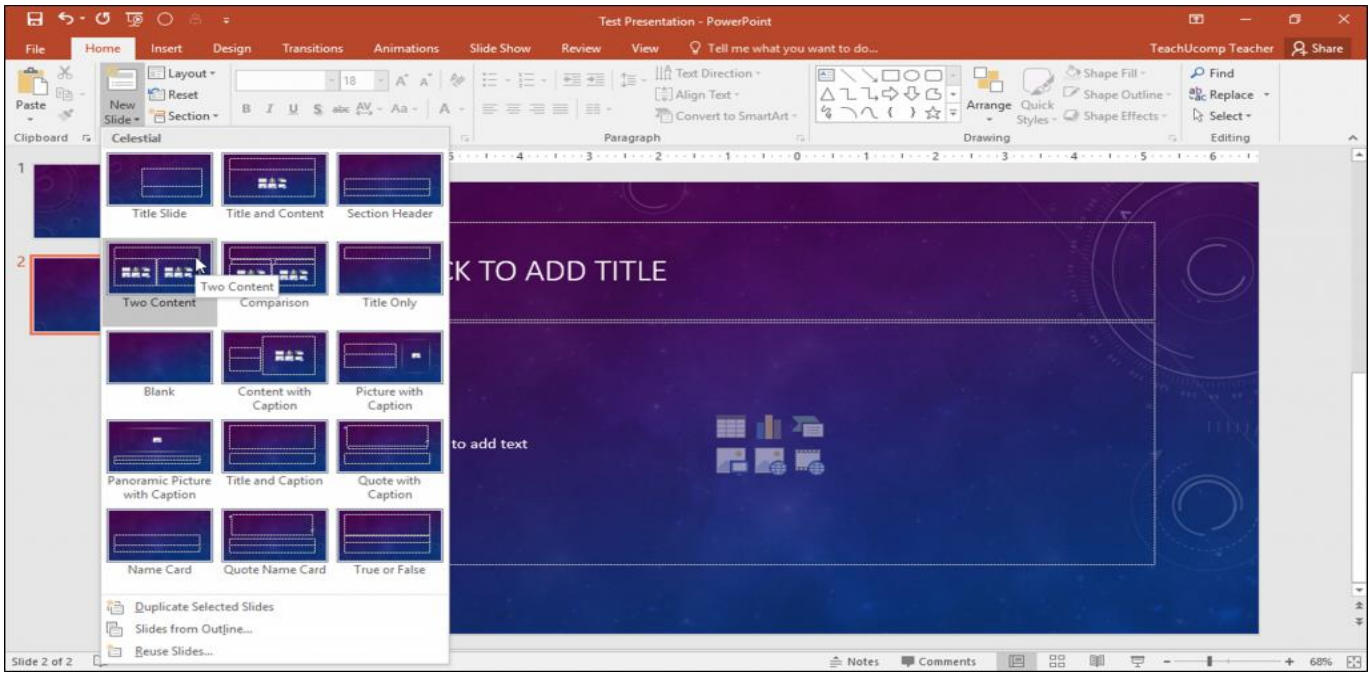
. Insert a New Slide in PowerPoint: Overview

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

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

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

To insert a new slide in PowerPoint with a different slide layout, click the drop-down



Q15. Write steps for creation of a set of PowerPoint slides that demonstrates your skill to usethe tools of PowerPoint. It should include the following things

A) Title slide &bullet list

Ans.

Title a slide

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**

Show each bullet point with a click

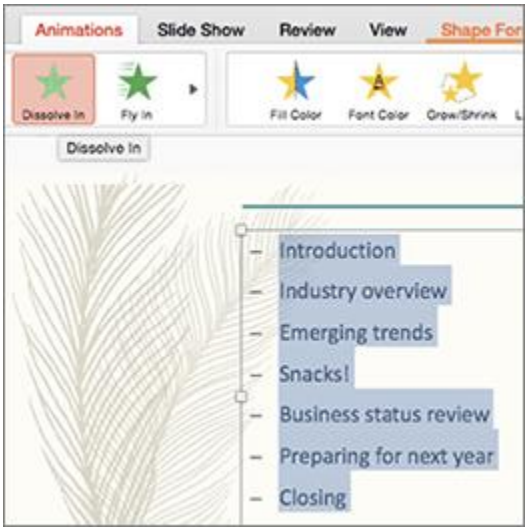
1. Select the text box that contains the slides you want to animate.

