# Key Concepts of Computer Studies

# Key Concepts of Computer Studies

Meizhong Wang

BCCAMPUS
VICTORIA, B.C.

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    - all images that convey information have text descriptions
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|---|---|---|---|---|---|
| Online webbook | Yes | Computer, tablet, phone | An internet browser (Chrome, Firefox, Edge, or Safari) | Option to enlarge text and compatible with browser text-to-speech tools. | Yes |
| PDF | No | Computer, print copy | Adobe Reader | Ability to zoom in, highlight, and annotate the text. | Unsure |
| EPUB and MOBI | No | Computer, tablet, phone | Kindle app (MOBI) or eReader app (EPUB) | Option to enlarge text, change font style, size, and colour. | Unsure |
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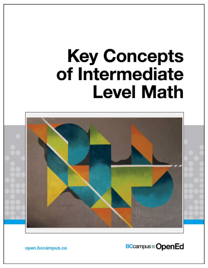
# About the Author

**Meizhong Wang** has been an instructor at the College of New Caledonia (CNC) in Canada for 30 years. She currently teaches mathematical and computer courses and has lectured in physics, electronics, electric circuits, and more at CNC and other colleges and universities in Canada and China.

**Meizhong is also the author of several books, including:**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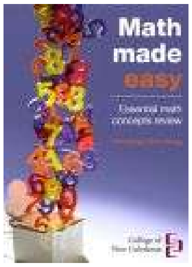
*Key Concepts of Intermediate Level Math* (BCcampus – Canada, 2018)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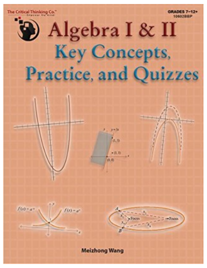
*Math Made Easy* (CNC Press, Canada, 2011, second edition 2013).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Meizhong Wang

*Algebra I & II – Key Concepts, Practice, and Quizzes* (The Critical Thinking Co. – U.S., 2013).

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四位中国贤人的传说

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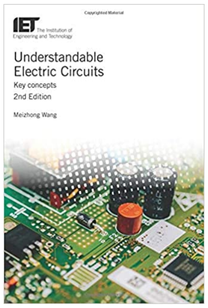
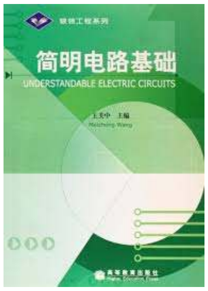

IET
Understandable Electric Circuits
Key concepts
2nd Edition
Meizhong Wang

*Understandable Electric Circuits* (Michael Faraday House of the IET – Institution of Engineering and Technology – U.K., 2010, second edition 2018).


简明电路基础
UNDERSTANDABLE ELECTRIC CIRCUITS

简明电路基础, Chinese version of Understandable Electric Circuits (The Higher Education Press – China, 2005).

# Preface

If you are looking for a quick study guide in Computer Studies, *Key Concepts of Computer Studies* is an excellent resource. Skip the lengthy and distracting books and instead use this book to guide your studies, reviewing, or tutoring. This book quickly gets to the heart of each particular topic, helping students with a quick review before doing homework. It also supports preparation for tests.

This book was designed for fundamental and intermediate levels in computer studies. It is concise, understandable, and effective.

## Key Features

As an aid to readers, the book provides some noteworthy features:

- Key terms, definitions, phrases, concepts, etc. are easily located.
- Clear step-by-step instructions.
- Clear and easy-to-understand written format and style. Materials presented in visual and gray scale format.
- Self-tests at the end of each unit test students' understanding of the material. Students can take the self-test before beginning the unit to determine how much they know about the topic. Those who do well may decide to move on to the next unit.

## Suitable Readers

This book can be used by:

- Adult Basic Education (ABE) programs at colleges.
- Students at community colleges or high schools.
- Self-study readers.
- Professionals as a quick review of some basic computer skills.
- Anyone else with an interest in the topic.

## Acknowledgements

Special thanks to Krista Lambert, Program Manager, Health, ECE, & ABE ZTC Programs, BCcampus, for her help, advice, and support throughout the entire process.

I would also like to express my sincere gratitude to Josie Gray, Kaitlyn Zheng, Arianna Cheveldave, and Harper Friedman at BCcampus for their help, accuracy in proofreading and laying out the book, and support in publishing this book.

# SECTION I - FUNDAMENTAL COMPUTER STUDIES

Section I covers the following topics:

- Unit 1. Basic knowledge and common uses of computers
- Unit 2. Keyboarding
- Unit 3. Basic file management and word processing
- Unit 4. Using web search engines
- Unit 5. Electronic communication

# Unit 1. Basic knowledge and common uses of computers

Topic A: Basic knowledge of computers

- System unit
- Basic parts of a computer system
- Hard drive, USB drive, and printer

Topic B: Start a computer system or program

- Start and shut down a computer system
- Start a program
- Close a program

Topic C: Online communication

- Email and video conferencing
- Social networking

Topic D: Common uses of computers in society

- Computers at home
- Computers in education and business
- Computers in healthcare and science/engineering

Unit 1 Self-test

# Topic A: Basic knowledge of computers

Click play on the following audio player to listen along as you read this section.

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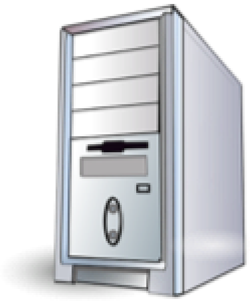
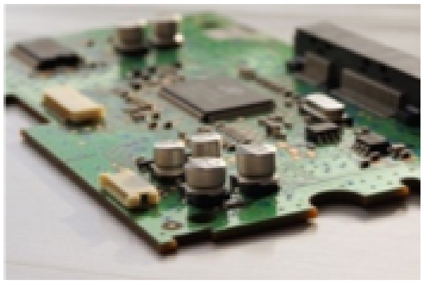
## System Unit



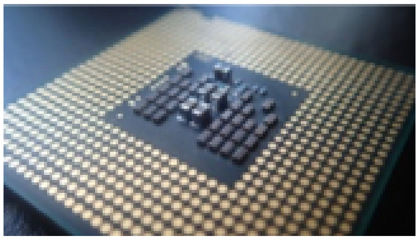
**System unit** – the main part of a desktop computer (the case) that contains all of the main electronic components of a computer.

- Other common names of the system unit: tower, chassis, or main unit.
- A system unit includes the motherboard, CPU (Central Processing Unit), RAM (Random-Access Memory), hard drive, expansion cards, power supply, etc.
- A system unit does not include peripheral devices, such as keyboard, mouse, monitor, printer, etc.
- The term system unit is used to distinguish between the computer and its peripheral devices (keyboard, mouse, monitor, printer, scanner, etc.).



**Motherboard (mainboard)** – the main circuit board of the computer.

- The motherboard is the system core of a computer.
- The motherboard is a computer's central structure that connects the different parts of a computer together.
- Whole computer system is connected, managed, and controlled by the motherboard.



**CPU (Central Processing Unit) –** CPU is often referred to as the brain or engine of a computer where most of the processing and operations take place.

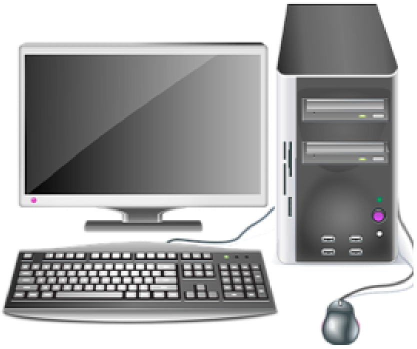
- Other common names of the CPU: main processor, central processor, etc.
- The CPU is the primary component of a computer that executes, interprets, and carries out all instructions.

**RAM (Random-Access Memory) –** a type of data storage (memory element) used in computers that temporarily stores programs and data.

- RAM only holds onto data and programs while the computer is on.
- All information that was stored in RAM is erased when the computer is turned off.

## Basic Parts of a Computer System

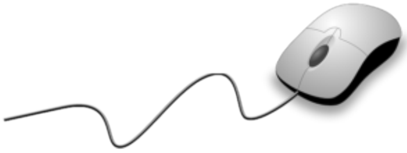
A **computer system** includes a system unit along with all its software (such as Office 2016, Windows 10, etc.) and peripheral devices (such as a mouse, keyboard, monitor, printer, etc.) connected to it.



**Computer monitor –** a display screen used to display information (text, image, video, etc.) processed by a computer.

**Keyboard** – an input device (the set of typewriter-like keys) that allows a user to enter characters (letters, numbers, symbols, etc.) into a computer.

**Mouse** – a hand-held pointing device that can control the position of a cursor (pointer) on a display screen.



**Trackpad (or touchpad)** – a small flat surface on a laptop or other computer that does the same things as a mouse (a trackpad is a built-in mouse).

## Hard Drive, USB Drive, and Printer

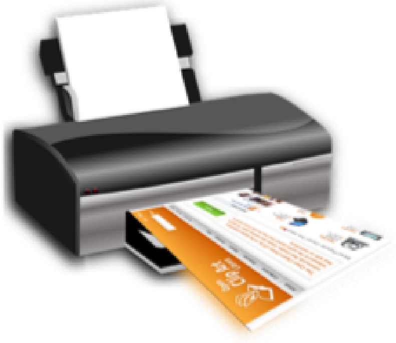
**Hard disk drive (HDD)** – the main data storage device in a computer.

- Other common names for a hard disk drive: hard disk, hard drive, fixed disk, etc.
- A hard disk drive is a spindle of a set of stacked magnetic disks (platters) that records and stores information (like phonograph records).
- When you install programs or save data on hard disk of your computer, the information is written to the hard disk.
- Hard drives can be internal or external.

**USB drive** – a small portable storage device used to store or transfer data for computers. It is often used for storage, data backup, and transfer of computer files.

- USB stands for Universal Serial Bus.
- Other common names for a USB drive: flash drive, USB stick, pen drive, thumb drive, etc.

**Printer** – an output device linked to a computer. It transfers the information (text, images, etc.) to paper.



# Topic B: Start a computer system or program

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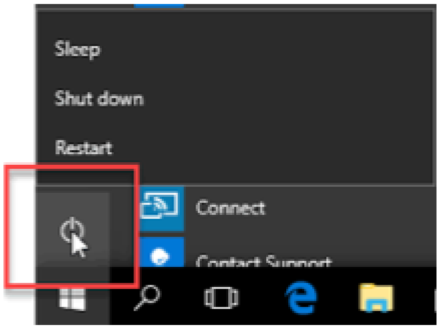
## Start and Shut Down a Computer System

### Start a computer system

1. Press the computer's Power button.
   If the monitor is not turned on, press the Power button on the monitor.
2. When the computer has finished booting, it will show a dialogue box that will ask for a username and password.
3. Enter your username and password, then click "→ " (the submit button) or press the **Enter** key on keyboard.

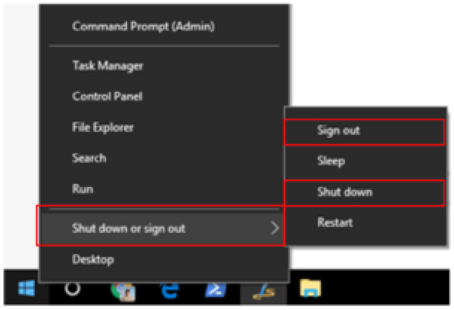
### Shut down a computer system (Windows 10)

#### Method 1



1. Click the Start icon (at the bottom left corner).
2. Click the **Power** icon on the main menu.
3. Click **Shut down**.

### Method 2


Command Prompt (Admin)
Task Manager
Control Panel
File Explorer
Search
Run
Shut down or sign out
Desktop
Sign out
Sleep
Shut down
Restart

1. Right-click the Start icon.
2. Click or hover over **Shut down or sign out**.
3. Click **Shut down**.

## Log off (or sign out) a computer (Windows 10):

### Method 1

1. Press **Ctrl-Alt-Del** keys at the same time.
2. Click **Sign out**.

### Method 2

1. Click the Start icon.
2. Click the User profile icon.
3. Click **Sign out**.

### Method 3

1. Right-click the Start icon.
2. Click or hover over **Shut down or sign out**.
3. Click **Sign out**. (Or click **Restart** to reboot the computer.)

## Start a Program

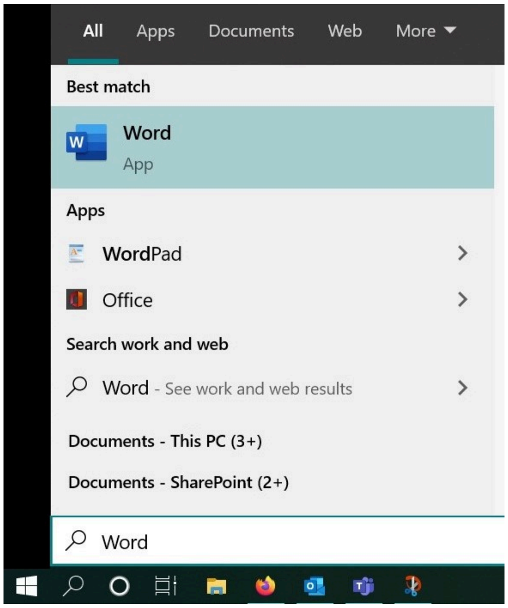
**Start a program or application** such as Word, PowerPoint, Paint, etc. (Windows 10)

### Method 1

1. Click the Start icon.
2. Click the name of the program that you wish to start (e.g. Word, PowerPoint, etc.).

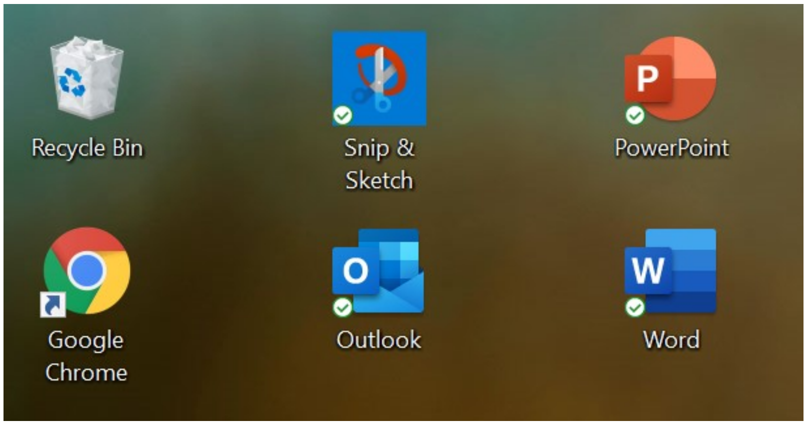
## Method 2

1. Type the program name in the Search box.
2. Click the name of the program that you wish to start.


All
Apps
Documents
Web
More
Best match
Word
App
Apps
WordPad
Office
Search work and web
Word - See work and web results
Documents - This PC (3+)
Documents - SharePoint (2+)
Word

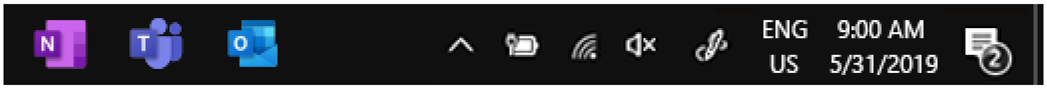
## Method 3

1. Double-click a program shortcut icon on the desktop. (If the program icon is on the desktop.)


Recycle Bin
Snip & Sketch
PowerPoint
Google Chrome
Outlook
Word

## Method 4

1. Click an open program on the taskbar (the bottom edge of the screen).

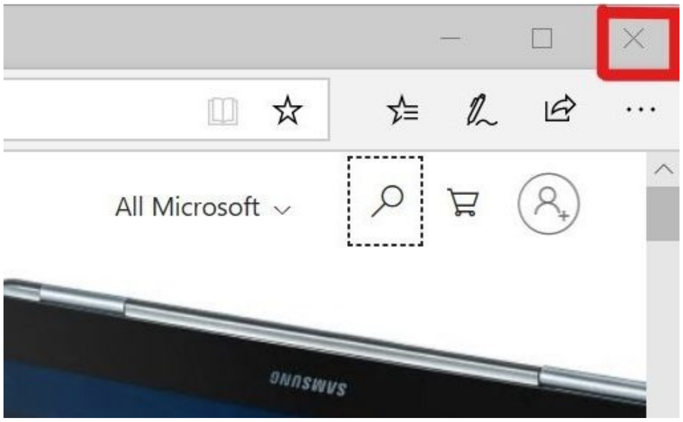

ENG
US
9:00 AM
5/31/2019
2

# Close a Program

## Close (exit) a program (close an active open window)

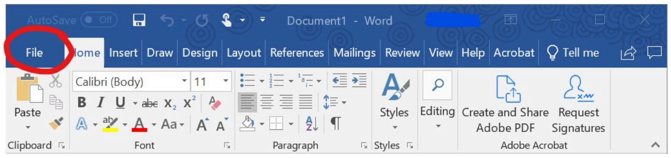
### Method 1

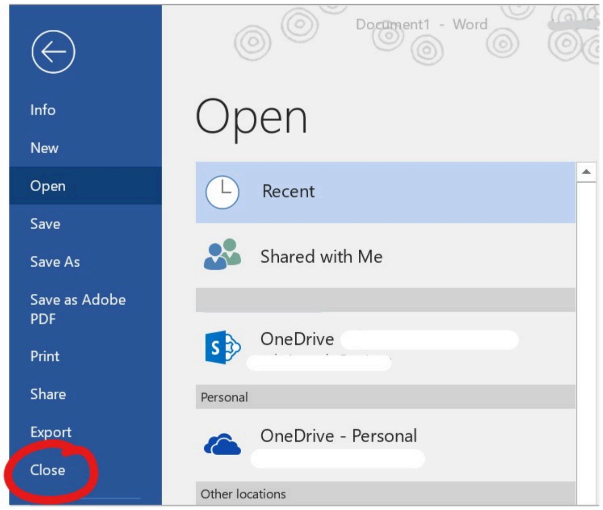
1. Click the **Close** icon (x) in the upper-right corner of the window.


All Microsoft
SAMSUNG

### Method 2

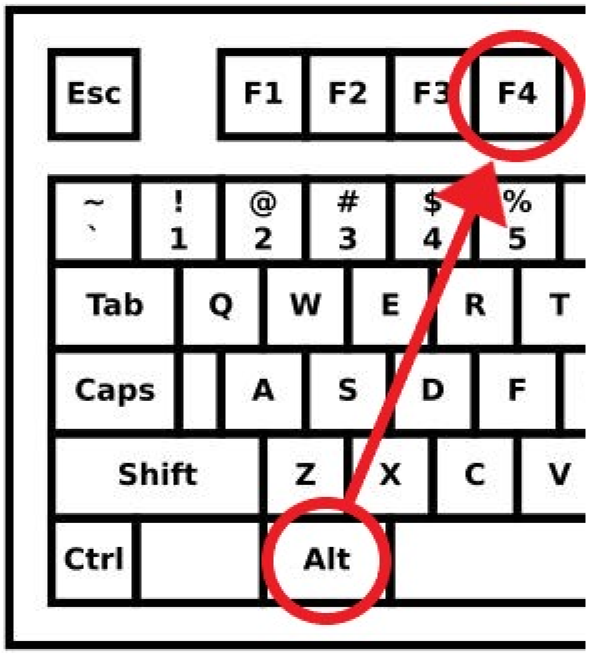
1. Click the **File**, and then click **Close**.


AutoSave
Off
Document1 - Word
File
Home
Insert
Draw
Design
Layout
References
Mailings
Review
View
Help
Acrobat
Tell me
Calibri (Body)
11
Paste
Styles
Editing
Create and Share Adobe PDF
Request Signatures
Clipboard
Font
Paragraph
Styles
Adobe Acrobat


Document1 - Word
Info
New
Open
Save
Save As
Save as Adobe PDF
Print
Share
Export
Close
Open
Recent
Shared with Me
OneDrive
Personal
OneDrive - Personal
Other locations

### Method 3

On your keyboard, press **Alt + F4** at the same time.


Esc
F1
F2
F3
F4
~ `
! 1
@ 2
# 3
$ 4
% 5
Tab
Q
W
E
R
T
Caps
A
S
D
F
Shift
Z
X
C
V
Ctrl
Alt

(Always save your document before closing.)

## Topic C: Online communication

Click play on the following audio player to listen along as you read this section.

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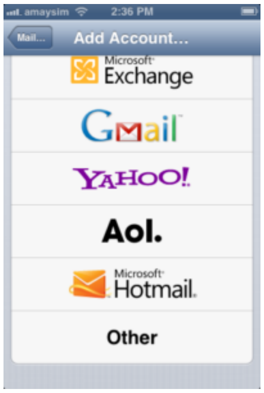
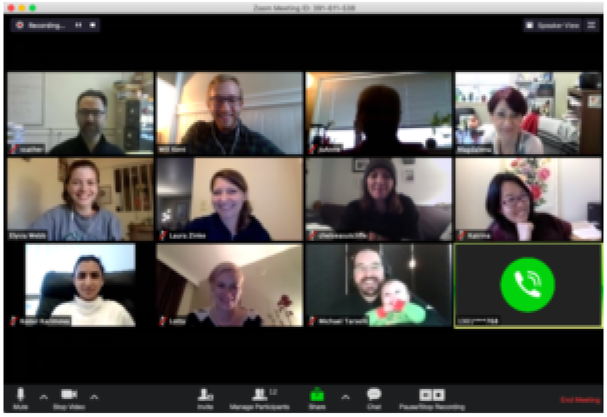
### Email and Video Conferencing

**Online communication** refers to the sharing of information or communication over a computer network (the Internet).

#### Some popular types of online communication:



- **Email (electronic mail)** – an Internet service that allows users who have an email account (or address) to send and receive messages anywhere in the world.
    - An email may contain attachments (files, photos, etc.).
    - Some free email accounts and service providers: Gmail, AOL Mail, Outlook, Zoho Mail, Yahoo Mail, ProtonMail, Yandex Mail, GMX Mail, etc.
- **Video conferencing** – a live video-based meeting between two or more users in different locations conducted by transmitting audio and video data in real time.
    - Some popular video conferencing services: Skype, Zoom, Lifesize, BlueJeans, UberConference, Adobe Connect, etc.



## Social Networking

- **Social networking** – the use of websites and other Internet services to communicate with other people (talk, make new friends, share information, ideas and interests).
    - Some popular social media websites: Facebook, WeChat, Skype, YouTube, Twitter, LinkedIn, Snapchat, Tumblr, Pinterest, TikTok, Instagram, etc.

14:03
Hangouts
Facebook
WhatsApp
Telegram
Twitter
LINE
LINE

- **Blog (weblog)** – a personal website or webpage that is like an online diary/journal. Blogs are written and updated by bloggers (they write about their opinions and thoughts).

eeper:
sting
ill me

My blogs got me a job at BBC

- **VoIP (Voice over Internet Protocol)** – a telephone connection over the Internet. It allows users to make calls over the Internet.
    - Some popular VoIP: Skype for Business, RingCentral, 8×8, Dialpad, Jive, etc.

- **Chat room –** an online service that allows people to communicate by typing messages to each other in real time.
    - Some popular chatting sites: Zobe, Badoo, Tiny Chat, Imvu, Chat Avenue, Second life, ChatIb, MocoSpace, FaceFlow, Chat Random, Moco Space, etc.

INTERNET CHAT ROOM

# Topic D: Common uses of computers in society

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=92](https://opentextbc.ca/computerstudies/?p=92)*

## Computers at Home

There are many things that a computer can do at home, such as:

### Manage home budget

- Personal finance software can help you create budget, track debt, track spending and savings, reduce or eliminate expenses, plan tax, plan for emergencies, determine short and long-term financial goals, or even just get a better handle on your monthly household spending.
- Some personal finance software: Personal Capital, Quicken, Buxfer, Moneydance, AceMoney Lite, Buddi, GnuCash, etc.

### Work from home

- Some work from home jobs: data entry, web developer, freelance writer, travel agent, call centre representative, online teaching job, software engineer, social media manager, translator, accountant, bookkeeper, etc.

### Online banking

- Online banking is a banking transaction system that allows the bank customers to handle account management and conduct a range of financial transactions via the Internet, rather than visiting a branch.
- Online banking allows users to make bill payments, view account details, open a new account, money transfers, pre-authorized payments, e-transfer, apply for loans, etc.

### Entertainment

- Computers are used in a variety of areas for entertainment purposes, such as videos, movies, television, music, photo editing, and art (for example, paintings, pictures, poetry, etc., are just a click away).

### Computer games

- Some intelligence games are specially developed to improve a user’s cognitive abilities and boost thinking power and mental capability.

## Computers in Education and Business

### Computers in education

The uses of computers in education are plentiful, such as:

- Distance education
- Online courses, programs, and degrees
- Online training resources
- eLearning
- Computer aided teaching and learning. This includes research, school work, storage of information, quick data processing, audio-visual aids in teaching, better presentation of information (PowerPoint, Moodle, smart-boards, etc.), entering and viewing grades online, quick communication between students and instructors, etc.

### Computers in business

Computer can help a business start, run, manage, and grow. Computers can be used in business for:

- Marketing and advertising
- Storage, archiving, and order fulfillment
- Budgeting and forecasting
- Customer relationship management
- e-commerce
- And more

Without a computer, it can be very difficult to start, run, and grow the business.

## Computers in Healthcare and Science/Engineering

### Computers in healthcare

Computers play a crucial role in the healthcare field, such as:

- Storing medical and patient data
- Managing appointments with doctors
- Medical imaging and equipment. This includes X-rays, CT scans, MRI scans (Magnetic Resonance Imaging—it can produce a detailed body image), etc.
- Patient monitoring
- Computer-controlled surgeries
- Diagnostic databases (create a database of a patient records with their treatment and medicine records)
- Medical research
- Blood testing (take blood samples and analyze the results with computer)

### Computers in science/engineering

Computers play a critical role in science/engineering because today is a world of computers.

- Research
- Design (prototype)
- Modelling
- Simulate experiments
- Record, organize, and analysis data
- Report/communication

# Unit 1: Self-test

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=93](https://opentextbc.ca/computerstudies/?p=93)*

Find answers to this self-test at the back of the book: [Answers for Self-Tests]()

## True or false

1. A system unit includes the motherboard, CPU, RAM, hard drive, expansion cards, power supply, etc.
2. A hard drive a computer's central structure that connects the different parts of a computer together.
3. All information that was stored in RAM is erased when the computer is turned on.
4. A keyboard is an output device that allows a user to enter characters into a computer.
5. Blogs are written and updated by bloggers. They write about their opinions and thoughts.
6. Computer can help business to start, run, manage, and grow.

## Fill in the blank

7. The [blank] is the main part of a desktop computer.
8. CPU is the abbreviation for [blank].
9. RAM is a type of data storage used in computers that [blank] stores programs and data.
10. Computer [blank] is a display screen used to display information processed by a computer.
11. USB stands for [blank].
12. When you save data or install programs on your computer, the information is written to the [blank] disk.
13. [Blank] is a telephone connection over the Internet. It allows users to make calls over the Internet.
14. Disk drive is a hardware that stores and retrieves information, data, files, programs, etc. that

are used by your computer. The drive is often referred to by the [blank].

## Multiple choice

15. The [blank] is often referred to as the brain or engine of a computer.
    1. CPU
    2. motherboard
    3. RAM
    4. system unit
16. Which of the following is one of the common names used for CPU?
    1. processor
    2. central processor
    3. microprocessor
    4. all of the above
17. Which of the following is one of the common names used for USB drive?
    1. flash drive
    2. pen drive
    3. USB stick
    4. all of the above
18. A [blank] is a small flat surface on a laptop or other computer that does the same things as a mouse.
    1. flash drive
    2. trackpad
    3. USB stick
    4. RAM
19. Popular social media websites:
    1. Facebook
    2. WeChat
    3. LinkedIn
    4. all of the above
20. Computers play a crucial role in science/engineering, such as:
    1. simulating experiments
    2. patient monitoring
    3. diagnostic databases
    4. all of the above

# Unit 2. Keyboarding

Topic A: Keyboarding skills

- Touch typing
- Keyboarding technique

Topic B: The base position

- The home row
- Touch typing rules
- Typing speed

Unit 2 Self-test

# Topic A: Keyboarding skills

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=39](https://opentextbc.ca/computerstudies/?p=39)*

## Touch Typing

**Keyboarding skills** – the ability to input information at a keyboard smoothly while typing.

**Touch typing** – a method of typing (with all the available fingers) without looking at the keyboard.

- Touch typing can increase typing accuracy and speed.
- Touch typing includes understanding keyboard layout and its functions.

### Benefits of touch typing

Hands typing at a computer keyboard.

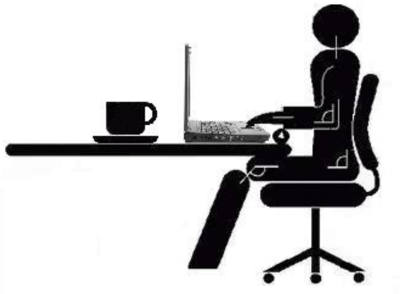
- Speed (efficient): type faster
- Accuracy (focus): make fewer mistakes
- Productivity: type longer without getting tired
- Health: less likely have health problems (hands, wrists, neck, etc.)

### Typing tips

- Maintain a healthy posture.
- Familiarize yourself with the keyboard layout.
- Start typing with touch typing.
- Press each key with the proper finger.
- Each key has to pressed by the same finger all the time.
- Take a typing speed test to keep track of your progress.

## Keyboarding Technique

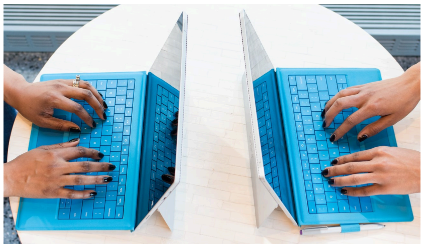
### Proper posture

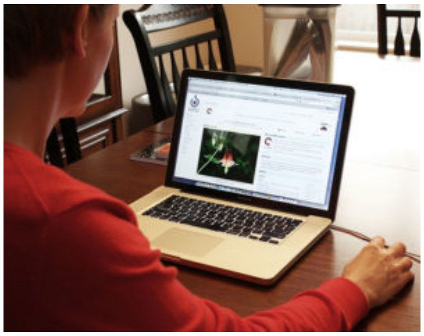


- Body: centre body in front of keyboard and sit up straight.
- Arm position: arms relaxed and bent to about 90 degrees; elbows naturally close to body.

The mouse and keyboard should be set to the height of elbow height.

- Hand position: hands should be flat, but palms of hands not resting on the keyboard. Keep wrists off the keyboard.
- Feet position: feet should be flat on the ground, slightly apart (don't cross).
- Eyes: keep eyes on the screen rather than the keyboard or hands.





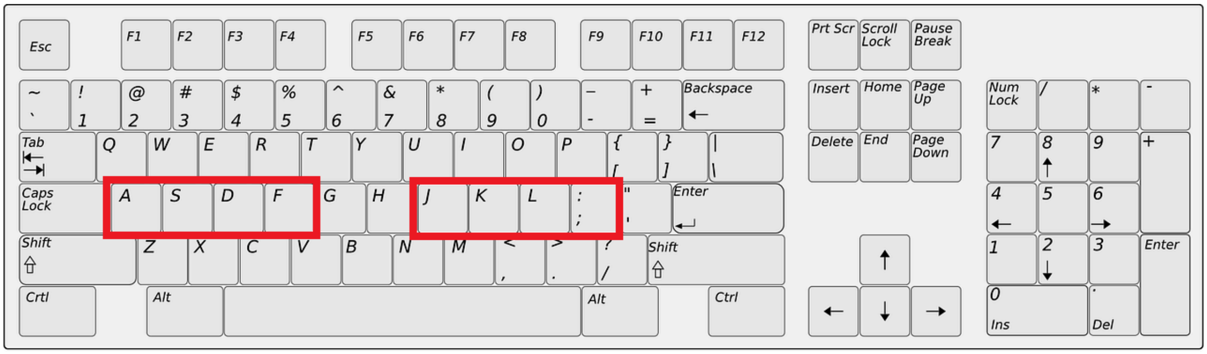
# Topic B: The base position

Click play on the following audio player to listen along as you read this section.

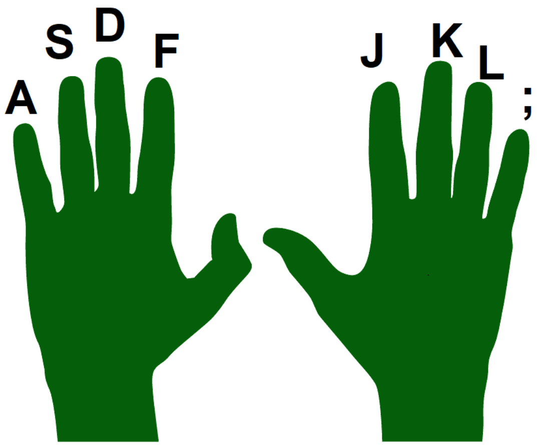
*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=45*

## The Home Row

The home row is the set of keys that are the base position for fingers. These are the keys located on the middle row of the keyboard.


Esc F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 Prt Scr Scroll Lock Pause Break
~ ` ! 1 @ 2 # 3 $ 4 % 5 ^ 6 & 7 * 8 ( 9 ) 0 – - + = Backspace Insert Home Page Up Num Lock / * -
Tab Q W E R T Y U I O P { [ } ] | \ Delete End Page Down 7 8 9 +
Caps Lock A S D F G H J K L : ; " ' Enter 4 5 6
Shift Z X C V B N M < , > . ? / Shift 1 2 3 Enter
Ctrl Alt Alt Ctrl 0 Ins . Del

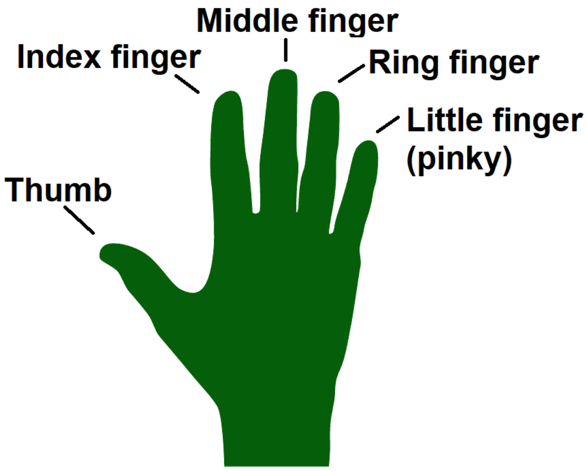
*The home row keys on the keyboard are A, S, D, and F on the left and J, K, L, and the semicolon (;) on the right.*



[Image Description]

- Always try to return your fingers to the base position when you are not typing.
- Keyboards usually have small bumps on the F and J keys. They help the users locate the base position without having to look.
- Place the index fingers over the "F" and "J" key.

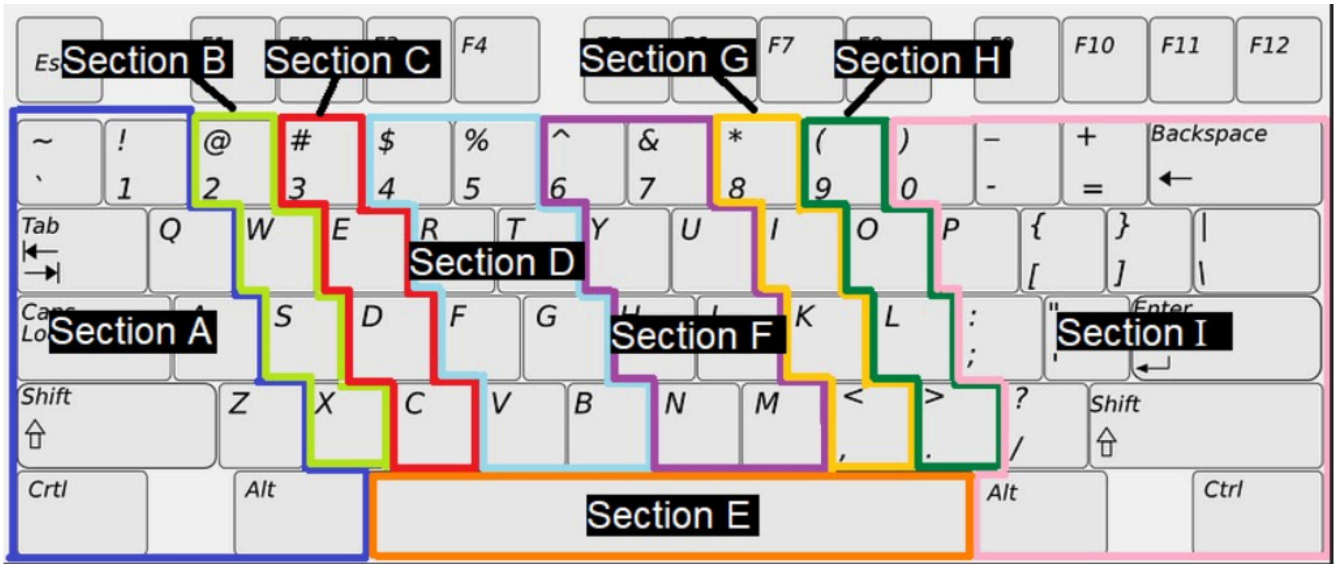
### Finger names


Middle finger
Index finger
Ring finger
Little finger (pinky)
Thumb

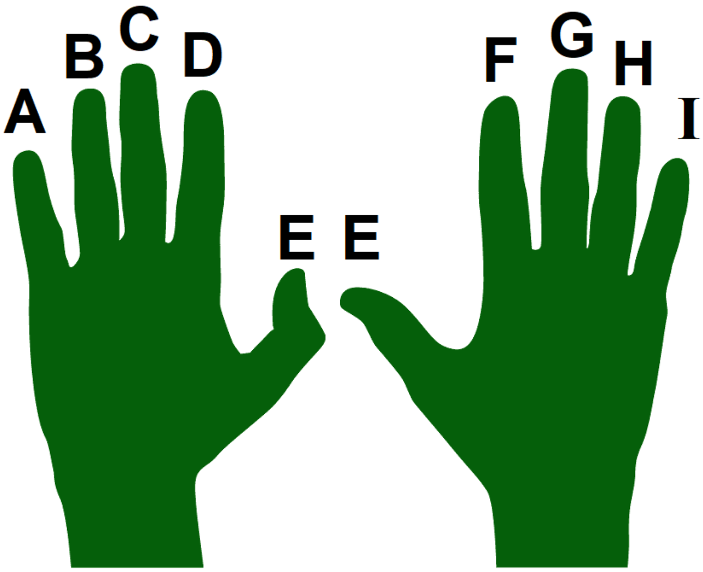
## Touch Typing Rules

### Colour-coded chart

- Always position your fingers properly on the keyboard to press the right keys when typing.
- The colour-coded chart below shows which finger should press each key.


Section B
Section C
F4
Section G
F7
Section H
F10
F11
F12
~ `
! 1
@ 2
# 3
$ 4
% 5
^ 6
& 7
* 8
( 9
) 0
_ -
+ =
Backspace
Tab
Q
W
E
R
T
Y
U
I
O
P
{ [
} ]
| \
Section D
Section A
S
D
F
G
Section F
K
L
: ;
Section I
Shift
Z
X
C
V
B
N
M
< ,
> .
? /
Shift
Crtl
Alt
Section E
Alt
Ctrl

*Labelled keyboard. [Image Description]*


A
B
C
D
E
E
F
G
H
I

### Correct finger placement

- Press all **Section A** keys with the **left little** finger
- Press all **Section B** keys with the **left ring** finger
- Press all **Section C** keys with the **left middle** finger
- Press all **Section D** keys with the **left index** finger
- Press all **Section E** with either **thumb**
- Press all **Section F** keys with the **right index** finger
- Press all **Section G** keys with the **right middle** finger

- Press all **Section H** keys with the **right ring** finger
- Press all **Section I** with the **right little** finger

## Typing Speed

### Ways to improve typing speed

- Familiarizing yourself with the keyboard layout can improve your typing speed.
- Develop good typing habits; focus on hitting the right keys.
- Take your time when you have just started learning; slow down to be accurate.
- Learn to be accurate first, then improve speed.
- Not only practice often, but practice correctly.
- Speed will come naturally through practice, repetition, and time.

### Take online typing tests

- Some online typing speed test tools can determine how many words per minute **(wpm)** you type and how accurate your typing is.
- There are many free typing tests available online, such as:
    - TestMyTypingSpeed
    - 10fastfingers
    - Key Hero
    - The Typing Cat

## Image Descriptions

**Home row image description:** the base position keys for the left hand are:

- Little finger: A key
- Ring finger: S key
- Middle finger: D key
- Index finger: F key

The base position keys for the right hand are:

- Index finger: J key
- Middle finger: K key

- Ring finger: L key
- Little finger: Semi-colon key

[Return to Home row image]

**Labelled keyboard image description:** a standard keyboard with the keys grouped into sections labelled A to I from left to right. Each section corresponds to a finger that would press the keys in that section.

- Section A keys are pressed by the left little finger. The keys include the back quote, Tab, Caps Locks, Shift, Control, the number 1, letters Q, A, and Z, and Alt.
- Section B keys are pressed by the left ring finger. The keys include the number 2 and letters W, S, and X.
- Section C keys are pressed by the left middle finger. The keys include the number 3 and and letters E, D, and C.
- Section D keys are pressed by the left index finger. The keys include numbers 4 and 5, and letters R, T, F, G, V, and B.
- Section E key is the space bar. The space bar can be pressed by a thumb on either hand.
- Section F keys are pressed by the right index finger. These keys include numbers 6 and 7, and the letters Y, U, H, J, N, and M.
- Section G keys are pressed by the right middle finger. These keys include the number 8 and the letters I and K, and the comma.
- Section H keys are pressed by the right ring finger. These keys include the number 9 and the letters O and L, and the period.
- Section I keys are pressed by the right little finger. This includes the rest of the keys on the right side of the keyboard, including the number 0, the hyphen, the equals sign, the delete key, the letter P, the open bracket, the close bracket, the backslash, the semicolon, the apostrophe, the enter key, the forward slash, the shift key, the Alt key, and the Control key. [Return to Labelled keyboard]

# Unit 2: Self-test

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=46*

Find answers to this self-test at the back of the book: Answers for Self-Tests

## True or false

1. Hands should be flat, but palms of hands not resting on the keyboard.
2. Feet should be flat on the ground and cross.
3. Keep eyes on the hands rather than the keyboard.
4. Always try to return your fingers to the base position when you are not typing.

## Fill in the blank

5. [Blank] typing is a method of typing without looking at the keyboard.
6. [Blank] body in front of keyboard and sit up straight.
7. Base positions or [blank] row keys: the row of keys located on the middle row of the keyboard.
8. The home row keys for the left hand are A, S, [blank], and F.
9. The home row keys for the right hand are J, [blank], L, and the semicolon (;).

## Multiple choice

10. Benefits of touch typing:
    a. speed
    b. productivity
    c. accuracy
    d. all of the above

11. Arms relaxed and bent to about [blank] degrees; elbows naturally close to body.
    a. 45°
    b. 60°
    c. 30°
    d. 90°
12. The home row keys for the left hand are A, S, D, and [blank].
    a. L
    b. F
    c. K
    d. L
13. Keyboards usually have small bumps on the [blank] keys.
    a. S and D
    b. A and F
    c. F and J
    d. all of the above
14. Press all [blank] keys with the left ring finger.
    a. pink
    b. brown
    c. yellow
    d. purple
15. Press all [blank] keys with the left index finger.
    a. pink
    b. brown
    c. light green
    d. purple
16. Press all [blank] keys with the right ring finger.
    a. grey
    b. brown
    c. light green
    d. purple

# Unit 3. Basic file management and word processing

Topic A: Types of computer drives and pointing actions

- Types of computer drives
- Pointing actions

Topic B: Basic file management

- Folder and file
- Ribbon
- Basic file management skills
- Operate a printer

Topic C: Basic word processing

- Create a document
- Check spelling and grammar
- Find synonyms

Unit 3 Self-test

# Topic A: Types of computer drives and pointing actions

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=102*

## Types of Computer Drives

**Disk drive (drive)** – a computer device that stores and retrieves information, data, files, programs, etc., from a disk. The drive is often referred to by its letter (your drive letter may differ).

- A hard disk drive (hard disk or fixed disk) is usually designated as the "C: drive". The hard disk drive is the main data storage hardware device in a computer that can provide quick access to large amounts of data. Find more information about computer hardware.

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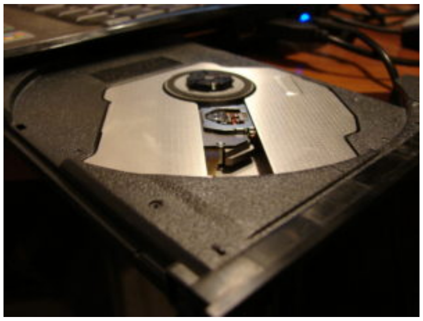
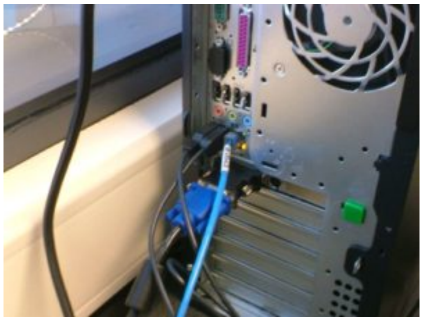
- A CD/DVD drive is usually designated as the "D: or G: drive".