2. Click the **Animations** tab, and then choose a motion effect like **Appear** or **Fly In**.

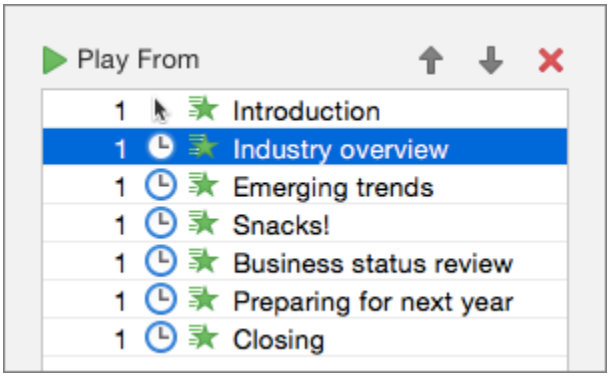
3. The slide displays the animation sequence in a box to the left of each point.

Show each bullet point after a delay

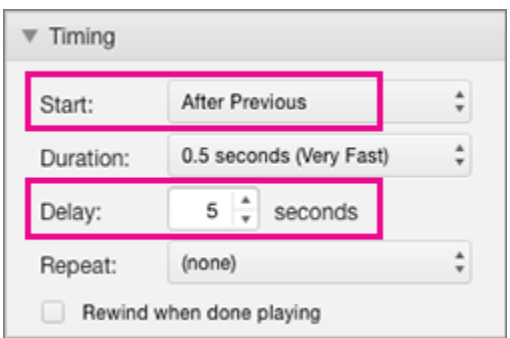
1. Select all the bullet points you want to animate, click the **Animations** tab, and then choose a motion effect like **Appear** or **Dissolve In**.



2. In the **Animations** pane, select the *second* animation in the list.



3. Under **Timing**, change the **Start** setting to **After Previous**, and then enter the amount of time you want to delay between each bullet point.



B) Inserting Excel Sheet

Ans. Insert an object in your Excel spreadsheet

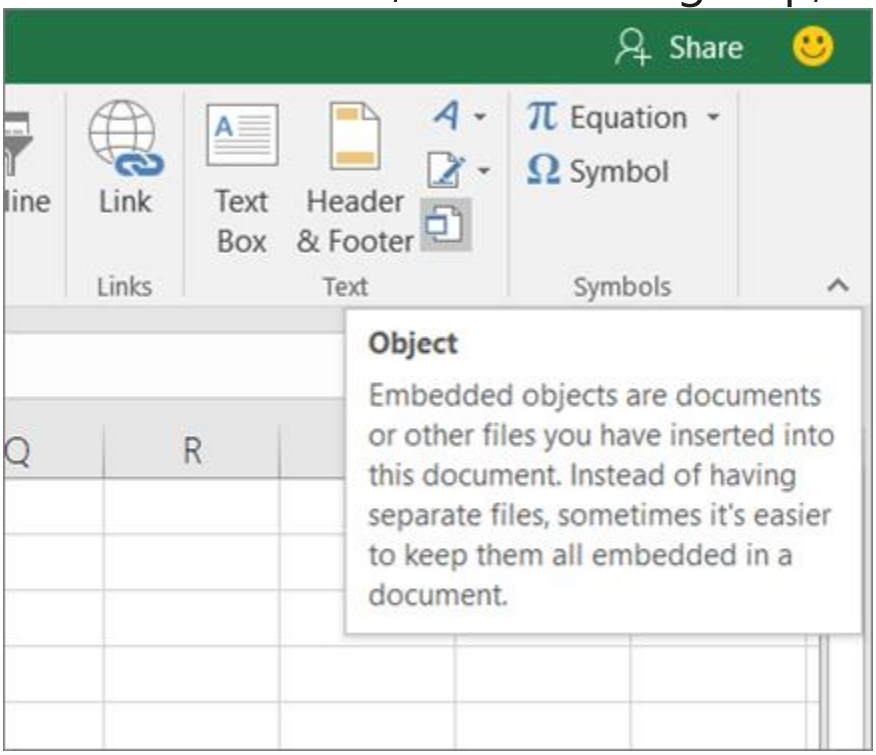
You can use Object Linking and Embedding (OLE) to include content from other programs, such as Word or Excel.

OLE is supported by many different programs, and OLE is used to make content that is created in one program available in another program. For example, you can insert an Office Word document in an Office Excel workbook. To see what types of content that you can insert, click **Object** in the **Text** group on the **Insert** tab. Only programs that are installed on your computer and that support OLE objects appear in the **Object type** box.

Embed an object in a worksheet

1. Click inside the cell of the spreadsheet where you want to insert the object.

2. On the **Insert** tab, in the **Text** group, click **Object** .

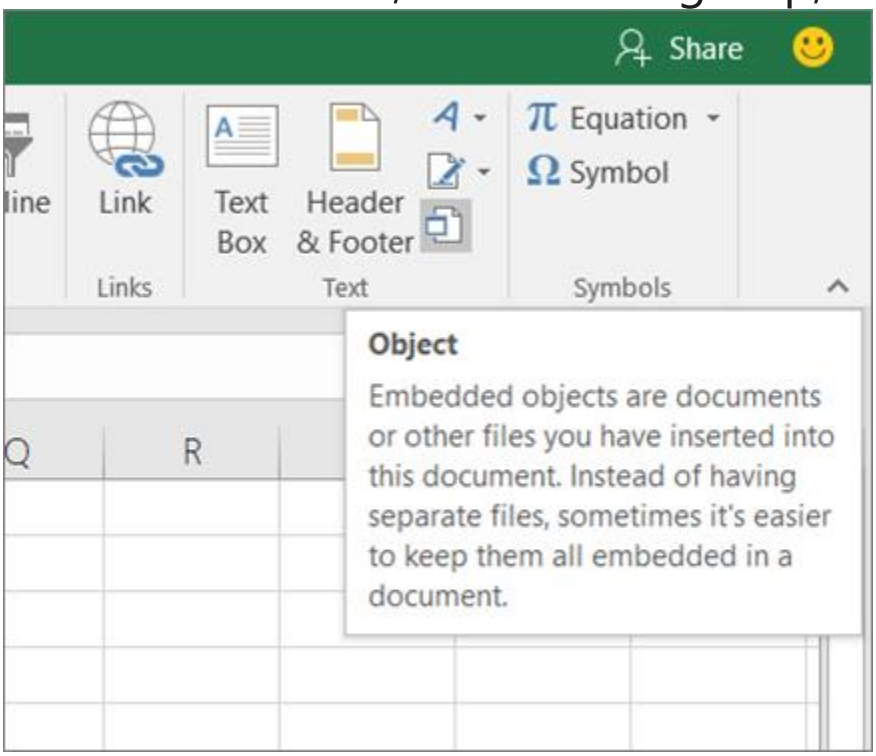


3. In the **Object** dialog box, click the **Create from File** tab.
4. Click **Browse**, and select the file you want to insert.
5. If you want to insert an icon into the spreadsheet instead of show the contents of the file, select the **Display as icon** check box. If you don't select any check boxes, Excel shows the first page of the file. In both cases, the complete file opens with a double click. Click **OK**.

Insert a link to a file

You might want to just add a link to the object rather than fully embedding it. You can do that if your workbook and the object you want to add are both stored on a SharePoint site, a shared network drive, or a similar location, and if the location of the files will remain the same. This is handy if the linked object undergoes changes because the link always opens the most up-to-date document.

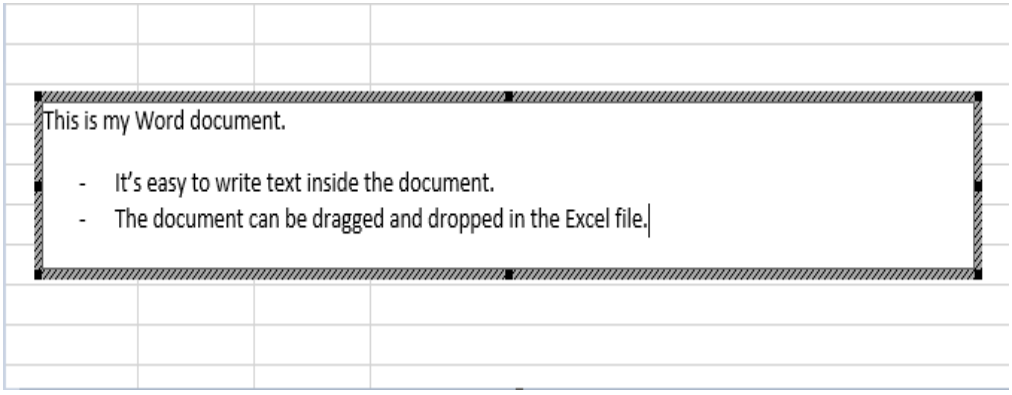
1. Click inside the cell of the spreadsheet where you want to insert the object.
2. On the **Insert** tab, in the **Text** group, click **Object** .



3. Click the **Create from File** tab.
4. Click **Browse**, and then select the file you want to link.
5. Select the **Link to file** check box, and click **OK**.