- A network drive is usually designated as the "U: drive".



- A removable disk (USB) is usually designated as the “H: drive” or “K: drive”.
    - A USB flash drive is a small portable external device used for data storage.
    - The most common use for external drives (USB) is for backup purposes or to transfer files from one computer to another.

USB Wireless

## Pointing Actions

**Pointing device** – a device used to control the movement of the pointer (cursor) on the screen.

**The major pointing devices in use** today are the:

- mouse (desktop computer)

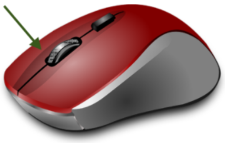
- touchpad (laptop)

- touch screen

**Basic pointing actions** (use a mouse or trackpad/touchpad)

- **Point and click –** point an object on the screen and then press the left button on the mouse (or tap on the trackpad) to select items/commands, open menus/hyperlinks (links), or close windows.
- **Double-click –** quickly click the left mouse button twice (or double tap on the trackpad) on any folder, file, or program to open it.
- **Drag and drop –** press and hold the left mouse button to grab an item (or double tap on the trackpad) and place it to a different location.

Example: drag the selected text to the new location.



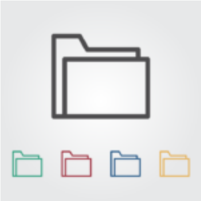
- **Right-click –** press the right mouse button (or tap two fingers anywhere on the trackpad) to display a popup menu showing commands for a selected item.

# Topic B: Basic file management

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=113*

## Folder and File

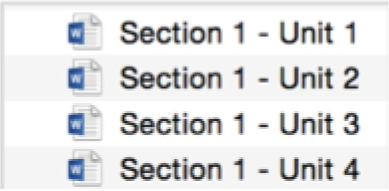


**Folder (or directory)** – a virtual storage space used to store and organize computer files.

- A folder can also contain additional folders (known as subfolders).
- A folder has a name and is represented by an icon.

**File** – a storage unit on a computer that stores information, data, etc. (such as a document, an image, etc.).

- Folders contain files
- Files have names and are represented by various icons

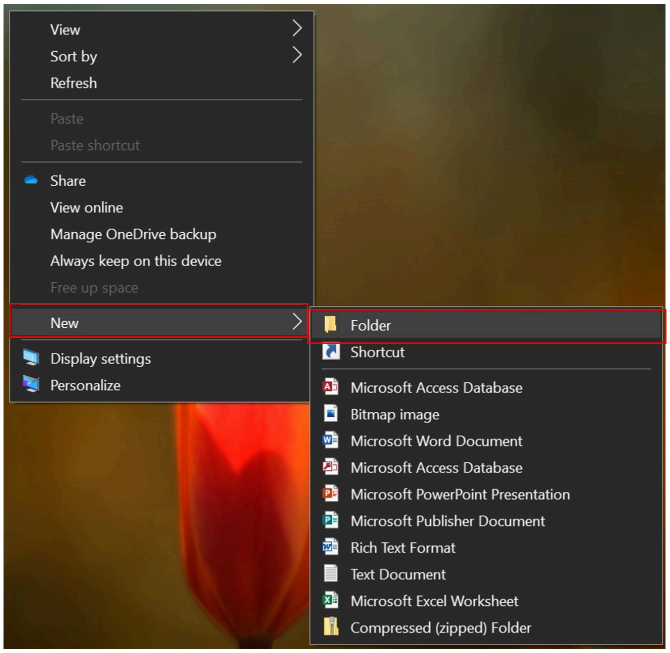


Section 1 - Unit 1
Section 1 - Unit 2
Section 1 - Unit 3
Section 1 - Unit 4

**Filename** – a unique name given to a file to identify it. A filename can contain letters, symbols, numbers, spaces, etc.

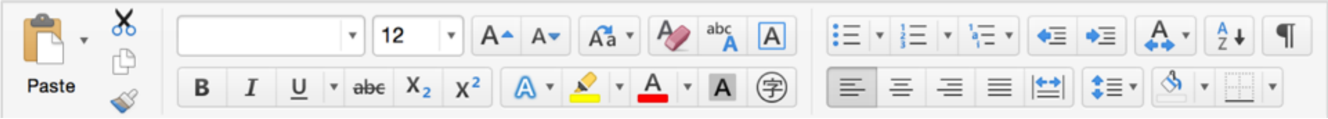
### Right-click to create a new folder (Windows 10)

1. Go to the location where you want to create the folder (Desktop, Documents, or anywhere on your computer).
2. Right-click on a blank space (don’t right-click on an existing item in the folder).
3. Click or hover over **New**.
4. Click **Folder**.
5. Type a name for the new folder and press **Enter** (on the keyboard).


View
Sort by
Refresh
Paste
Paste shortcut
Share
View online
Manage OneDrive backup
Always keep on this device
Free up space
New
Display settings
Personalize
Folder
Shortcut
Microsoft Access Database
Bitmap image
Microsoft Word Document
Microsoft Access Database
Microsoft PowerPoint Presentation
Microsoft Publisher Document
Rich Text Format
Text Document
Microsoft Excel Worksheet
Compressed (zipped) Folder

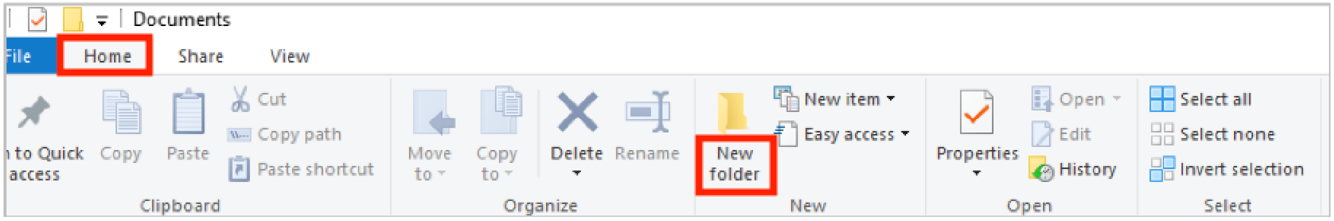
## Ribbon

**Ribbon** – a group of buttons and icons (tabs) at the top of the window that allows users to access the commands that they need to complete a task.



### Create a new folder from the ribbon menu (Windows 10)

1. Go to the location where you want to create the folder (e.g., Documents).
2. Click **Home**.
3. Click **New folder**.
4. Type a name for the new folder and press **Enter** (on the keyboard).


Documents
File
Home
Share
View
to Quick access
Copy
Paste
Cut
Copy path
Paste shortcut
Clipboard
Move to
Copy to
Delete
Rename
Organize
New folder
New item
Easy access
New
Properties
Open
Edit
History
Open
Select all
Select none
Invert selection
Select

## Basic File Management Skills

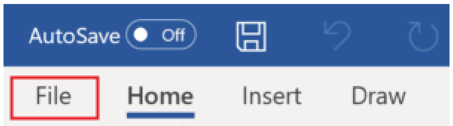
**Basic file management** refers to a way to name, save, backup, organize files/folders and keep track of files on a computer.

### Some file management tips

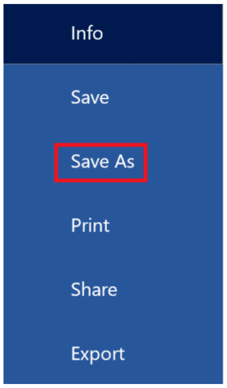
- Create folders/subfolders to organize files.
- Save your work frequently in folders/subfolders (organize by category).
- Save your files on a backup disk regularly (back up your files).
- Give files and folders short, but meaningful names.

### Save a file for the first time or save a file with a different name or location (Microsoft Word)

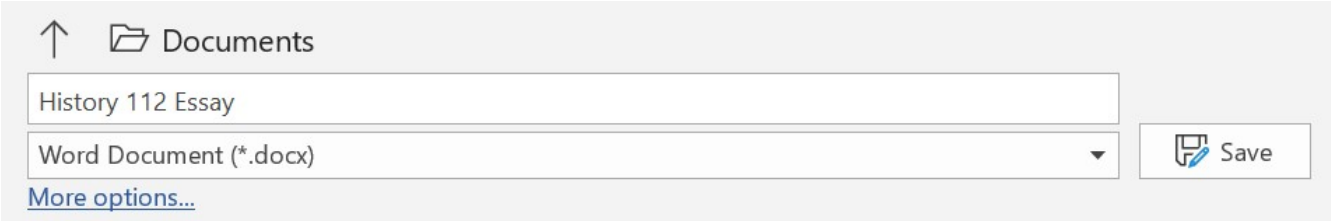
1. Click the **File** tab in Microsoft Word.


AutoSave
Off
File
Home
Insert
Draw

1. Click the **Save As** command.


Info
Save
Save As
Print
Share
Export

1. Choose a location on your computer (e.g., USB drive or hard disk drive) to save your file.
2. Type a name for your document in the **File Name** box.
3. Click the **Save** button.

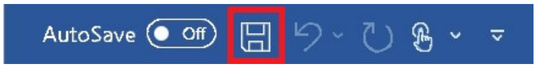

Documents
Save
More options...

History 112 Essay

Word Document (*.docx)

### Save an existing file in its current location (Microsoft Word)

1. Click the **File** tab.
2. Click the **Save** command.
3. Or click the Save button icon.

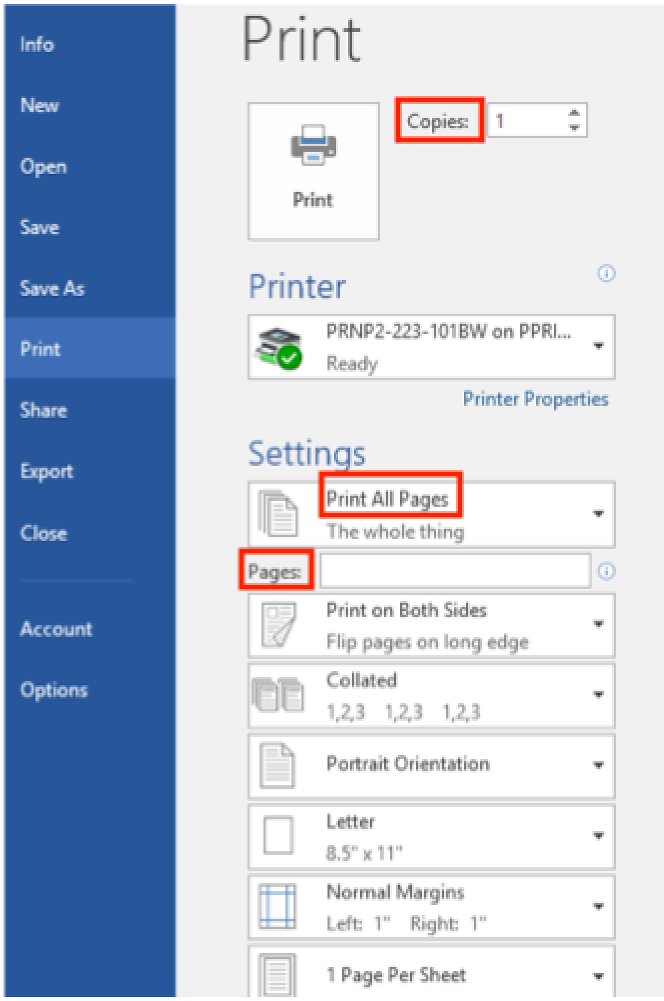


## Operate a Printer

**Printer** – a device that is usually connected to a computer in order to transfer the text and graphic information to paper.

## Operate a printer

1. Load paper in the paper tray if needed.
2. Press the Power button to turn the printer on.
3. Open the file you want to print.
4. Click the **File** tab.
5. Click the **Print** command.
6. Select the print options: Number of **Copies**, **Print All pages**, or **Pages** (e.g., from page 2 to page 5), etc.
7. Click **Print** or **Okay** to start the printing process.


Info
New
Open
Save
Save As
Print
Share
Export
Close
Account
Options
Print
Print
Printer
Printer Properties
Settings

Copies: 1

PRNP2-223-101BW on PPRI...
Ready

Print All Pages
The whole thing

Pages:

Print on Both Sides
Flip pages on long edge

Collated
1,2,3 1,2,3 1,2,3

Portrait Orientation

Letter
8.5" x 11"

Normal Margins
Left: 1" Right: 1"

1 Page Per Sheet

# Topic C: Basic word processing

Click play on the following audio player to listen along as you read this section.

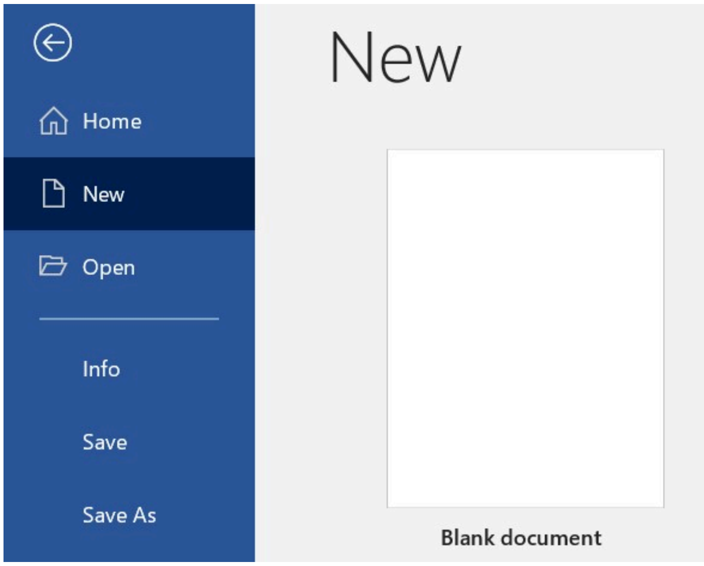
*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=121](https://opentextbc.ca/computerstudies/?p=121)*

## Creating a Document

**Word processing** – the use of a program (software application) running on a computer to create, edit, format, and store documents.

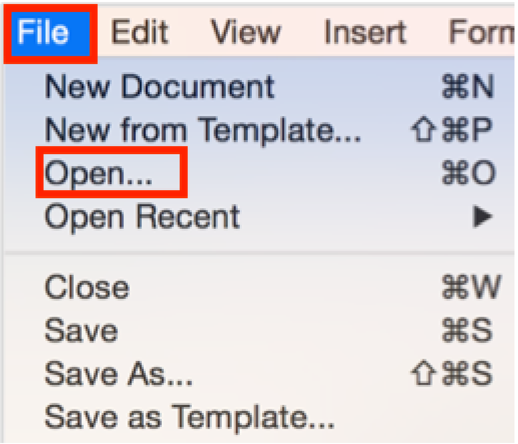
### Create a new blank document

1. Start **Word**.
2. Click the **File** tab.
3. Click **New** command.
4. Click **Blank document**. A new blank document appears.
5. Type your document (text you type will be inserted into the document).



### Open an existing document

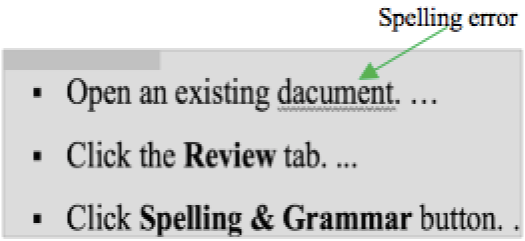
1. Start **Word**.
2. Click the **File** tab.
3. Click the **Open** command.
4. Choose the location on the computer that stores your file (the drive and folder).
5. Click the name of the file you want to open.
6. Click **Open** or double click the file name.


File
Edit
View
Insert
Forn
New Document ⌘N
New from Template... ⇧⌘P
Open... ⌘O
Open Recent ▶
Close ⌘W
Save ⌘S
Save As... ⇧⌘S
Save as Template...

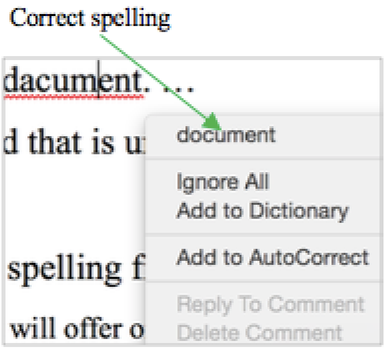
## Check Spelling and Grammar

### Method 1

1. Open an existing document.
2. Right-click a word that is underlined with a wavy line (that indicates a misspelled word).
3. Select the correct spelling from the suggestion list (to change the spelling error). For each error, Word will offer one or more suggestions.

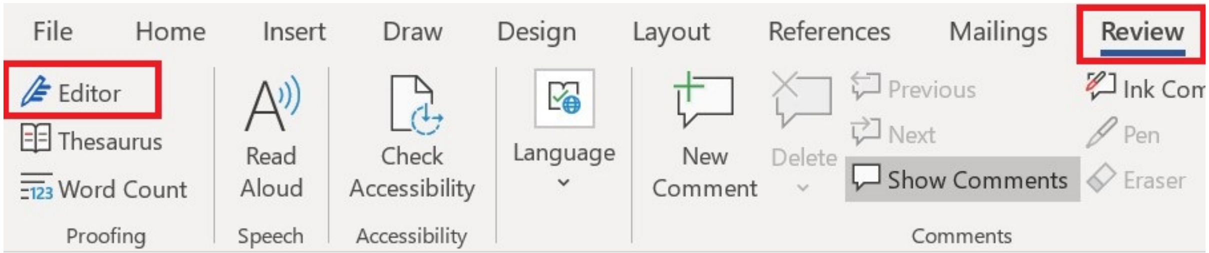

Spelling error

- Open an existing dacument. …
- Click the **Review** tab. ...
- Click **Spelling & Grammar** button. .


Correct spelling
dacument. …
d that is u
spelling f
will offer o
document
Ignore All
Add to Dictionary
Add to AutoCorrect
Reply To Comment
Delete Comment

### Method 2

1. Open an existing document.
2. Click the **Review** tab.
3. Click the **Editor** button (it may also be called **Spelling & Grammar**). If the program finds spelling errors, the Editor pane will appear.

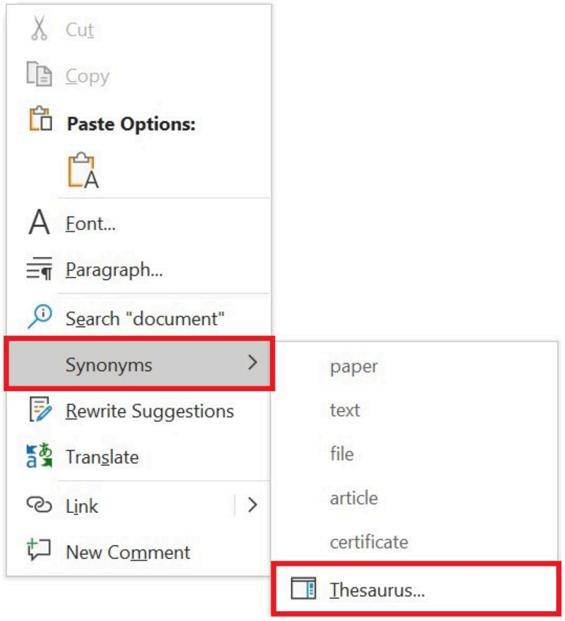

File
Home
Insert
Draw
Design
Layout
References
Mailings
Review
Editor
Thesaurus
Word Count
Proofing
Read Aloud
Speech
Check Accessibility
Accessibility
Language
New Comment
Delete
Previous
Next
Show Comments
Comments
Ink Com
Pen
Eraser

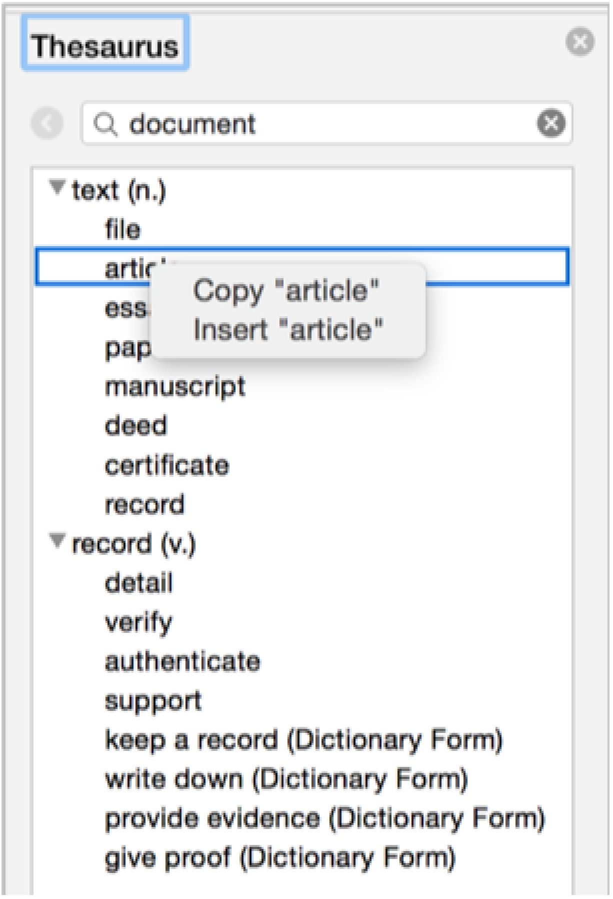
4. Click one of the options from the suggestion list to change the spelling error.
5. The program will move to the next misspelled word.

## Find Synonyms

### Method 1

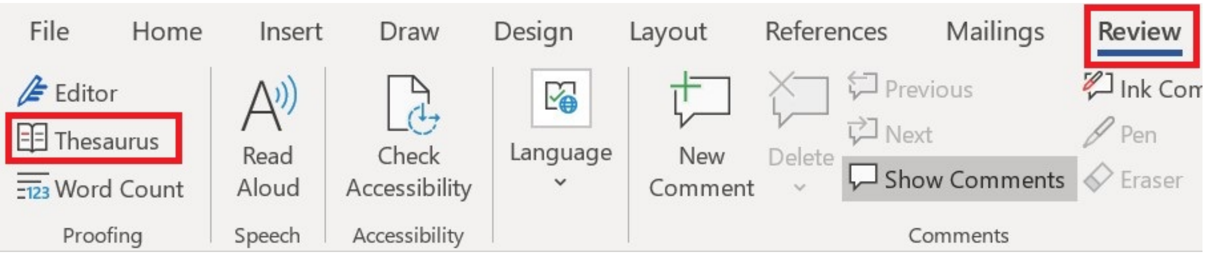
1. Open an existing document.
2. Right-click a word for which you wish to find a synonym.
3. Click the **Synonyms** command on the pop-out menu.
4. Find a desired word in the list and click it to replace the original word.
5. If none of the synonyms is desired, click the **Thesaurus** command to open the full thesaurus. (The Thesaurus pane will appear.)
6. Find a desired word in the Thesaurus pane list and right-click it, or point to a desired word in the Thesaurus pane gradient and click the list arrow.
7. Click **Insert [the desired word]** on the menu that opens.


Cut
Copy
Paste Options:
Font...
Paragraph...
Search "document"
Synonyms
Rewrite Suggestions
Translate
Link
New Comment
paper
text
file
article
certificate
Thesaurus...


Thesaurus
document
text (n.)
file
artic
ess
pap
Copy "article"
Insert "article"
manuscript
deed
certificate
record
record (v.)
detail
verify
authenticate
support
keep a record (Dictionary Form)
write down (Dictionary Form)
provide evidence (Dictionary Form)
give proof (Dictionary Form)

## Method 2

1. Open an existing document.
2. Select a word for which you wish to use the thesaurus.
3. Click the **Review** tab.
4. Click the **Thesaurus** button.


File
Home
Insert
Draw
Design
Layout
References
Mailings
Review
Editor
Thesaurus
Word Count
Proofing
Read Aloud
Speech
Check Accessibility
Accessibility
Language
New Comment
Delete
Previous
Next
Show Comments
Comments
Ink Com
Pen
Eraser

5. Find a desired word in the Thesaurus pane and right-click it, or point to a desired word in the Thesaurus pane list and click the list arrow.
6. Click **Insert [the desired word]** on the menu that opens.
7. Close the Thesaurus pane.

# Unit 3: Self-test

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=123](https://opentextbc.ca/computerstudies/?p=123)*

Find answers to this self-test at the back of the book: [Answers for Self-Tests]

## True or false

1. Filename: a unique name given to a file to identify it.
2. A folder cannot contain additional folders.
3. Basic file management refers to a way to name, save, backup, organize files/folders and keep tracking of files on a computer.
4. Point and click: press and hold the left mouse button to grab an object and place it to a different location.

## Fill in the blank

5. When you save data or install programs on your computer, the information is written to the [blank] disk.
6. A [blank] is a telephone connection over the Internet. It allows users to make calls over the Internet.
7. A computer device that stores and retrieves information, data, files, programs, etc. from a disk. The drive is often referred to by the [blank].
8. A [blank] is a virtual storage space used to store and organize computer files.
9. A [blank] is a device that is usually connected to a computer in order to transfer the text and graphic information to paper.
10. Word processing is the use of a program running on a computer that allows users to create, [blank], format, and store documents.

## Multiple choice

11. The [blank] is a group of buttons and icons at the top of the window. It allows users to access the commands that they need to complete a task.
    a. stick
    b. tab
    c. ribbon
    d. RAM
12. A filename can contain:
    a. letters
    b. symbols
    c. numbers
    d. all of the above
13. A folder has a name and is represented by [blank].
    a. a stick
    b. an icon
    c. number
    d. a tab
14. [Blank] is the use of a program running on a computer that allows users to create, edit, format and store documents.
    a. spreadsheet
    b. file management
    c. word processing
    d. all of the above

Multiple-choice Answer Sheet
Instructions

# Unit 4. Using web search engines

Topic A: Web search engines

- Perform a search using a web search engine
- Web browsers and bookmarks
- Google Chrome
- Internet Explorer

Topic B: Search the Internet using a web search engine

- Fill in online forms
- Use library websites to request books/other resources
- Use library websites to renew books/other resources

Unit 4 Self-test

# Topic A: Web search engines

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=145](https://opentextbc.ca/computerstudies/?p=145)*

## Perform a Search Using a Web Search Engine

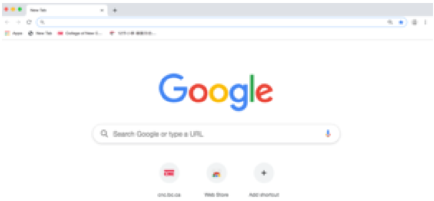
**Search engine** – a web-based tool that is designed to search the content of web pages and find particular information on the Internet.

### Some popular search engines

bing
YAHOO!
KVASIR
Яндекс
Rambler
Google
Baidu 百度
NAVER
YAHOO!
Google
guruji
bing

- Google
- Bing
- Baidu
- Yahoo!
- Yandex
- Ask.com
- DuckDuckGo

### Search the Internet using a web search engine


Google
Search Google or type a URL

1. Open a search engine in a web browser (such as Internet Explorer).
2. Type a few specific keywords or phrases in the search box to describe whatever you wish to search. Search engines look for the keywords in your query.
3. Press **Enter**. The search engine will display a list of websites (page after page) that include information related to your query.
4. Repeat above steps (type different keywords or phrases) if necessary.

# Web Browsers and Bookmarks

## Browsers

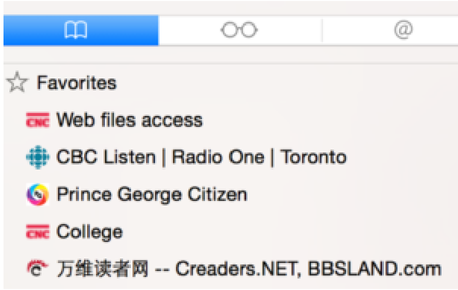
- **Browser** – a software program that allows users to access and display websites or web pages (documents, images, videos, music, etc.) on the Internet.

Some popular web browsers:

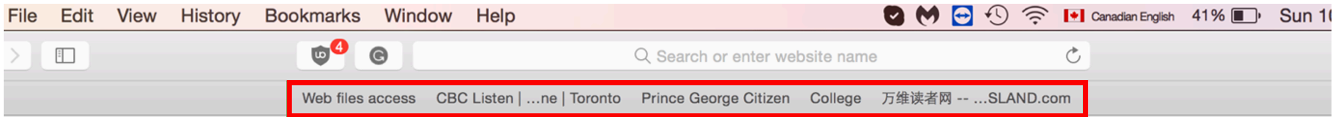
- Google Chrome
- Mozilla Firefox
- Internet Explorer
- Safari
- Opera

## Bookmarks

- **Bookmark (or favourite)**: a collection of links (saved shortcuts) to web pages that is stored in a web browser.
- Saving bookmarks allows users to quickly navigate back to the websites they visit the most.
- Bookmark bar: A toolbar that contains all bookmarks and is displayed at the top of a browser window (under the address bar).

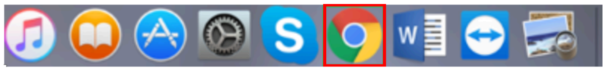


Favorites
Web files access
CBC Listen | Radio One | Toronto
Prince George Citizen
College
万维读者网 -- Creaders.NET, BBSLAND.com


File
Edit
View
History
Bookmarks
Window
Help
Canadian English
41%
Sun 1
Search or enter website name
Web files access
CBC Listen | ...ne | Toronto
Prince George Citizen
College
万维读者网 -- ...SLAND.com

# Google Chrome

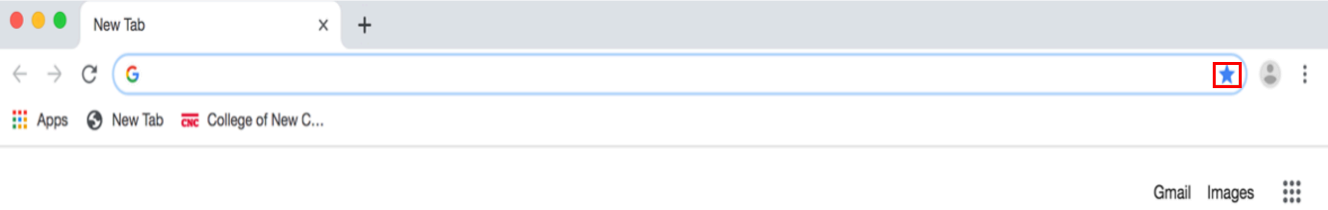
## Add bookmarks to Google Chrome



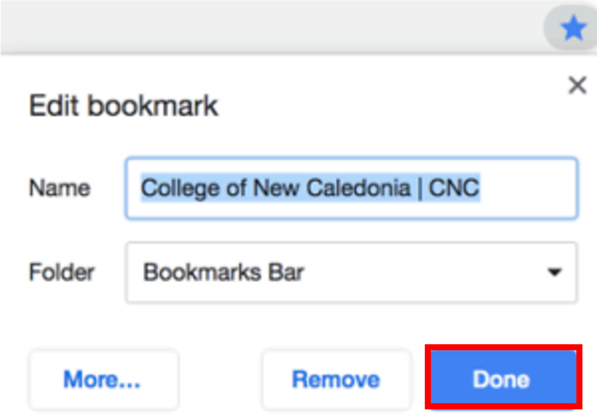
1. Open Chrome by double-clicking.
2. Go to the website you would like to

bookmark.

3. Click on the star icon ★ to the upper-right corner to add the bookmark.


New Tab
Apps
New Tab
College of New C...
Gmail
Images

1. Click **Done**.


Edit bookmark
More...
Remove
Done

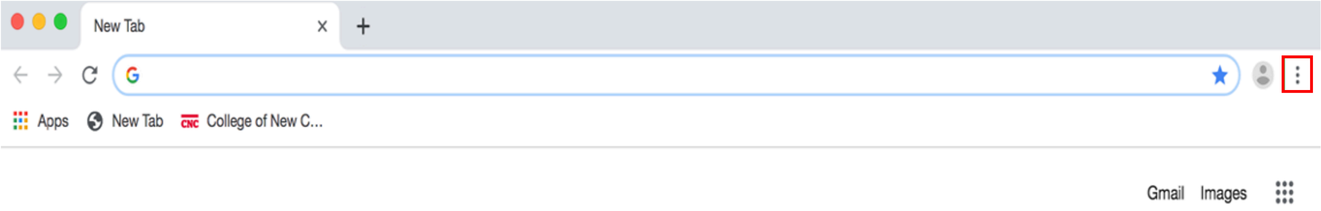
Name: College of New Caledonia | CNC

Folder: Bookmarks Bar

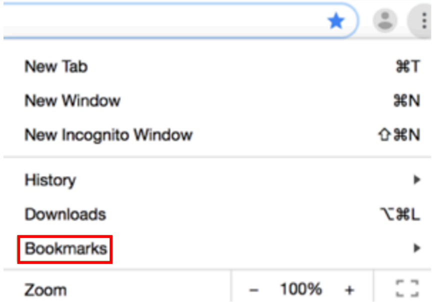
## Find a bookmark in Chrome

### Method 1

1. Open Chrome.
2. Click three dots (More options) in the upper-right corner.


New Tab
Apps
New Tab
College of New C...
Gmail
Images

1. Click **Bookmarks** (in the pop-up menu that appears).
2. Find and click a bookmark to open it.

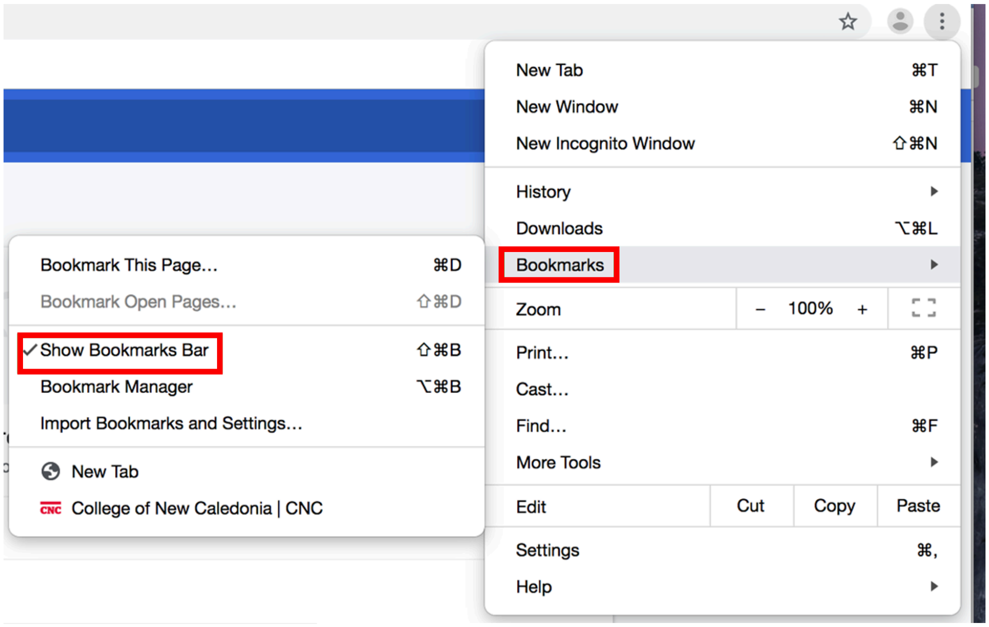

New Tab ⌘T
New Window ⌘N
New Incognito Window ⇧⌘N
History
Downloads ⌥⌘L
Bookmarks
Zoom – 100% +

**Method 2**

1. Open Chrome.
2. Find and click a bookmark on the bookmarks bar to open it.

### Show or hide the bookmarks bar in Chrome

1. Open Chrome.
2. Click three dots icon to the upper-right corner.
3. Click **Bookmarks**.
4. Click **Show Bookmarks Bar** to turn the bookmarks bar on and off.
   (A check mark means the bookmarks bar is showing. No check mark means it's hidden.)

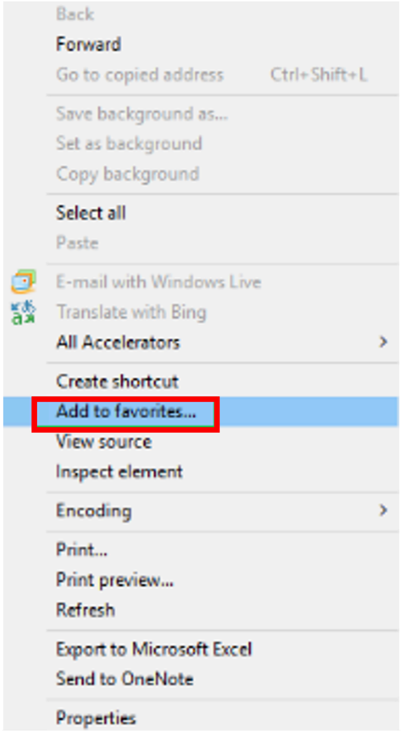

Bookmark This Page… ⌘D
Bookmark Open Pages… ⇧⌘D
✓Show Bookmarks Bar ⇧⌘B
Bookmark Manager ⌥⌘B
Import Bookmarks and Settings…
New Tab
College of New Caledonia | CNC
New Tab ⌘T
New Window ⌘N
New Incognito Window ⇧⌘N
History
Downloads ⌥⌘L
Bookmarks
Zoom – 100% +
Print… ⌘P
Cast…
Find… ⌘F
More Tools
Edit Cut Copy Paste
Settings ⌘,
Help

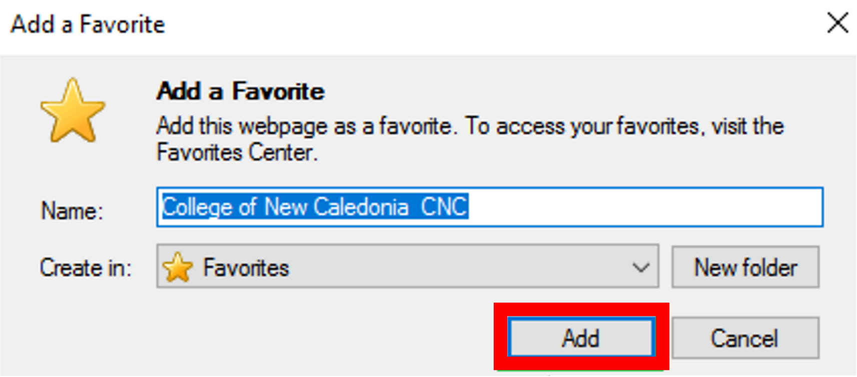
## Internet Explorer

### Add bookmarks to Internet Explorer

1. Open Internet Explorer double-click on Internet Explorer to open it.

2. Go to the website you would like to bookmark.
3. Right-click on an empty space of the page.
4. Select **Add to Favorites** from the pop-up menu that appears.
5. Click **Add**.


Back
Forward
Go to copied address Ctrl+Shift+L
Save background as...
Set as background
Copy background
Select all
Paste
E-mail with Windows Live
Translate with Bing
All Accelerators
Create shortcut
Add to favorites...
View source
Inspect element
Encoding
Print...
Print preview...
Refresh
Export to Microsoft Excel
Send to OneNote
Properties


Add a Favorite

**Add a Favorite**

Add this webpage as a favorite. To access your favorites, visit the Favorites Center.

Name: College of New Caledonia CNC

Create in: Favorites

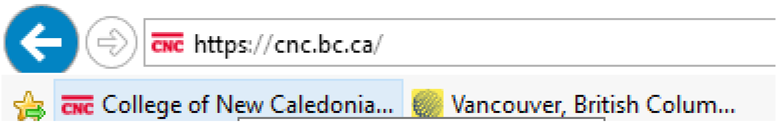
New folder
Add
Cancel

You may also click on the star icon ★ in the upper-right corner to add the bookmark.

## Find a bookmark in Internet Explorer

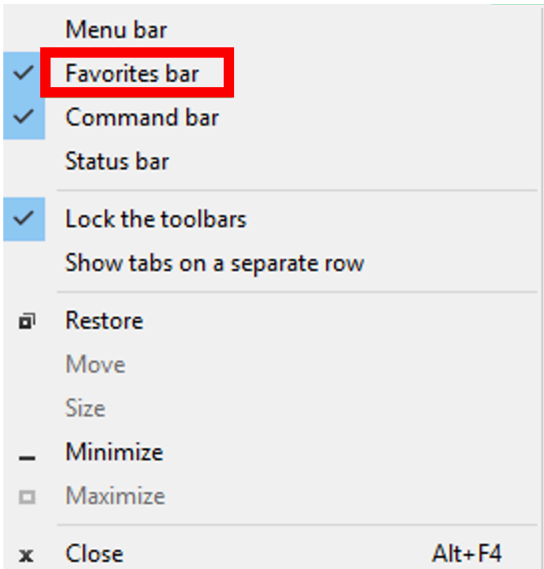
1. Open Internet Explorer.
2. Click on the star icon ★ in the upper-right corner.
3. Find and click a bookmark to open it.

Or use the bookmarks bar that shows under the address bar. Click a bookmark to open it.


https://cnc.bc.ca/
College of New Caledonia...
Vancouver, British Colum...

## Show or hide the bookmark bar in Internet Explorer

1. Open Internet Explorer.
2. Right-click on the top side (empty space) of the Window.
3. Click the **Favorites bar** on the pop-up menu.


Menu bar
✓ Favorites bar
✓ Command bar
Status bar
✓ Lock the toolbars
Show tabs on a separate row
Restore
Move
Size
Minimize
Maximize
Close Alt+F4

# Topic B: Search the Internet using a web search engine

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=148*

## Fill in Online Forms

### Steps to fill in an online form

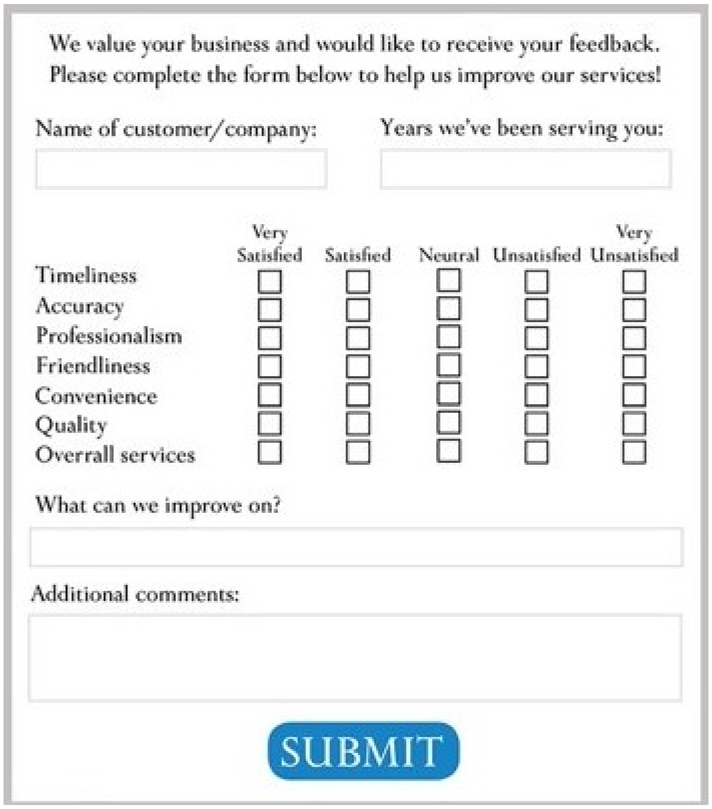
1. Save the online form on your computer.
2. Open the form.
3. Click on an empty text field in the form to start filling in the form. Carefully fill in the necessary information. Double check to be sure that there are no mistakes.
4. Add check marks if any are required.
5. Save the form. When done, you can email, print or fax the filled out form.

### PDF (Portable Document Format)

- A PDF is a file format that looks like a printed document. It displays files in a format that is ready for the web.
- A PDF file allows for incorporation of electronic text, images, graphs, hyperlinks, etc.
- A PDF file can be viewed, printed, or forwarded to someone else. To view the PDF files, you need the Acrobat Reader, which is available for free download.

### Steps to fill in a fillable PDF form

1. Save the PDF form on your computer.
2. Open the form in Acrobat Reader.
3. Click on an empty text field in the form to start filling in the PDF form.
4. Save the form. When done, you can email, print or fax the filled out form.



We value your business and would like to receive your feedback.
Please complete the form below to help us improve our services!

Name of customer/company:

Years we've been serving you:

| | Very Satisfied | Satisfied | Neutral | Unsatisfied | Very Unsatisfied |
|---|---|---|---|---|---|
| Timeliness | ☐ | ☐ | ☐ | ☐ | ☐ |
| Accuracy | ☐ | ☐ | ☐ | ☐ | ☐ |
| Professionalism | ☐ | ☐ | ☐ | ☐ | ☐ |
| Friendliness | ☐ | ☐ | ☐ | ☐ | ☐ |
| Convenience | ☐ | ☐ | ☐ | ☐ | ☐ |
| Quality | ☐ | ☐ | ☐ | ☐ | ☐ |
| Overrall services | ☐ | ☐ | ☐ | ☐ | ☐ |

What can we improve on?

Additional comments:

## Use Library Websites to Request Books/Other Resources

1. Open a search engine in a web browser (such as Google in Chrome).
2. Find the website for a library near you.
3. Search the Library Catalogue (type your specific information into the search box). Library Catalogue is the main search box on Library webpages.
4. Click on the title you wish to request (from the results list). Check the availability status.
5. Click on the **Place Hold** button in the list of items (to place hold on your book).
6. Enter your Library card number (or Username or Barcode for some libraries) and PIN number to Log In. When you signed up for your library card, you chose a personal identification number (PIN).
7. Click on Place Hold(s).

### Search methods

- Searching by title or author: Type keywords from the title or the author’s name into the search box.
- Searching by subject: Type keywords from your topic into the search box.
- Searching by ISBN: Type the ISBN number into the search box.

## Use Library Websites to Renew Books/Other Resources

1. Open a search engine in a web browser (such as Google in Chrome).

2. Find the website for a library near you.
3. Click on **My Account (or Log In** in some libraries).
4. Enter your Library card number (or Username or Barcode for some libraries) and PIN number to **Log In**.
5. Click on **Checkouts**.
6. Click each title that you would like to renew.
7. Click on **Renew**. (Renew option will not be available if another user has requested the book.)

# Unit 4: Self-test

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=149](https://opentextbc.ca/computerstudies/?p=149)*

Find answers to this self-test at the back of the book: [Answers for Self-Tests]()

## True or false

1. A web browser is a collection of links to web pages that is stored in a web browser.
2. Saving bookmarks allows users to quickly navigate back to the websites they visit the most.
3. You can click on the star icon to the upper-right corner (in Chrome) to add a bookmark.
4. Clicking the “Favorites bar” on the pop-up menu cannot show or hide the bookmark bar in Internet Explorer.

## Fill in the blank

5. A [blank] is a software program that allows users to access and display websites or web pages on the Internet.
6. The bookmark [blank] contains all bookmarks that shows on the top of the window.
7. A [blank] is a file format that looks like a printed document.

## Multiple choice

8. Some common web browsers include:
    a. Mozilla Firefox
    b. Google Chrome
    c. Opera
    d. all of the above

9. An Internet [blank] is a web-based tool that is designed to search the content of web pages and to find particular information on the Internet.
    1. bar
    2. RAM
    3. search engine
    4. all of the above
10. Some popular search engines include:
    1. Baidu
    2. Google
    3. Yandex
    4. all of the above

# Unit 5. Electronic communication

Topic A: Security issues on the Internet

- Security issues
- Prevent cyber threats

Topic B: Email

- Email address
- Create an email account
- Sending and receiving email
- Mail system folders

Unit 5 Self-test

# Topic A: Security issues on the Internet

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=152](https://opentextbc.ca/computerstudies/?p=152)*

## Security Issues

Although Internet led to many benefits, it also poses a greater potential for security threats. Below are a number of common Internet security issues.

### Hacker

**Hacker** – refers to a person who can gain unauthorized access to (break into) a computer or a network to commit crimes.

Some things a skilled hacker can do to your computer:

- Hijack your usernames and passwords;
- Gain access to the personal information (credit card numbers, bank account, Social Insurance Number, etc.);
- Steal, change, exploit, sell, or destroy data;
- Damage or bring down the system;
- Hold the system hostage to collect ransom;

### Malware

**Malware** (short for malicious software) – a software that is designed to damage, disrupt, or infect computers.

- Malware is a single term that refers to all the different types of threats to your computer safety such as virus, Trojan horse, worm, spyware, etc.
- Malware can gain unauthorized access to a computer and continuously run in the background

without the owner's knowledge.

### Computer virus

**Computer virus** – a specific type of malware that is designed to replicate (copy) and spread from one computer to another.

- A virus can make a copy of itself over and over again.
- A virus can spread from one computer to another through email attachments, removable storage devices, networks (Internet messaging services, download infected files …), etc.
- A virus can damage your computer by corrupting system files, sending spam, stealing data and personal information from your computer, destroying data, deleting everything on your hard drive, etc.

### Trojan horse

**Trojan horse** (or Trojan) – a type of malware that looks harmless but can cause harm to a computer system.

- A Trojan misleads users of its true intent.
- A Trojan may claim to get rid of your computer viruses but instead introduce viruses onto your computer.
- A Trojan can take the form of innocent-looking email attachments, downloads, etc.

### Worm

**Worm** – it is similar to a virus (a sub-class of a virus). It is designed to quickly self-replicate and spread copies of itself from one computer to another.

- The key difference between a worm and a virus is that a worm does not require any human action to replicate while a virus does. A virus only spreads when a user opens an affected file whereas a worm spreads without the use of a host file.

### Phishing

**Phishing** – a scammer uses deceptive emails or websites and tries to obtain valuable personal information (i.e., username, password, account number, etc.).

- Phishing is a common online scam used by cyber criminals.
- A scammer may use a deceptive email or website appearing to represent a legitimate firm.

### Spyware

**Spyware** – a software that secretly monitors (spies) user's online behaviour and gets sensitive information about a person or organization without the user's knowledge.

- A spyware can record a user's Web browsing habits, email messages, keystrokes on online advertisements, personal information, etc., and forward it to a third party.
- Advertisers can use spyware to target specific advertisements to your tastes.
- Criminal organizations can use spyware to collect financial information (banking accounts, credit card information, password, etc.).

## Prevent Cyber Threats

### Tips on how to prevent malware from infecting your computer

- Backup files and store in different locations.
- Don't open any suspicious/unknown emails or the websites.
- The second part (the part after the @) of an email should represent the company that owns the email (domain).

> Example: registrarsoffice@cnc.bc.ca
>
> (cnc.bc.ca is the domain for the College of New Caledonia)

- Don't download an unknown or suspicious attachment (document, picture, music, game, video, etc.).
- Do not call fake tech support numbers (tech support scams).
- If you get pop-up window from fake companies offering to help you with a malware infection, don't call the number.
- Use a secure and strong password (unique, hard to guess, etc.).
- Install anti-malware/virus software (keep it up to date).
- Scan with antivirus software on a regular basis.

## Some free antivirus software

avast!
be free
7
avast!
Free
Antivirus
The world's most popular antivirus.

- Comodo Antivirus
- AVAST Free Antivirus
- AVG Antivirus Free
- Avira Antivirus
- Bitdefender Antivirus
- Sophos Home Free
- Kaspersky Free

# Topic B: Email

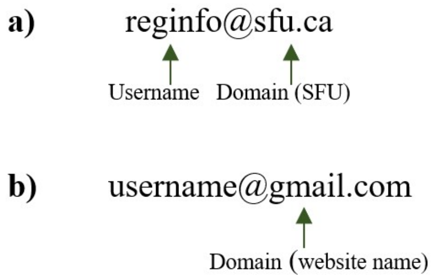
Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=163](https://opentextbc.ca/computerstudies/?p=163)*

## Email Address

An email address consists of three parts:

- Username of the recipient.
- @ sign (pronounced “at” sign) – every email address consists of an @ sign.
- Domain (the email service provider – an organization/company, or a website name).



*Example Emails*

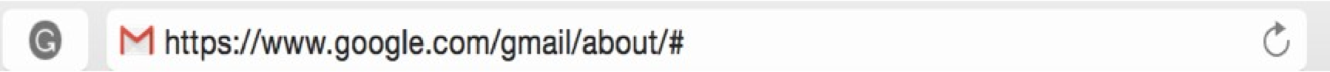
Some popular free email service providers include

- Gmail (username@gmail.com)
- Outlook (username@outlook.com)
- Yahoo! Mail (username@yahoo.com)
- ProtonMail (username@protonmail.com)
- Zoho (username@zoho.com)
- AOL (username@aol.com)

## Create an Email Account

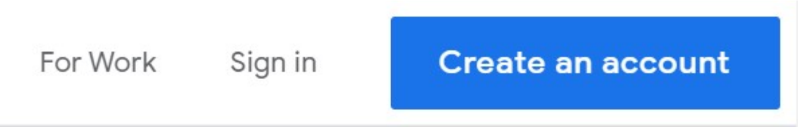
This is how you can create a Gmail account.

1. On your computer, open a browser window and go to Gmail.

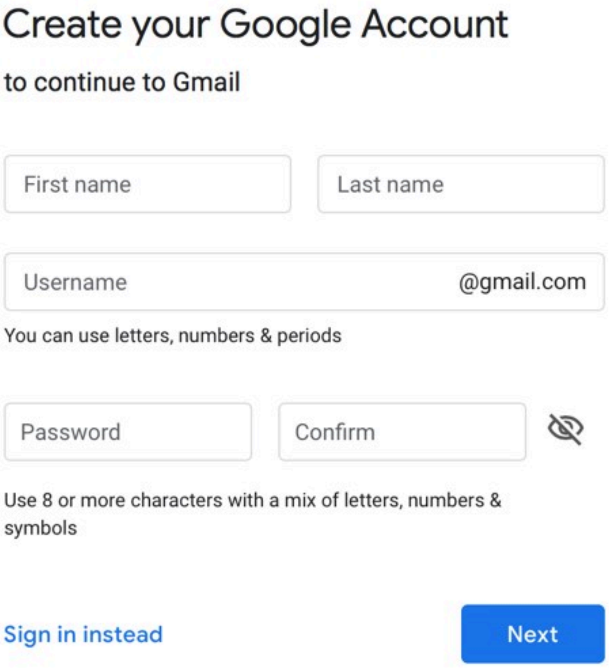


https://www.google.com/gmail/about/#

2. Click **Create an account** (top right of screen).


For Work
Sign in
Create an account

3. Enter your first name, late name, username, and password (twice). Click **Next**.



Create your Google Account

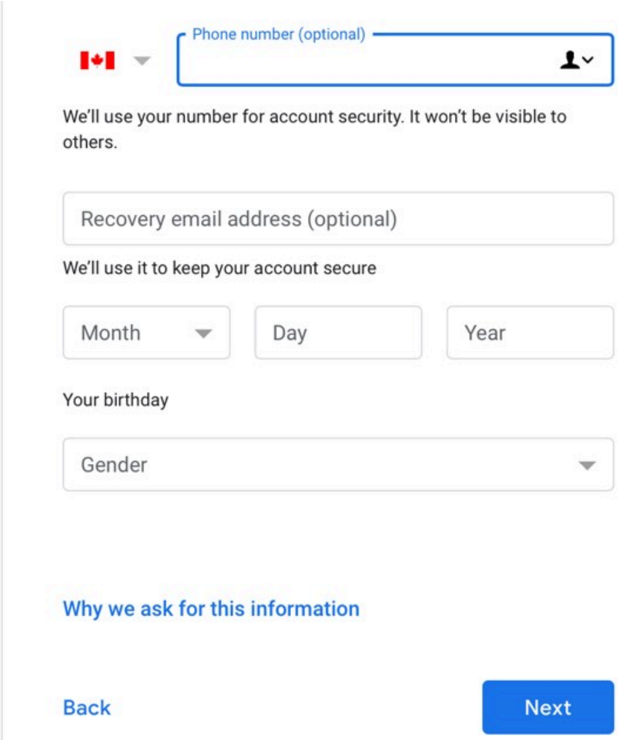
to continue to Gmail

You can use letters, numbers & periods

Use 8 or more characters with a mix of letters, numbers & symbols

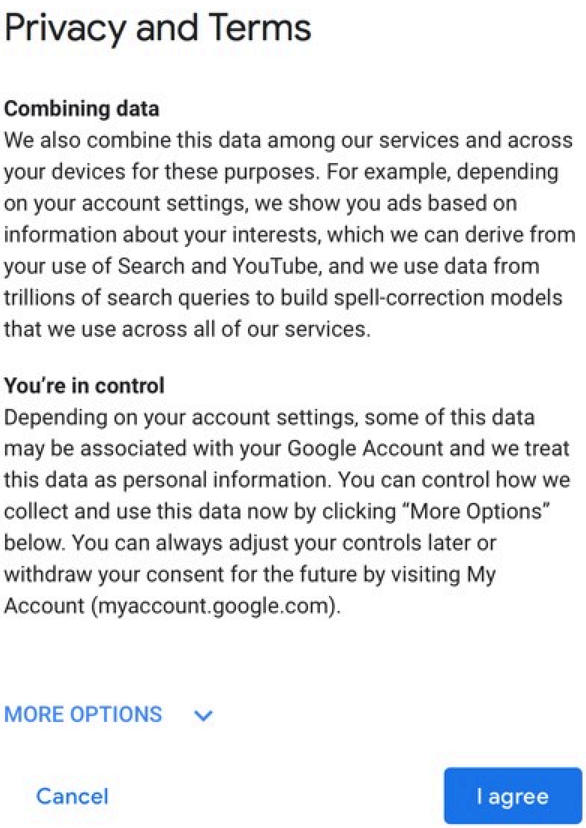
First name
Last name
Username
@gmail.com
Password
Confirm
Sign in instead
Next

4. Provide the additional information, including your birthday and gender. Click **Next**.


Phone number (optional)
Recovery email address (optional)
Month
Day
Year
Your birthday
Gender
Why we ask for this information
Back
Next

We'll use your number for account security. It won't be visible to others.

We'll use it to keep your account secure


MORE OPTIONS
Cancel
I agree

Privacy and Terms

**Combining data**
We also combine this data among our services and across your devices for these purposes. For example, depending on your account settings, we show you ads based on information about your interests, which we can derive from your use of Search and YouTube, and we use data from trillions of search queries to build spell-correction models that we use across all of our services.

**You're in control**
Depending on your account settings, some of this data may be associated with your Google Account and we treat this data as personal information. You can control how we collect and use this data now by clicking "More Options" below. You can always adjust your controls later or withdraw your consent for the future by visiting My Account (myaccount.google.com).

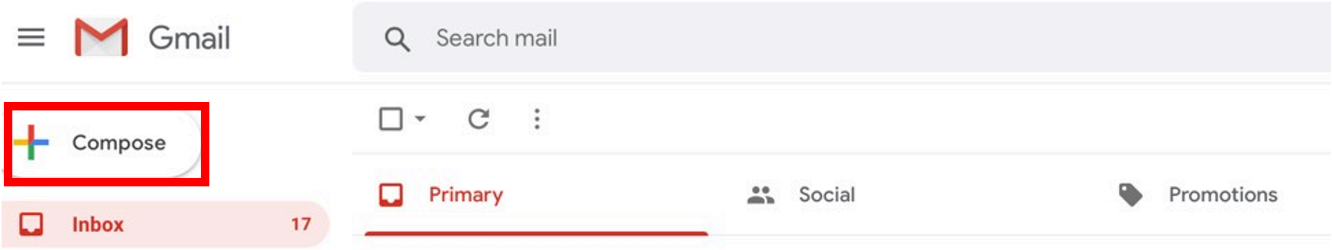
5. Scroll down and click **I agree**.

Your account will be created and ready to send and receive emails.

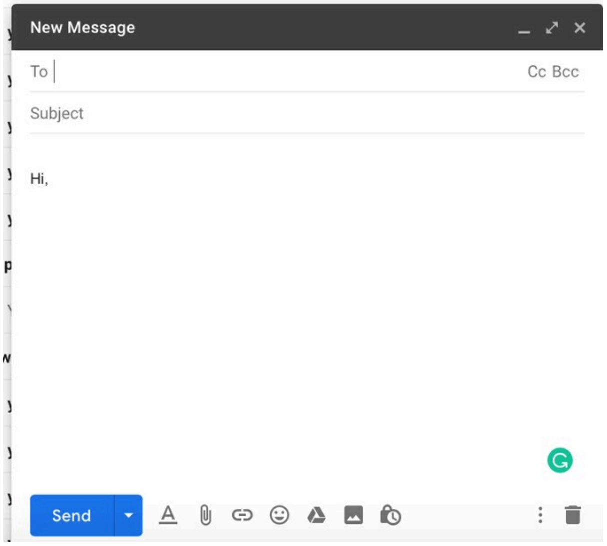
# Send and Receive Email

## How to send an email

1. Log into your personal email account (such as Gmail, Outlook, Yahoo! Mail, etc.) or log into your institutional email (many colleges and universities give students an email address).
2. Click **Compose** (if using Gmail) or something similar. (For example, in Outlook, click **New**.)



3. Enter a recipient's email address in the **To** field. You can also add recipients in the **Cc** and **Bcc** fields.
4. Enter a subject (the topic or heading of your email).
5. Type your message in the main body field.
6. Click **Send**.



Hi,

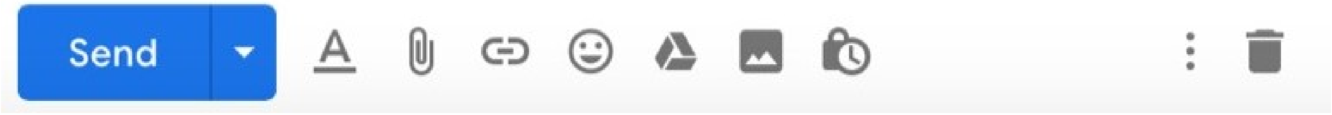
## Cc and Bcc

- **Cc** (carbon or courtesy copy) – Entering a person's email address in the "Cc" field means that person will receive a copy of the email (for their information).
- **Bcc** (blind carbon copy) – Bcc is similar to that of Cc except that the email address is invisible to the people in the "To" or "Cc" fields. Use Bcc if you don't want the other people to see who else has received a copy of the email.

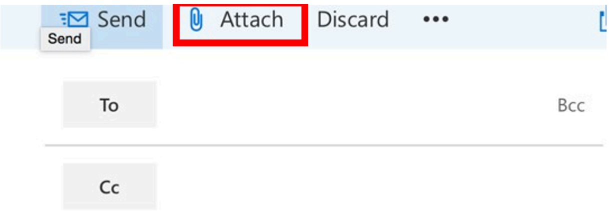
## Send Emails with Attachments

You can attach different types of files to send through email, including PDFs, images, and more. This is how you attach a file to an email:

1. Log in to your email account.
2. Click **Compose** (Gmail) or something similar (e.g., **New** in Outlook).
3. Enter a recipient's email address in the **To** field.
4. Enter a subject.
5. Type your message in the main body field.
6. Click **Attach** or something similar. (Note that the Attach option is often represented as a paperclip icon).



7. Select the file you want to attach from your computer's folder.
8. Click the **Choose** or **Select** button (or another similar button) to attach the file to your email.
9. Click **Send**.



## Mail System Folders

- **Inbox** folder – the place where incoming emails are received and stored (incoming emails arrive in "Inbox" folder).
- **Sent Items** (or Sent) folder – the email you've sent will be saved in the "Sent Items" (or "Sent Mail") folder.
- **Drafts** folder – an unfinished email will be automatically saved to your "Drafts" folder.
- **Deleted** Items folder: every email that you deleted will be moved to the "Deleted Items" folder.
    - It's a good idea to empty your "**Deleted Items**" folder from time to time in order to save space.
    - To empty the Deleted Items folder: Right-click the **Deleted Items** folder and click

**Empty** folder, then **Ok**.

# Unit 5: Self-test

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=165*

Find answers to this self-test at the back of the book: Answers for Self-Tests

## True or false

1. A malware cannot gain unauthorized access to a computer and continuously run in the background without owner's knowledge.
2. A virus can make a copy of itself over and over again.
3. A Trojan may claim to get rid your computer of viruses but instead introduces viruses onto your computer.
4. The key difference between a virus and a worm is that a worm needs human action to replicate, whereas, a virus doesn't.
5. Enter a person's email address to the 'Cc' field means that person will receive a copy of the email.

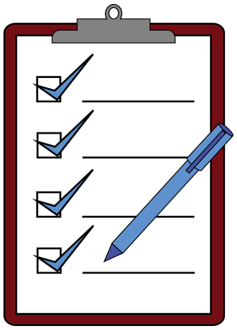
## Fill in the blank

6. A [blank] refers to a person who can gain unauthorized access to a computer or a network to commit crimes.
7. A [blank] can spread from one computer to another through email attachments, removable storage devices, networks, etc.
8. A [blank] is similar to a virus. It is designed to quickly self-replicate and spread copies of themselves from one computer to another.
9. A [blank] can record a user's Web browsing habits, email messages, keystrokes on online advertisements, personal information, etc., and forward it to a third party.
10. Bcc is similar to that of Cc except that the email addresses are [blank] to the people in the "To" or "Cc" fields.

11. The [blank] folder is the place where incoming emails are received and stored.
12. Every email that you delete will be moved to the “[blank] Items” folder.

## Multiple choice

13. [Blank] is a software that is designed to infiltrate, damage, disrupt, or infect computers.
    a. Malware
    b. Firefox
    c. Yandex
    d. RAM
14. Malware is a single term that refers to all the different types of threats to your computer safety such as:
    a. Trojan horse
    b. worm
    c. virus
    d. all of the above
15. [Blank] is a software that secretly monitors (spies) user’s online behaviour and gets sensitive information about a person or organization without the user’s knowledge.
    a. Trojan horse
    b. spyware
    c. virus
    d. worm
16. An unfinished email will be automatically saved to your [blank] folder.
    a. Sent
    b. Junk
    c. Drafts
    d. Deleted items



# SECTION II - INTERMEDIATE COMPUTER STUDIES

Section II covers the following topics:

- Unit 6. Basic computer terminologies
- Unit 7. Evolution of computers
- Unit 8. Operating system
- Unit 9. Basic word processing skills
- Unit 10. More on word processing
- Unit 11. More on electronic communication

# Unit 6. Basic computer terminologies

Topic A: Application programs

- Word processor and spreadsheet
- Presentation and database programs
- Launch and terminate a program

Topic B: Types of computers

- Super computers and mainframe computers
- Minicomputers and personal computers
- Types of personal computers

Topic C: Basic computer terminologies and acronyms

- Basic Internet terminologies
- Basic computer terminologies
- Bits and bytes

Unit 6 Self-test

# Topic A: Application programs

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=176](https://opentextbc.ca/computerstudies/?p=176)*

## Word Processors and Spreadsheets

**Application program** – a computer program that provides users with tools to accomplish a specific task.

Examples of application programs include those for word processing, spreadsheets, presentations, and database management, as well as Internet browsers, email programs, media players, accounting software, and programs that help with pronunciation, translation, desktop publishing, enterprise.

**Microsoft Office** – A group of productivity software applications developed by Microsoft Corporation. Microsoft Office 2016 includes such programs as Microsoft Word, Microsoft Excel, and Microsoft PowerPoint.

### Word processors

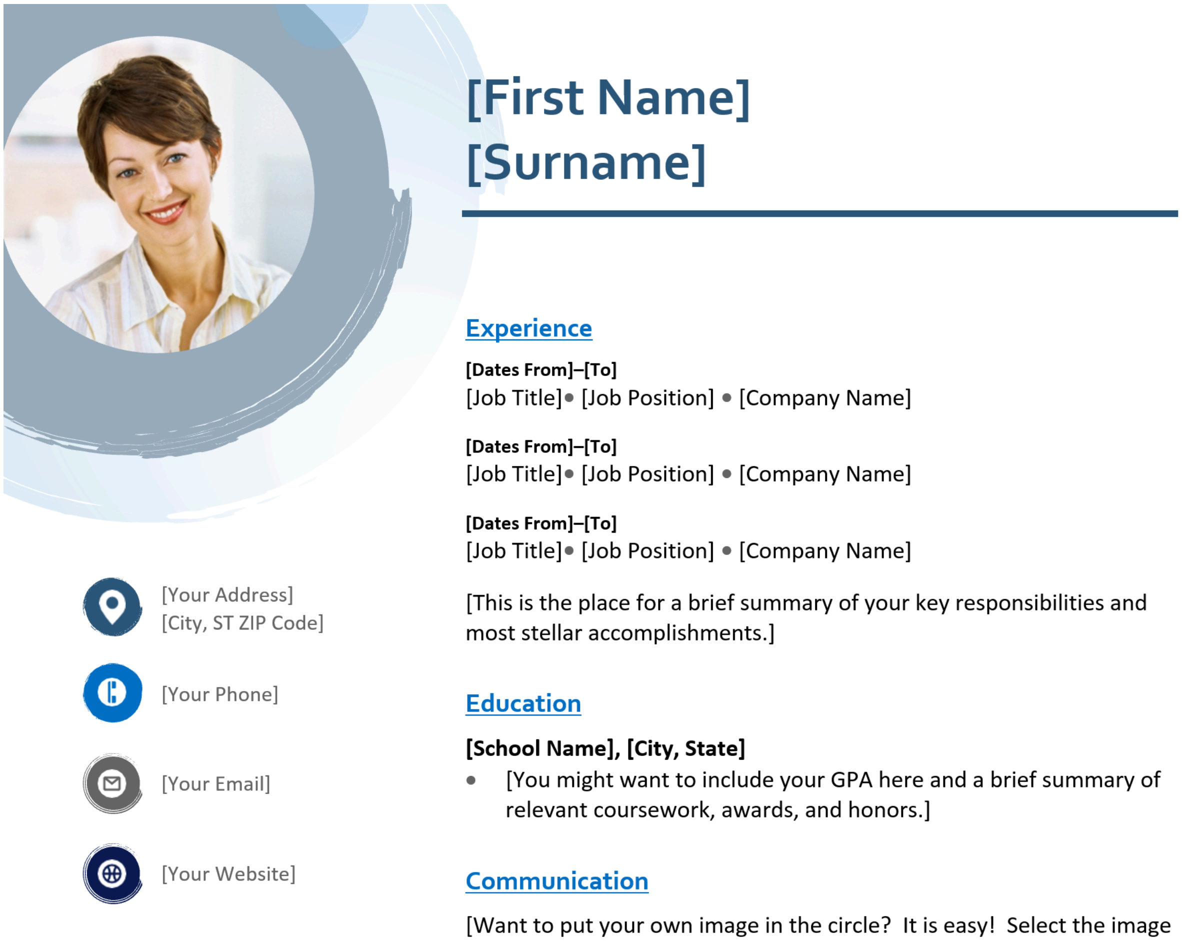
**Word processor** – a program that allows users to create, save, edit, format, print, and retrieve documents.

Word processing programs can be used to create all types of text-based documents, such as:

- Assignments
- Notes
- Memos
- Letters
- Resumes
- Articles
- Reports

- Newsletters
- Short stories
- Books (with tables, diagrams, photos, links, etc.)

Examples of word processing programs include Microsoft Word, Google Docs, Apple Pages, and LibreOffice Writer.



**[First Name]**
**[Surname]**

**Experience**

**[Dates From]–[To]**
[Job Title]• [Job Position] • [Company Name]

**[Dates From]–[To]**
[Job Title]• [Job Position] • [Company Name]

**[Dates From]–[To]**
[Job Title]• [Job Position] • [Company Name]

[This is the place for a brief summary of your key responsibilities and most stellar accomplishments.]

**Education**

**[School Name], [City, State]**

- [You might want to include your GPA here and a brief summary of relevant coursework, awards, and honors.]

**Communication**

[Want to put your own image in the circle? It is easy! Select the image

[Your Address]
[City, ST ZIP Code]

[Your Phone]

[Your Email]

[Your Website]

## Spreadsheets

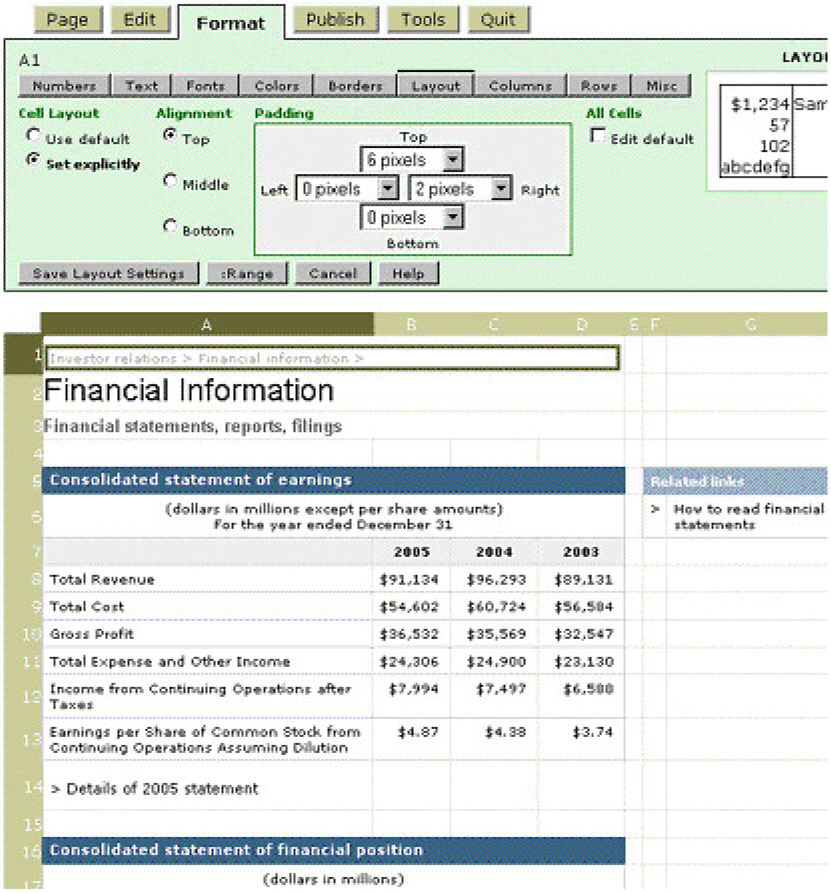
**Spreadsheet (electronic worksheet)** – a program that organizes data into rows and columns, also known as tabular form. This data can then be arranged, sorted, calculated (using formulas and functions), analyzed, or illustrated using graphical representations.

Among many other things, a spreadsheet program can be used to:

- Create budgets
- Calculate grades
- Balance bank accounts
- Calculate loan payments

- Calculate tax
- Prepare payrolls
- Analyze business performance numbers and results
- Produce charts
- Calculate revenues

Examples of spreadsheet programs include Microsoft Excel, Google Sheets, Apple Numbers, and LibreOffice Calc.


Page
Edit
Format
Publish
Tools
Quit
LAYO
Numbers
Text
Fonts
Colors
Borders
Layout
Columns
Rows
Misc
Save Layout Settings
:Range
Cancel
Help
A
B
C
D
E
F
G

A1

**Cell Layout**
○ Use default
● Set explicitly

**Alignment**
● Top
○ Middle
○ Bottom

**Padding**
Top: 6 pixels
Left: 0 pixels
Right: 2 pixels
Bottom: 0 pixels

**All Cells**
☐ Edit default

$1,234 Sam
57
102
abcdefg

1 Investor relations > Financial information >
2 Financial Information
3 Financial statements, reports, filings
4
5 Consolidated statement of earnings
6 (dollars in millions except per share amounts)
For the year ended December 31

| | 2005 | 2004 | 2003 |
|---|---|---|---|
| Total Revenue | $91,134 | $96,293 | $89,131 |
| Total Cost | $54,602 | $60,724 | $56,584 |
| Gross Profit | $36,532 | $35,569 | $32,547 |
| Total Expense and Other Income | $24,306 | $24,900 | $23,130 |
| Income from Continuing Operations after Taxes | $7,994 | $7,497 | $6,580 |
| Earnings per Share of Common Stock from Continuing Operations Assuming Dilution | $4.87 | $4.38 | $3.74 |

14 > Details of 2005 statement
15
16 Consolidated statement of financial position
17 (dollars in millions)

Related links
> How to read financial statements

# Presentation and Database Programs

## Presentation programs

**Presentation program** – a program that is designed to present information in the form of a slideshow, using multimedia formats such as pictures, sounds, videos, and text. Such a program is commonly used in education, training, business meetings, etc., to create powerful presentations.

Solution and major benefits

We offer a new generation of smart mailboxes

Presentation programs are commonly used to:

- Create slideshow presentations
- Create lectures and tutorials
- Make photo slideshows
- Design websites with hyperlinks and interactivity
- Make photo albums
- Create animated videos (with voice and animation)

Examples of presentation programs include Microsoft PowerPoint, Google Slides, Apple Keynote, Prezi, CustomShow, SlideDog, and Powtoon.

## Database programs

**Database program (database management system)** – A program that is designed for creating, editing, updating, maintaining databases, and managing organized information stored in them.

Databases are useful for keeping track of customers, users, employees, students, inventory, product purchases, ISBN numbers, etc. Database programs are used in the following fields:

- Banking
- Airline/railway reservation
- Library management
- Education
- Human resource management
- Healthcare
- Weather
- E-commerce
- Government

- Sports
- Military

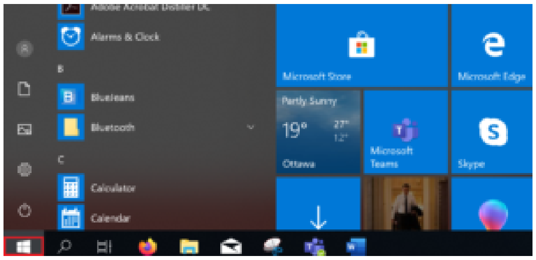
Examples of database programs include Microsoft Access, Oracle Database, Knack, TablePlus, and TeamDesk.

## Launch and Terminate a Program

### Launch an application program

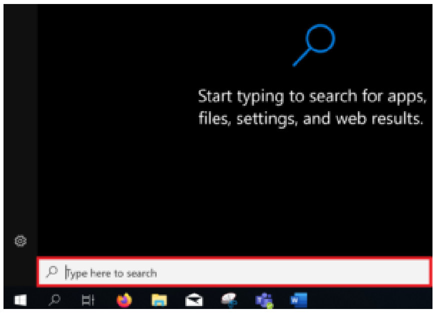
**Method 1**

1. Click the **Start** icon.
2. Click the name of the program that you wish to start (e.g., Word 2016).


Adobe Acrobat Distiller DC
Alarms & Clock
B
BlueJeans
Bluetooth
C
Calculator
Calendar
Microsoft Store
Microsoft Edge
Partly Sunny
19°
27°
12°
Ottawa
Microsoft Teams
Skype

**Method 2**

1. Type the program name in the **Search** box.
2. Click the name of the program that you want to launch.



Start typing to search for apps, files, settings, and web results.

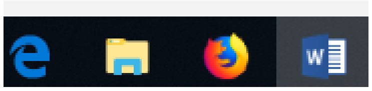
Type here to search

**Method 3**

1. Double-click a program shortcut icon on the desktop, if there is one.

**Method 4**

1. Click a program shortcut on the taskbar at the bottom edge of the screen.

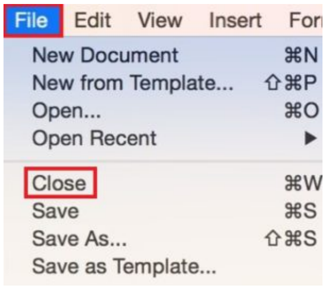


### Close (exit) a program (close an active open window)

**Method 1**

1. Click the **Close** icon (x) in the upper-right corner of the window.

### Method 2 (Apple)


File
Edit
View
Insert
For
New Document ⌘N
New from Template... ⇧⌘P
Open... ⌘O
Open Recent ▶
Close ⌘W
Save ⌘S
Save As... ⇧⌘S
Save as Template...

1. Click **File** in the upper-left corner.
2. Click **Close**.

## Force close a frozen program

### Method 1

1. Click **Alt** + **F4**.

### Method 2

1. Click **Ctrl** + **Alt** + **Delete** to open **Task Manager**.
2. Select the unresponsive program and click **End Task**.

# Topic B: Types of computers

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=185*

## Classification of Computers by Size

- Supercomputers
- Mainframe computers
- Minicomputers
- Personal computers (PCs) or microcomputers

### Supercomputers

**Supercomputer** – a powerful computer that can process large amounts of data and do a great amount of computation very quickly.

Supercomputers are used for areas related to:

- Science
- Engineering
- Education
- Defence
- Aerospace

Supercomputers are useful for applications involving very large databases or that require a great amount of computation.

Supercomputers are used for complex tasks, such as:

- Weather forecasting

- Climate research
- Scientific simulation
- Oil and gas exploration
- Quantum mechanics
- Cryptanalysis

## Mainframe computers

2008/05/31 06:53

**Mainframe computer –** a high-performance computer used for large information processing jobs.

Mainframe computers are primarily used in :

- Institutions
- Research
- Academics
- Health care
- Libraries
- Large businesses
- Financial institutions
- Stock brokerage firms
- Insurance agencies

Mainframe computers are useful for tasks related to:

- Census taking
- Industry and consumer statistics
- Enterprise resource planning
- Transaction processing
- e-business and e-commerce

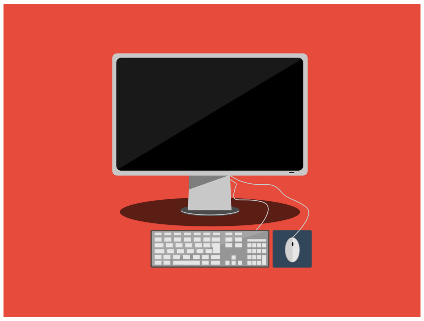
## Minicomputers

**Minicomputer** – a mid-range computer that is intermediate in size, power, speed, storage capacity, etc., between a mainframe and a microcomputer.

Minicomputers are used by small organizations.

"Minicomputer" is a term that is no longer used much. In recent years, minicomputers are often referred to as small or midsize servers (a **server** is a central computer that provides information to other computers).

## Personal computers



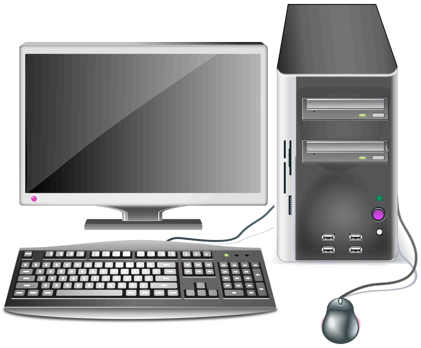
**Personal computer** (PC) – a small computer designed for use by a single user at a time.

A PC or microcomputer uses a single chip (microprocessor) for its central processing unit (CPU).

"Microcomputer" is now primarily used to mean a PC, but it can refer to any kind of small computer, such as a desktop computer, laptop computer, tablet, smartphone, or wearable.

### Types of personal computers

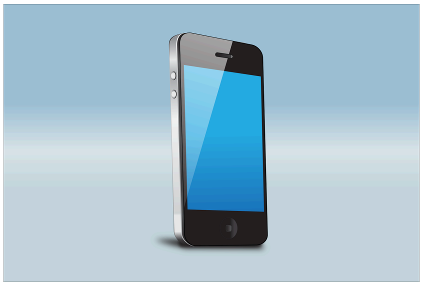
**Desktop computer** – a personal computer that is designed to stay at one location and fits on or under a desk. It typically has a monitor, keyboard, mouse, and a tower (system unit).



**Laptop computer (or notebook)** – A portable personal computer that is small enough to rest on the user's lap and can be powered by a battery. It includes a flip down screen and a keyboard with a touchpad.

**Tablet** – A wireless touchscreen PC that is slightly smaller and weighs less than the average laptop.

**Smartphone** – A mobile phone that performs many of the functions of a personal computer.



# Topic C: Basic computer terminologies and acronyms

Click play on the following audio player to listen along as you read this section.

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## Basic Internet Terms and Acronyms

**Internet** – A globally connected massive computer network system.

**World Wide Web (WWW or the web)** – A system of Internet servers that is made from millions of interlinked websites and web pages.

**Firewall –** A network security device designed to prevent unauthorized access to or from a network.

**Router** – A device that transfers data between computer networks to provide access to the Internet.

**ISP (Internet Service Provider)** – A company that provides Internet service to customers.

**HTTP (Hypertext Transfer Protocol)** – A set of rules (a protocol) for transferring and accessing data using the web.

**URL (Uniform Resource Locator)** – A web address of a specific web page or file on the Internet. An example is https://www.princegeorgecitizen.com.

**IP (Internet Protocol)** – A set of rules (a protocol) for sending data from one computer to another on the Internet. Each computer has a unique IP address that distinguishes it from all other computers on the Internet.

**FTP (File Transfer Protocol)** – A set of rules (a protocol) for transferring files between computers over the Internet.

**Cookie** – A small text file stored in a user's computer by a website that the user has visited so that it can remember something about the user at a later time. For example, cookies are used for online shopping. Without cookies, login information would have to be entered before every product was added to the shopping cart.

**Link (hyperlink)** – A word, phrase, image, etc., within a file or web page that a user can click on to jump to another document, section of the same document, or web page.

## Basic Computer Terms and Acronyms

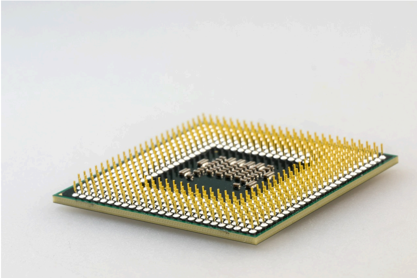
**PC (Personal Computer)** – a small computer designed for use by a single user at a time.

**Mac (Macintosh)** – a type of personal computer made by Apple Inc. It runs a version of the macOS (Apple's operating system, pronounced "mack-oh-ess").

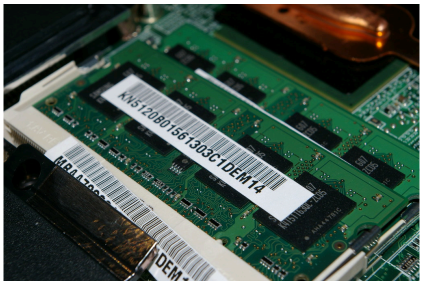
**OS (Operating System)** – a powerful program that controls and coordinates a computer's hardware devices and runs software and applications. Examples includes Windows, Android, OS X, and Linux.

**Reboot** – to shut down and restart a computer, allowing its operating system and programs to be reloaded.

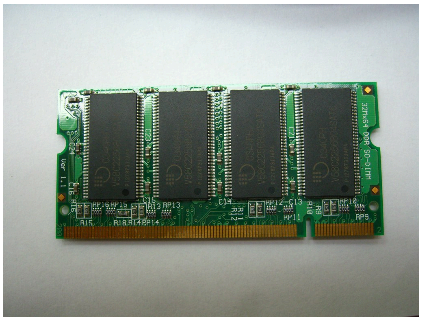
**CPU (Central Processing Unit)** – the brain or engine of a computer, where most of the processing and operations take place.



**RAM (Random-Access Memory)** – a type of data storage (memory element) used in computers that temporarily stores programs and data. RAM is a kind of volatile memory, meaning its contents are lost when the computer is turned off.



**ROM (read-only memory)** – A type of data storage used in computers that permanently stores data and programs. ROM is a kind of non-volatile memory, meaning its contents are retained even when the computer is turned off.



## Bits and Bytes

**Bit (Binary Digit)** – the smallest, most basic unit of measurement for computer data storage, represented as either a 0 or a 1. One byte is equal to 8 bits.

**Byte (Binary Term)** – a unit of measurement for data storage. One byte is equal to 8 bits.

**Data Storage Units and Their Properties**

| **Data Storage Unit** | **Symbol** | **Power of 10** | **One Unit Equals** |
|---|---|---|---|
| Byte | B | $10^1$ | 8 bits |
| Kilobyte | kB | $10^3$ | 1024 B |
| Megabyte | MB | $10^6$ | 1024 kB |
| Gigabyte | GB | $10^9$ | 1024 MB |
| Terabyte | TB | $10^{12}$ | 1024 GB |
| Petabyte | PB | $10^{15}$ | 1024 TB |

# Unit 6: Self-test

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Find answers to this self-test at the back of the book: [Answers for Self-Tests]()

## True or false

1. An application program is a computer program that provides the user with tools to accomplish a specific task.
2. A database is a program that organizes data into rows and columns. This data can then be used to arrange, sort, calculate, analyze, or show graphical representations of data.
3. Common uses for spreadsheet programs include creating slideshow presentations, creating lectures and tutorials, making photo slideshows, and making interesting animations.
4. To launch an application program, click the Start icon, then click the name of the program that you wish to start.
5. Microcomputers are used for complex tasks, such as weather forecasting, climate research, scientific simulation, oil and gas exploration, quantum mechanics, and cryptanalysis.
6. A firewall is a network security device designed to prevent unauthorized access to or from a network.
7. HTTP is a word, phrase, image, etc. within a file on the computer that a user can click on to jump to another document or section of that document.

## Fill in the blank

8. [Blank] is a program that allows users to create, save, edit, format, print, and retrieve documents.
9. Common uses for a [blank] program include creating budgets, calculating grades, balancing bank accounts, calculating loan payments, calculating tax, preparing payrolls, and financial analysis.
10. A [blank] program is a program that is designed to present information in the form of a

slideshow.

11. [Blank] computers are primarily used by institutions, researchers, academics, healthcare administrators, libraries, large companies and businesses, banking institutions, stock brokerage firms, and insurance agencies.
12. The Internet is a globally connected massive computer [blank] system.
13. The World Wide Web is a system of Internet servers that is made from millions of interlinked websites and [blank].
14. A [blank] is a small text file in the user's computer stored by a website that the user has visited so that it can remember something about the user at a later time.
15. A [blank] is a powerful program that controls and coordinates a computer's hardware devices and runs other software and applications on a computer.

## Multiple choice

16. A(n) [blank] is an example of application program.
    1. accounting
    2. translation
    3. Internet browser
    4. all of the above
17. Microsoft Office 2016 includes
    1. Microsoft Excel
    2. Microsoft Word
    3. Microsoft PowerPoint
    4. all of the above
18. To close a program:
    1. click "View"
    2. click "Tools"
    3. click the close icon (x)
    4. all of the above
19. To force close a frozen program, click [blank] at the same time.
    1. Alt + F2
    2. Alt + F4
    3. Alt + F3
    4. Alt + F1

20. A [blank] computer is a high-performance computer used for large information processing jobs.
    a. mainframe
    b. personal computer
    c. laptop
    d. desktop
21. A [blank] is a device that transfers data between computer networks to provide access to the Internet.
    a. FTP
    b. URL
    c. router
    d. ISP
22. A [blank] is often referred to as the brain or engine of a computer, where most of the processing and operations take place.
    a. mainframe
    b. CPU
    c. RAM
    d. byte
23. A byte is a unit of measurement for data storage. 1 GB is equal to 1024 [blank].
    a. kB
    b. TB
    c. PB
    d. MB

# Unit 7. Evolution of computers

Topic A: Computer generations

- Basic terms
- First generation of computers
- Second generation of computers
- Third generation of computers
- Fourth generation of computers
- Fifth generation of computers

Topic B: Computer hardware and software

- Computer hardware basics
- Computer software basics
- System software

Unit 7 Self-test

# Topic A: Computer generations

Click play on the following audio player to listen along as you read this section.