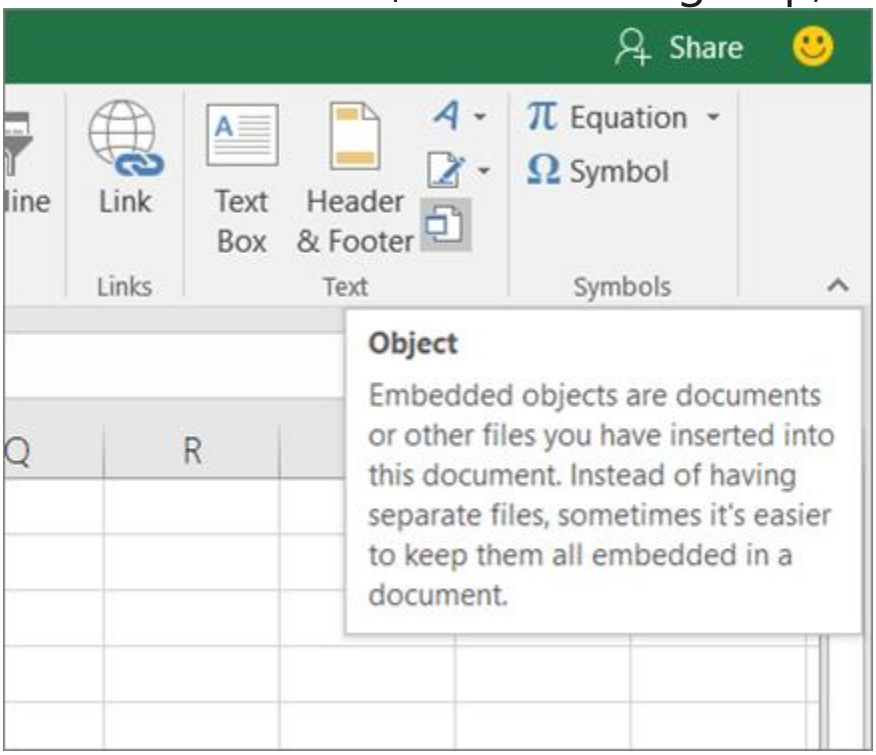
Create a new object from inside Excel

You can create an entirely new object based on another program without leaving your workbook. For example, if you want to add a more detailed explanation to your chart or table, you can create an embedded document, such as a Word or PowerPoint file, in Excel. You can either set your object to be displayed right in a worksheet or add an icon that opens the file.



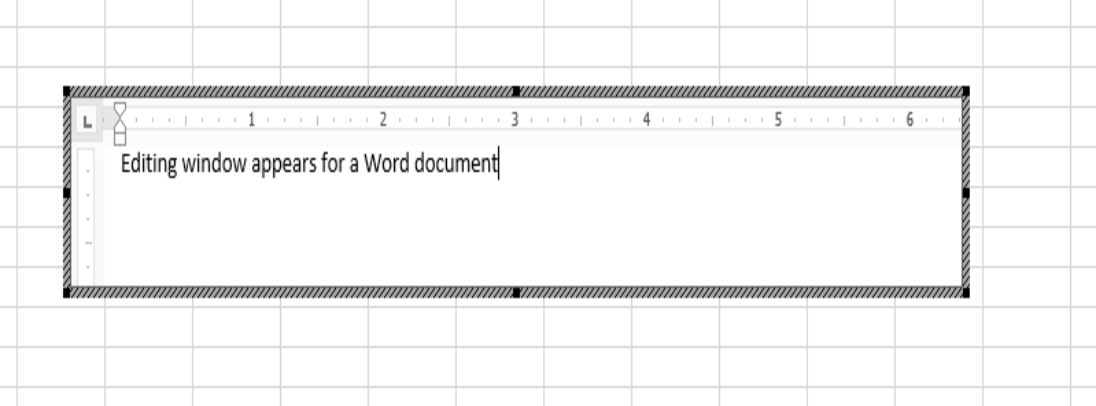
1. Click inside the cell of the spreadsheet where you want to insert the object.

2. On the **Insert** tab, in the **Text** group, click **Object** .



3. On the **Create New** tab, select the type of object you want to insert from the list presented. If you want to insert an icon into the spreadsheet instead of the object itself, select the **Display as icon** check box.
4. Click **OK**. Depending on the type of file you are inserting, either a new program window opens or an editing window appears within Excel.
5. Create the new object you want to insert.

   When you're done, if Excel opened a new program window in which you created the object, you can work directly within it.



When you're done with your work in the window, you can do other tasks without saving the embedded object. When you close the workbook your new objects will be saved automatically.

C) Clip art and Text

Ans. Clip art (also **clipart**, **clip-art**), in the graphic arts, is pre-made images used to illustrate any medium. Today, clip art is used extensively. Clip art comes in many forms, both electronic and printed. However, most clip art today is created, distributed, and used in an electronic form. Since its inception, clip art has evolved to include a wide variety of content, file formats, illustration styles, and licensing restrictions. Clip art is generally composed exclusively of illustrations (created by hand or by computer software), and does not include

Text

the main body of matter in a manuscript, book, newspaper, etc., as distinguished from notes, appendixes, headings, illustrations, etc.

the original words of an author or speaker, as opposed to a translation, paraphrase, commentary, or the like: the actual wording of anything written or printed:

D) Slide show effects

Ans. Slide Effect is a presentation tool providing enhanced transitions and effects. Using a standard Presentation Software user interface, people can create slide presentation with movies and images in a simpler way than using a video editing software.