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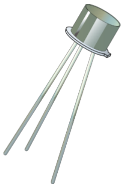
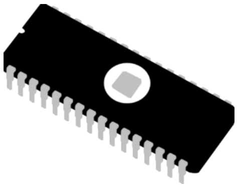
## Basic Terms

**Vacuum tube** – an electronic device that controls the flow of electrons in a vacuum. It used as a switch, amplifier, or display screen in many older model radios, televisions, computers, etc.

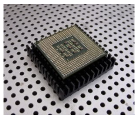
**Transistor** – an electronic component that can be used as an amplifier or as a switch. It is used to control the flow of electricity in radios, televisions, computers, etc.



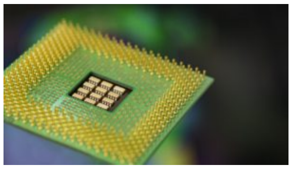
**Integrated circuit (IC)** – a small electronic circuit printed on a chip (usually made of silicon) that contains many its own circuit elements (e.g. transistors, diodes, resistors, etc.).



**Microprocessor** – an electronic component held on an integrated circuit that contains a computer's central processing unit (CPU) and other associated circuits.



**CPU (central processing unit) –** It is often referred to as the brain or engine of a computer where most of the processing and operations take place (CPU is part of a microprocessor).



**Magnetic drum –** a cylinder coated with magnetic material, on which data and programs can be stored.

**Magnetic core –** uses arrays of small rings of magnetized material called cores to store information.

**Machine language –** a low-level programming language comprised of a collection of binary digits (ones and zeros) that the computer can read and understand.

Assembly language is like the machine language that a computer can understand, except that assembly language uses abbreviated words (e.g. ADD, SUB, DIV…) in place of numbers (0s and 1s).

**Memory –** a physical device that is used to store data, information and program in a computer.

**Artificial intelligence (AI) –** an area of computer science that deals with the simulation and creation of intelligent machines or intelligent behave in computers (they think, learn, work, and react like humans).

## First Generation of Computers

### Classification of generations of computers

The evolution of computer technology is often divided into five generations.

**Five Generations of Computers**

| Generations of computers | Generations timeline | Evolving hardware |
|---|---|---|
| First generation | 1940s-1950s | Vacuum tube based |
| Second generation | 1950s-1960s | Transistor based |
| Third generation | 1960s-1970s | Integrated circuit based |
| Fourth generation | 1970s-present | Microprocessor based |
| Fifth generation | The present and the future | Artificial intelligence based |

### The main characteristics of first generation of computers (1940s-1950s)

- Main electronic component – vacuum tube
- Main memory – magnetic drums and magnetic tapes
- Programming language – machine language
- Power – consume a lot of electricity and generate a lot of heat.

- Speed and size – very slow and very large in size (often taking up entire room).
- Input/output devices – punched cards and paper tape.
- Examples – ENIAC, UNIVAC1, IBM 650, IBM 701, etc.
- Quantity – there were about 100 different vacuum tube computers produced between 1942 and1963.

## Second Generation of Computers

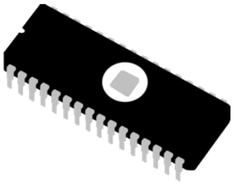
### The main characteristics of second generation of computers (1950s-1960s)

- Main electronic component – transistor
- Memory – magnetic core and magnetic tape / disk
- Programming language – assembly language

- Power and size – low power consumption, generated less heat, and smaller in size (in comparison with the first generation computers).
- Speed – improvement of speed and reliability (in comparison with the first generation computers).
- Input/output devices – punched cards and magnetic tape.
- Examples – IBM 1401, IBM 7090 and 7094, UNIVAC 1107, etc.

## Third Generation of Computers

### The main characteristics of third generation of computers (1960s-1970s)



- Main electronic component – integrated circuits (ICs)
- Memory – large magnetic core, magnetic tape / disk
- Programming language – high level language (FORTRAN, BASIC, Pascal, COBOL, C, etc.)

- Size – smaller, cheaper, and more efficient than second generation computers (they were called minicomputers).
- Speed – improvement of speed and reliability (in comparison with the second generation computers).
- Input / output devices – magnetic tape, keyboard, monitor, printer, etc.
- Examples **–** IBM 360, IBM 370, PDP-11, UNIVAC 1108, etc.

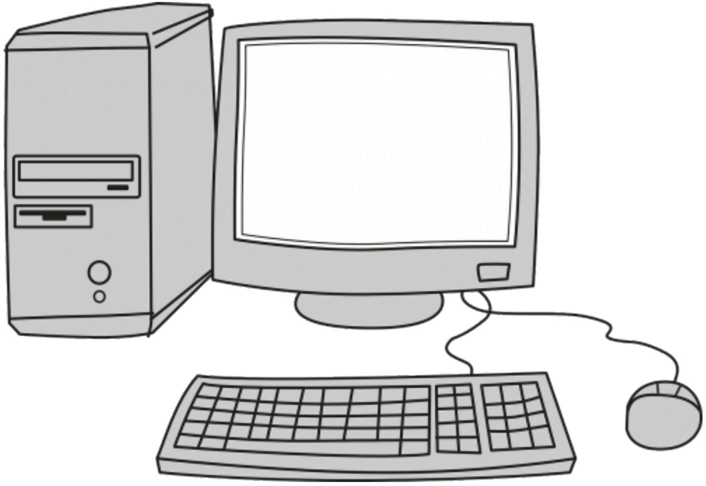
## Fourth Generation of Computers

### The main characteristics of fourth generation of computers (1970s-present)

- Main electronic component – very large-scale integration (VLSI) and microprocessor.
- VLSI– thousands of transistors on a single microchip.
- Memory – semiconductor memory (such as RAM, ROM, etc.)
  - RAM (random-access memory) – a type of data storage (memory element) used in computers that temporary stores of programs and data (volatile: its contents are lost when the computer is turned off).
  - ROM (read-only memory) – a type of data storage used in computers that permanently stores data and programs (non-volatile: its contents are retained even when the computer is turned off).

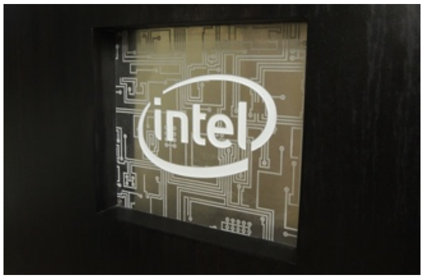
- Programming language – high level language (Python, C#, Java, JavaScript, Rust, Kotlin, etc.).
  - A mix of both third- and fourth-generation languages
- Size – smaller, cheaper and more efficient than third generation computers.
- Speed – improvement of speed, accuracy, and reliability (in comparison with the third generation computers).

- Input / output devices – keyboard, pointing devices, optical scanning, monitor, printer, etc.
- Network – a group of two or more computer systems linked together.
- Examples **–** IBM PC, STAR 1000, APPLE II, Apple Macintosh, etc.



## Fifth Generation of Computers

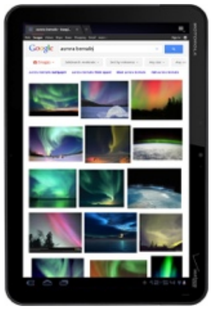
### The main characteristics of fifth generation of computers (the present and the future)



- Main electronic component: based on artificial intelligence, uses the Ultra Large-Scale Integration (ULSI) technology and parallel processing method.
    - **ULSI** – millions of transistors on a single microchip
    - **Parallel processing method** – use two or more microprocessors to run tasks simultaneously.
- Language – understand natural language (human language).
- Power – consume less power and generate less heat.
- Speed – remarkable improvement of speed, accuracy and reliability (in comparison with the fourth generation computers).
- Size – portable and small in size, and have a huge storage capacity.

- Input / output device – keyboard, monitor, mouse, trackpad (or touchpad), touchscreen, pen, speech input (recognise voice / speech), light scanner, printer, etc.
- Example – desktops, laptops, tablets, smartphones, etc.

The computer – this amazing technology went from a government/business-only technology to being everywhere from people's homes, work places, to people's pockets in less than 100 years.



# Topic B: Computer hardware and software

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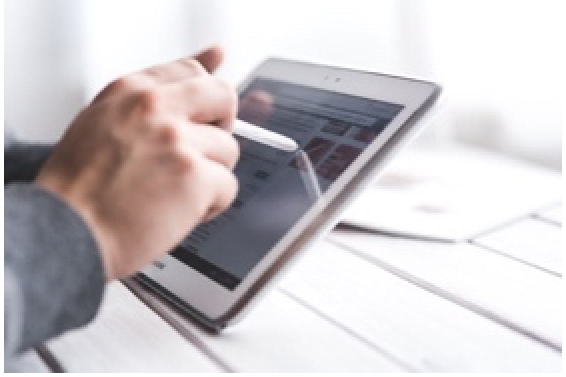
## Computer Hardware Basics

**Hardware** – any physical device or equipment used in or with a computer system (anything you can see and touch).

### External hardware

- **External hardware devices (peripherals)** – any hardware device that is located outside the computer.
- **Input device** – a piece of hardware device which is used to enter information to a computer for processing.
- Examples: keyboard, mouse, trackpad (or touchpad), touchscreen, joystick, microphone, light pen, webcam, speech input, etc.



- **Output device –** a piece of hardware device that receives information from a computer.
- Examples: monitor, printer, scanner, speaker, display screen (tablet, smartphone …), projector, head phone, etc.

### Internal hardware

- **Internal hardware devices (or internal hardware components) –** any piece of hardware device that is located inside the computer.
- Examples: CPU, hard disk drive, ROM, RAM, etc.

## Computer Software Basics

### Computer software

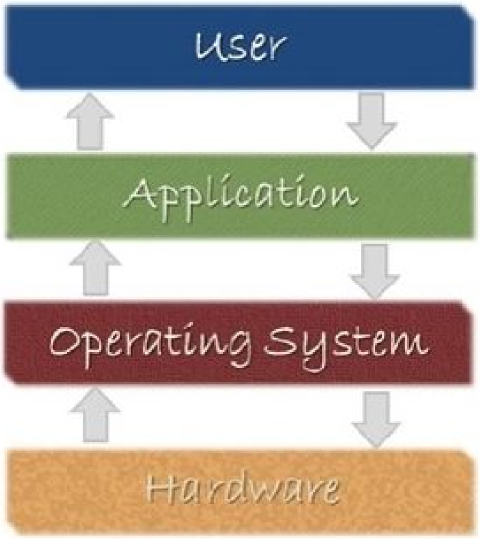
- **Software –** a set of instructions or programs that tells a computer what to do or how to perform a specific task (computer software runs on hardware).
- Main types of software – systems software and application software.

## Application software

- **Application software –** a computer program that provides users with tools to accomplish a specific task.
- Examples of application software: word processing, spreadsheets, presentation, database management, Internet browsers, email programs, media players, accounting, pronunciation, translation, desktop publishing, enterprise, etc.

## System Software

**System software –** it is designed to run a computer's hardware and application software, and make the computer system available for use. It serves as the interface between hardware, application software, and the user.



- Main functions of system software – allocating system resources, managing storage space, storing and retrieval of files, providing security, etc.
- Main types of systems software – operating system, device driver, utility software, programming software, etc.

**Operating system (OS) –** a software that controls and coordinates the computer hardware devices and runs other software and applications on a computer. It is the main part of system software and a computer will not function without it.

- Main functions of an operating system – booting the computer, managing system resources (CPU, memory, storage devices, printer, etc.), managing files, handling input and output, executing and providing services for application software, etc.
- Examples of operating system: Microsoft Windows, Apple iOS, Android OS, macOS, Linux, etc.

**Device driver –** a software program that is designed to control a particular hardware device that is attached to a computer.

- The main purpose of device driver – it acts as a translator between the hardware device and operating systems or applications that use it.
- It instructs computer on how to communicate with the device by translating the operating

system’s instructions into a language that a device can understand in order to perform the necessary task.

- Examples of device driver: printer driver, display driver, USB driver, sound card driver, motherboard driver, ROM driver, etc.

**Utility software –** a type of system software that helps set up, analyze, configure, strengthen, maintain a computer and performs a very specific task (e.g. antivirus software, backup software, memory tester, screen saver, etc.).

# Unit 7: Self-test

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Find answers to this self-test at the back of the book: [Answers for Self-Tests]()

## True or false

1. A vacuum tube is an electronic device that controls the flow of electrons in a vacuum.
2. A transistor is an electronic component held on an integrated circuit that contains a computer's CPU and other associated circuits.
3. A magnetic drum uses arrays of small rings of magnetized material called cores to store information.
4. Assembly language is like the machine language that a computer can understand, except that assembly language uses abbreviated words in place of numbers.
5. Internal hardware devices are any hardware device that is located outside the computer.
6. Hardware is a set of instructions or programs that tells a computer what to do or how to perform a specific task.
7. Operating system (OS) is a software that controls and coordinates the computer hardware devices and runs other software and applications on a computer. It is the main part of system software and the computer will not function without it.
8. Utility software is a type of system software that helps set up, analyze, configure, strengthen, maintain a computer and performs a very specific task.

## Fill in the blank

9. A [blank] is an electronic component that can be used as an amplifier or as a switch. It is used to control the flow of electricity in radios, TV, computers, etc.
10. The [blank] is often referred to as the brain or engine of a computer where most of the processing and operations take place.

11. [Blank] is a low-level programming language comprised of a collection of binary digits (ones and zeros) that the computer can read and understand.
12. [Blank] is an area of computer science that dealing with the simulation and creation of intelligent machines or intelligent behave in computers.
13. The [blank] language was used in first generation of computers.
14. An [blank] device is a piece of hardware device which is used to enter information to a computer for processing.
15. [Blank] software is designed to run a computer's hardware and application software, and make the computer system available for use. It serves as the interface between hardware, application software, and the user.
16. A [blank] driver is a software program that is designed to control a particular hardware device that is attached to a computer.

## Multiple choice

17. [Blank] is a small electronic circuit printed on a chip usually made of silicon that contains many its own circuit elements
    a. a microprocessor
    b. a vacuum tube
    c. a transistor
    d. an integrated circuit
18. [Blank] is a cylinder coated with magnetic material, on which data and programs can be stored.
    a. a magnetic core
    b. a vacuum tube
    c. a magnetic drum
    d. an integrated circuit
19. [Blank] is a physical device that is used to store data, information, and program in a computer.
    a. a magnetic core
    b. computer memory
    c. a magnetic drum
    d. an integrated circuit

20. The main electronic component used in first generation of computers was:
    a. transistor
    b. CPU
    c. integrated circuit
    d. vacuum tube
21. Which language was used in second generation of computer?
    a. assemble language
    b. machine language
    c. C++
    d. Java
22. The main electronic component used in fourth generation of computers was:
    a. transistor
    b. CPU
    c. VLSI
    d. vacuum tube

# Unit 8. Operating system

Topic A: Basic pointing actions

- Pointing
- Scrolling
- Laptop touchpad

Topic B: Printer

- Operate a printer
- Get a printer online

Topic C: Basic operations of an operating system

- Files and folders
- Create folders
- Locate files and folders

Topic D: Copy, move, delete, and rename files/folders

- Copy files or folders
- Move files or folders
- Delete and rename files or folders

Unit 8 Self-test

# Topic A: Basic pointing actions

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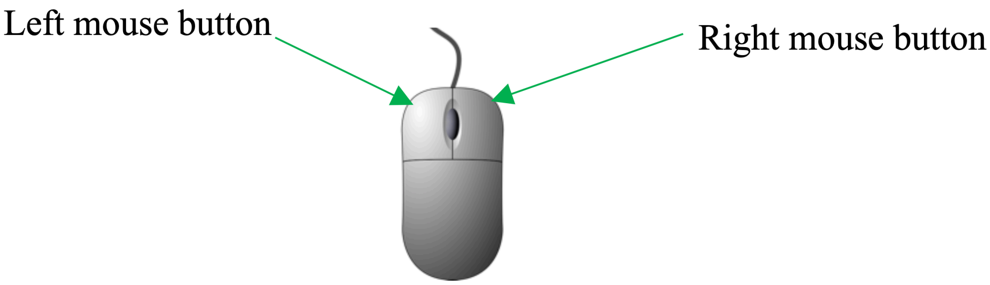
## Pointing

### Point and click

- **Pointing device** – a device used to control the movement of the pointer (cursor) on the screen.
- The major pointing devices in use today are the mouse, trackpad or touchpad (laptop), touch screens, etc.
- **Point and click** – point an object on the screen and then press a button on the mouse to select objects / commands, open menus / hyperlinks (links), or close windows.
- **Double-click** – quickly click the left mouse button twice on any folder, file, or program to open it.



### Left and right click

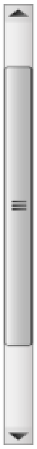
- **Left-click** – press the left mouse button on the left side of the mouse. Left-click is often referred to as “regular-click” and it is used for many common computer tasks, such as selecting objects, closing windows, opening hyperlinks, double-clicking, etc.
- **Right-click** – press the right mouse button on the right side of the mouse to display a popup

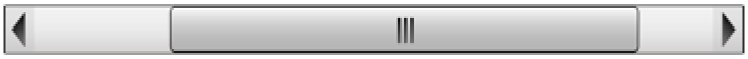
menu showing commands for a selected item.

## Scrolling

### Scroll bar

- **Scrolling** – sliding content (text, images, etc.) vertically or horizontally on a computer screen and allowing the user to view different parts of information in a window.
- **Vertical scroll bar** – a vertical bar on the right side of a window or screen that allows the user to scroll the window viewing area up or down.
- **Horizontal scroll bar** – a horizontal bar on the bottom of a window or screen that allows the user to scroll the window viewing area to the left or right.





### Scrolling

- **Vertical scrolling** – sliding content up or down on a computer screen using a vertical scroll bar.
- **Horizontal scrolling** – sliding content left or right on a computer screen using a horizontal scroll bar.

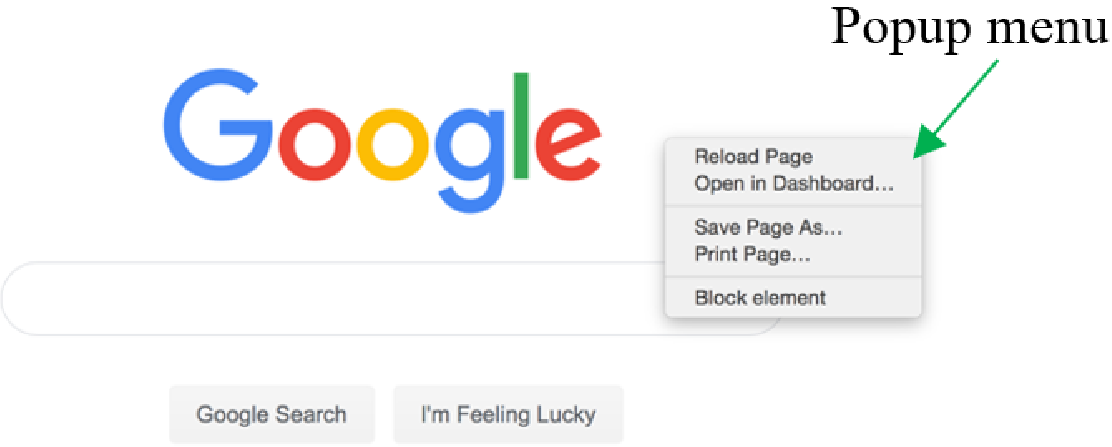
**Drag and drop** – press and hold the left mouse button to grab an object (such as an icon on the desktop) and place it to a different location.

## Laptop Touchpad

**Laptop touchpad (or trackpad)** – an input device for laptop computers that is made up of a flat, touch-sensitive surface. It provides a way to move the cursor around the screen or give an instruction (highlight text, select and open applications, etc.).

## Use a laptop touchpad (or trackpad)

- Tap (click) – point an object on the screen and then tap on the trackpad to select items / commands, open menus / hyperlinks (links), or close windows.
- Double tap (double click) – double tap on the trackpad on any folder, file, program, word, etc. to open / select it.
- Drag and drop – double-tap the trackpad to grab an object and place it to a different location. Example:
  drag the selected text to the new location.
- Right-click – tap two fingers anywhere on the trackpad to display a popup menu showing commands for a selected item.



Popup menu

Google
Reload Page
Open in Dashboard...
Save Page As...
Print Page...
Block element
Google Search
I'm Feeling Lucky

- Scrolling – tap two fingers on the trackpad and slide fingers up or down to scroll.
- Select – swipe in from the left or right of the sentence or word (tap the right or left of the sentence or word and swipe towards the other side).

# Topic B: Printer

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=245*

## Operate a Printer

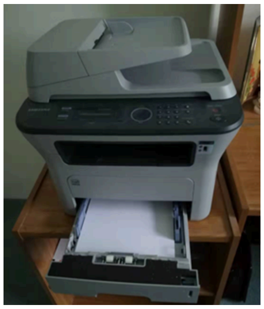
### How to operate a printer

**Printer** – a device that is usually connected to a computer in order to transfer the text and graphic information to paper.

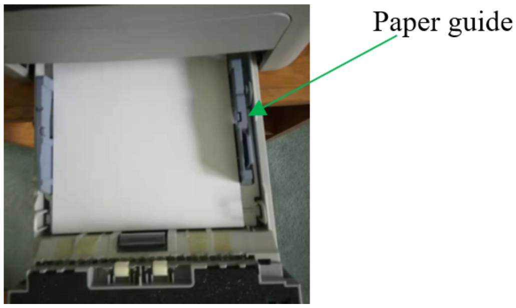
#### Turn on a printer

1. Plug the printer into a working wall outlet.
2. Make sure the power cord is connected to the rear of the printer.
3. Press the Power button on the printer.

#### Load paper in the paper tray



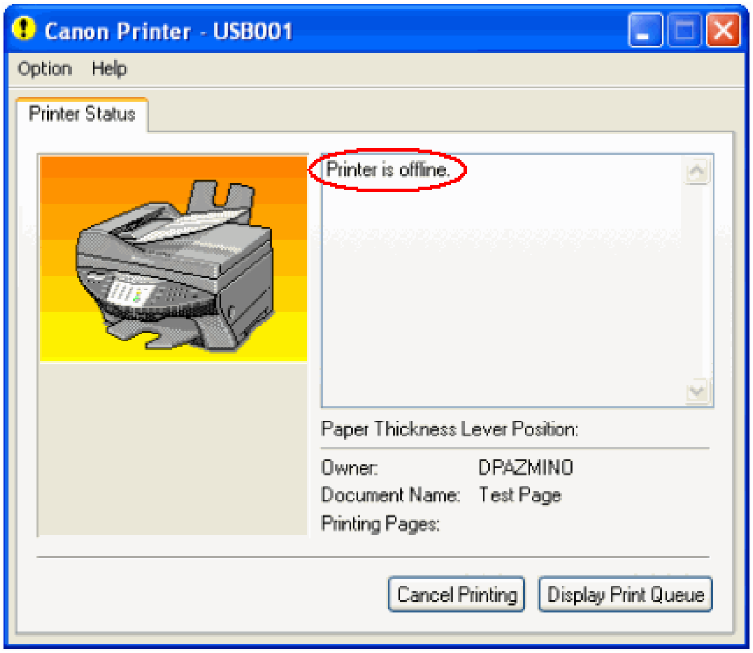
1. Pull the paper tray out.
2. Load paper in the centre paper tray.
3. Adjust the paper guides to fit the paper size (if necessary).


Paper guide

4. Push paper tray completely into the machine.

## Get a Printer Online

If a printer is showing an offline message, it means it can’t communicate with the computer. Bringing a printer online means it can communicate with the computer and it can read and print.


Canon Printer - USB001
Option
Help
Printer Status
Cancel Printing
Display Print Queue

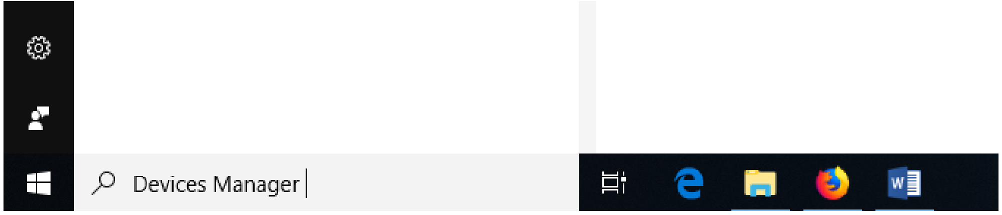
Printer is offline.

Paper Thickness Lever Position:

Owner: DPAZMINO
Document Name: Test Page
Printing Pages:

### Get a printer online

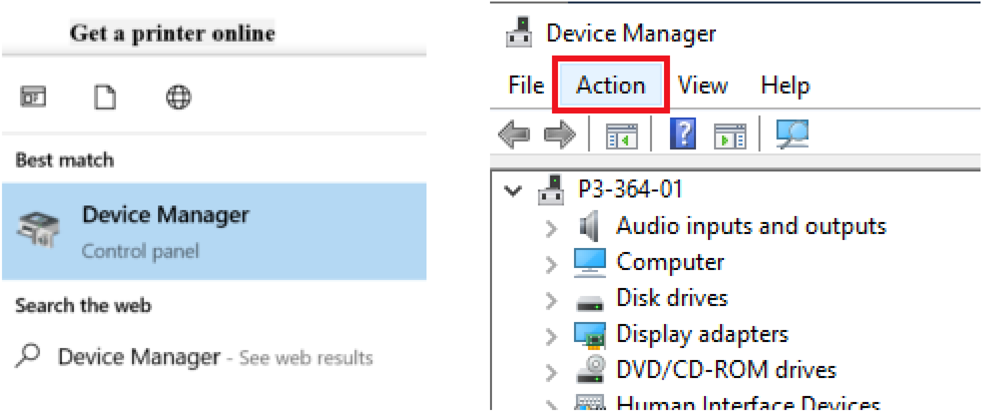
1. Click **Start** button.
2. Type **Devices Manager** in the search box.

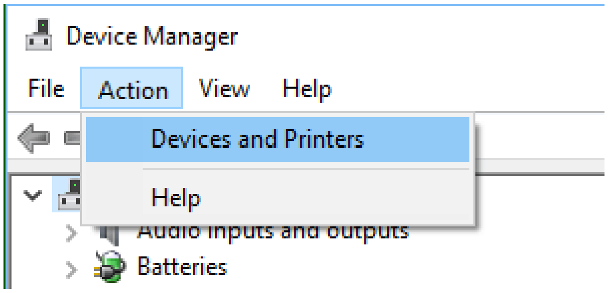


Devices Manager

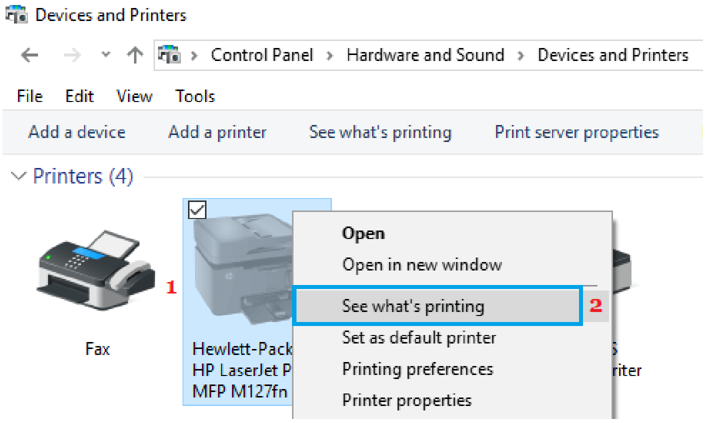
3. Click **Devices Manager.**

4. Click the **Action** tab (in the top-menu).

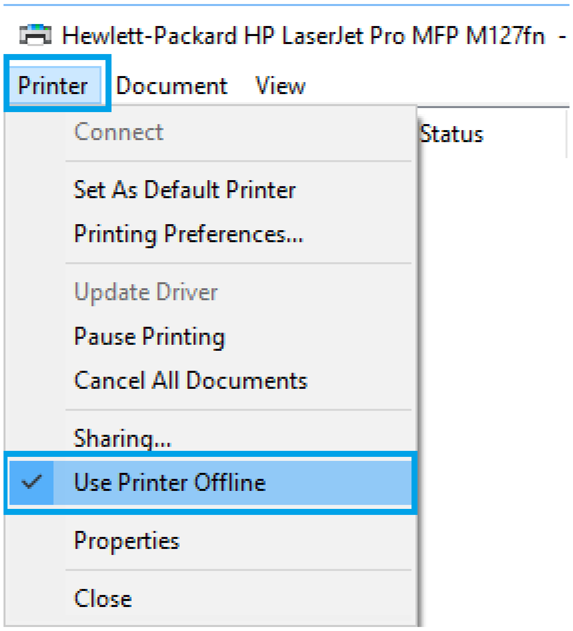

Get a printer online
Best match
Device Manager
Control panel
Search the web
Device Manager - See web results
Device Manager
File
Action
View
Help
P3-364-01
Audio inputs and outputs
Computer
Disk drives
Display adapters
DVD/CD-ROM drives
Human Interface Devices


Device Manager
File
Action
View
Help
Devices and Printers
Help
Audio inputs and outputs
Batteries

5. Click on the **Devices and Printers**.
6. Right-click on the Offline Printer (it appears faded).


Devices and Printers
Control Panel › Hardware and Sound › Devices and Printers
File
Edit
View
Tools
Add a device
Add a printer
See what's printing
Print server properties
Printers (4)
Fax
1
Hewlett-Pack
HP LaserJet P
MFP M127fn
Open
Open in new window
See what's printing
2
Set as default printer
Printing preferences
Printer properties
riter

7. Click on **See what's printing**.
8. Click on the **Use Printer Offline**.


Hewlett-Packard HP LaserJet Pro MFP M127fn -
Printer
Document
View
Status
Connect
Set As Default Printer
Printing Preferences...
Update Driver
Pause Printing
Cancel All Documents
Sharing...
✓ Use Printer Offline
Properties
Close

Read more on [How to Make Printer Online in Windows 10]().

# Topic C: Basic Operations of an Operating System

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=253](https://opentextbc.ca/computerstudies/?p=253)*

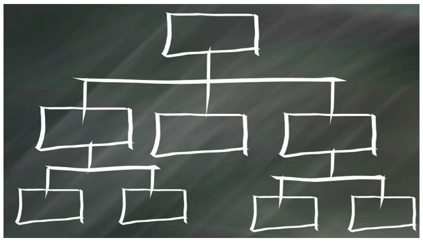
## Files and Folders

### Operating system

- Recall: **operating system (OS)** – a software that controls and coordinates the computer hardware devices and runs other software and applications on a computer. It is the main part of system software and the computer will not function without it.
- Main functions of operating system – booting the computer, managing system resources (CPU, memory, storage devices, printer, etc.), managing files, handling input and output, executing and providing services for application software, etc.
- Examples of operating system: Microsoft Windows, Apple iOS, Android OS, macOS, Linux, etc.

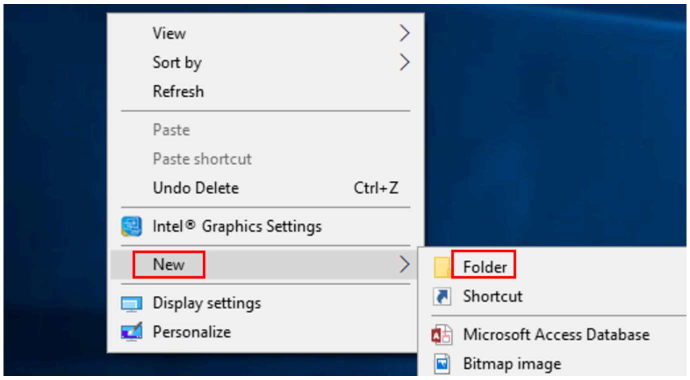
### Files and folders

- **Folder (or directory)** – a virtual storage space used to store and organize computer files.
    - A folder can also contain additional folders (subfolder – a folder within another folder).
    - A folder has a name and is represented by an icon .
- **File** – a storage unit on a computer that stores information or data (such as a document, an image, etc.).
    - Folders contain files.
    - Files have names and are represented by various icons.
- **Filename** – a unique name given to a file to identify it. A filename can contain letters, symbols, numbers, spaces, etc.
- **Files hierarchy** – a file system that organizes folders and files in a top-to-bottom structure.



# Create Folders

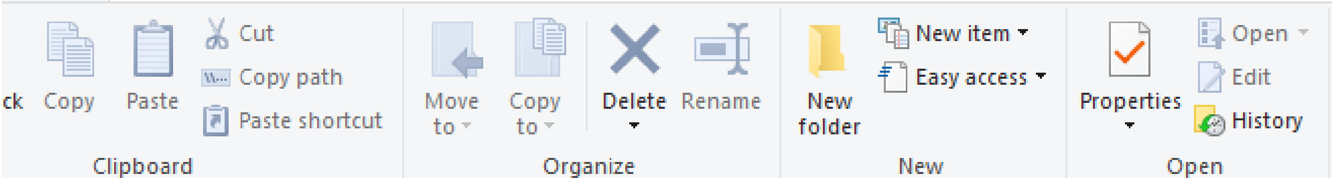
## Right-click to create a new folder (Windows 10)


View
Sort by
Refresh
Paste
Paste shortcut
Undo Delete Ctrl+Z
Intel® Graphics Settings
New
Display settings
Personalize
Folder
Shortcut
Microsoft Access Database
Bitmap image

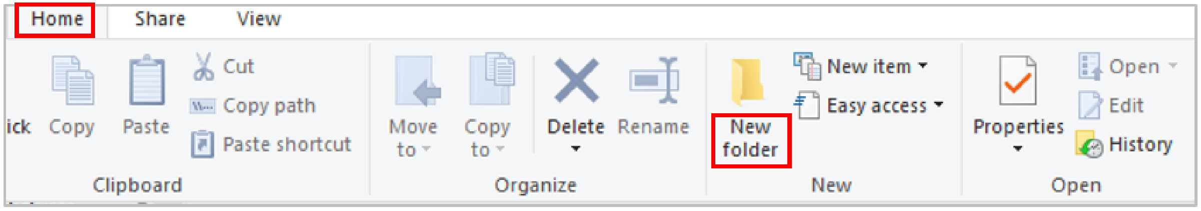
1. Go to the location where you wish to create the folder (Desktop, Documents or anywhere on your computer).
2. Right-click on a blank space (don't right-click on an existing item in the folder).
3. Click or hover over **New**.
4. Click **Folder**.
5. Type a name for the new folder and press **Enter** (on a keyboard).

## Create a new folder from the ribbon menu (Windows 10)

**Ribbon** – a group of buttons and icons (tabs) at the top of the window. It allows users to access the commands that they need to complete a task.


ck
Copy
Paste
Cut
Copy path
Paste shortcut
Clipboard
Move to
Copy to
Delete
Rename
Organize
New folder
New item
Easy access
New
Properties
Open
Edit
History
Open

1. Go to the location where you wish to create the folder (e.g. Documents).
2. Click **Home**.
3. Click **New folder**.
4. Type a name for the new folder and press **Enter** (on a keyboard).


Home
Share
View
ick
Copy
Paste
Cut
Copy path
Paste shortcut
Clipboard
Move to
Copy to
Delete
Rename
Organize
New folder
New item
Easy access
New
Properties
Open
Edit
History
Open

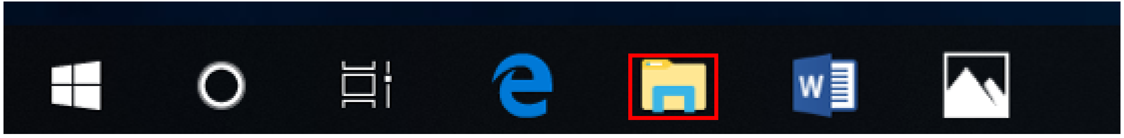
# Locate Files and Folders

## Locate files and folders – search from the taskbar (Windows 10)

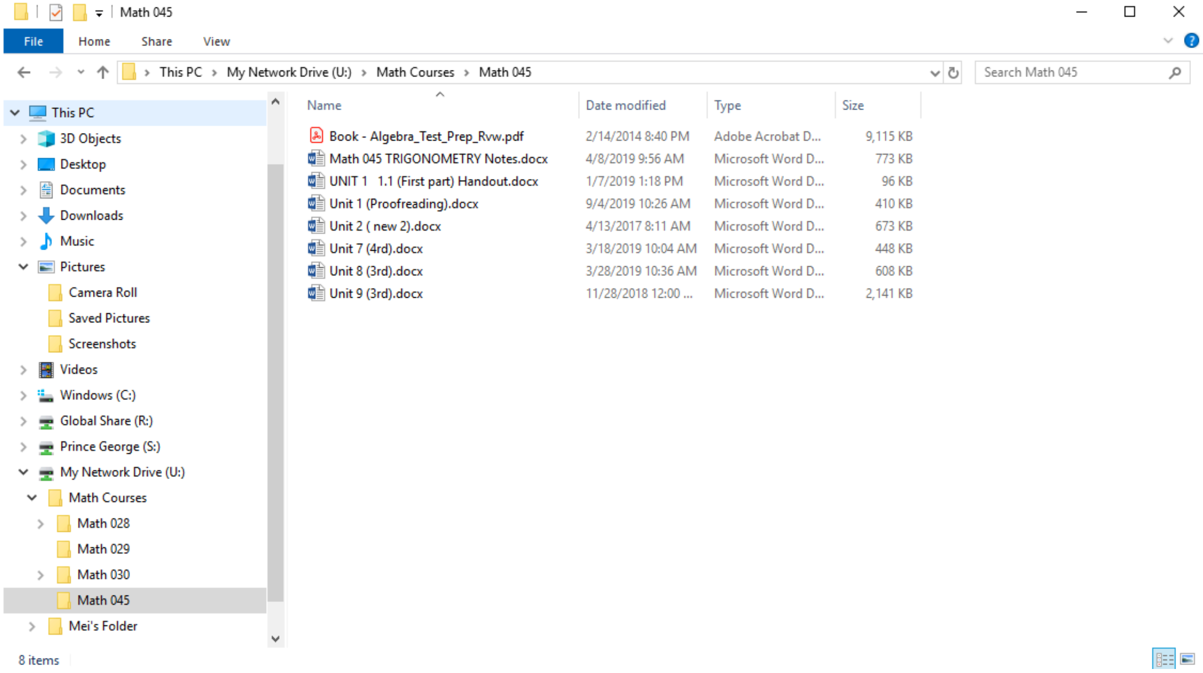
1. Type the name of a file or folder (or a keyword from it) into the Search Box (next to the Start Button).
2. Click the matching file or folder name to open it.

## Locate files and folders – File Explorer option (Windows 10)

1. Click **File Explorer** icon (on the taskbar or Start Menu).



2. Go to the location where stores your file or folder (hard drive, USB, etc.).
3. Click the name of the file or folder you wish to open.
4. Double click the file or folder name.


Math 045
File
Home
Share
View
This PC › My Network Drive (U:) › Math Courses › Math 045
Search Math 045
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Camera Roll
Saved Pictures
Screenshots
Videos
Windows (C:)
Global Share (R:)
Prince George (S:)
My Network Drive (U:)
Math Courses
Math 028
Math 029
Math 030
Math 045
Mei's Folder
8 items

| Name | Date modified | Type | Size |
|---|---|---|---|
| Book - Algebra_Test_Prep_Rvw.pdf | 2/14/2014 8:40 PM | Adobe Acrobat D... | 9,115 KB |
| Math 045 TRIGONOMETRY Notes.docx | 4/8/2019 9:56 AM | Microsoft Word D... | 773 KB |
| UNIT 1 1.1 (First part) Handout.docx | 1/7/2019 1:18 PM | Microsoft Word D... | 96 KB |
| Unit 1 (Proofreading).docx | 9/4/2019 10:26 AM | Microsoft Word D... | 410 KB |
| Unit 2 ( new 2).docx | 4/13/2017 8:11 AM | Microsoft Word D... | 673 KB |
| Unit 7 (4rd).docx | 3/18/2019 10:04 AM | Microsoft Word D... | 448 KB |
| Unit 8 (3rd).docx | 3/28/2019 10:36 AM | Microsoft Word D... | 608 KB |
| Unit 9 (3rd).docx | 11/28/2018 12:00 ... | Microsoft Word D... | 2,141 KB |

# Topic D: Copy, move, delete, and rename files/folders

Click play on the following audio player to listen along as you read this section.

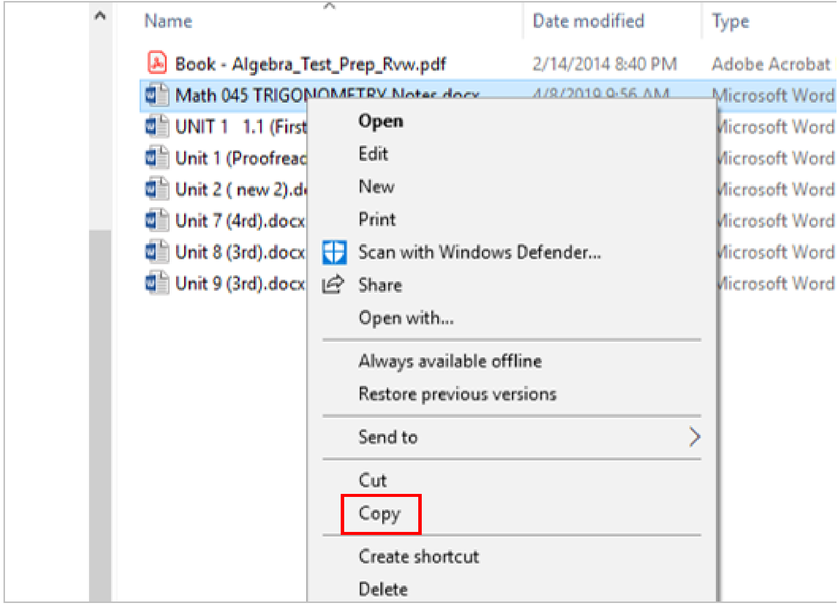
*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=266](https://opentextbc.ca/computerstudies/?p=266)*

## Copy Files or Folders

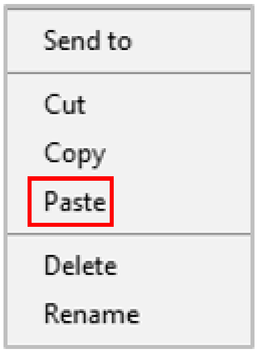
### Copy a file or folder (Windows 10)

#### Method 1: Right-click

1. Click **File Explorer** icon.
2. Go to the location where stores your file or folder (hard drive, USB, etc.).
3. Click the name of the file or folder you wish to copy.
4. Right-click the highlighted file or folder and click **Copy**.

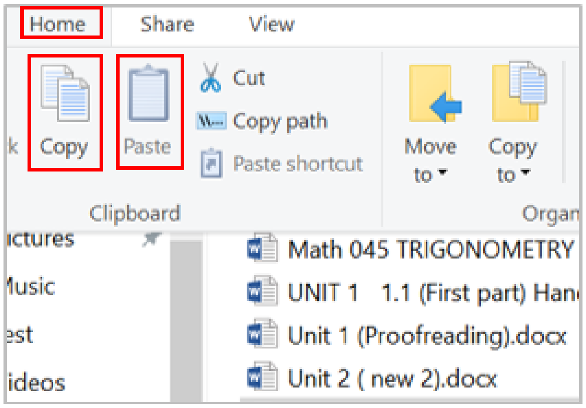

Name
Date modified
Type
Book - Algebra_Test_Prep_Rvw.pdf
2/14/2014 8:40 PM
Adobe Acrobat
Math 045 TRIGONOMETRY Notes.docx
Microsoft Word
UNIT 1 1.1 (First
Unit 1 (Proofreac
Unit 2 ( new 2).d
Unit 7 (4rd).docx
Unit 8 (3rd).docx
Unit 9 (3rd).docx
Open
Edit
New
Print
Scan with Windows Defender...
Share
Open with...
Always available offline
Restore previous versions
Send to
Cut
Copy
Create shortcut
Delete

5. Go to the destination folder, right-click the destination folder and click **Paste**.


Send to
Cut
Copy
Paste
Delete
Rename

**Method 2: Ribbon toolbar commands**

1. Click **File Explorer** icon.
2. Go to the location where stores your file or folder (hard drive, USB, etc.).
3. Click the name of the file or folder you wish to copy.
4. Click the **Home** tab at the top (on the ribbon).
5. Click the **Copy** button.
6. Go to the destination location, click the **Home** tab.
7. Click the **Paste** button.

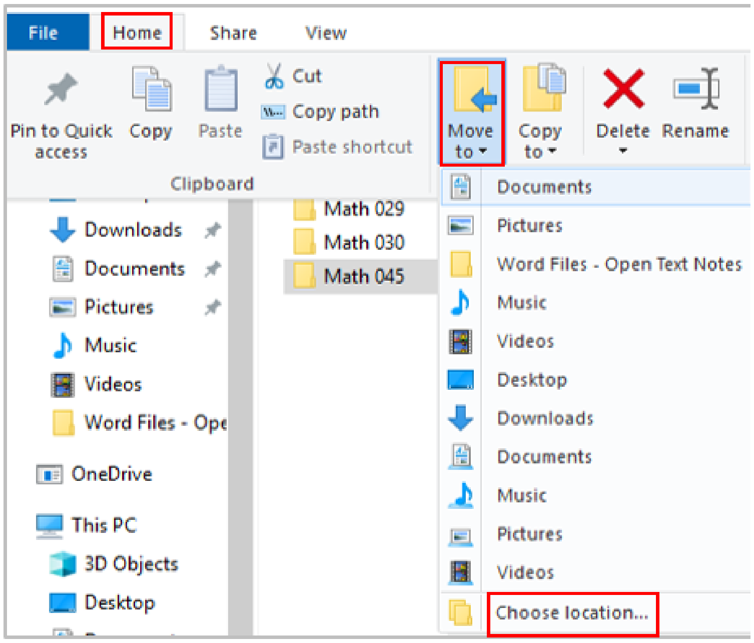

Home
Share
View
Copy
Paste
Cut
Copy path
Paste shortcut
Move to
Copy to
Clipboard
Organ
ictures
Ausic
est
ideos
Math 045 TRIGONOMETRY
UNIT 1 1.1 (First part) Han
Unit 1 (Proofreading).docx
Unit 2 ( new 2).docx

## Move Files or Folders

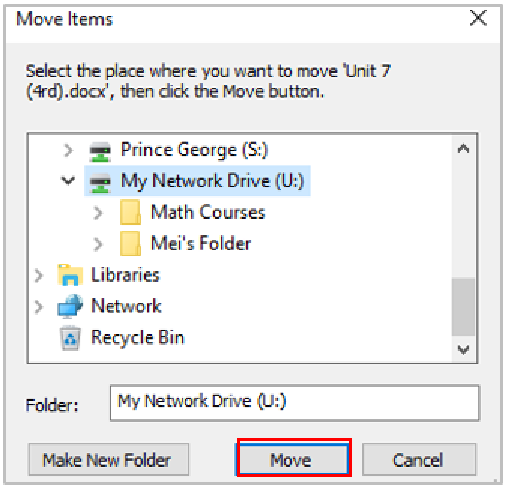
### Move a file or folder (Windows 10)

**Method 1**

1. Click **File Explorer** icon.
2. Go to the location where stores your file or folder (hard drive, USB, etc.).
3. Click the name of the file or folder you wish to move.
4. Click the **Home** tab at the top (on the ribbon).


File
Home
Share
View
Pin to Quick access
Copy
Paste
Cut
Copy path
Paste shortcut
Clipboard
Move to
Copy to
Delete
Rename
Downloads
Documents
Pictures
Music
Videos
Word Files - Ope
OneDrive
This PC
3D Objects
Desktop
Math 029
Math 030
Math 045
Documents
Pictures
Word Files - Open Text Notes
Music
Videos
Desktop
Downloads
Documents
Music
Pictures
Videos
Choose location...

5. Click the **Move to** button.
6. Click **Choose Location** (if you don't find the right spot on the drop-down menu).
7. Go to the location you want to move for this folder.
8. Click **Move**.


Move Items
Prince George (S:)
My Network Drive (U:)
Math Courses
Mei's Folder
Libraries
Network
Recycle Bin
Make New Folder
Move
Cancel

Select the place where you want to move 'Unit 7 (4rd).docx', then click the Move button.

Folder: My Network Drive (U:)

### Method 2

1. Click **File Explorer** icon.
2. Go to the location where stores your file or folder.
3. Click the name of the file or folder you wish to move.
4. Hold down the right mouse button and drag the file or folder to the location you wish to move.

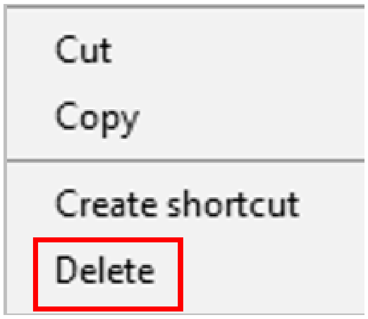
### Difference between copying and moving files / folders

- **Copying** – make a duplicate of the selected file or folder and place it in another location.
- **Moving** – move the original files or folder from one place to another (change the destination).
- The move deletes the original file or folder, while copy creates a duplicate.

## Delete and Rename Files or Folders

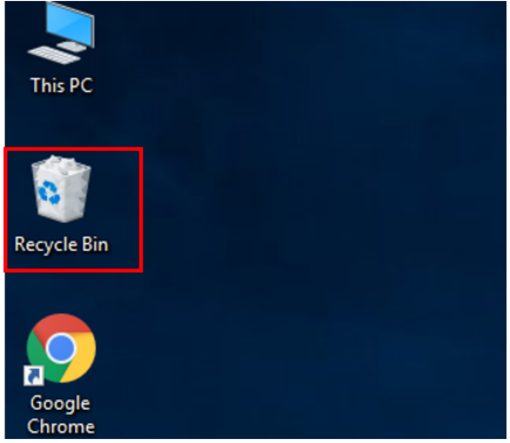
### Delete a file or folder (Windows 10)

1. Click **File Explorer** icon.
2. Go to the location where stores your file or folder.
3. Click the name of the file or folder you wish to delete.
4. Press the **delete** key (on the keyboard) or right click the file or folder and click **Delete**.

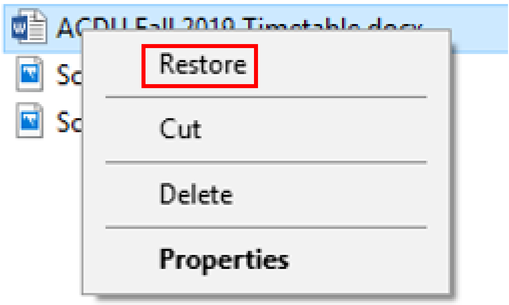


### Recover a deleted file or folder

1. Go to Desktop and click the **Recycle Bin.**



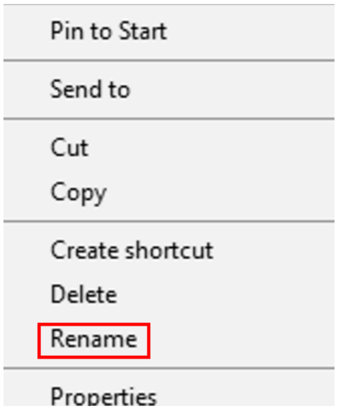
2. Right-click the name of the file or folder (that you wish to recover). …
3. Click **Restore**. (The file or the folder will be restored to its original location.)



### Rename files or folders

1. Click **File Explorer** icon.

2. Go to the location where stores your file or folder.
3. Right click the name of the file or folder you wish to rename.
4. Click **Rename** (on the menu that opens up).
5. Type a new name for the file and press Enter.


Pin to Start
Send to
Cut
Copy
Create shortcut
Delete
Rename
Properties

Note:

- If a file is in use, Windows will not allow you to rename the file.
- Do not change the file extension of a file when renaming the file (file extensions often indicate the file type, file format, etc.).

# Unit 8: Self-test

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=267*

Find answers to this self-test at the back of the book: Answers for Self-Tests

## True or false

1. A pointing device is a device used to control the movement of the keyboard on the screen.
2. Point and click – point an object on the screen and then press a button on the mouse to select objects / commands, open menus / hyperlinks, or close windows.
3. Scrolling – sliding content vertically or horizontally on the keyboard and allowing the user to view different parts of information in a window.
4. Tap (click) – point an object on the screen and then tap on the trackpad to select items / commands, open menus / hyperlinks, or close windows.
5. If a printer is showing an offline message, it means it can communicate with the computer.
6. A folder cannot contain additional folders.
7. The copy deletes the original file or folder, while move creates a duplicate.

## Fill in the blank

8. The major pointing devices in use today are the mouse, trackpad or [blank], touch screens, etc.
9. Drag and drop – press and hold the [blank] mouse button to grab an object and place it to a different location.
10. A laptop trackpad is an input device for laptop computer that is made up of a flat, [blank]-sensitive surface. It provides a way to move the cursor around the screen or give an instruction.
11. Drag and [blank] – double-tap the trackpad to grab an object and place it to a different location.

12. A printer is an [blank] device linked to a computer. It transfers the information to paper.
13. Files have names and are represented by various [blank].
14. Files [blank]– a file system that organizes folders and files in a top-to-bottom structure.

## Multiple choice

16. [Blank]-click – quickly click the left mouse button twice on any folder, file, or program to open it.
    a. right
    b. double
    c. left
    d. all of the above
17. Horizontal scrolling – sliding content [blank] on a computer screen using a horizontal scroll bar.
    a. right
    b. up and down
    c. left or right
    d. all of the above
18. Double tap – double tap on the [blank] on any folder, file, program, word, etc. to open / select it.
    a. keyboard
    b. trackpad
    c. screen
    d. all of the above
19. [Blank] – tap two fingers anywhere on the trackpad to display a popup menu showing commands for a selected item.
    a. right-click
    b. up-click
    c. left-click
    d. double-click
20. Main functions of operating system:
    a. managing system resources
    b. handling input and output
    c. booting the computer
    d. all of the above

21. Examples of operating system:
    a. Apple iOS
    b. Linux
    c. Windows
    d. all of the above

22. A filename can contain:
    a. spaces
    b. numbers
    c. letters
    d. all of the above
23. A [blank] is a group of buttons and icons at the top of the window. It allows users to access the commands that they need to complete a task.
    a. tab
    b. ribbon
    c. menu
    d. all of the above

# Unit 9. Basic word processing skills

Topic A: Basic word processing

- Create and edit a document
- Select and delete text
- Copy and paste

Topic B: Save, retrieve, and print files

- Save and retrieve files
- Print files
- Check spelling and grammar
- Find synonyms

Topic C: Margins and alignment

- Formatting and page layout
- Document margins
- Text justification and alignment

Topic D: Formatting

- Bold, italic, and underline
- Line spacing
- Use help features

Unit 9 Self-test

# Topic A: Basic word processing

Click play on the following audio player to listen along as you read this section.

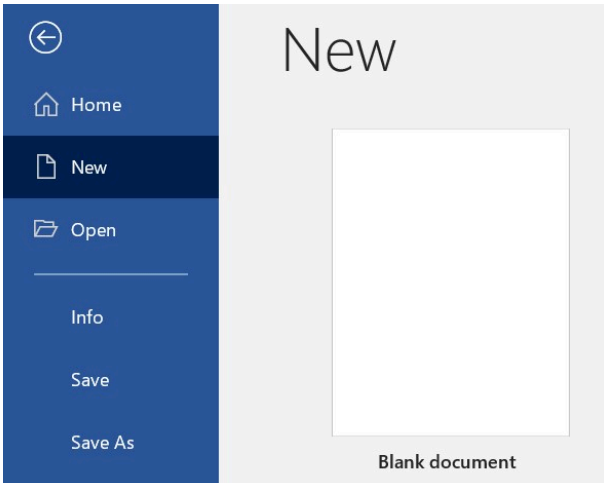
*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=281](https://opentextbc.ca/computerstudies/?p=281)*

**Word processing** – the use of a program (software application) running on a computer that allows users to create, edit, format, and store documents.

## Create a Document

Steps to create a new word processing document (Word, Office 365):

1. Start **Microsoft Word**.
2. Click the **File** tab.
3. Click the **New** tab.
4. Click **Blank document**. (A new blank document appears.)
5. Type your text. The text you type will be inserted into the document.



## Edit a Document

**Editing a document** – making revisions to a document, focusing on correcting errors, improving the accuracy of language, rearranging, making words and sentences clearer and more effective, etc.

Editing in word processing may include the following tasks:

- Adding text (terms, phrases, paragraphs, etc.)
- Deleting a part of a text
- Copying text

- Moving text
- Pasting text
- Checking for grammar and spelling
- Formatting text

## Select Text

Before editing text, you'll need to select it. This is also sometimes called "highlighting text."

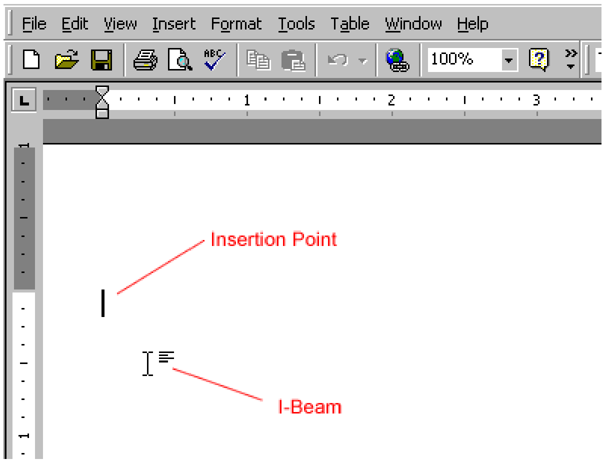
1. Click File Explorer icon.
2. Go to the location where stores your file or folder (hard drive, USB, etc.).
3. Open the document you wish to edit.
4. Move the I-beam pointer to where you wish to select text.
    1. To select a word: double-click the word.
    2. To select an entire line of text: move the I-beam to the left of the line until it turns into a right-pointing arrow ↗, then click.
    3. To select a paragraph: triple-click the paragraph.
    4. To select any amount of text: click and drag the I-beam over the text to highlight it.
    5. To select an entire document: move the I-beam to the left of any text until it turns into a right-pointing arrow ↗, then triple-click. Or click the **Home** tab, under **Editing**, click **Select**, and then click **Select All**.

## Delete (or remove) text

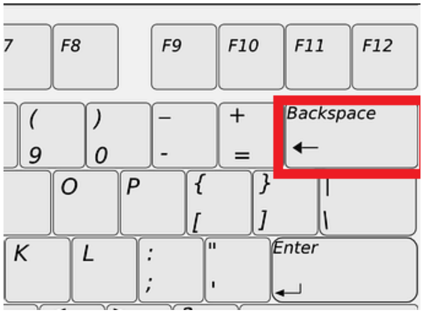
### Method 1

1. Select the text you wish to delete.
2. Press the **Delete** key (on the keyboard).

### Method 2


File Edit View Insert Format Tools Table Window Help
100%
Insertion Point
I-Beam

1. Move the I-beam pointer to the text you want to delete. Click to set the insertion point there (a blinking vertical line).
2. To delete text to the left of the insertion point, press the **Backspace** key on the keyboard. (On a Mac keyboard, press the **Delete** key.)


F8
F9
F10
F11
F12
Backspace
Enter

3. To delete text to the right of the insertion point, press the **Delete** key on the keyboard. (On a Mac keyboard, press the **fn** key plus the **Delete** key.)

## Copy and Paste

### Copy vs. cut

- **Copy** – duplicates the selected item (text, symbol, table, image, etc.).
- **Cut** – removes the selected item from its original position.

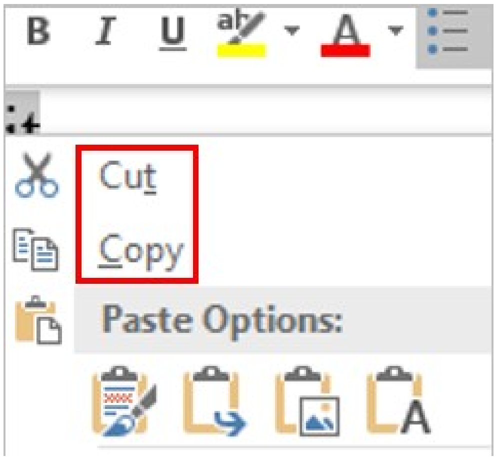
### Copy and paste vs. cut and paste

- Copy and paste – duplicates the selected item. The selected item can be found in both original and the new, pasted location(s).
- Cut and paste – duplicates the selected item then deletes the original. The selected data can be found only at the new, pasted location (the item has moved from one location to another).

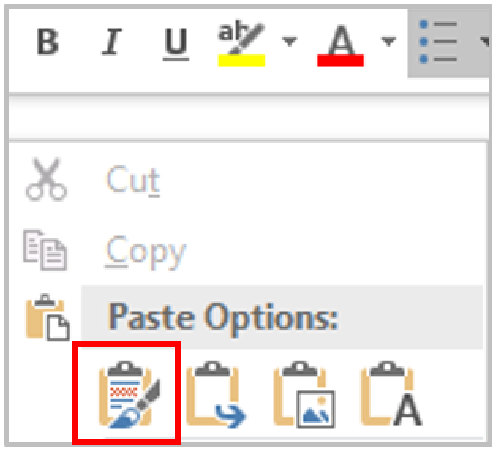
## Steps to copy / cut and paste

### Method 1

1. Open the document you wish to edit.
2. Select the item you wish to **Copy** or **Cut**.
3. Right-click the highlighted item and click **Copy** or **Cut**. You can also use your keyboard:
    a. Copy: **Cntr** + **c** (On a Mac, it is **Cmd** + **c**)
    b. Cut: **Cntr** + **x** (On a Mac, it is **Cmd** + **x**)



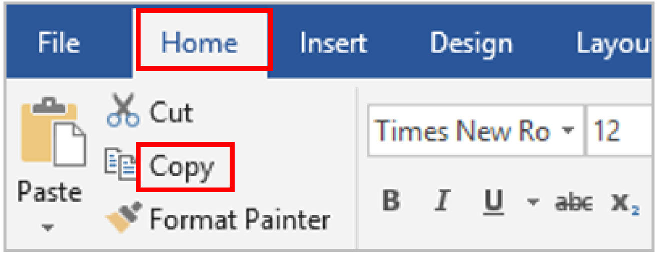
4. Position the insertion point where you wish to insert the item.
5. Right-click and click the **Paste** icon. You can also use your keyboard by pressing **Cntr** + **v** (On a Mac, it is **Cmd** + **v**).



### Method 2

1. Open the document you wish to edit.
2. Select the item you wish to copy or cut.

3. Click the **Home** tab at the top (on the ribbon). Click the **Copy** button.


File
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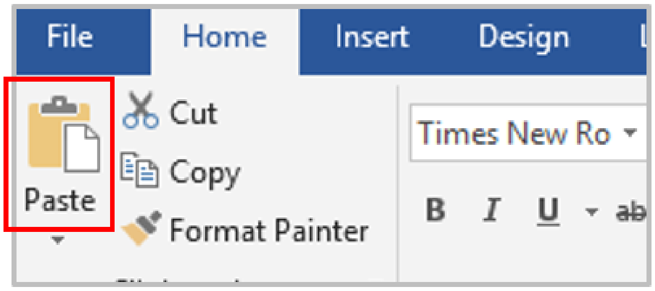
4. Position the insertion point where you wish to insert the item.
5. Under the **Home** tab at the top, click the **Paste** button.


File
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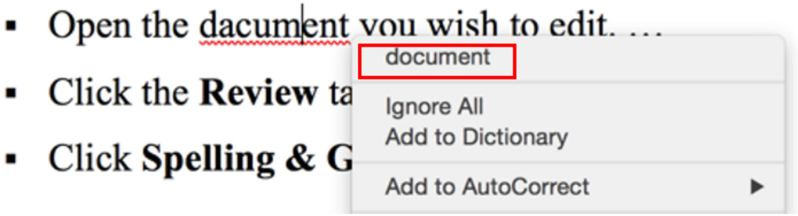
## Review a Document

### Check Spelling and Grammar

#### Method 1

1. Open the document you wish to edit.
2. Right-click a word that is underlined with a wavy line (that indicates a misspelled word).



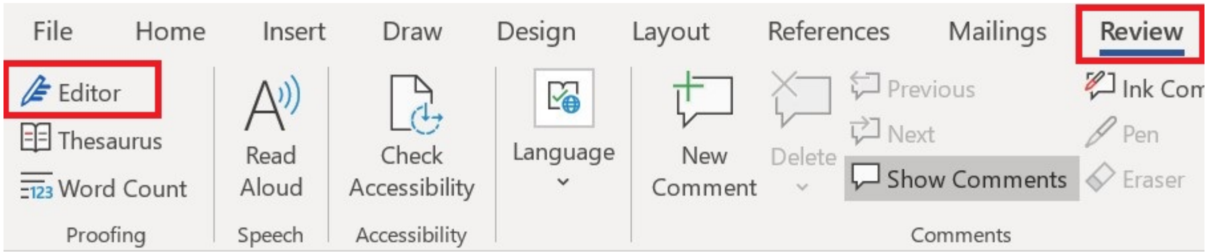
- Open the dacument you wish to edit. …
- Click the **Review** ta
- Click **Spelling & G**

document
Ignore All
Add to Dictionary
Add to AutoCorrect

3. Select the correct spelling from the suggestion list to correct the spelling error. For each error, Word will offer one or more suggestions.

#### Method 2

1. Open the document you wish to edit.
2. Click the **Review** tab.
3. Click the **Editor** button (it may also say, “Spelling and Grammar”). If the program finds spelling errors, the Spelling & Grammar pane will appear.

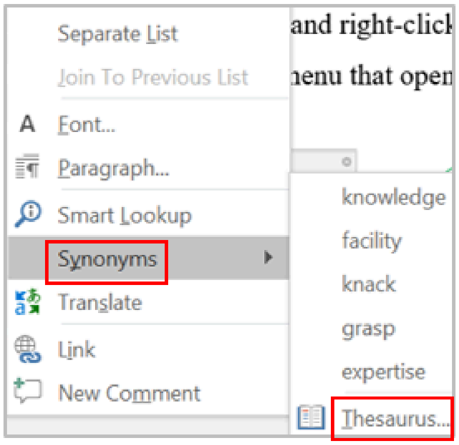

File
Home
Insert
Draw
Design
Layout
References
Mailings
Review
Editor
Thesaurus
Word Count
Proofing
Read Aloud
Speech
Check Accessibility
Accessibility
Language
New Comment
Delete
Previous
Next
Show Comments
Comments
Ink Com
Pen
Eraser

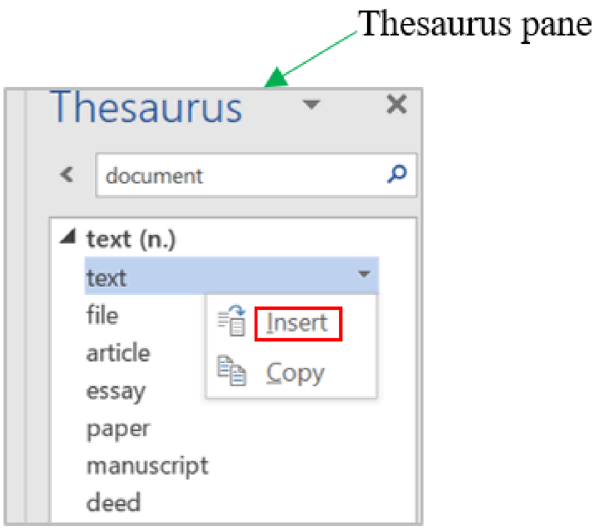
4. Click one of the options from the **suggestion** list to change the spelling error. The program will move to the next misspelled word.

## Find Synonyms

### Method 1

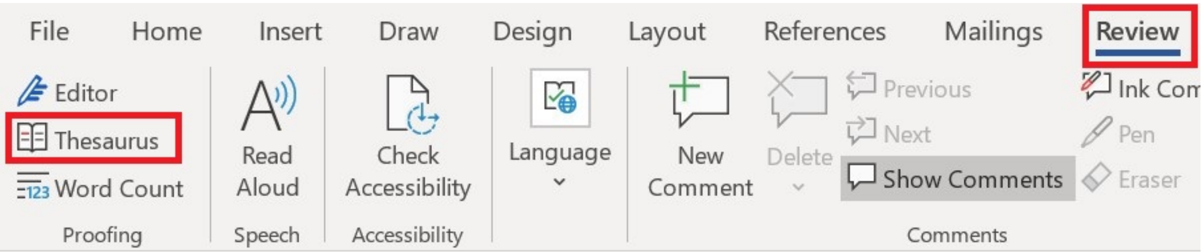
1. Open the document you wish to edit.
2. Right-click a word for which you wish to find a synonym for.
3. Click the **Synonyms** command from the pop-out menu.
4. Find a desired word in the list and click it to replace the original word.
5. If none of the synonyms are desired, click the **Thesaurus** command to open the full thesaurus. (The Thesaurus pane will appear.)
6. Find a desired word in the Thesaurus pane list and right-click it and then click **Insert**.
7. Close the Thesaurus pane.


Separate List
Join To Previous List
Font...
Paragraph...
Smart Lookup
Synonyms
Translate
Link
New Comment
knowledge
facility
knack
grasp
expertise
Thesaurus...
and right-click
nenu that open


Thesaurus pane
Thesaurus
document
text (n.)
text
file
article
essay
paper
manuscript
deed
Insert
Copy

### Method 2

1. Open the document you wish to edit.
2. Select a word for which you wish to use the thesaurus.
3. Click the **Review** tab.
4. Click the **Thesaurus** button.


File
Home
Insert
Draw
Design
Layout
References
Mailings
Review
Editor
Thesaurus
Word Count
Proofing
Read Aloud
Speech
Check Accessibility
Accessibility
Language
New Comment
Delete
Previous
Next
Show Comments
Comments
Ink Com
Pen
Eraser

5. Find a desired word in the “Thesaurus” pane and right-click it and then click **Insert**.
6. Close the Thesaurus pane.

# Topic B: Save, retrieve, and print documents

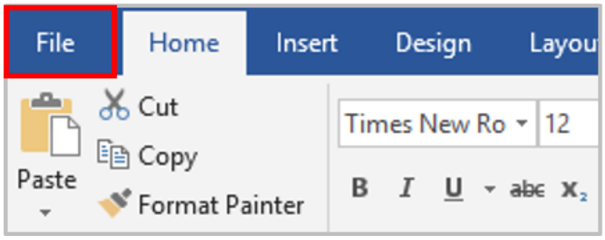
Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=289](https://opentextbc.ca/computerstudies/?p=289)*

## Save and Retrieve Documents

### Save a new document or save a file to a specific location (Windows 10)

1. Click the **File** tab.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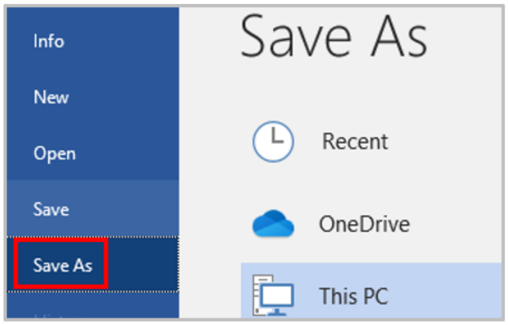
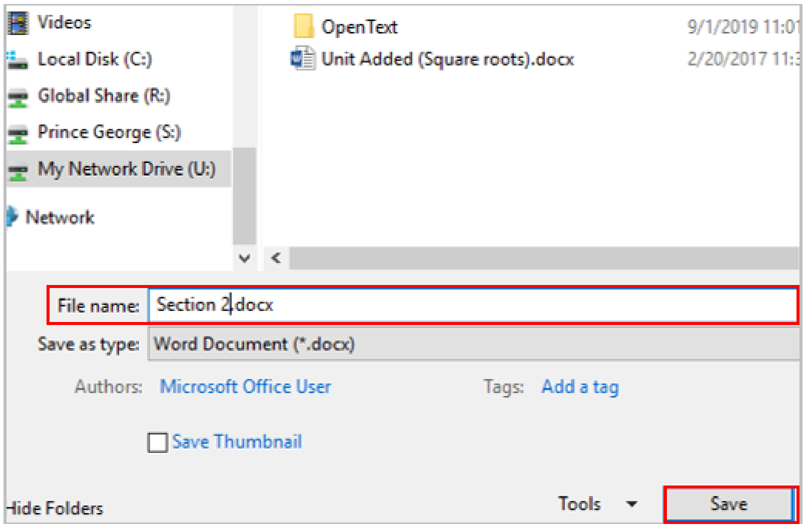
2. Click the **Save As** command.


Info
New
Open
Save
Save As
Save As
Recent
OneDrive
This PC

3. Choose a location on your computer (the drive and folder) to save your file.
4. Type a name for your document in the File Name box.
5. Click the **Save** button.


Videos
Local Disk (C:)
Global Share (R:)
Prince George (S:)
My Network Drive (U:)
Network
OpenText
9/1/2019 11:01
Unit Added (Square roots).docx
2/20/2017 11:3
Tags: Add a tag
☐ Save Thumbnail
Hide Folders
Tools
Save

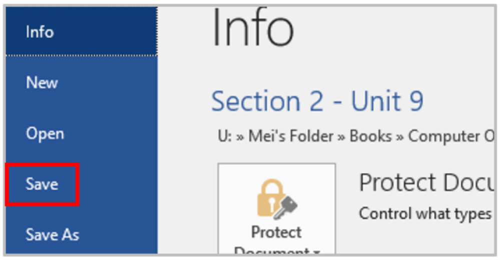
File name: Section 2.docx

Save as type: Word Document (*.docx)

Authors: Microsoft Office User

## Save an existing file in its current location

1. Click the **File** tab.
2. Click the **Save** command.
3. Or click the Save button icon.


Info
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Open
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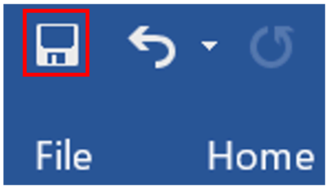
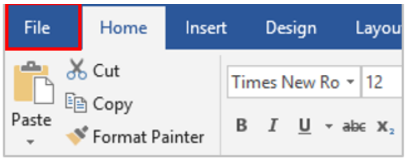
Section 2 - Unit 9
U: » Mei's Folder » Books » Computer O
Protect Document
Protect Docu
Control what types



## Retrieve a file from a specific location

1. Start **Word**.
2. Click the **File** tab.
3. Click **Open** command.
4. Choose the location on the computer that stores your file (the drive and folder).
5. Click the name of the file you wish to open.
6. Click **Open** or double click the file name.


File
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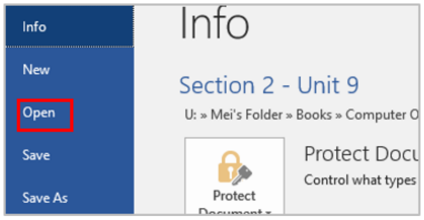
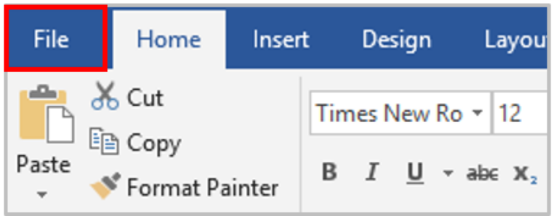

Info
New
Open
Save
Save As
Info
Section 2 - Unit 9
U: » Mei's Folder » Books » Computer O
Protect Document
Protect Docu
Control what types

## Print a Document

**Printer** – a device that is usually connected to a computer in order to transfer the text and graphic information to paper.

How to print a document in Microsoft Word:

1. Load paper in the paper tray if needed.
2. Press the Power button to turn the printer on.
3. Choose the location on the computer that stores your file (the drive and folder).
4. Open the file you wish to print.


File
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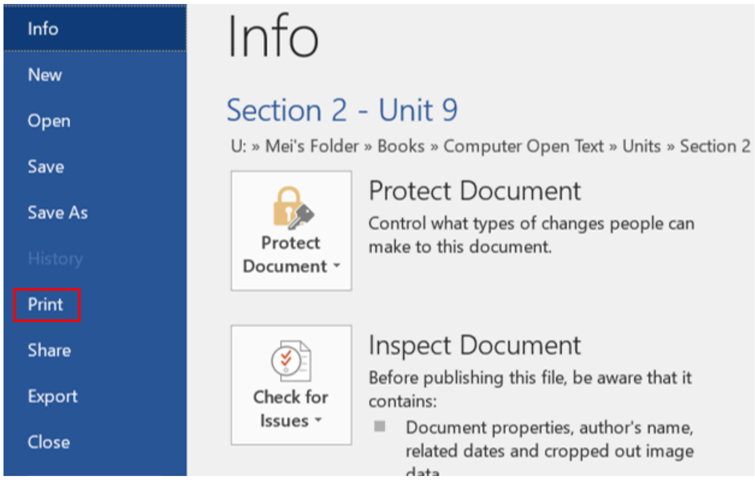
5. Click the **File** tab.


Info
New
Open
Save
Save As
History
Print
Share
Export
Close
Info
Protect Document
Check for Issues

Section 2 - Unit 9

U: » Mei's Folder » Books » Computer Open Text » Units » Section 2

Protect Document

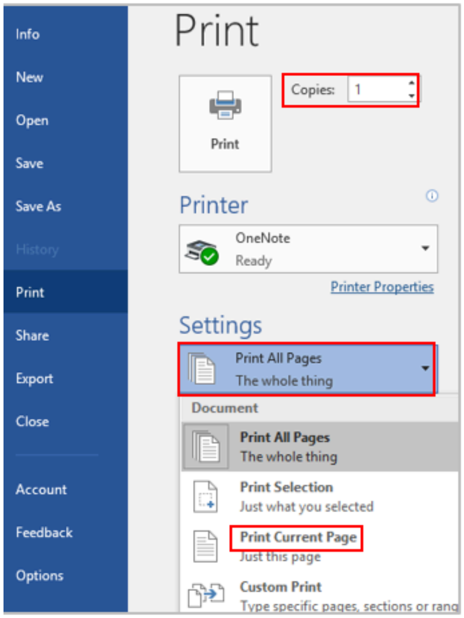
Control what types of changes people can make to this document.

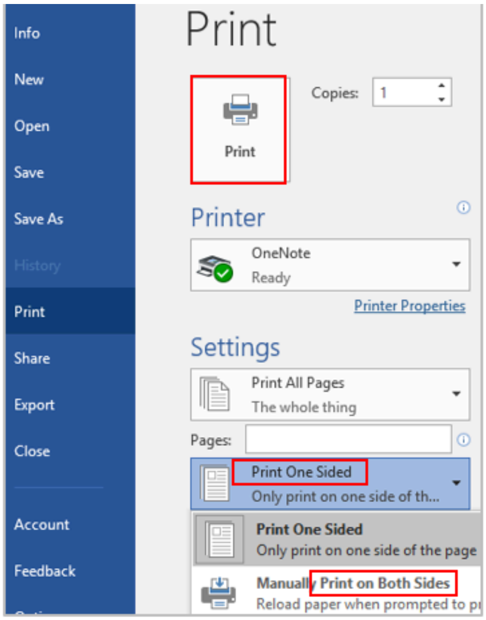
Inspect Document

Before publishing this file, be aware that it contains:

- Document properties, author's name, related dates and cropped out image data

6. Click the **Print** command.
7. Select the print options. Here, you can select:
    - How many copies you would like
    - Which pages you want to be printed. You can choose to print all pages, select pages (for example, page 3 to 6), or just the current page (meaning the page that is open on the screen).
    - If the printer should print on one side of the page or both sides.


Info
New
Open
Save
Save As
History
Print
Share
Export
Close
Account
Feedback
Options
Print
Print
Copies: 1
Printer
OneNote
Ready
Printer Properties
Settings
Print All Pages
The whole thing
Document
Print All Pages
The whole thing
Print Selection
Just what you selected
Print Current Page
Just this page
Custom Print
Type specific pages, sections or rang


Info
New
Open
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Save As
History
Print
Share
Export
Close
Account
Feedback
Print
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Printer
OneNote
Ready
Printer Properties
Settings
Print All Pages
The whole thing
Pages:
Print One Sided
Only print on one side of th...
Print One Sided
Only print on one side of the page
Manually Print on Both Sides
Reload paper when prompted to pı

8. Click **Print** to start the printing process.

# Topic C: Margin and alignment

Click play on the following audio player to listen along as you read this section.

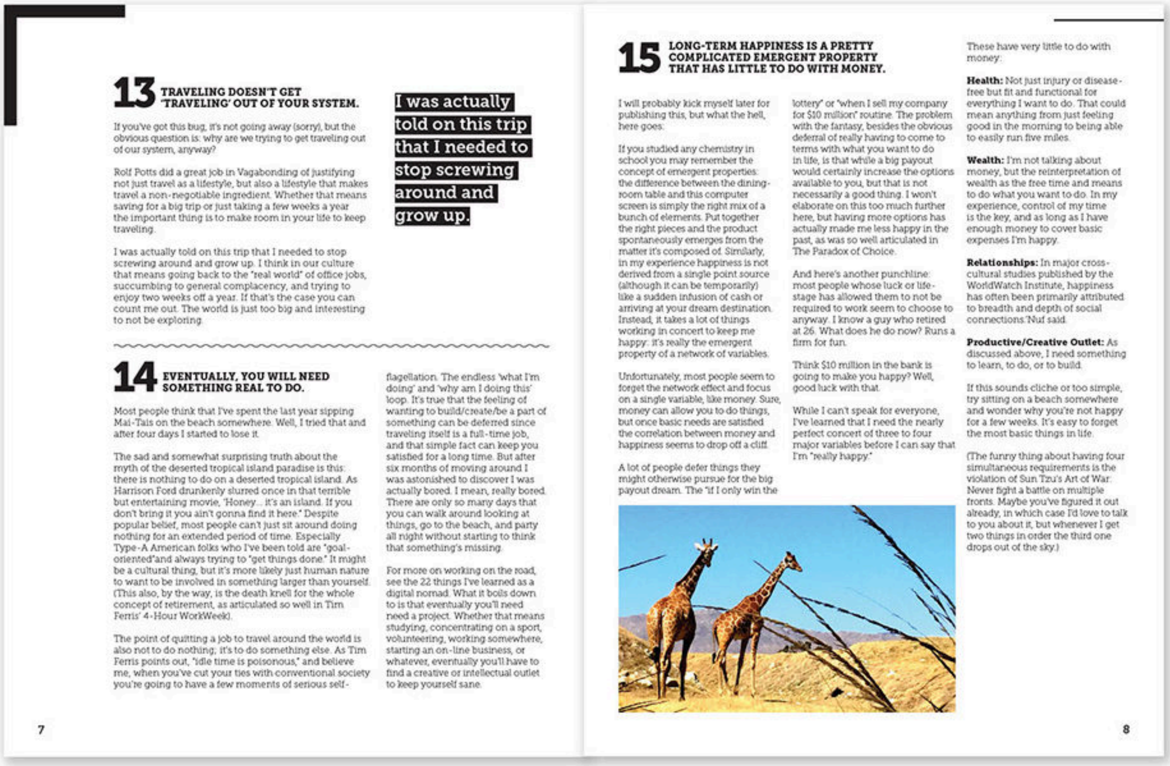
*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=296](https://opentextbc.ca/computerstudies/?p=296)*

**Formatting** – the appearance of a document. It is the shape, size, form, style, typeface, general arrangement, etc. of a document.

**Page layout** – the arrangement of text, graphics, pictures, and other elements on a page. It describes how each page of a document will appear when it is printed.

Basic page layout properties include

- Document margins
- Word / character spacing
- Line spacing
- Size and position of figures / images
- The number of columns
- How headers and footers appear



**13 TRAVELING DOESN'T GET 'TRAVELING' OUT OF YOUR SYSTEM.**

If you've got this bug, it's not going away (sorry), but the obvious question is: why are we trying to get traveling out of our system, anyway?

Rolf Potts did a great job in Vagabonding of justifying not just travel as a lifestyle, but also a lifestyle that makes travel a non-negotiable ingredient. Whether that means saving for a big trip or just taking a few weeks a year the important thing is to make room in your life to keep traveling.

I was actually told on this trip that I needed to stop screwing around and grow up. I think in our culture that means going back to the "real world" of office jobs, succumbing to general complacency, and trying to enjoy two weeks off a year. If that's the case you can count me out. The world is just too big and interesting to not be exploring.

I was actually told on this trip that I needed to stop screwing around and grow up.

**14 EVENTUALLY, YOU WILL NEED SOMETHING REAL TO DO.**

Most people think that I've spent the last year sipping Mai-Tais on the beach somewhere. Well, I tried that and after four days I started to lose it.

The sad and somewhat surprising truth about the myth of the deserted tropical island paradise is this: there is nothing to do on a deserted tropical island. As Harrison Ford drunkenly slurred once in that terrible but entertaining movie, 'Honey... it's an island. If you don't bring it you ain't gonna find it here." Despite popular belief, most people can't just sit around doing nothing for an extended period of time. Especially Type-A American folks who I've been told are "goal-oriented"and always trying to "get things done." It might be a cultural thing, but it's more likely just human nature to want to be involved in something larger than yourself. (This also, by the way, is the death knell for the whole concept of retirement, as articulated so well in Tim Ferris' 4-Hour WorkWeek).

The point of quitting a job to travel around the world is also not to do nothing; it's to do something else. As Tim Ferris points out, "idle time is poisonous," and believe me, when you've cut your ties with conventional society you're going to have a few moments of serious self-flagellation. The endless 'what I'm doing' and 'why am I doing this' loop. It's true that the feeling of wanting to build/create/be a part of something can be deferred since traveling itself is a full-time job, and that simple fact can keep you satisfied for a long time. But after six months of moving around I was astonished to discover I was actually bored. I mean, really bored. There are only so many days that you can walk around looking at things, go to the beach, and party all night without starting to think that something's missing.

For more on working on the road, see the 22 things I've learned as a digital nomad. What it boils down to is that eventually you'll need need a project. Whether that means studying, concentrating on a sport, volunteering, working somewhere, starting an on-line business, or whatever, eventually you'll have to find a creative or intellectual outlet to keep yourself sane.

7

**15 LONG-TERM HAPPINESS IS A PRETTY COMPLICATED EMERGENT PROPERTY THAT HAS LITTLE TO DO WITH MONEY.**

I will probably kick myself later for publishing this, but what the hell, here goes:

If you studied any chemistry in school you may remember the concept of emergent properties: the difference between the dining-room table and this computer screen is simply the right mix of a bunch of elements. Put together the right pieces and the product spontaneously emerges from the matter it's composed of. Similarly, in my experience happiness is not derived from a single point source (although it can be temporarily) like a sudden infusion of cash or arriving at your dream destination. Instead, it takes a lot of things working in concert to keep me happy: it's really the emergent property of a network of variables.

Unfortunately, most people seem to forget the network effect and focus on a single variable, like money. Sure, money can allow you to do things, but once basic needs are satisfied the correlation between money and happiness seems to drop off a cliff.

A lot of people defer things they might otherwise pursue for the big payout dream. The "if I only win the lottery" or "when I sell my company for $10 million" routine. The problem with the fantasy, besides the obvious deferral of really having to come to terms with what you want to do in life, is that while a big payout would certainly increase the options available to you, but that is not necessarily a good thing. I won't elaborate on this too much further here, but having more options has actually made me less happy in the past, as was so well articulated in The Paradox of Choice.

And here's another punchline: most people whose luck or life-stage has allowed them to not be required to work seem to choose to anyway. I know a guy who retired at 26. What does he do now? Runs a firm for fun.

Think $10 million in the bank is going to make you happy? Well, good luck with that.

While I can't speak for everyone, I've learned that I need the nearly perfect concert of three to four major variables before I can say that I'm "really happy."

These have very little to do with money:

**Health:** Not just injury or disease-free but fit and functional for everything I want to do. That could mean anything from just feeling good in the morning to being able to easily run five miles.

**Wealth:** I'm not talking about money, but the reinterpretation of wealth as the free time and means to do what you want to do. In my experience, control of my time is the key, and as long as I have enough money to cover basic expenses I'm happy.

**Relationships:** In major cross-cultural studies published by the WorldWatch Institute, happiness has often been primarily attributed to breadth and depth of social connections.'Nuf said.

**Productive/Creative Outlet:** As discussed above, I need something to learn, to do, or to build.

If this sounds cliche or too simple, try sitting on a beach somewhere and wonder why you're not happy for a few weeks. It's easy to forget the most basic things in life.

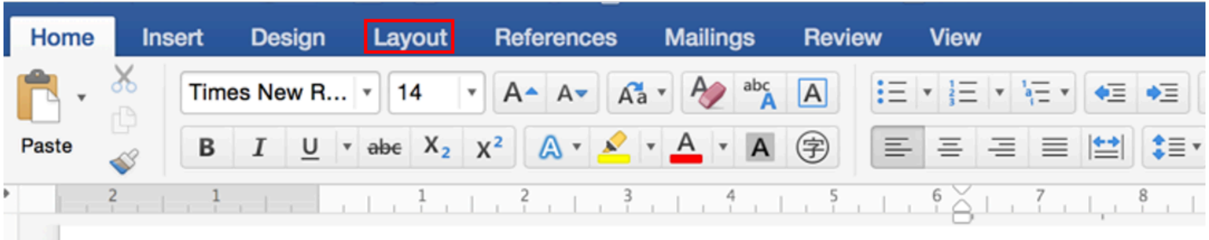
(The funny thing about having four simultaneous requirements is the violation of Sun Tzu's Art of War: Never fight a battle on multiple fronts. Maybe you've figured it out already, in which case I'd love to talk to you about it, but whenever I get two things in order the third one drops out of the sky.)

8

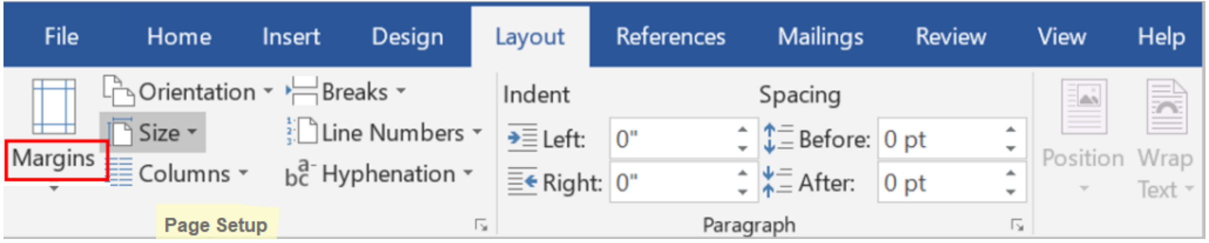
# Document Margins

## Set document margins (Word 2016)

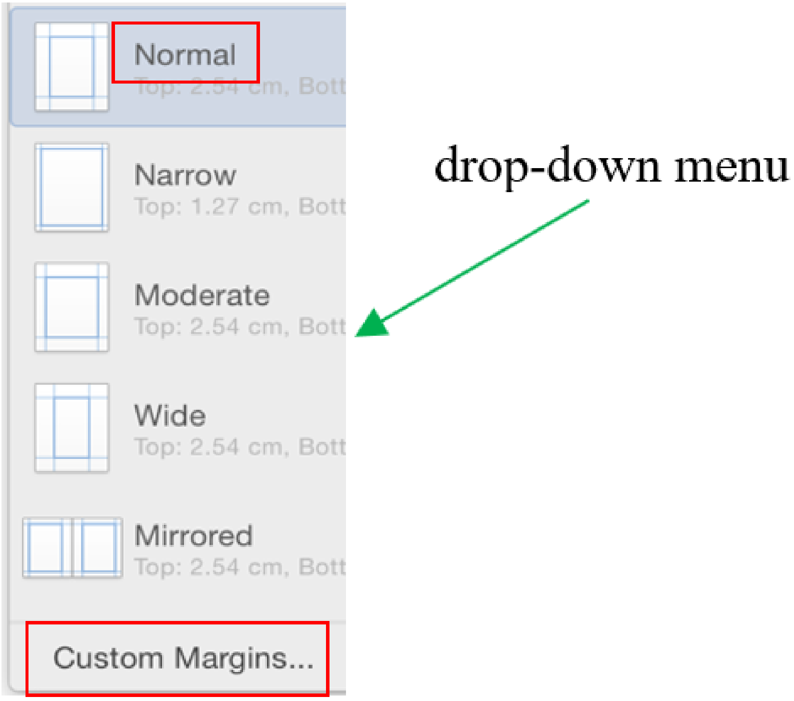
1. Open the document you wish to set margins.
2. Click the **Layout** tab in the Ribbon.



3. Click the **Margins** button (in the Page Setup group).



4. Choose predefined margin settings (Normal) from the drop-down menu. (Or choose the **Custom Margins** command and set the margins that you want.)


Normal
Top: 2.54 cm, Bott
Narrow
Top: 1.27 cm, Bott
Moderate
Top: 2.54 cm, Bott
Wide
Top: 2.54 cm, Bott
Mirrored
Top: 2.54 cm, Bott
Custom Margins...

drop-down menu

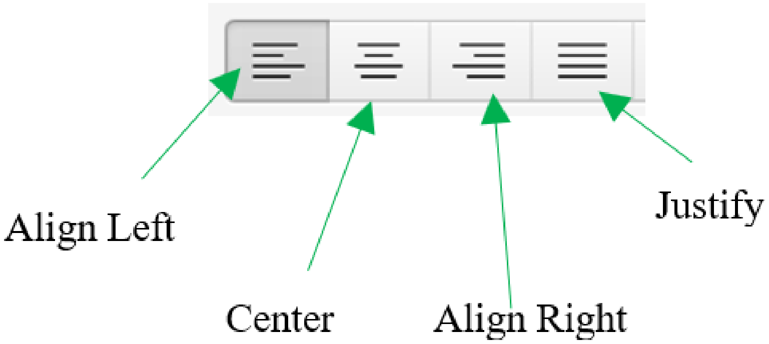
### Change the page margins for part of a document

1. Select the part of the document for which you wish to change margins.
2. Click the **Layout** tab in the Ribbon.
3. Click the **Margins** button (in the Page Setup group).
4. Click the **Custom Margins** command and set the margins that you want.

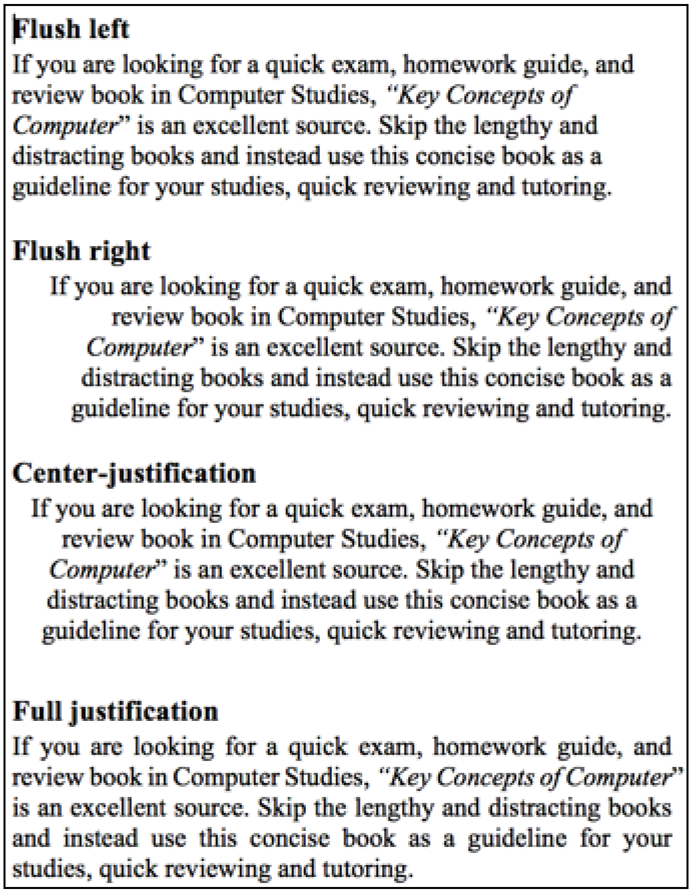
## Text Justification and Alignment

**Text justification / alignment** – refers to how the left and right edges of a paragraph align on a page.

### Types of justification / alignment



- **Left-justification (flush left)**: align text along the left side (ragged on the right).
- **Right-justification (flush right)**: align text along the right side (ragged on the left).
- **Center-justification**: text is aligned to neither the left side nor right.
- **Justify (full justification)**: align text along the both left and right sides.



**Flush left**

If you are looking for a quick exam, homework guide, and review book in Computer Studies, *"Key Concepts of Computer"* is an excellent source. Skip the lengthy and distracting books and instead use this concise book as a guideline for your studies, quick reviewing and tutoring.

**Flush right**

If you are looking for a quick exam, homework guide, and review book in Computer Studies, *"Key Concepts of Computer"* is an excellent source. Skip the lengthy and distracting books and instead use this concise book as a guideline for your studies, quick reviewing and tutoring.

**Center-justification**

If you are looking for a quick exam, homework guide, and review book in Computer Studies, *"Key Concepts of Computer"* is an excellent source. Skip the lengthy and distracting books and instead use this concise book as a guideline for your studies, quick reviewing and tutoring.

**Full justification**

If you are looking for a quick exam, homework guide, and review book in Computer Studies, *"Key Concepts of Computer"* is an excellent source. Skip the lengthy and distracting books and instead use this concise book as a guideline for your studies, quick reviewing and tutoring.

### Align the text left

1. Select the text that you wish to align.
2. Click the Align Left icon on the Home tab (or press **Ctrl** + **L** or **Cmd** + **L** on a Mac).
3. Left align (the standard layout – we read from left to right) is the default alignment for text in a Word document.

### Align the text right

1. Select the text that you wish to align.
2. Click the Align Right icon (or press **Ctrl** + **R** or **Cmd** + **R** on a Mac).
3. Right align is often used when formatting tables of data, attributions to authors of quotes, etc.

### Center text

1. Select the text that you wish to align.

2. Click the Center Align icon (or press **Ctrl** + **E** or **Cmd** + **E** on a Mac).
3. Center-justified text is commonly used on title pages, chapter titles, headings, etc.

### Justify text

1. Select the text that you wish to align.
2. Click the Justify icon (or press **Ctrl** + **J** or **Cmd** + **J** on a Mac).
3. Justification gives text a cleaner, more formal look. Justified text is often used in some newspapers, magazines, books, etc.

# Topic D: Formatting

Click play on the following audio player to listen along as you read this section.

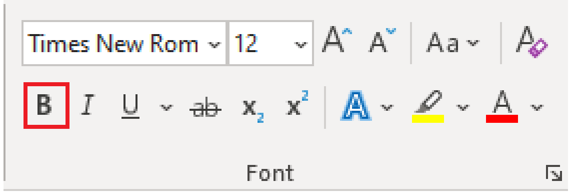
*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=308](https://opentextbc.ca/computerstudies/?p=308)*

## Bold, Italic, and Underline

- **Bold** – a typeface that makes a character thicker than the regular one. Boldfacing is often used for emphasis, headings, subheads, highlight keywords, etc.
- **Italics** – a type style with characters that slope to the right. Italic is often used to emphasize a particular word, sentence, or particular part of a document.
- **Underline** – add a line underneath the text, in order to show its importance and draw attention to the text.

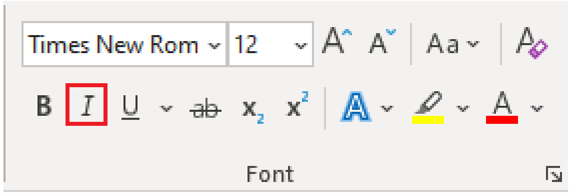
### Make text bold

1. Open the document you wish to format.
2. Select the text for which you wish to **bold**.
3. Click Bold icon on the Home tab (or press **Ctrl/Cmd** + **B**).



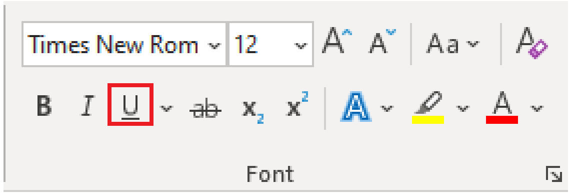
### Make text italic

1. Open the document you wish to format.
2. Select the text for which you wish to make *italics*.
3. Click the Italic icon on the Home tab (or press **Ctrl/Cmd** + **I**).



## Underline text

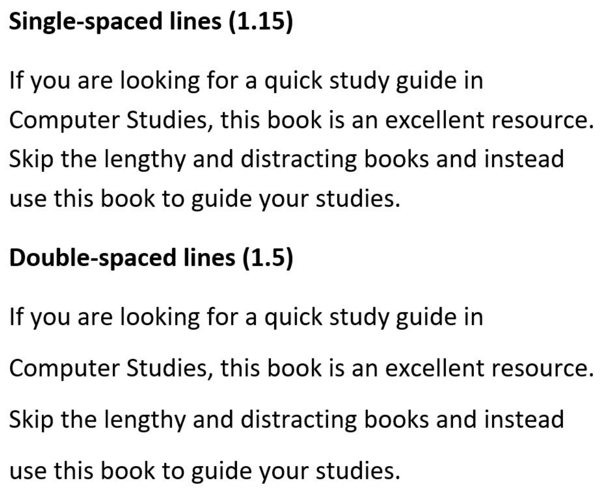
1. Open the document you wish to format.
2. Select the text for which you wish to underline.
3. Click the Underline icon on the Home tab (or press **Ctrl/Cmd** + **U**).



## Line Spacing

**Line spacing** – the space between lines of text in a paragraph.

- Most users use either single-spaced lines (one-line height) or double-spaced lines.
- Line spacing can make a document look cleaner and easy to read.



**Single-spaced lines (1.15)**

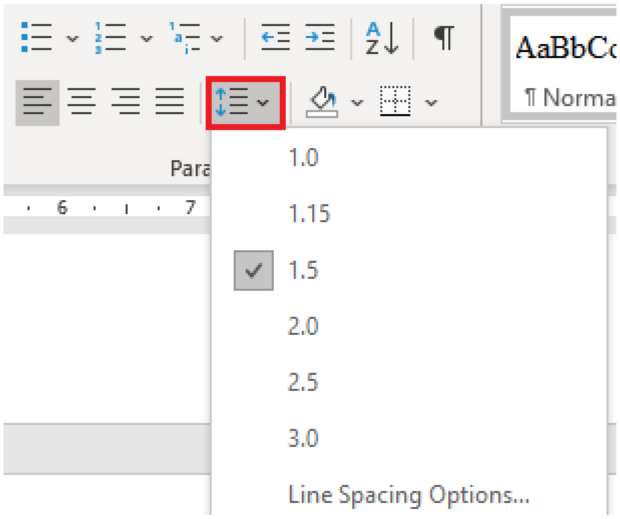
If you are looking for a quick study guide in Computer Studies, this book is an excellent resource. Skip the lengthy and distracting books and instead use this book to guide your studies.

**Double-spaced lines (1.5)**

If you are looking for a quick study guide in Computer Studies, this book is an excellent resource. Skip the lengthy and distracting books and instead use this book to guide your studies.

## Set line spacing

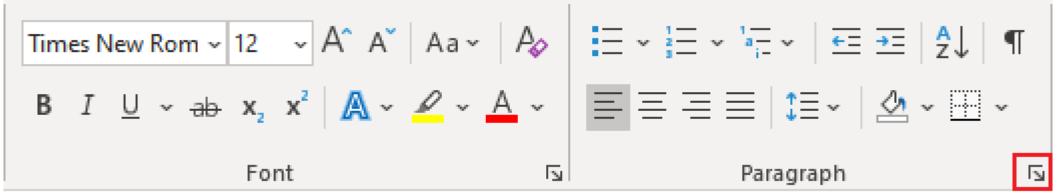
### Method 1


AaBbCc
¶ Norma
Para
1.0
1.15
1.5
2.0
2.5
3.0
Line Spacing Options...

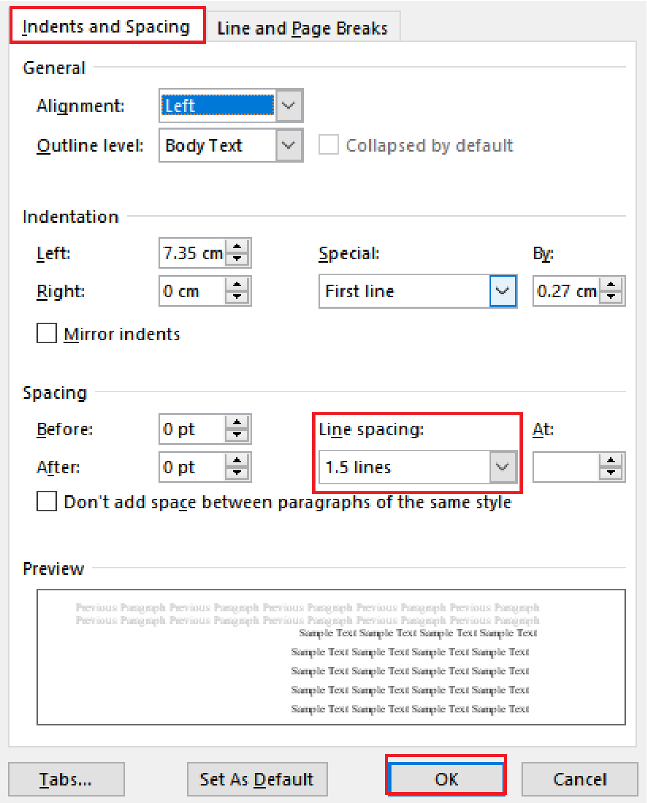
1. Open the document you wish to edit.
2. Select the text you wish to change the line spacing.
3. Click the Line Spacing icon on the Home tab in the Paragraph group.
4. Choose a line-spacing value from the drop-down list.

### Method 2

1. Select the text you wish to change the line spacing.
2. Click the **Paragraph** dialog box launcher button (in the lower right corner of the “Paragraph” group). Or right-click anywhere in the document and then click **Paragraph**.


Times New Rom
12
Font
Paragraph

3. Click the **Indents and Spacing tab.**
4. Choose a desired Line Spacing option.


Indents and Spacing
Line and Page Breaks
Preview
Tabs...
Set As Default
OK
Cancel

General

Alignment: Left

Outline level: Body Text

☐ Collapsed by default

Indentation

Left: 7.35 cm

Right: 0 cm

Special: First line

By: 0.27 cm

☐ Mirror indents

Spacing

Before: 0 pt

After: 0 pt

Line spacing: 1.5 lines

At:

☐ Don't add space between paragraphs of the same style

5. Click **OK**.

**Method 3**

Use keyboard shortcuts to set line spacing:

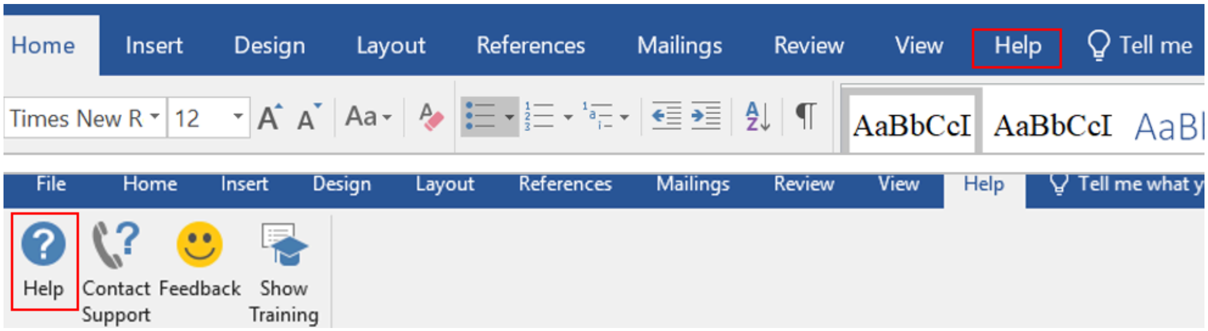
- Single-spacing: **Ctrl/Cmd** + **1**
- Double-spacing: **Ctrl/Cmd** + **2**
- 1.5-spacing: **Ctrl/Cmd** + **5**
- 1.15-spacing: **Ctrl/Cmd** + **0**

## Use Help Features

**Help menu / button** – the user can click help button in Word to initiate a search, display the help resources, and aid the user in their task.

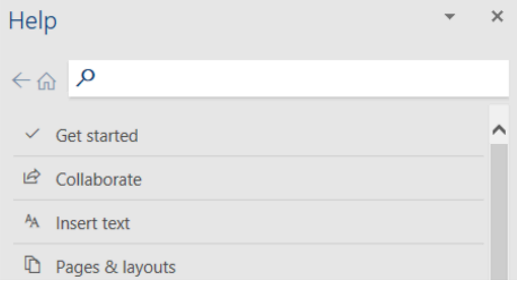
### Access help

- Method 1: Click the **Help** button on the title bar.


Home
Insert
Design
Layout
References
Mailings
Review
View
Help
Tell me
Times New R
12
Aa
AaBbCcI
AaBbCcI
AaBl
File
Home
Insert
Design
Layout
References
Mailings
Review
View
Help
Tell me what y
Help
Contact Support
Feedback
Show Training

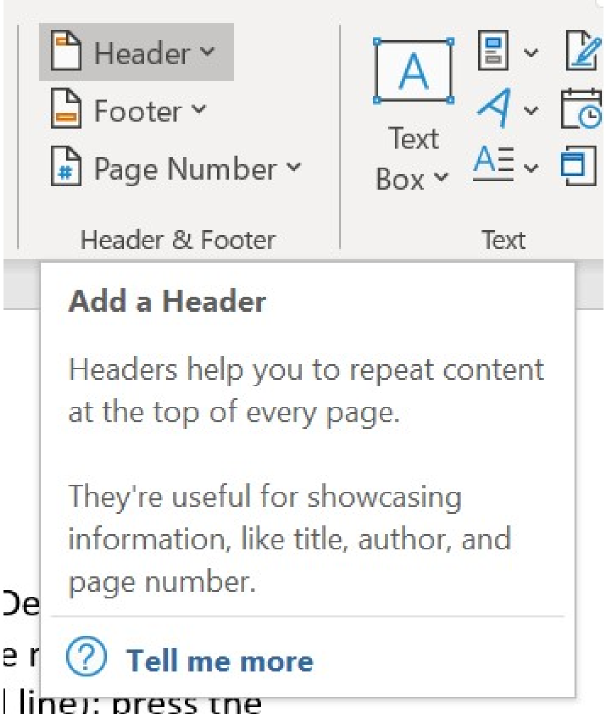
- Method 2: Press the shortcut key **F1** to open the Help window.

esc
f1
f2
f3
f4
f5
f6
f7
~
`
!
1
@
2
#
3
$
4
%
5
^
6
&
7
tab
Q
W
E
R
T
Y
U


Help
Get started
Collaborate
Insert text
Pages & layouts

- Method 3: Use help tutorials. Click out this blog post: [Word 2016 – Tell Me Tool]()
- Method 4: Get help in the form of a Screen Tip.

**Screen Tip (Tool Tip)** – a small text box (a hint) appears when the mouse point rest on a command, icon, button, etc. It displays the name of the item and sometimes a brief description of its function and the shortcut key for the command.


Header
Footer
Page Number
Header & Footer
Text Box
Text
Tell me more

**Add a Header**

Headers help you to repeat content at the top of every page.

They're useful for showcasing information, like title, author, and page number.

# Unit 9: Self-test

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=309*

Find answers to this self-test at the back of the book: Answers for Self-Tests

## True or false

1. Formatting a document – making revisions to a document, focusing on correcting errors, improving the accuracy of language, rearranging, making words and sentences clearer, more effective, etc.
2. To select a paragraph: double-click the paragraph.
3. To delete text to the left of the insertion point: press the backspace key on the keyboard.
4. Text Justification / alignment refers to how the left and right edges of a paragraph align on a page.
5. Left-justification: align text along the left side (ragged on the left).
6. Bold – a typeface that makes an image thicker than the regular one.
7. Line spacing – the space between lines of text in a paragraph / document. Line spacing can make a document looks cleaner and easy to read.

## Fill in the blank

8. [Blank] refers the use of a program running on a computer that allows users to create, edit, format, and store documents.
9. To select any amount of text: click and drag the [blank] over the text to highlight it.
10. Cut removes the selected data from its [blank] position.
11. A [blank] is a device that is usually connected to a computer in order to transfer the text and graphic information to paper.
12. Formatting refers to the [blank] of a document. It is the shape, size, form, style, typeface, general arrangement, etc. of a document.

13. [Blank]-justification: text is aligned to neither the left side nor right.
14. Italics – a type style with characters that slope to the [blank]. Italic is often used to emphasize a particular word, sentence, or particular part of a document.
15. Underline – add a line [blank] the text, in order to show its importance and draw attention to the text.
16. The user can click [blank] menu / button in Word to initiate a search, display the help resources, and aid the user in his / her task.

## Multiple choice

17. [Blank]-click refers to quickly click the left mouse button twice on any folder, file, or program to open it.
    a. right
    b. double
    c. left
    d. all of the above
18. To select a [blank]: double-click the word.
    a. document
    b. word
    c. paragraph
    d. all of the above
19. [Blank] refers to the arrangement of text, graphics, pictures, and other elements on a page. It describes how each page of a document will appear when it is printed.
    a. formatting
    b. editing
    c. page layout
    d. all of the above
20. Basic page layout properties:
    a. the number of columns
    b. how headers and footers appear
    c. document margins
    d. all of the above

21. Justify (full justification): align text along the [blank].
    a. both left and right sides
    b. centre
    c. right side
    d. all of the above
22. [Blank] is a small text box appearing when the mouse point rest on a command, icon, button, etc. It displays the name of the item and sometimes a brief description of its function and the shortcut key for the command.
    a. formatting
    b. page layout
    c. ScreenTip
    d. all of the above

# Unit 10. More on word processing

Topic A: Headers, footers, page numbers, and bullets

- Create headers in a document
- Create footers in a document
- Insert page numbers
- Create a bulleted or numbered list

Topic B: Tab stops

- Types of tab stops
- Set tab stops
- Remove tab stops

Topic C: Tables, columns, and breaks

- Insert a table
- Create and remove columns
- Insert page breaks
- Insert section breaks

Unit 10 Self-test

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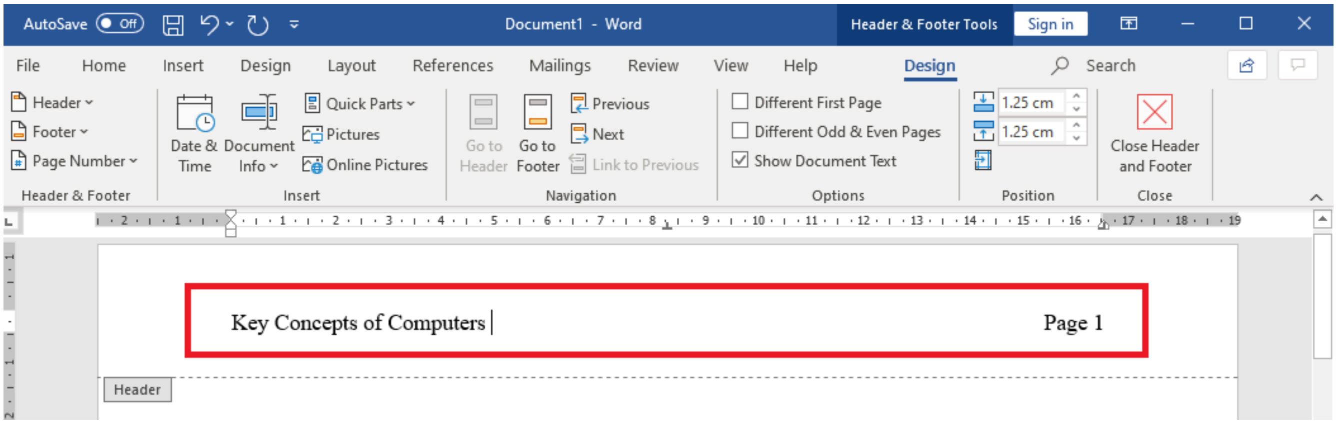
# Topic A: Headers, footers, page numbers, and bullets

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=326](https://opentextbc.ca/computerstudies/?p=326)*

## Create a Header

**Header** – a section of information that appears at the top margin of each page of a document.


AutoSave Off
Document1 - Word
Header & Footer Tools
Sign in
File
Home
Insert
Design
Layout
References
Mailings
Review
View
Help
Design
Search
Header
Footer
Page Number
Header & Footer
Date & Time
Document Info
Quick Parts
Pictures
Online Pictures
Insert
Go to Header
Go to Footer
Previous
Next
Link to Previous
Navigation
Different First Page
Different Odd & Even Pages
Show Document Text
Options
1.25 cm
1.25 cm
Position
Close Header and Footer
Close
Header

Key Concepts of Computers | Page 1

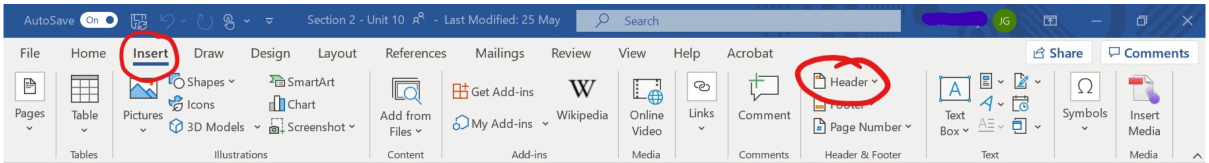
### Method 1

1. Double-click anywhere on the top of a page. A straight line (or a dashed line) on the head will appear.
2. Enter any desired information on the header (such as a chapter title, a document tile, a business logo, the creation date, etc.).
3. Double-click on the body of page (or press the **Esc** key) to close the header. The header will be on the top of each page.

### Method 2

1. Click the **Insert** tab.

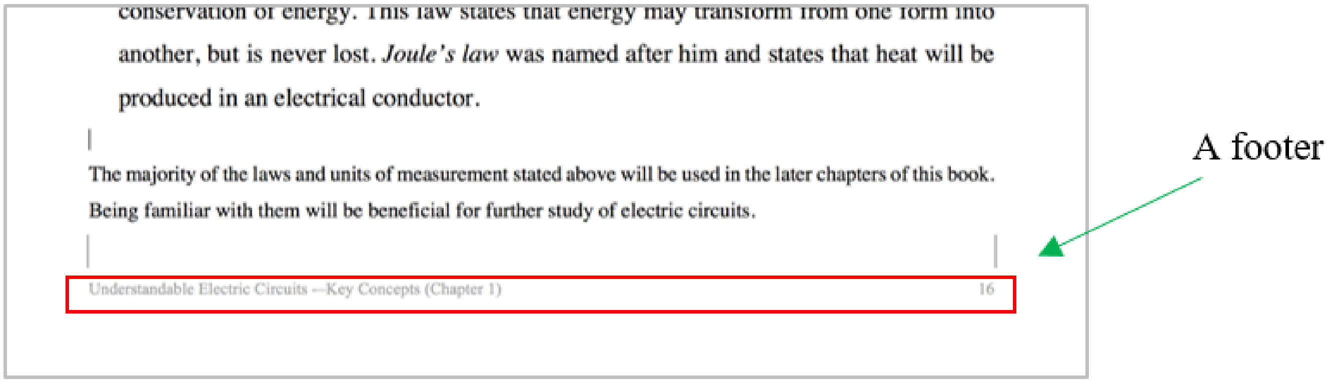
2. Click the **Header** command.


AutoSave On
Section 2 - Unit 10 - Last Modified: 25 May
Search
JG
File
Home
Insert
Draw
Design
Layout
References
Mailings
Review
View
Help
Acrobat
Share
Comments
Pages
Table
Pictures
Shapes
Icons
3D Models
SmartArt
Chart
Screenshot
Add from Files
Get Add-ins
My Add-ins
Wikipedia
Online Video
Links
Comment
Header
Footer
Page Number
Text Box
Symbols
Insert Media
Tables
Illustrations
Content
Add-ins
Media
Comments
Header & Footer
Text
Media

3. In the menu that appears, choose a desired header layout (called content control).
4. Enter any desired information on the header.
5. Double-click on the body of page (or press the **Esc** key) to close the header. The header will be on the top of each page.

## Create a Footer

**Footer** – a section of information that appears at the bottom margin of each page of a document.


conservation of energy. This law states that energy may transform from one form into another, but is never lost. *Joule's law* was named after him and states that heat will be produced in an electrical conductor.

The majority of the laws and units of measurement stated above will be used in the later chapters of this book. Being familiar with them will be beneficial for further study of electric circuits.

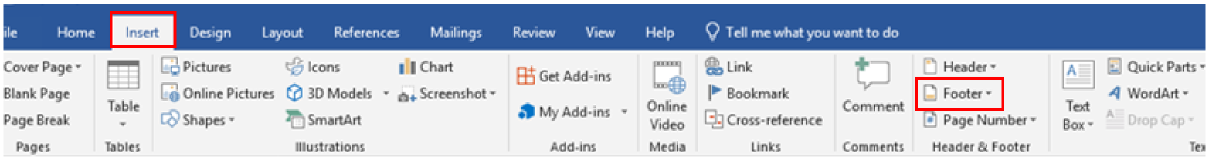
Understandable Electric Circuits —Key Concepts (Chapter 1) 16

### Method 1

1. Double-click anywhere at the bottom of the page. A straight line (or dashed line) on the footer will appear.
2. Enter any desired information on the footer (such as the page number, author's name, copyright, references, etc.).
3. Double-click on the body of page (or press the **Esc** key) to close the footer. The footer will be at the bottom of each page.

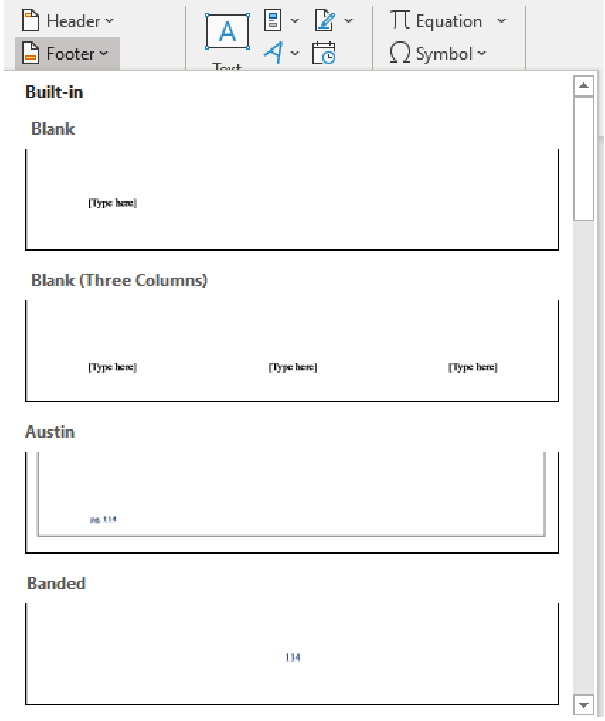
### Method 2

1. Click the **Insert** tab.


ile
Home
Insert
Design
Layout
References
Mailings
Review
View
Help
Tell me what you want to do
Cover Page
Blank Page
Page Break
Table
Pictures
Online Pictures
Shapes
Icons
3D Models
SmartArt
Chart
Screenshot
Get Add-ins
My Add-ins
Online Video
Link
Bookmark
Cross-reference
Comment
Header
Footer
Page Number
Text Box
Quick Parts
WordArt
Drop Cap
Pages
Tables
Illustrations
Add-ins
Media
Links
Comments
Header & Footer
Tex

2. Click the **Footer** command.

3. In the menu that appears, choose a desired footer layout.
4. Enter any desired information on the footer. The footer will be at the bottom of each page.
5. Double-click on the body of page (or press the **Esc** key) to close the footer.

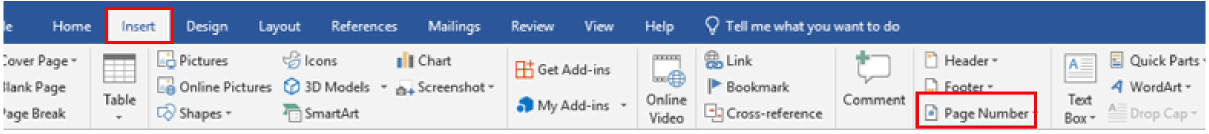

Header
Footer
Text
Equation
Symbol
Built-in
Blank
[Type here]
Blank (Three Columns)
[Type here]
[Type here]
[Type here]
Austin
pg. 114
Banded
114

## Page Numbers

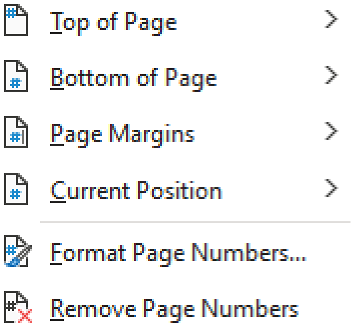
**Page numbers** – Word supports automatically adding page numbers in a multi-page document.

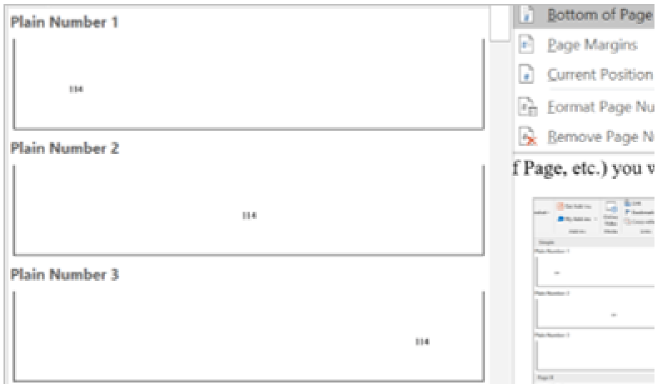
### Insert page numbers

1. Click the **Insert** tab.
2. Click the **Page Number** command.


Home
Insert
Design
Layout
References
Mailings
Review
View
Help
Tell me what you want to do
over Page
lank Page
age Break
Table
Pictures
Online Pictures
Shapes
Icons
3D Models
SmartArt
Chart
Screenshot
Get Add-ins
My Add-ins
Online Video
Link
Bookmark
Cross-reference
Comment
Header
Footer
Page Number
Text Box
Quick Parts
WordArt
Drop Cap

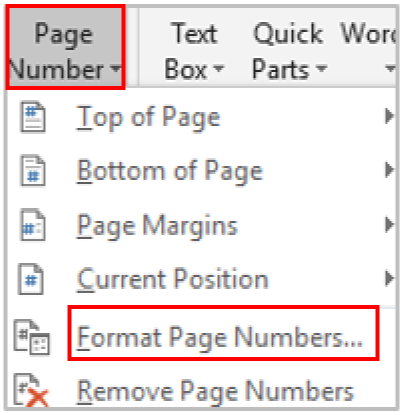
3. Select a desired position (such as Top of Page, Bottom of Page, etc.) you wish the page number to appear in.
4. Select a desired style (such as Plain Numbers 1, Plain Numbers 2, etc.).

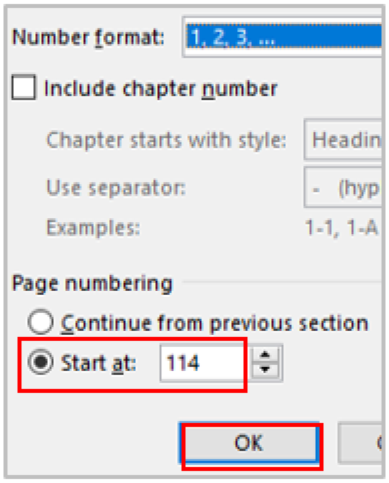

Top of Page
Bottom of Page
Page Margins
Current Position
Format Page Numbers...
Remove Page Numbers


Plain Number 1
Plain Number 2
Plain Number 3
Bottom of Page
Page Margins
Current Position
Format Page Nu
Remove Page N
f Page, etc.) you v

## Change the starting page number

1. Click the **Insert** tab.
2. Click the **Page Number** command.
3. Select **Format Page Numbers**.
4. Click **Start at** and type the page number you wish to appear on the first page.
5. Click **OK**.


Page Number
Text Box
Quick Parts
Word
Top of Page
Bottom of Page
Page Margins
Current Position
Format Page Numbers...
Remove Page Numbers



Number format: 1, 2, 3, ...

☐ Include chapter number

Chapter starts with style: Headin

Use separator: - (hyp

Examples: 1-1, 1-A

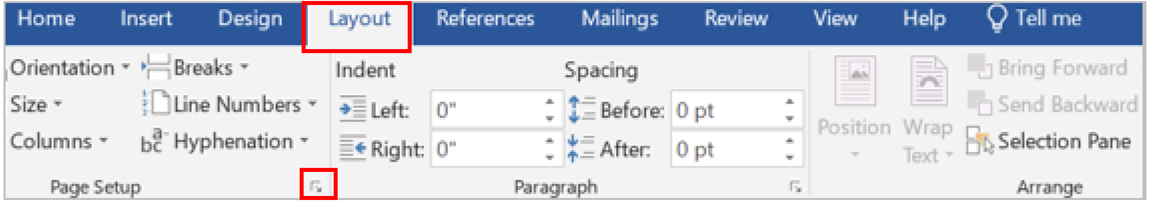
Page numbering

○ Continue from previous section

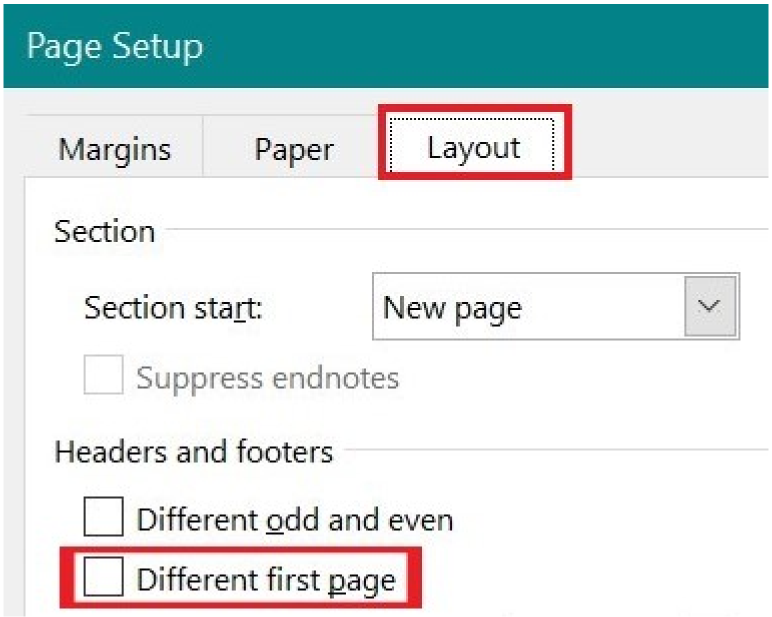
● Start at: 114

## Start page number on page two (hide the page number on the first page)

1. Click **Layout**.
2. Click the Page Setup Dialog box launcher.


Home
Insert
Design
Layout
References
Mailings
Review
View
Help
Tell me
Orientation
Breaks
Size
Line Numbers
Columns
Hyphenation
Page Setup
Indent
Left: 0"
Right: 0"
Spacing
Before: 0 pt
After: 0 pt
Paragraph
Position
Wrap Text
Bring Forward
Send Backward
Selection Pane
Arrange

3. Select **Layout tab** and Check the box next to **Different first page**.


Page Setup
Margins
Paper
Layout
Section
Headers and footers

Section start: New page

☐ Suppress endnotes

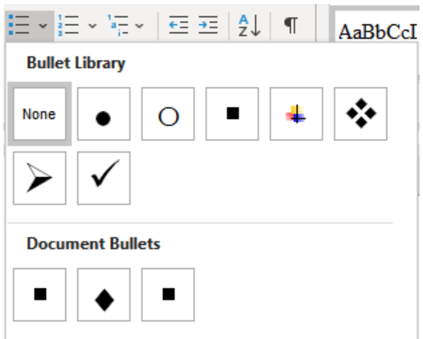
☐ Different odd and even

☐ Different first page

4. The page number will disappear from the first page.

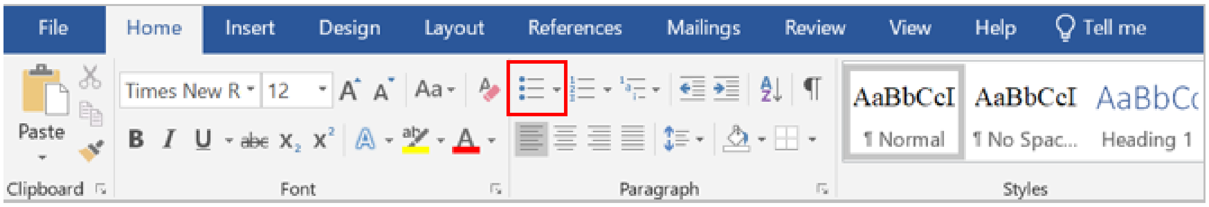
## Bulleted or Numbered Lists

**Bullet** – a dot, a small circle, diamond, or other symbols that is found before the text (a phrase, sentence or paragraph, etc.) to help organize information, make it easier to read, or differentiate between the different points.


AaBbCcI
Bullet Library
None
Document Bullets

### Insert a bulleted list (a list whose items are bulleted)

1. Select the text you wish to format as a list.
2. Click the **Bullets** icon.


File
Home
Insert
Design
Layout
References
Mailings
Review
View
Help
Tell me
Paste
Clipboard
Times New R
12
Aa
B
I
U
abc
x₂
x²
A
Font
Paragraph
AaBbCcI
¶ Normal
AaBbCcI
¶ No Spac...
AaBbCc
Heading 1
Styles

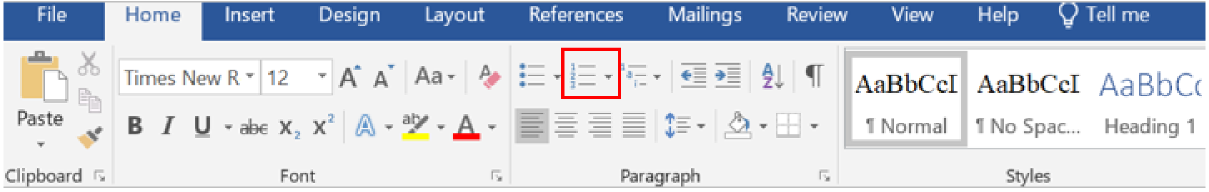
3. Click to select a bullet symbol (i.e., a dot, a small circle, diamond) that you wish to use for

the bullet.

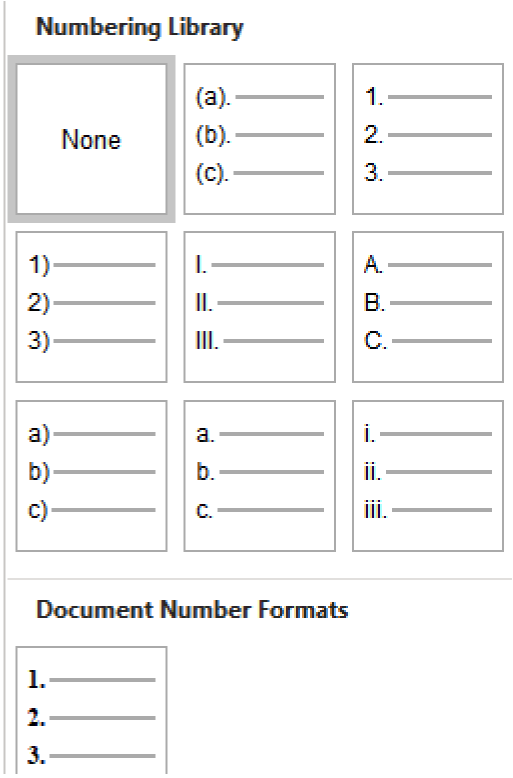
4. Deselect the text.

### Insert a numbered list (a list whose items are numbered or lettered)

1. Select the text you wish to format as a list.
2. Click the **Numbering** icon.


File
Home
Insert
Design
Layout
References
Mailings
Review
View
Help
Tell me
Paste
Times New R
12
Aa
B I U abc x₂ x²
AaBbCcI
¶ Normal
AaBbCcI
¶ No Spac...
AaBbCc
Heading 1
Clipboard
Font
Paragraph
Styles

3. Click to select a number or letter symbol that you wish to use for the list.


Numbering Library
None
(a). (b). (c).
1. 2. 3.
1) 2) 3)
I. II. III.
A. B. C.
a) b) c)
a. b. c.
i. ii. iii.
Document Number Formats
1. 2. 3.

4. Deselect the text.

When you delete or add items in the list, or change the numbering format of the style, the numbers / letters in a list are updated automatically.

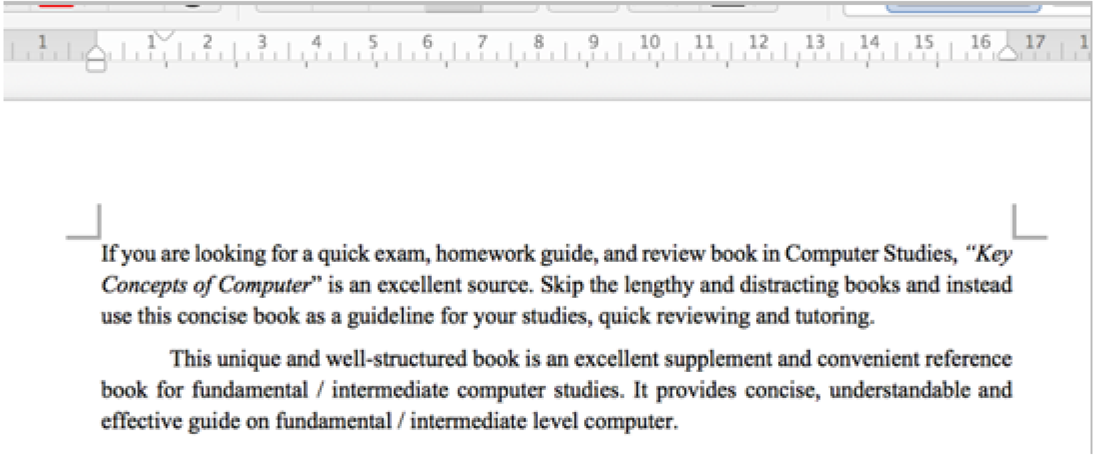
# Topic B: Tab stops

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=336](https://opentextbc.ca/computerstudies/?p=336)*

**Tab stop** – a location where the cursor (insertion point) would stop when the Tab key is pressed.

- Tab stops are used to allow users to align text at a specific location in a document.
- A Tab stop defines length of Indent used at beginning of a line or paragraph.



If you are looking for a quick exam, homework guide, and review book in Computer Studies, "*Key Concepts of Computer*" is an excellent source. Skip the lengthy and distracting books and instead use this concise book as a guideline for your studies, quick reviewing and tutoring.

This unique and well-structured book is an excellent supplement and convenient reference book for fundamental / intermediate computer studies. It provides concise, understandable and effective guide on fundamental / intermediate level computer.

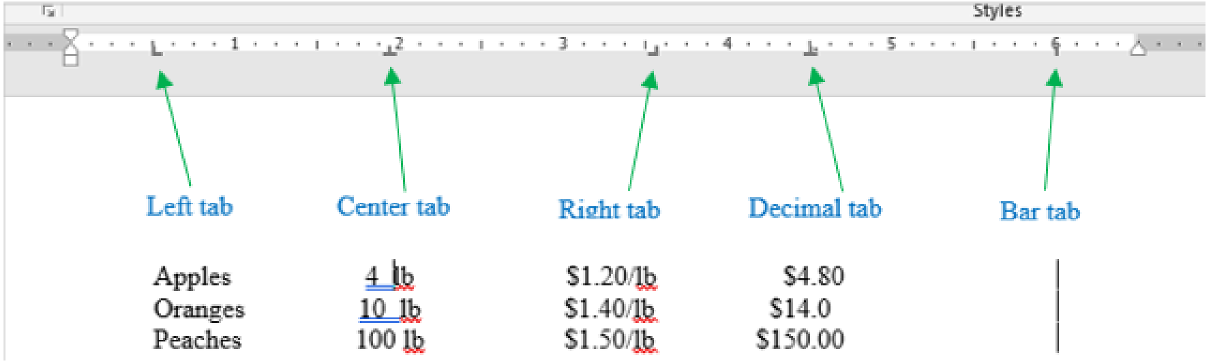
- Pressing the Tab key (on the keyboard) will move the cursor to the next tab stop (which itself is invisible).
- The tab stop appears on the horizontal ruler at the top of the Word window.

Tab
Q
Caps Lock
A

## Types of Tab Stops

- Left Tab – text is aligned to the left of the tab stop.
- Center Tab – text is centered in the middle of the tab stop.
- Right Tab – text is aligned to the right of the tab stop.
- Decimal Tab – numbers are aligned by their decimal points.

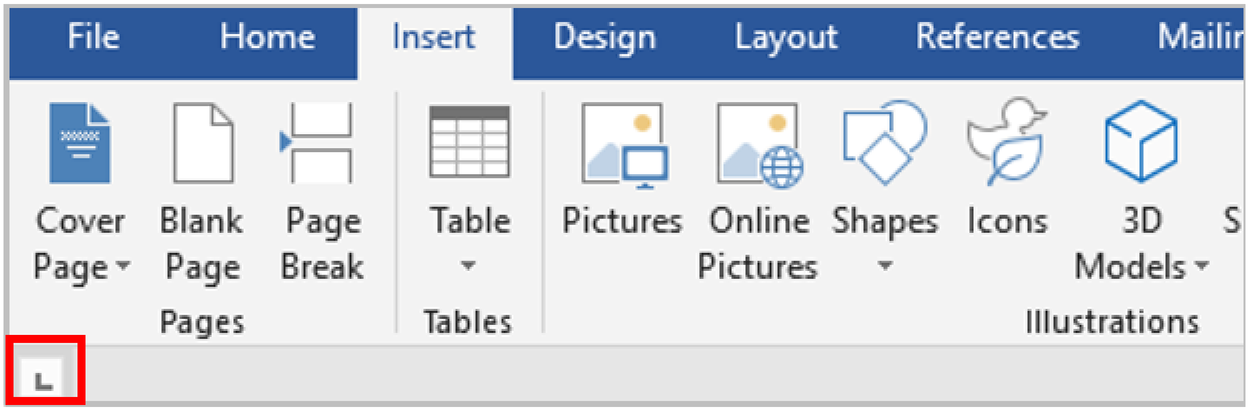
- Bar Tab – inserts a vertical line (bar) into a line of text.


Styles
Left tab
Center tab
Right tab
Decimal tab
Bar tab

| | | | |
|---|---|---|---|
| Apples | 4 lb | $1.20/lb | $4.80 |
| Oranges | 10 lb | $1.40/lb | $14.0 |
| Peaches | 100 lb | $1.50/lb | $150.00 |

## Set Tab Stops

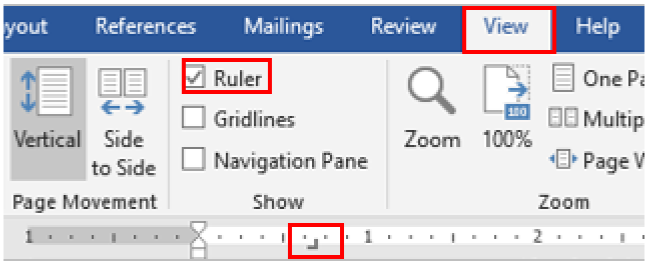
**The tab selector (tab indicator)** – a small button located in the left corner of the horizontal ruler that supplies the user with a variety of tab marker (tab stop) options (left, right, center, etc.).


File
Home
Insert
Design
Layout
References
Mailir
Cover Page
Blank Page
Page Break
Pages
Table
Tables
Pictures
Online Pictures
Shapes
Icons
3D Models
S
Illustrations

### Insert a tab stop

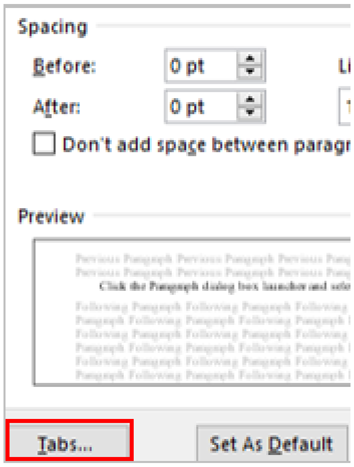
#### Method 1

1. Select the paragraphs / sentences you wish to set tab.
2. Click the Tab Selector until it displays the type of tab stop you wish to use.
3. Click on the lower edge of the horizontal ruler at the exact spot where you wish the tab to set. (If you don't see the ruler at the top of the Word window, click **View**, then **Ruler** to display it.)


yout
References
Mailings
Review
View
Help
Vertical
Side to Side
Page Movement
☑ Ruler
☐ Gridlines
☐ Navigation Pane
Show
Zoom
100%
One Pa
Multip
Page V
Zoom

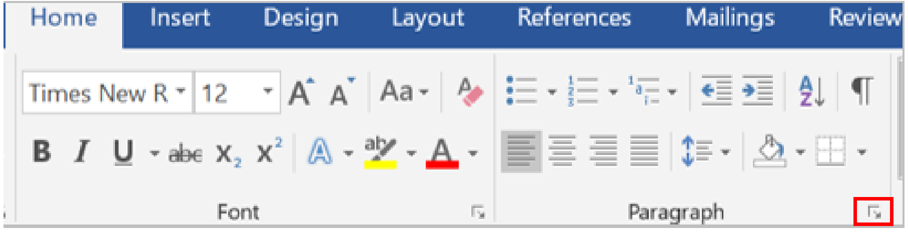
4. Click to place the insertion point in front of the text where you wish to insert the tab.
5. Press the **Tab** key on the keyboard.

**Method 2**

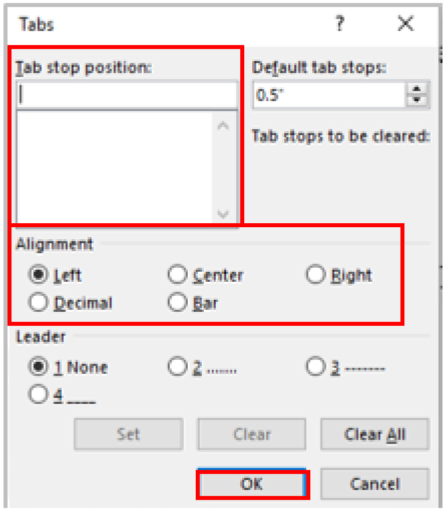

Spacing
Preview
Tabs...
Set As Default

Before: 0 pt
After: 0 pt
☐ Don't add space between paragr

1. Select the paragraphs / sentences you wish to set tab.
2. Click the Paragraph dialog box launcher and select the **Tabs**.


Home
Insert
Design
Layout
References
Mailings
Review
Times New R
12
Aa
B
I
U
abc
Font
Paragraph

3. In the “Tab stop position” box, enter the measurement (such as 4”) on the horizontal ruler where you wish the tab to appear.
4. Under “Alignment”, select a tab stop type (such as Left, Center, Right, Decimal, etc.).


Tabs
?
×
Tab stop position:
Tab stops to be cleared:
Set
Clear
Clear All
OK
Cancel

Default tab stops: 0.5"

Alignment
● Left ○ Center ○ Right
○ Decimal ○ Bar

Leader
● 1 None ○ 2 ....... ○ 3 -------
○ 4 ____

5. Click **OK.**

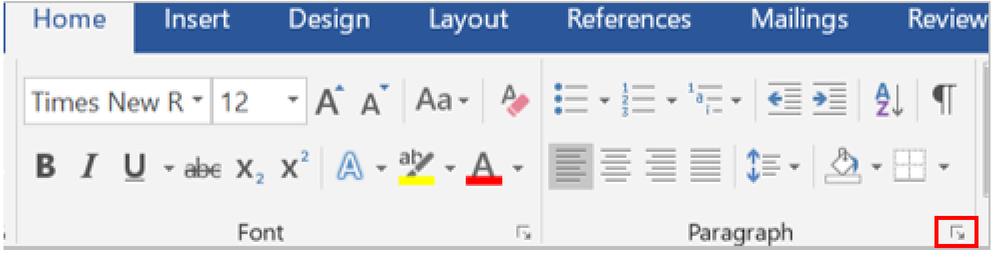
# Remove Tab Stops

## Method 1

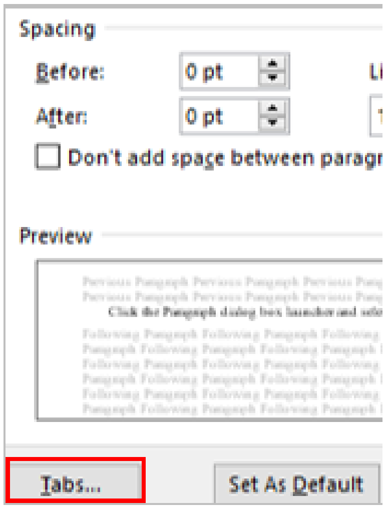
1. Select the paragraphs you wish to remove the tab.
2. Drag the tab stop marker off the horizontal ruler.

## Method 2

1. Select the paragraphs / sentences you wish to remove the tab.
2. Click the Paragraph dialog box launcher.


Home
Insert
Design
Layout
References
Mailings
Review
Times New R
12
Font
Paragraph

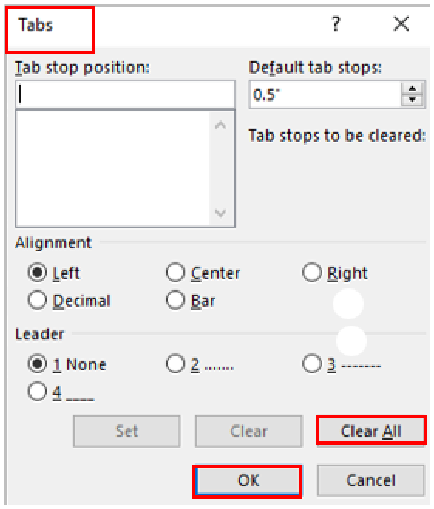
3. Click to select the **Tabs.**
4. Click **Clear All.**


Spacing
Preview
Tabs...
Set As Default

Before: 0 pt

After: 0 pt

☐ Don't add space between paragr


Tabs
?
×
Set
Clear
Clear All
OK
Cancel

Tab stop position:

Default tab stops: 0.5"

Tab stops to be cleared:

Alignment

● Left ○ Center ○ Right

○ Decimal ○ Bar

Leader

● 1 None ○ 2 ....... ○ 3 -------

○ 4 ____

5. Click **Ok**.

# Topic C: Tables, columns, and breaks

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=349*

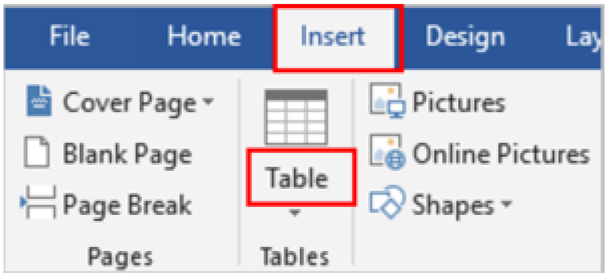
## Insert a Table

**Table** – information arranged in a condensed form of columns and rows. It is a more effective way to present information.

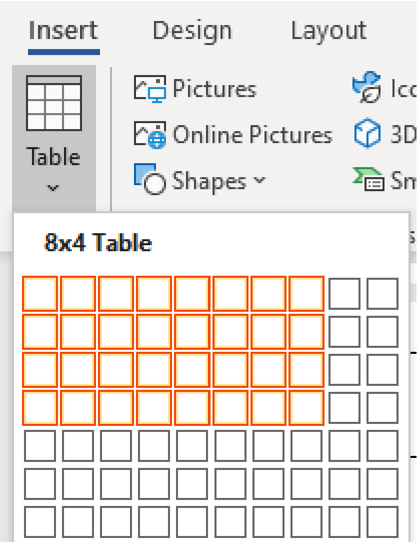
### Insert a table in a document (Word 2016)

**Method 1**

1. Click where you wish to insert the table in your document.


File
Home
Insert
Design
Lay
Cover Page
Blank Page
Page Break
Pages
Table
Tables
Pictures
Online Pictures
Shapes

2. Click the **Insert** tab and the **Table** button.
3. Drag through to select the desired number of rows and columns (a table will appear).


Insert
Design
Layout
Table
Pictures
Online Pictures
Shapes
8x4 Table

### Method 2

1. Click where you wish to create the table in your document.
2. Click the **Insert** tab.
3. Click the **Table** button.
4. Click **Insert Table**.
5. Click the up or down arrows (in the Table drop-down menu) to select the desired number of columns.
6. Click the up or down arrows to select the desired number of rows.
7. Click **OK** to insert the table.

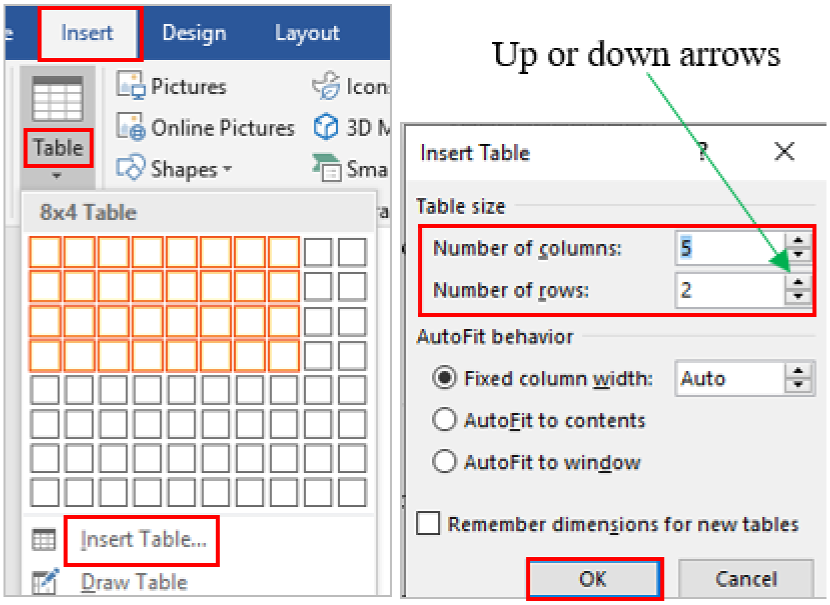
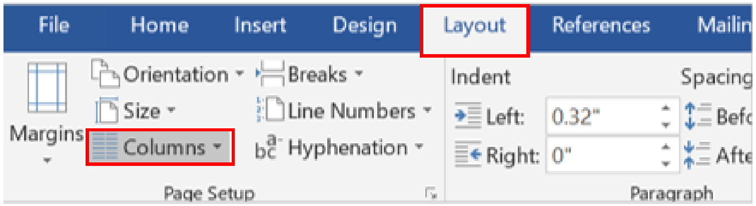

Insert
Design
Layout
Table
Pictures
Online Pictures
Shapes
8x4 Table
Insert Table...
Draw Table
Up or down arrows
Insert Table
OK
Cancel

Table size
Number of columns: 5
Number of rows: 2
AutoFit behavior
● Fixed column width: Auto
○ AutoFit to contents
○ AutoFit to window
☐ Remember dimensions for new tables

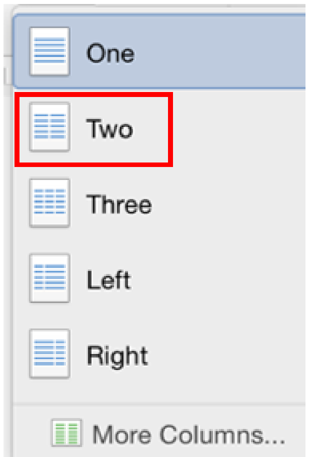
## Create and Remove Columns

### Add columns to a document

1. Select the paragraphs you wish to lay out in columns.
2. Click the **Layout** tab and click the **Columns** button.

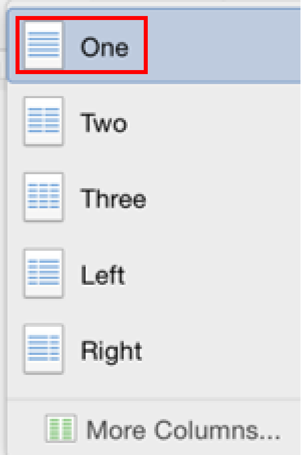

File
Home
Insert
Design
Layout
References
Mailin
Margins
Orientation
Size
Columns
Breaks
Line Numbers
Hyphenation
Page Setup
Indent
Left: 0.32"
Right: 0"
Spacing
Befo
Afte
Paragraph

3. Click to select the number of columns you wish to create (such as “Two,” in the drop-down menu).
4. The text will lay out in columns.


One
Two
Three
Left
Right
More Columns...

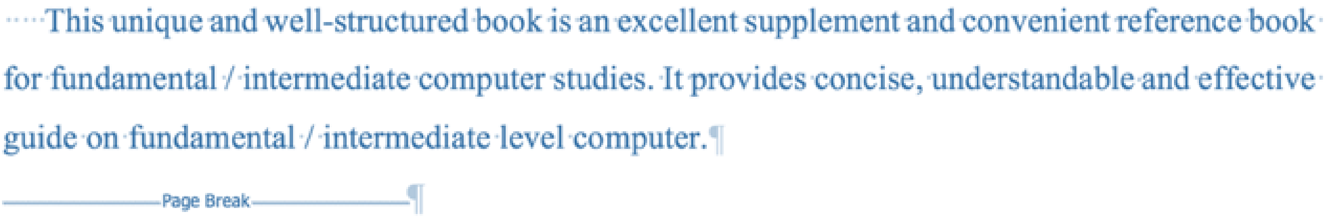
### Remove columns

1. Click anywhere in the columns.
2. Click the **Layout** tab.
3. Click the **Columns** button.
4. Click **One** to change the document as one column.


One
Two
Three
Left
Right
More Columns...

## Insert Page Breaks

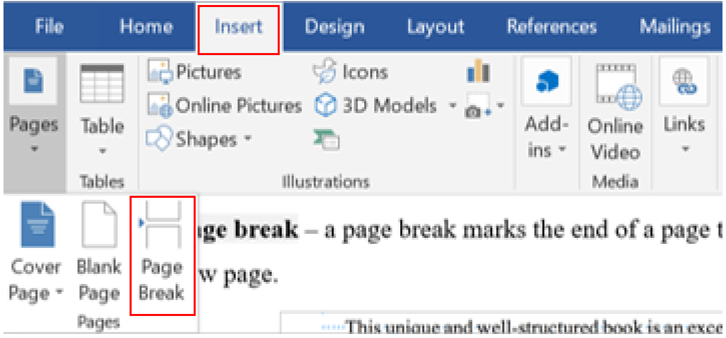
**Page break** – a page break marks the end of a page that indicates where the printer will start a new page.



This unique and well-structured book is an excellent supplement and convenient reference book for fundamental / intermediate computer studies. It provides concise, understandable and effective guide on fundamental / intermediate level computer.¶

## Insert a page break

1. Click where you wish a new page to begin.
2. Click the **Insert** tab.
3. Click the **Page Break** button. A page break is inserted in the document.

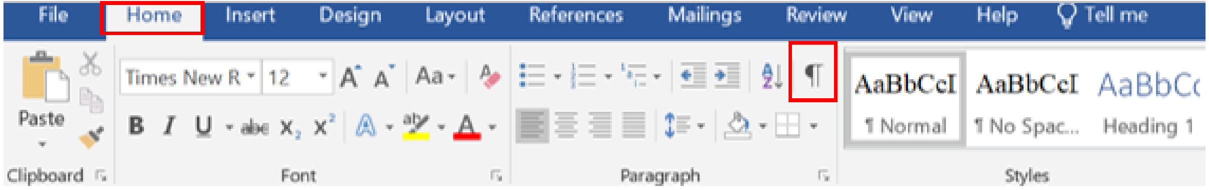

File
Home
Insert
Design
Layout
References
Mailings
Pages
Table
Tables
Pictures
Online Pictures
Shapes
Icons
3D Models
Illustrations
Add-ins
Online Video
Media
Links
Cover Page
Blank Page
Page Break
Pages

**ge break** – a page break marks the end of a page t

w page.

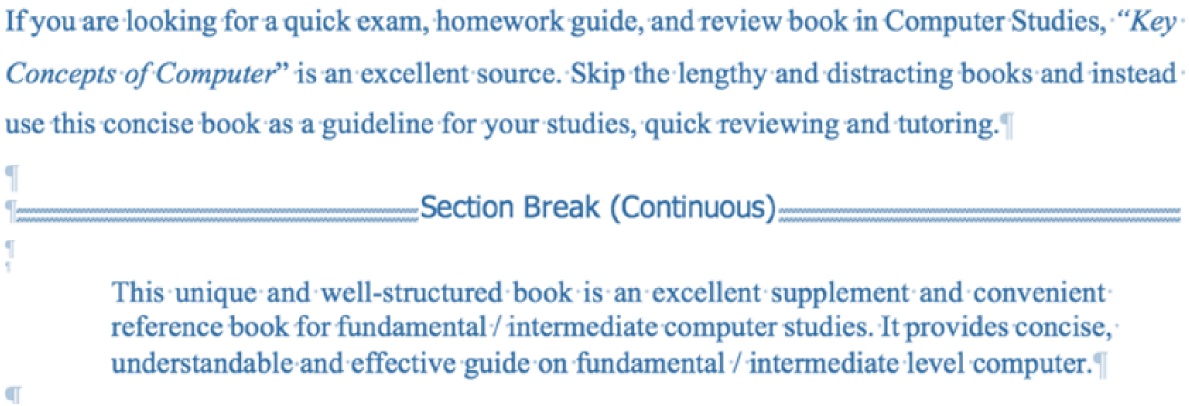
This unique and well-structured book is an exce

4. Click on the **Home** tab and then Show/Hide symbol (¶) will show hidden page beaks (click the Show/Hide symbol again will remove ¶).


File
Home
Insert
Design
Layout
References
Mailings
Review
View
Help
Tell me
Paste
Clipboard
Times New R
12
Font
Paragraph
¶
AaBbCcI
¶ Normal
AaBbCcI
¶ No Spac...
AaBbCc
Heading 1
Styles

# Insert Section Breaks

**Section break** – a section break splits a page into sections that can have a different format or layout within the same page in the document.



If you are looking for a quick exam, homework guide, and review book in Computer Studies, "*Key Concepts of Computer*" is an excellent source. Skip the lengthy and distracting books and instead use this concise book as a guideline for your studies, quick reviewing and tutoring.¶

¶

¶Section Break (Continuous)

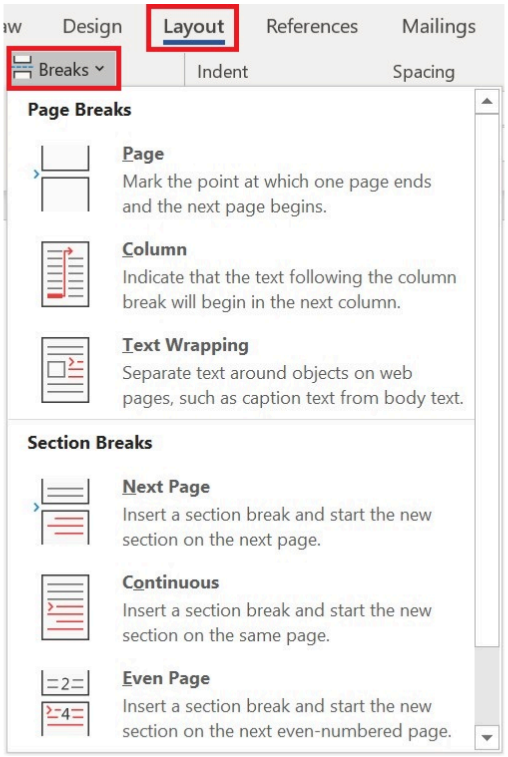
¶

This unique and well-structured book is an excellent supplement and convenient reference book for fundamental / intermediate computer studies. It provides concise, understandable and effective guide on fundamental / intermediate level computer.¶

¶

## Insert a section break

1. Click where you wish a new section to begin.
2. Click the **Layout** tab.
3. Click the **Breaks** button.
4. Click to select the type of section break you wish to use.
5. Click on the **Home** tab and then Show/Hide symbol (¶) will show hidden section beaks.



aw
Design
Layout
References
Mailings
Breaks
Indent
Spacing

**Page Breaks**

**Page**
Mark the point at which one page ends and the next page begins.

**Column**
Indicate that the text following the column break will begin in the next column.

**Text Wrapping**
Separate text around objects on web pages, such as caption text from body text.

**Section Breaks**

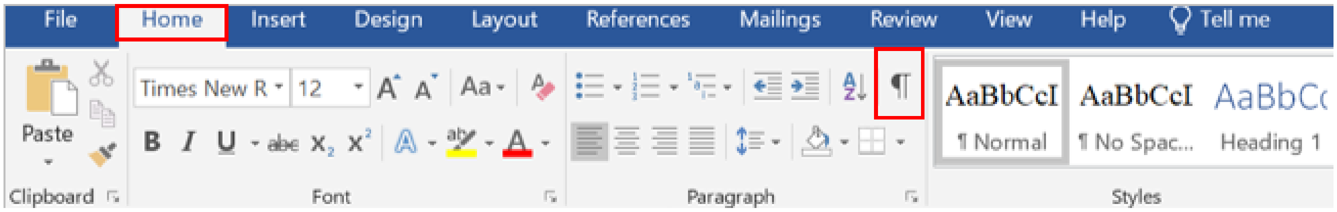
**Next Page**
Insert a section break and start the new section on the next page.

**Continuous**
Insert a section break and start the new section on the same page.

**Even Page**
Insert a section break and start the new section on the next even-numbered page.

## Remove a page or section break

1. Click the **Home** tab.
2. Click the Show/Hide symbol ¶ (to display the section break).
3. Double-click the page or section break to select it.
4. Press the **Delete** key (on the keyboard).



File
Home
Insert
Design
Layout
References
Mailings
Review
View
Help
Tell me
Paste
Times New R
12
Aa
¶
AaBbCcI
¶ Normal
AaBbCcI
¶ No Spac...
AaBbCc
Heading 1
Clipboard
Font
Paragraph
Styles

# Unit 10: Self-test

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=350*

Find answers to this self-test at the back of the book: Answers for Self-Tests

## True or false

1. The footer is a section of information that appears at the bottom margin of each page of a document.
2. Word does not support automatic numbering of pages in a multi-page document.
3. Right Tab – text is aligned to the right of the tab stop.
4. Decimal Tab – numbers are aligned by their vertical bar.
5. Click on the **Insert** tab and then Show/Hide symbol (¶) will show hidden page beaks.

## Fill in the blank

6. A [blank] is a section of information that appears at the top margin of each page of a document.
7. The [blank] is a dot, an asterisk, a small circle, or other symbols that is found before the text to help organize information, make it easier to read, or differentiate between the different points.
8. Bar Tab – inserts a [blank] line into a line of text.
9. A [blank] break splits a page into sections that can have a different format or layout within the same page in the document.

## Multiple choice

10. [Blank]-click refers to quickly click the left mouse button twice on any folder, file, or program to open it.
    a. right
    b. double
    c. left
    d. all of the above
11. Tab stop – a location where the cursor would stop when the [blank] key is pressed.
    a. shift
    b. return
    c. tab
    d. all of the above
12. Center Tab – text is centered in the [blank] of the tab stop.
    a. left
    b. right
    c. bar
    d. middle
13. A [blank] break marks the end of a page that indicates where the printer will start a new page.
    a. section
    b. page
    c. text
    d. all of the above
14. Right Tab – text is aligned to the [blank] of the tab stop.
    a. left
    b. middle
    c. bar
    d. right
15. Decimal Tab – numbers are aligned by their [blank].
    a. decimal points
    b. tab stop
    c. bar
    d. all of the above

# Unit 11. More on electronic communication

Topic A: Web browser

- Web browser / bookmark
- Safari
- Show / hide the bookmark bar in Safari
- Mozilla Firefox
- Show / hide the bookmark bar in Firefox

Topic B: Email

- Email address
- Create an email account
- Sending and receiving email
- Email folders
- Email attachment

Topic C: Web search engine

- Perform a search using a web search engine
- Security issues on the internet
- Prevent cyber threats

Unit 11 Self-test

# Topic A. Web browser

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=370*

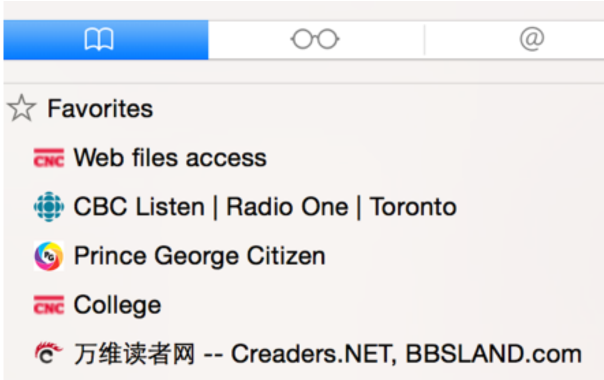
## Web Browser / Bookmark

### Browser

- **Browser** – a software program that allows users to access and display websites or webpages (documents, images, video, music, etc.) on the internet.
- Some popular web browsers:
    - Google Chrome
    - Mozilla Firefox
    - Internet Explorer
    - Safari
    - Opera

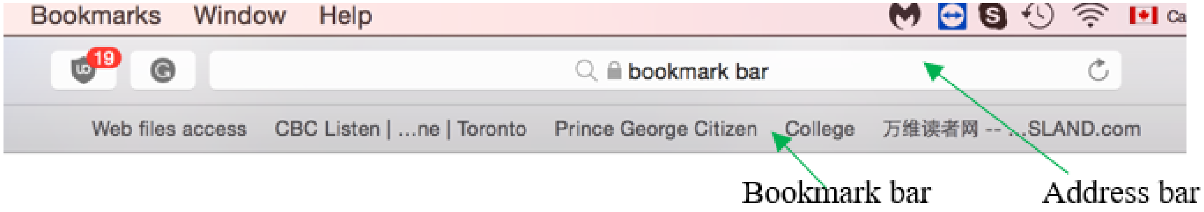
### Bookmark

- **Bookmark (or favorite)** – a collection of links (a saved shortcut) to web pages that is stored in a web browser. Saving bookmarks allows users to quickly navigate back to the websites


Favorites
Web files access
CBC Listen | Radio One | Toronto
Prince George Citizen
College
万维读者网 -- Creaders.NET, BBSLAND.com

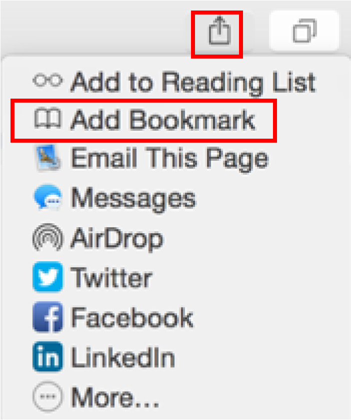
they visit the most.

- **Bookmark bar** – it contains all bookmarks that shows on the top of the Window (under the address bar).

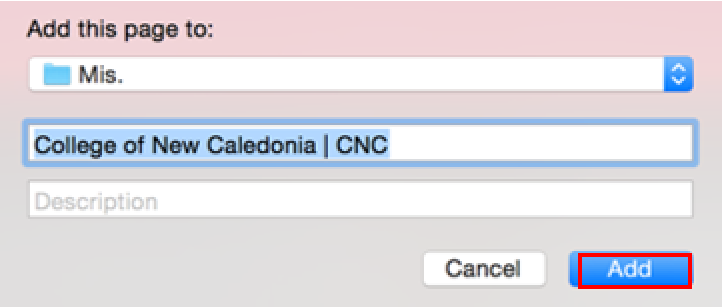

Bookmarks
Window
Help
19
bookmark bar
Web files access
CBC Listen | ...ne | Toronto
Prince George Citizen
College
万维读者网 -- ...SLAND.com
Bookmark bar
Address bar

## Safari

### Add bookmarks to Safari


Add to Reading List
Add Bookmark
Email This Page
Messages
AirDrop
Twitter
Facebook
LinkedIn
More...

- Open Safari. Double-click on **Safari** to open it.
- Go to the website you would like to bookmark.
- Click the **Share** button to the upper-right corner.
- Click **Add Bookmark** from the pop-up menu that appears.
- Choose where to store the bookmark from the pop-up menu (Favorite or a folder).
- Click **Add**.



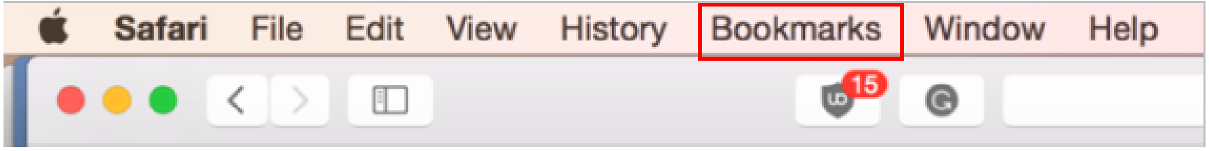
Add this page to: Mis.

College of New Caledonia | CNC

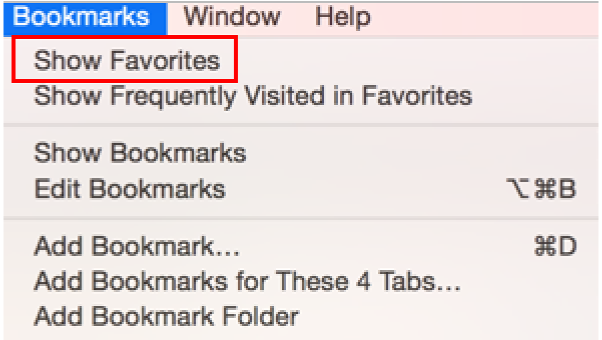
Description
Cancel
Add

### Find a bookmark in Safari

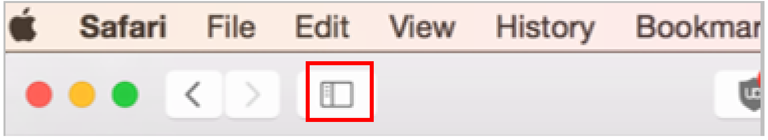
- Open Safari.
- Click the **Bookmarks** on the top of the Window.


Safari
File
Edit
View
History
Bookmarks
Window
Help
15

- Select **Show Favorites** from the pop-up menu that appears.


Bookmarks
Window
Help
Show Favorites
Show Frequently Visited in Favorites
Show Bookmarks
Edit Bookmarks ⌥⌘B
Add Bookmark… ⌘D
Add Bookmarks for These 4 Tabs…
Add Bookmark Folder

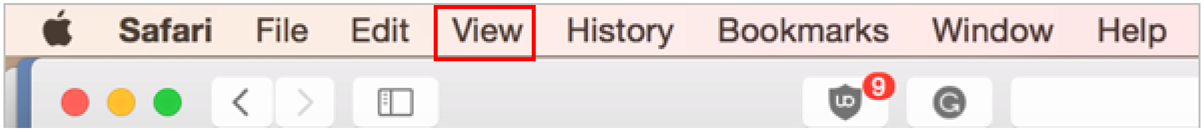
- Find and click a bookmark to open it. Or click on the Sidebar icon to the upper left-corner (in the Safari toolbar) to open a bookmark.


Safari
File
Edit
View
History
Bookmar

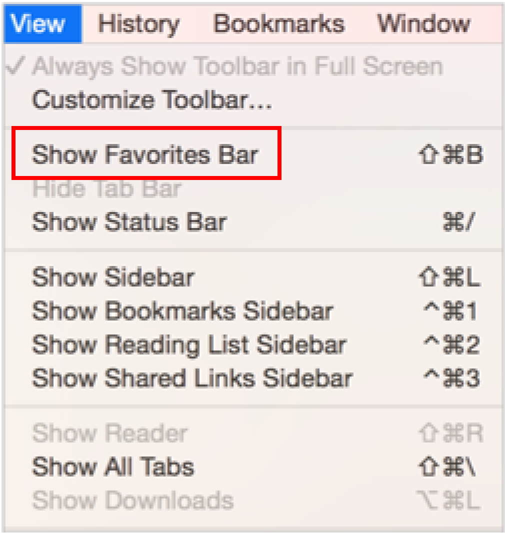
## Show / Hide the Bookmark Bar in Safari

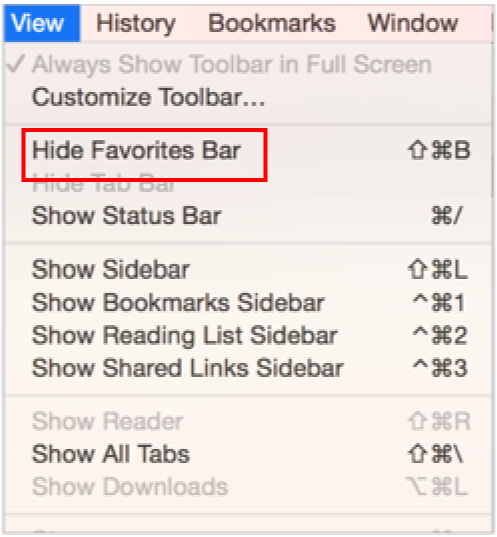
### Show or hide the bookmark bar in Safari

- Open Safari.
- Click the **View** menu on the top of the Window.


Safari
File
Edit
View
History
Bookmarks
Window
Help
9

- Select **Show** (or **Hide**) **Favorites Bar** from the pop-up menu that appears depending on whether the bar is on or off. Click **Show Favorites Bar** to turn the bookmarks bar on. Click **Hide Favorites Bar** to turn the bookmarks bar off.


View
History
Bookmarks
Window
✓ Always Show Toolbar in Full Screen
Customize Toolbar…
Show Favorites Bar ⇧⌘B
Hide Tab Bar
Show Status Bar ⌘/
Show Sidebar ⇧⌘L
Show Bookmarks Sidebar ^⌘1
Show Reading List Sidebar ^⌘2
Show Shared Links Sidebar ^⌘3
Show Reader ⇧⌘R
Show All Tabs ⇧⌘\
Show Downloads ⌥⌘L


View
History
Bookmarks
Window
✓ Always Show Toolbar in Full Screen
Customize Toolbar…
Hide Favorites Bar ⇧⌘B
Hide Tab Bar
Show Status Bar ⌘/
Show Sidebar ⇧⌘L
Show Bookmarks Sidebar ^⌘1
Show Reading List Sidebar ^⌘2
Show Shared Links Sidebar ^⌘3
Show Reader ⇧⌘R
Show All Tabs ⇧⌘\
Show Downloads ⌥⌘L

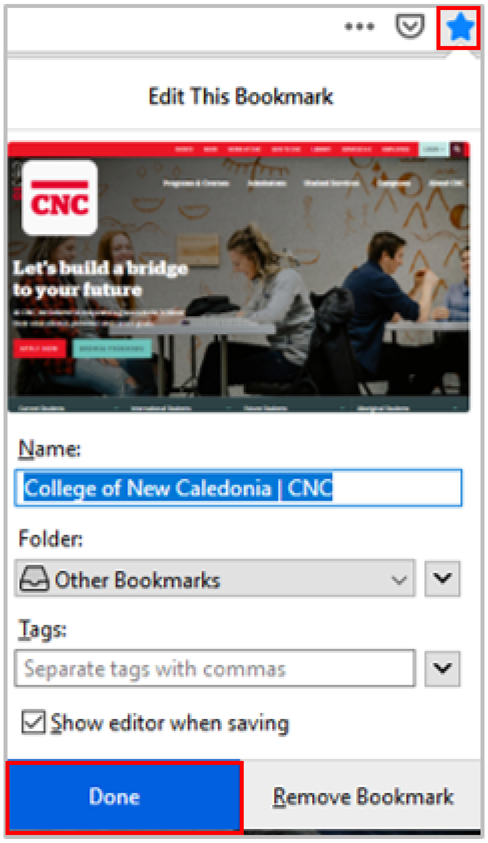
## Mozilla Firefox

### Add bookmarks to Firefox

1. Open **Firefox**.
2. Double-click on Firefox to open it.
3. Go to the website you would like to bookmark.
4. Click on the star icon to the right of the address bar.
5. Click **Done** to add the bookmark.

### Find a bookmark in Firefox

1. Open **Firefox**.
2. Type the first word of your bookmark in address bar. As you type in address bar, Firefox will suggest websites (bookmark) you've visited.
3. Find and click a bookmark to open it (to see your favorites).

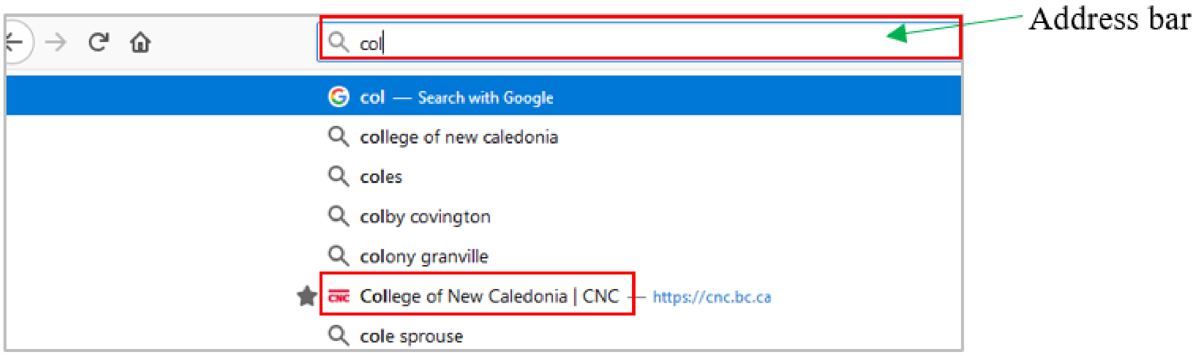

Edit This Bookmark
CNC
Let's build a bridge to your future
Done
Remove Bookmark

Name: College of New Caledonia | CNC

Folder: Other Bookmarks

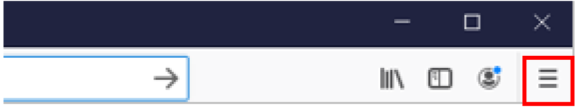
Tags: Separate tags with commas

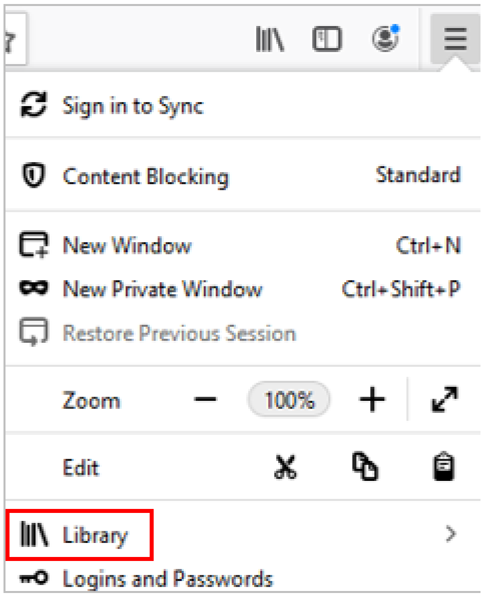
☑ Show editor when saving


Address bar
col
col — Search with Google
college of new caledonia
coles
colby covington
colony granville
College of New Caledonia | CNC — https://cnc.bc.ca
cole sprouse

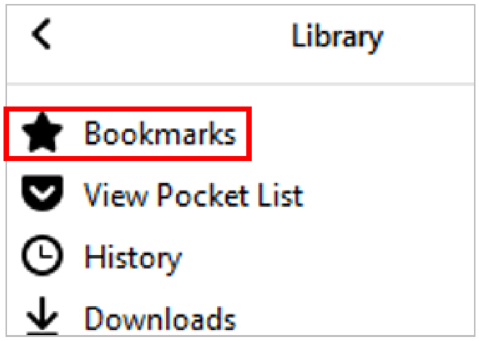
## Show or hide the bookmark bar in Firefox

1. Open Firefox.
2. Click on the three-line icon to the upper-right corner.

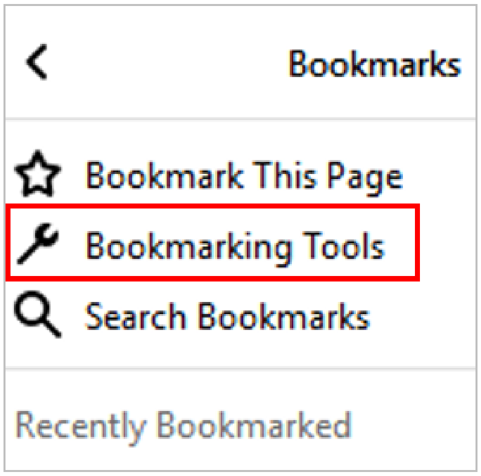



Sign in to Sync
Content Blocking
Standard
New Window
Ctrl+N
New Private Window
Ctrl+Shift+P
Restore Previous Session
Zoom
100%
Edit
Library
Logins and Passwords

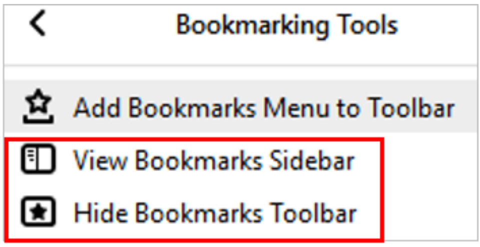
3. Click **Library** on the pop-out menu.


Library
Bookmarks
View Pocket List
History
Downloads

4. Click **Bookmarks** on the pop-up Library menu.
5. Click the **Bookmarking Tools** on the pop-up Bookmarks menu.


Bookmarks
Bookmark This Page
Bookmarking Tools
Search Bookmarks
Recently Bookmarked

6. Click the **View** or **Hide Bookmarks Toolbar** in the Bookmarking Tools menu to turn the bookmarks bar on and off.


Bookmarking Tools
Add Bookmarks Menu to Toolbar
View Bookmarks Sidebar
Hide Bookmarks Toolbar

# Topic B. Email

Click play on the following audio player to listen along as you read this section.

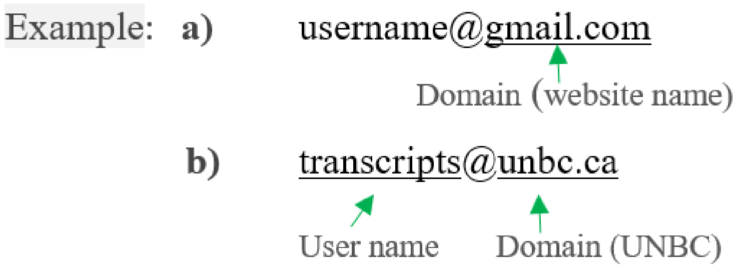
*A BCcampus element has been excluded from this version of the text. You can view it online here: [https://opentextbc.ca/computerstudies/?p=382](https://opentextbc.ca/computerstudies/?p=382)*

## Email Address

- **Email** (electronic mail) – an Internet service that allows users who have an e-mail account (address) to send and receive messages anywhere in the world.
    - An email may contain attachments (files, photos, videos, etc.).
    - Some free email accounts and service providers: Gmail, AOL Mail, Outlook.com, Zoho Mail, com, Yahoo Mail, ProtonMail, Yandex Mail, GMX Mail, etc.

Here is your e-mail icon:
@Gmail.com

- An email address consists of three parts:
    - User name of the recipient.
    - @ sign (at sign) – every email address consists of an @ sign.
    - Domain (email service provider – an organization / company, or a website name).


Example: a) username@gmail.com
Domain (website name)
b) transcripts@unbc.ca
User name
Domain (UNBC)

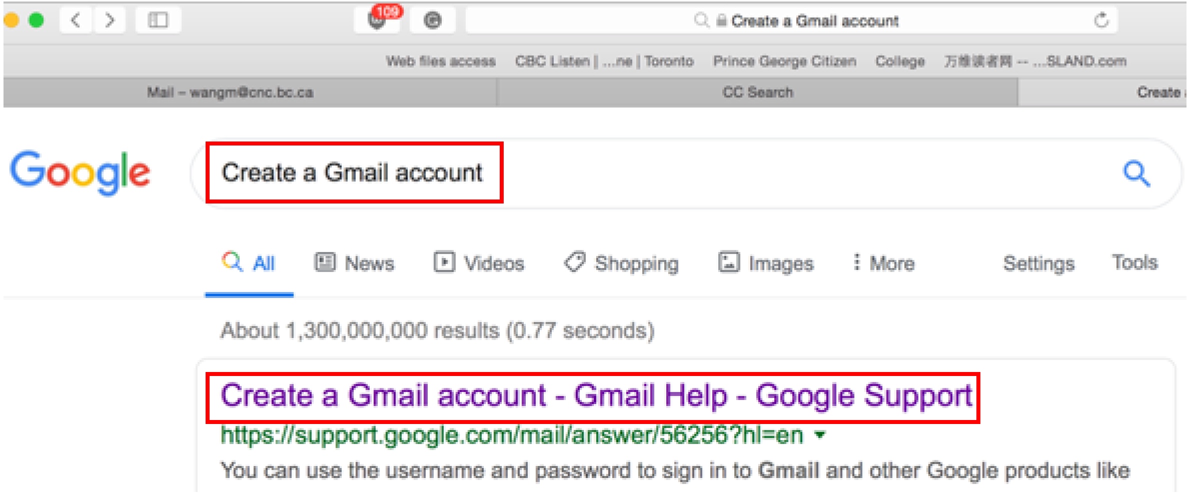
**Popular Free Email Providers**

| **Email provider** | **Sample email addresses** |
|---|---|
| Gmail | username@gmail.com |
| Outlook | username@outlook.com |
| Yahoo! Mail | username@yahoo.com |
| ProtonMail | username@protonmail.com |
| Zoho | username@zoho.com |
| AOL | username@aol.com |

# Create an Email Account

## Create a Gmail account

1. On your computer, go to the [Google Account creation page](#).

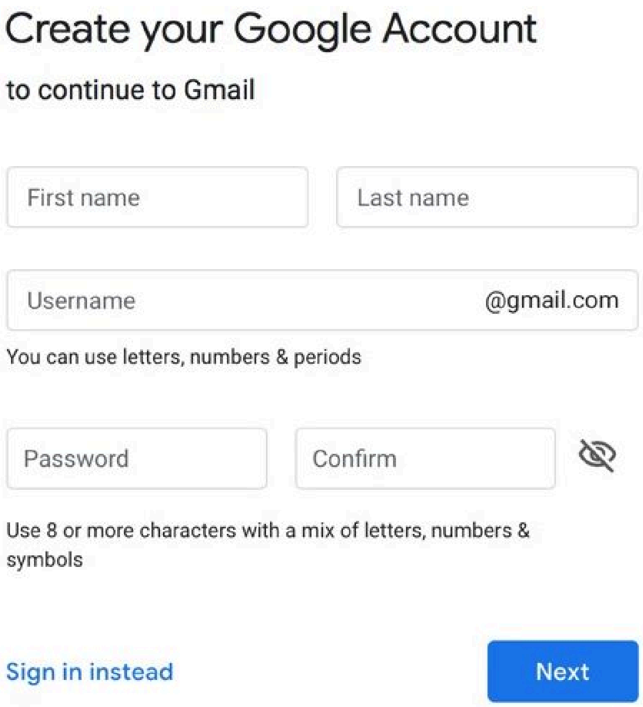

109
Create a Gmail account
Web files access
CBC Listen | ...ne | Toronto
Prince George Citizen
College
...SLAND.com
Mail – wangm@cnc.bc.ca
CC Search
Create
Google
All
News
Videos
Shopping
Images
More
Settings
Tools

Create a Gmail account

About 1,300,000,000 results (0.77 seconds)

Create a Gmail account - Gmail Help - Google Support
https://support.google.com/mail/answer/56256?hl=en
You can use the username and password to sign in to Gmail and other Google products like

2. Enter your first, last name, username, and password (twice).
3. Click **Next.**



Create your Google Account

to continue to Gmail

First name
Last name
Username
@gmail.com

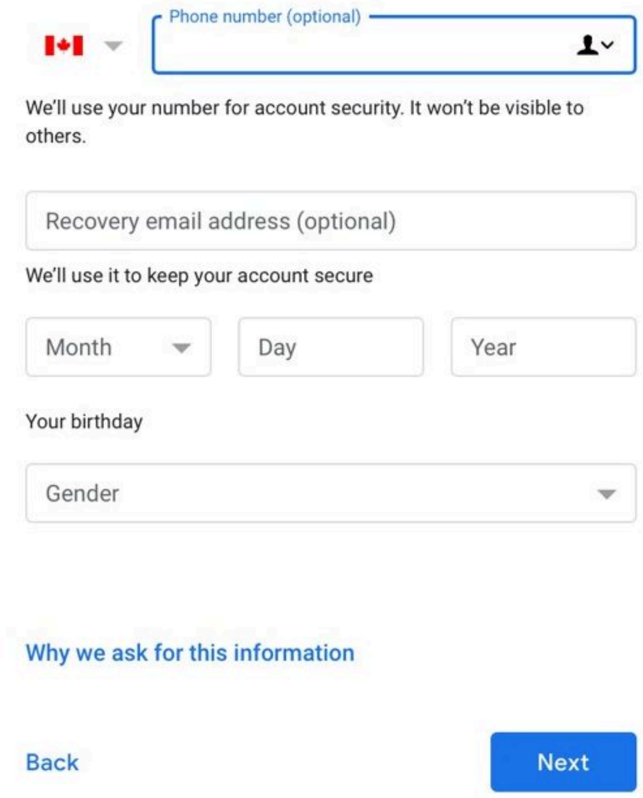
You can use letters, numbers & periods

Password
Confirm

Use 8 or more characters with a mix of letters, numbers & symbols

Sign in instead
Next

4. Enter your phone number (optional).
5. Enter “Recovery email address” (optional).
6. Enter your birthday, and gender.
7. Click **Next**.
8. Scroll down and click **I agree**. Your account will be created and ready to send and receive emails.


Phone number (optional)

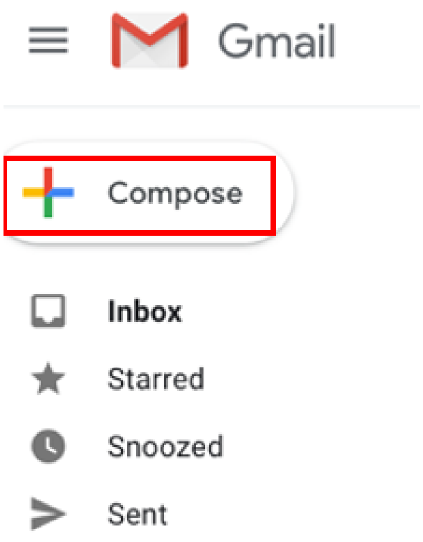
We'll use your number for account security. It won't be visible to others.

Recovery email address (optional)

We'll use it to keep your account secure

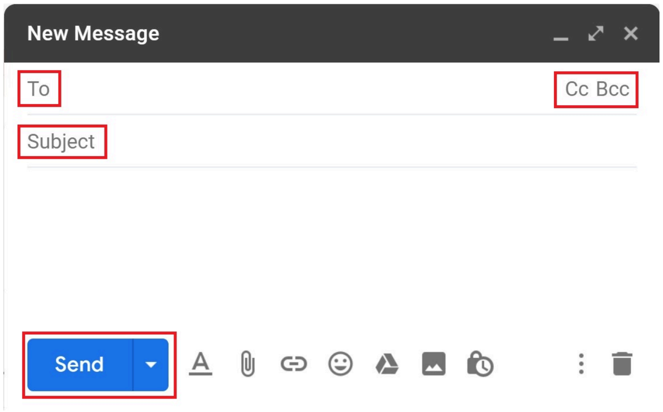
Month
Day
Year
Your birthday
Gender
Why we ask for this information
Back
Next

## Sending and Receiving Email


Gmail
Compose
Inbox
Starred
Snoozed
Sent

### Steps for sending and receiving emails

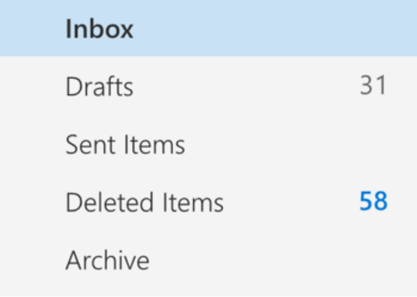
1. Log into your email account (such as Gmail, Outlook, Yahoo! Mail, etc.). Or log into your institutional email (many colleges / universities give students an email address).
2. Click **Compose** (Gmail) or something similar (e.g., **New** in Outlook).
3. Enter a recipient's email address in the "To" field. (You can also add recipients in the "Cc" and "Bcc" fields.)
4. Enter a subject (the topic or heading of your email).
5. Type your message in the main body field.
6. Click **Send** at the bottom of the page.



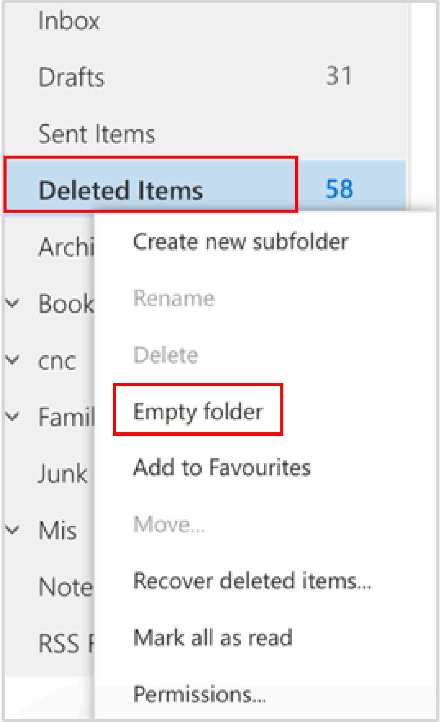
## Cc and Bcc

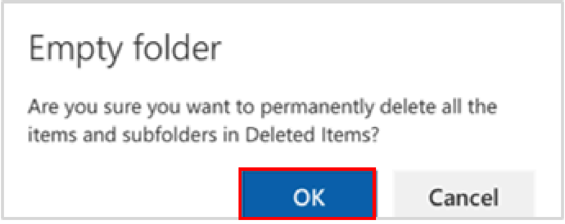
- **Cc (carbon or courtesy copy)** – entering a person's email address in the "Cc" field means that person will receive a copy of the email (for their information).
- **Bcc (blind carbon copy)** – Bcc is similar to that of Cc except that the email address is invisible to the people in the "To" or "Cc" fields. Use Bcc if you don't want the other people to see who else has received a copy of the email.

## Email Folders



- **Inbox folder** – the place where incoming emails are received and stored (incoming emails arrive in the "Inbox" folder).
- **Sent Mail folder** – the email you've sent will be saved in the "Sent Mail" (or "Sent Items") folder.
- **Drafts folder** – an unfinished email will be automatically saved to your 'Drafts' folder.
- **Junk Email folder** – the Junk Email Filter feature moves suspected incoming emails (spams) to the Junk Email folder (a place used to store spam emails).
- **Deleted items folder**: every email that you deleted will be moved to the "Deleted Items" folder.
    - It's a good idea to empty your "**Deleted Items**" folder from time to time in order to save space.
    - To empty the Deleted Items folder: Right-click the Deleted Items folder and click **Empty**, then **Ok**.


Inbox
Drafts 31
Sent Items
Deleted Items 58
Archi
Book
cnc
Famil
Junk
Mis
Note
RSS F
Create new subfolder
Rename
Delete
Empty folder
Add to Favourites
Move...
Recover deleted items...
Mark all as read
Permissions...


Empty folder

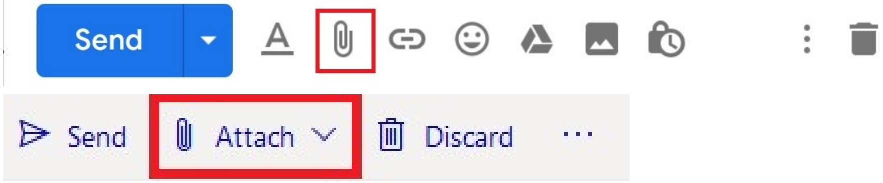
Are you sure you want to permanently delete all the items and subfolders in Deleted Items?

OK
Cancel

## Email Attachment

### Steps to send emails including attachments

1. Log into your email account.
2. Click **Compose** (Gmail) or something similar (e.g., **New** in Outlook).
3. Enter a recipient’s email address in the “To” field.
4. Enter a subject.
5. Type your message in the main body field.
6. Click **Attach** or something similar (e.g., the paper click icon).


Send
Send
Attach
Discard
...

7. Select the file you want to attach from your computer’s folder.
8. Click the **Open** or another similar button to attach the file to your email.
9. Click **Send** at the bottom of the page.

# Topic C: Web search engine

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=388*

## Perform a Search using a Web Search Engine

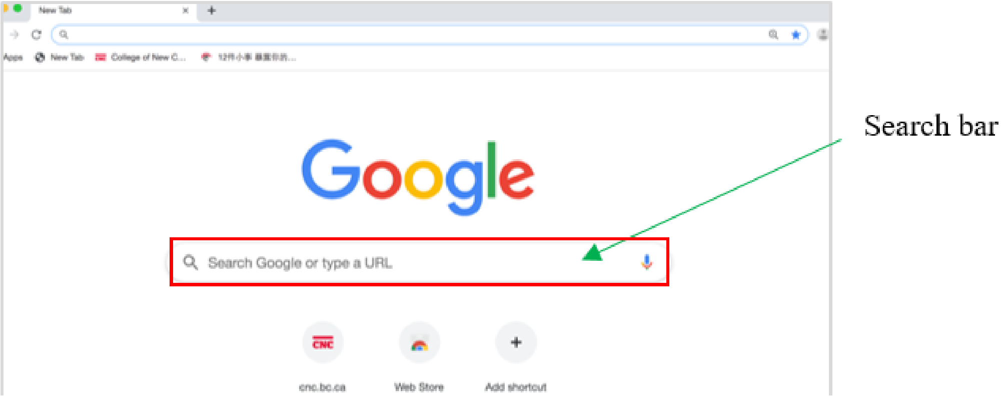
**Search engine** – an Internet search engine is a web-based tool (a software) that is designed to search the content of web pages and to find particular information on the Internet.

### Some popular search engines

- Google
- Bing
- Baidu
- Yahoo!
- Yandex
- Ask.com
- DuckDuckGo

### Search the Internet using a web search engine

1. Open a search engine in a web browser (such as Google in Chrome).
2. Type a few specific keywords or phrases to describe whatever you wish to search in the search bar. Search engines look for the keywords in your query.
3. Press the **Enter** key on the keyboard.
4. Repeat above steps if necessary.



## Security Issues on the Internet

### Internet security issues

Although Internet led to many benefits, it also poses a greater potential for security threats.

### The common Internet security issues

- **Hacker** – refers to a person who can gain unauthorized access (break into) to a computer or a network to commit crimes.
- Some things a skilled hacker can do to your computer:
    - Hijack your usernames and passwords;
    - Gain access to the personal information (credit card numbers, bank account, social insurance number, etc.);
    - Steal, change, exploit, sell or destroy data;
    - Damage or bring down systems;
    - Hold those system hostages to collect ransom.
- **Malware** (short for malicious software) – a software that is designed to damage, disrupt, or infect computers.
    - Malware can gain unauthorized access to a computer and continuously run in the background without owner's knowledge.
    - Malware is a single term that refers to all the different types of threats to your computer safety such as virus, Trojan horse, worm, spyware, etc.
- **Computer virus** – a specific type of malware that is designed to replicate (copy) and spread from one computer to another.
    - A virus can make a copy of itself over and over again.
    - A virus can spread from one computer to another through email, removable storage devices, networks (e.g. internet messaging services, download infected files …),

etc.

  - A virus can damage your computer by corrupting system files, sending spam, stealing data and personal information from your computer, destroying data, deleting everything on your hard drive, etc.

- **Trojan horse**(or Trojan) – a type of malware that looks harmless but can damage, disrupt, steal data on your computer.
  - A Trojan misleads users of its true intent.
  - A Trojan may claim to get rid of your computer viruses but instead introduces viruses onto your computer.
  - A Trojan can take the form of an innocent-looking email attachment, download, etc.
- **Worm** – it is similar to a virus (a sub-class of a virus). It is designed to quickly self-replicate and spread copies of themselves from one computer to another.
  - The key difference between a virus and a worm is that a virus needs human action to replicate, whereas, a worm doesn't.
  - A virus only spreads when a user opens an affected file whereas a worm spreads without the use of a host file.
- **Phishing** – a scammer uses deceptive emails or websites and tries to obtain valuable personal information (i.e., username, password, account number, etc.).
  - Phishing is a common online scam used by cyber criminals.
  - A scammer may use a deceptive email or website appearing to represent a legitimate firm.

WARNING
CYBER
ATTACK
SIGN IN

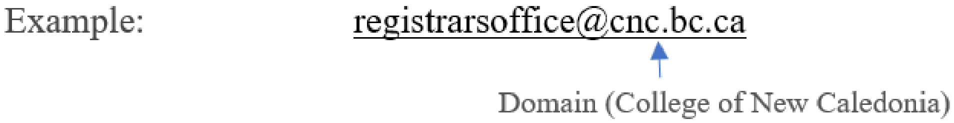
- **Spyware** – a software that secretly monitors (spies) user's online behavior and gets sensitive information about a person or organization without the user's knowledge.
  - A spyware can record a user's Web browsing habits, e-mail messages, keystrokes on online advertisements, personal information, etc., and forward it to a third party.
  - Advertisers can use spyware to target specific advertisements to your tastes.
  - Criminal organizations can use spyware to collect financial information (banking accounts, credit card information, password, etc.).

## Prevent Cyber Threats

### Tips on how to prevent malware from infecting your computer

- Backup files and store in different locations.
- Don't open any suspicious / unknown emails or the websites. The second part (the part after

the @ ) of an email / website address should represent the company that owns the email / website (domain).



Example: registrarsoffice@cnc.bc.ca

Domain (College of New Caledonia)

- Don’t download an unknown or a suspicious attachment (document, picture, music, game, video, etc.).
- Do not call fake tech support numbers (tech support scams). If you get pop-up window from fake companies offering to help you with a malware infection, don’t call the number.
- Use a secure and strong password (unique, hard to guess, etc.).
- Install anti-malware / virus software (keep it up to date).
- Scan with antivirus software on a regular basis.

Some free antivirus software:

- Comodo Free Antivirus
- AVAST Free Antivirus
- AVG Antivirus Free
- Avira Antivirus
- Bitdefender Antivirus Free

# Unit 11: Self-test

Click play on the following audio player to listen along as you read this section.

*A BCcampus element has been excluded from this version of the text. You can view it online here: https://opentextbc.ca/computerstudies/?p=389*

Find answers to this self-test at the back of the book: Answers for Self-Tests

## True or false

1. A bookmark is a software program that allows users to access and display websites or webpages on the internet.
2. A web browser is a collection of links to web pages that is stored in a bookmark.
3. An email may contain attachments (files, photos, videos, etc.).
4. Bcc is similar to that of Ccexcept that the email address is invisible to the people in the “To” or “Cc” fields.
5. An unfinished email will be automatically saved to your ‘Income’ folder.
6. Although the Internet led to many benefits, it also poses a greater potential for security threats.
7. Malware is a single term that refers to all the different types of threats to your computer safety such as virus, Trojan horse, worm, spyware, etc.

## Fill in the blank

8. Saving [Blank] allows users to quickly navigate back to the websites they visit the most.
9. A bookmark [Blank] contains all bookmarks that shows on the top of the Window.
10. Click on the [Blank] icon to the right of the address bar can add the bookmark to Firefox.
11. Email – an Internet service that allows users who have an [Blank] account to send and receive messages anywhere in the world.
12. Enter a person’s email address to the [Blank] field means that person will receive a copy of the email.
13. The email you’ve [Blank] will be saved in the Sent Mail (or Sent Item) folder.

14. An internet [Blank] is a web-based tool that is designed to search the content of web pages and to find particular information on the Internet.
15. A [Blank] refers to a person who can gain unauthorized access to a computer or a network to commit crimes.
16. [Blank] is a software that is designed to damage, disrupt, or infect computers.
17. A computer [Blank] is a specific type of malware that is designed to replicate and spread from one computer to another.
18. Advertisers can use [Blank] to target specific advertisements to your tastes.

## Multiple choice

19. Click the [Blank] Bookmarks Toolbar in the Bookmarking Tools menu to turn the bookmarks bar on and off.
    a. On / Off
    b. Open / Close
    c. View / Hide
    d. All of the above
20. An email address consists of:
    a. @ sign
    b. username
    c. domain
    d. all of the above
21. Incoming emails arrive in the [Blank] folder.
    a. Sent Mail
    b. Inbox
    c. Drafts
    d. Junk Email
22. [Blank] is a type of malware that looks harmless but can damage, disrupt, steal data on your computer.
    a. phishing
    b. spyware
    c. a Trojan horse
    d. a worm

# Glossary

**application program (or application software)**

a computer program that provides users with tools to accomplish a specific task.

**artificial intelligence (AI)**

an area of computer science that deals with the simulation and creation of intelligent machines or intelligent behave in computers (they think, learn, work, and react like humans).

**basic file management**

a way to name, save, backup, organize, and keep track of files and folders on a computer.

**Bcc (blind carbon copy)**

Bcc is similar to that of Cc except that the email address is invisible to the people in the “To” or “Cc” fields. Use Bcc if you don't want the other people to see who else has received a copy of the email.

**bit**

the smallest, most basic unit of measurement for computer data storage, represented as either a 0 or a 1. One byte is equal to 8 bits.

**blog**

a personal website or webpage that is like an online diary/journal.

**bold**

a typeface that makes a character thicker than the regular one. Boldfacing is often used for emphasis, headings, subheads, highlight keywords, etc.

**bookmark (or favourite)**

a collection of links (a saved shortcut) to web pages that is stored in a web browser.

**bookmark bar**

a row of all bookmarks that shows on the top of a browser window (under the address bar).

**browser**

a software program that allows users to access and display websites or web pages (documents, images, video, music, etc.) on the Internet.

**bullet**

a dot, a small circle, diamond, or other symbol that is found before the text in a list (a phrase, sentence or paragraph, etc.) to help organize information, make it easier to read, or differentiate between the different points.

**byte**

a unit of measurement for data storage. One byte is equal to 8 bits.

**Cc (carbon copy or courtesy copy)**

entering a person's email address in the “Cc” field means that person will receive a copy of the email (for their information).

**center-justification**

text is aligned to neither the left side nor right.

**chat room**

an online service that allows people to communicate by typing messages to each other in real time.

**computer monitor**

a display screen used to display information (text, image, video, etc.) processed by a computer.

**computer system**

a complete computer that includes a system unit along with all its software (such as Office 2016, Windows 10, etc.) and peripheral devices (such as a mouse, keyboard, monitor, printer, etc.) connected to it.

**computer virus**

a specific type of malware that is designed to replicate (copy) and spread from one computer to another.

**cookie**

A small text file stored in a user's computer by a website that the user has visited so that it can remember something about the user at a later time.

**copy**

make a duplicate of the selected items (text, symbol, table, image, etc.) and place it in another location.

**CPU (central processing unit)**

The brain or engine of a computer, where most of the processing and operations take place.

**cut**

removes the selected item from its original position.

**database program**

a program that is designed for creating, editing, updating, and maintaining databases and managing organized information stored in them.

**deleted items**

an email folder that saves all emails that have been deleted.

**desktop computer**

a personal computer that is designed to stay at one location and fits on or under a desk. It typically has a monitor, keyboard, mouse, and a tower (system unit).

**device driver**

a software program that is designed to control a particular hardware device that is attached to a computer.

**disk drive**

a computer device that stores and retrieves information, data, files, programs, etc., from a disk.

**double-click**

quickly click the left mouse button twice on any folder, file, or program to open it.

**drafts**

an email folder that automatically saves unfinished emails.

**drag and drop**

press and hold the left mouse button to grab an object (such as an icon on the desktop) and place it to a different location.

**Editing a document**

making revisions to a document, focusing on correcting errors, improving the accuracy of language, rearranging, making words and sentences clearer, more effective, etc.

**email**

an Internet service that allows users who have an email account (or address) to send and receive messages anywhere in the world.

**external hardware devices (peripherals)**

any hardware device that is located outside the computer.

**file**

a storage unit on a computer that stores information, data, etc. (such as a document, an image, etc.).

**filename**

a unique name given to a file to identify it.

**files hierarchy**

a file system that organizes folders and files in a top-to-bottom structure.

**firewall**

a network security device designed to prevent unauthorized access to or from a network.

**folder (or directory)**

a virtual storage space used to store and organize computer files.

**footer**

a section of information that appears at the bottom margin of each page of a document.

**formatting**

the appearance of a document. It is the shape, size, form, style, typeface, general arrangement etc. of a document.

**FTP (File Transfer Protocol)**

a set of rules (a protocol) for transferring files between computers over the Internet.

**hacker**

a person who can gain unauthorized access to (break into) a computer or a network to commit crimes.

**hard disk drive**

the main data storage device in a computer.

**hardware**

any physical device or equipment used in or with a computer system (anything you can see and touch).

**header**

a section of information that appears at the top margin of each page of a document.

**help menu / button**

the user can click help button in Word to initiate a search, display the help resources, and aid the user in his / her task.

**horizontal scroll bar**

a horizontal bar on the bottom of a window or screen that allows the user to scroll the window viewing area to the left or right.

**horizontal scrolling**

sliding content left or right on a computer screen using a horizontal scroll bar.

**HTTP**

short for Hypertext Transfer Protocol. A set of rules (a protocol) for transferring and accessing data using the web.

**inbox**

an email folder where incoming emails are received and stored.

**input device**

a piece of hardware device which is used to enter information to a computer for processing.

**integrated circuit (IC)**

a small electronic circuit printed on a chip (usually made of silicon) that contains many its own circuit elements (e.g. transistors, diodes, resistors, etc.).

**internal hardware devices (or internal hardware components)**

any piece of hardware device that is located inside the computer.

**Internet**

a globally connected massive computer network system.

**IP (Internet Protocol)**

a set of rules (a protocol) for sending data from one computer to another on the Internet.

**ISP (Internet service provider)**

a company that provides Internet service to customers.

**italics**

a type style with characters that slope to the right. Italic is often used to emphasize a particular word, sentence, or particular part of a document.

**junk email**

the Junk Email Filter feature moves suspected incoming emails (spams) to the Junk Email folder (a place used to store spam emails).

**justify (full justification)**

align text along the both left and right sides.

**keyboard**

an input device that allows a user to enter characters (letters, numbers, symbols, etc.) and commands into a computer.

**keyboarding skills**

the ability to input information through a keyboard smoothly while typing.

**laptop computer**

a portable personal computer that is small enough to rest on the user's lap and can be powered by a battery. It includes a flip down screen and a keyboard with a touchpad. Also known as a notebook.

**left-click**

press the left mouse button on the left side of the mouse. Left-click is often referred to as “regular-click” and it is used for many common computer tasks, such as selecting objects, closing windows, opening hyperlinks, double-clicking, etc.

**left-justification (flush left)**

align text along the left side (ragged on the right).

**line spacing**

the space between lines of text in a paragraph / document.

**link**

a word, phrase, image, etc., within a file or web page that a user can click on to jump to another document, section of the same document, or web page. Also known as a hyperlink.

**Mac**

a type of personal computer made by Apple Inc. Short for Macintosh.

**machine language**

a low-level programming language comprised of a collection of binary digits (ones and zeros) that the computer can read and understand.

**magnetic core**

uses arrays of small rings of magnetized material called cores to store information.

**magnetic drum**

a cylinder coated with magnetic material, on which data and programs can be stored.

**mainframe computer**

a high-performance computer used for large information processing jobs.

**malware**

a software that is designed to damage, disrupt, or infect computers.

**memory**

a physical device that is used to store data, information, and programs in a computer.

**microprocessor**

an electronic component held on an integrated circuit that contains a computer's central processing unit (CPU) and other associated circuits.

**Microsoft Office**

> a group of productivity software applications developed by Microsoft Corporation. Microsoft Office 2016 includes such programs as Microsoft Word, Microsoft Excel, Microsoft PowerPoint, etc.

**minicomputer**

> a mid-range computer that is intermediate in size, power, speed, storage capacity, etc., between a mainframe and a microcomputer.

**motherboard**

> the main circuit board of a computer; also known as the mainboard.

**mouse**

> a hand-held pointing device that can control the position of a cursor on a display screen.

**moving**

> move the original files or folder from one place to another (change the destination).

**online communication**

> the sharing of information or communication over a computer network.

**operating system (OS)**

> a software that controls and coordinates the computer hardware devices and runs other software and applications on a computer. It is the main part of system software and a computer will not function without it.

**output device**

> a piece of hardware device that receives information from a computer.

**page break**

> a page break marks the end of a page that indicates where the printer will start a new page.

**page layout**

> the arrangement of text, graphics, pictures, and other elements on a page. It describes how each page of a document will appear when it is printed.

**page numbers**

> Word supports automatically adding page numbers in a multi-page document.

**personal computer**

a small computer designed for use by a single user at a time. Also known as a PC or a microcomputer.

**phishing**

when an Internet scammer uses deceptive emails or websites to try to obtain valuable personal information from people.

**point and click**

point an object on the screen and then press a button on the mouse to select objects / commands, open menus / hyperlinks (links), or close windows.

**pointing device**

a device used to control the movement of the pointer (cursor) on the screen.

**presentation program**

a program that is designed to present information in the form of a slideshow, using multimedia formats such as pictures, sounds, videos, and text.

**printer**

an output device linked to a computer that transfers the information (text, images, etc.) to paper.

**RAM (random-access memory)**

a type of data storage (memory element) used in computers that temporarily stores programs and data. RAM is a kind of volatile memory, meaning its contents are lost when the computer is turned off.

**reboot**

to shut down and restart a computer, allowing its operating system and programs to be reloaded.

**ribbon**

a group of buttons and icons (tabs) at the top of the window that allows users to access the commands that they need to complete a task.

**right-click**

press the right mouse button on the right side of the mouse to display a popup menu showing commands for a selected item.

**right-justification (flush right)**

align text along the right side (ragged on the left).

**ROM (read-only memory)**

a type of data storage used in computers that permanently stores data and programs. ROM is a kind of non-volatile memory, meaning its contents are retained even when the computer is turned off.

**router**

a device that transfers data between computer networks to provide access to the Internet.

**ScreenTip (ToolTip)**

a small text box (a hint) appears when the mouse point rest on a command, icon, button, etc. It displays the name of the item and sometimes a brief description of its function and the shortcut key for the command.

**scrolling**

sliding content (text, images, etc.) vertically or horizontally on a computer screen and allowing the user to view different parts of information in a window.

**search engine**

a web-based tool that is designed to search the content of web pages and find particular information on the Internet.

**section break**

a section break splits a page into sections that can have a different format or layout within the same page in the document.

**sent**

an email folder that saves copies of emails that you have sent.

**server**

a central computer that provides information to other computers.

**smartphone**

a mobile phone that performs many of the functions of a personal computer.

**social networking**

the use of websites and other Internet services to communicate with other people.

**software**

a set of instructions or programs that tells a computer what to do or how to perform a specific task (computer software runs on hardware).

**spreadsheet**

a program that organizes data into rows and columns, also known as tabular form. This data can then be arranged, sorted, calculated (using formulas and functions), analyzed, or illustrated using graphical representations.

**spyware**

a software that secretly monitors (spies) a user's online behaviour and gets sensitive information about a person or organization without the user's knowledge.

**supercomputer**

a powerful computer that can process large amounts of data and do a great amount of computation very quickly.

**system software**

it is designed to run a computer's hardware and application software, and make the computer system available for use. It serves as the interface between hardware, application software, and the user.

**system unit**

the main part of a desktop computer (the case) that contains all of the main electronic components.

**tab selector (tab indicator)**

a small button located in the left corner of the horizontal ruler that supplies the user with a variety of tab marker (tab stop) options (left, right, center, etc.).

**tab stop**

a location where the cursor (insertion point) would stop when the Tab key is pressed.

**table**

information arranged in a condensed form of columns and rows. It is a more effective way to present information.

**tablet**

a wireless touchscreen PC that is slightly smaller and weighs less than the average laptop.

**text justification / alignment**

refers to how the left and right edges of a paragraph align on a page.

**touch typing**

a method of typing (with all the available fingers) without looking at the keyboard.

**trackpad**

a small, flat surface on a laptop or other computer that does the same things as a mouse.

**transistor**

an electronic component that can be used as an amplifier or as a switch. It is used to control the flow of electricity in radios, televisions, computers, etc.

**Trojan horse**

(or Trojan) a type of malware that looks harmless but can cause harm to a computer system.

**underline**

add a line underneath the text, in order to show its importance and draw attention to the text.

**URL**

Short for Uniform Resource Locator. A web address of a specific web page or file on the Internet.

**USB drive**

a small, portable storage device used to store or transfer data for computers; often used for the storage, data backup, and transfer of computer files.

**utility software**

a type of system software that helps set up, analyze, configure, strengthen, maintain a computer and performs a very specific task (e.g. antivirus software, backup software, memory tester, screen saver, etc.).

**vacuum tube**

an electronic device that controls the flow of electrons in a vacuum. It used as a switch, amplifier, or display screen in many older model radios, televisions, computers, etc.

**vertical scroll bar**

a vertical bar on the right side of a window or screen that allows the user to scroll the window viewing area up or down.

**vertical scrolling**

sliding content up or down on a computer screen using a vertical scroll bar.

**video conferencing**

a live video-based meeting between two or more users in different locations conducted by transmitting audio and video data in real time.

**VoIP**

a telephone connection over the Internet.

**word processing**

the use of a program (software application) running on a computer to create, edit, format, and store documents.

**word processor**

a program that allows users to create, save, edit, format, print, and retrieve documents.

**World Wide Web**

a system of Internet servers that is made from millions of interlinked websites and web pages. Abbreviated as WWW or the web.

**worm**

a type of virus designed to quickly self-replicate and spread copies of itself from one computer to another.

# Answers for Self-Tests

## Unit 1

1. T
2. F
3. F
4. F
5. T
6. T
7. system unit
8. Central Processing Unit
9. temporary
10. monitor
11. Universal Serial Bus
12. hard
13. VoIP
14. letter
15. a.
16. d.
17. d.
18. b.
19. d.
20. a.

## Unit 2

1. T
2. F
3. F
4. T
5. Touch
6. Center
7. home
8. D
9. K
10. d.
11. d.
12. b.
13. c.
14. d.
15. b.
16. c.

## Unit 3

1. T
2. F
3. T
4. F
5. hard
6. VoIP
7. letter
8. folder
9. printer
10. edit
11. c.
12. d.
13. b.
14. c.

## Unit 4

1. F
2. T
3. T
4. F
5. web browser
6. bar
7. PDF
8. d.
9. c.
10. d.

## Unit 5

1. F
2. T
3. T
4. F
5. T
6. hacker
7. virus
8. worm
9. spyware
10. invisible
11. Inbox
12. Deleted
13. a.
14. d.
15. b.
16. c.

## Unit 6

1. T
2. F
3. F
4. T
5. F
6. T
7. F
8. Word processor
9. spreadsheet
10. Presentation
11. Mainframe
12. network
13. webpages
14. Cookie
15. Operating system
16. d.
17. d.
18. c.
19. b.
20. a.
21. d.
22. b.
23. d.

## Unit 7

1. T
2. F
3. F
4. T
5. F
6. F
7. T
8. T
9. transistor
10. CPU
11. Machine language
12. AI
13. machine
14. input
15. System
16. device
17. d.
18. c.
19. b.
20. d.
21. a.
22. c.

## Unit 8

1. F
2. T
3. F
4. T
5. F
6. F
7. F
8. touchpad
9. left
10. touch
11. drop
12. output
13. icons
14. hierarchy
15. b.
16. c.
17. b.
18. a.
19. d
20. d.
21. d.
22. b.

## Unit 9

1. F
2. F
3. T
4. T
5. F
6. F
7. T
8. Word processing
9. I-beam
10. original
11. printer
12. appearance
13. Center
14. right
15. underneath
16. help
17. b.
18. b.
19. c.
20. d.
21. a.
22. c.

## Unit 10

1. T
2. F
3. T
4. F
5. F
6. header
7. bullet
8. vertical
9. section
10. b.
11. c.
12. d.
13. b.
14. d.
15. a.

## Unit 11

1. F
2. F
3. T
4. T
5. F
6. T
7. T
8. bookmark
9. bar
10. star
11. e-mail
12. Cc
13. sent
14. search engine
15. hacker
16. Malware
17. virus
18. spyware
19. c.
20. d.
21. b.

22. c.

# Versioning History

This page provides a record of edits and changes made to this book since its initial publication in the B.C. Open Textbook Collection. Whenever edits or updates are made in the text, we provide a record and description of those changes here. If the change is minor, the version number increases by 0.01. If the edits involve substantial updates, the version number increases to the next full number.

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|---|---|---|---|
| 1.00 | November 27, 2020 | Added to the B.C. Open Textbook Collection. | |