

Word

Page 45 discussed **word-processing programs**. The dominant word-processing program is **Microsoft Word**. Here's how to use it.

Versions of Word

If you're using a **DOS version** of Microsoft Word, it's primitive! Switch to a Windows version.

The **Mac versions** of Microsoft Word resemble the Windows versions. Here's the main difference: instead of pressing a Ctrl key, press the Mac's Command key, on which you'll see a squiggly cloverleaf (and also see an apple if your keyboard is modern).

Microsoft Word for Windows is nicknamed **Winword**. It's gone through several versions:

Version 1	was invented in 1989 for Windows 2.	
Version 1.1	was invented in 1990 for Windows 2.	
Version 2	was invented in 1991 for Windows 3.	
Version 6	was invented in 1994 for Windows 3.1. (There was no Winword version 3, 4, or 5.)	
Version 7	was invented in 1995 for Windows 95.	
Version 97	was invented in 1997 for Windows 95.	It's also called version 8 .
Version 2000	was invented in 1999 for Windows 98.	It's also called version 9 .
Version 2002	was invented in 2001 for Windows Me.	It's also called version 10 and version XP .
Version 2003	was invented in 2003 for Windows XP.	It's also called version 11 .
Version 2007	was invented in 2006 for Windows Vista.	It's also called version 12 .
Version 2010	was invented in 2010 for Windows 7.	It's also called version 14 .
Version 2013	was invented in 2013 for Windows 8.	It's also called version 15 .
Version 2016	was invented in 2015 for Windows 10.	It's also called version 16 .
Version 2019	was invented in 2018 for Windows 10.	It's also called version 16 updated .

This chapter explains how to use versions 2013 and 2016.

If you're using an earlier version of Word, get an earlier version of this book by phoning me at 603-666-6644.

Later versions of Word (such as Word 2019) are similar to Word 2016.

Fun

Here's how to enjoy using Microsoft Word.

Prepare yourself

Before starting Microsoft Word, **read and practice my Windows chapter, especially the section about "WordPad"**, which is a stripped-down simplified version of Microsoft Word.

Install

Here's how to put Microsoft Word onto your computer.

Version 2016 Microsoft Word 2016 is intended to be used with Windows 10. (It can also run on Windows 7, 8, and 8.1, but I'll assume you have Windows 10.)

Microsoft Word 2016 is part of Microsoft Office 2016, which you can get in many ways. For example, you can try clicking the tile saying "Get Office" or "Microsoft Office".

Microsoft Office 2016 is part of the 2016 version of Microsoft Office 365. To copy a 30-day-trial version of Microsoft Office 365 from the Internet to your hard disk, free, go on the Internet to:

<http://products.office.com/en-us/try>

Version 2013 Microsoft Word 2013 is intended to be used with Windows 8. (It can also run on Windows 7, 8.1, and 10, but I'll assume you have Windows 8.)

Microsoft Word 2013 is part of Microsoft Office 2013, which you can get in many ways. For example, Microsoft Office 2013 is part of the 2013 version of Microsoft Office 365. Here's how to copy a 30-day-trial version of Microsoft Office 365 from the Internet to your hard disk, free:

While you're looking at the Start screen, type "mi". Tap "Microsoft Office".

Tap the "Try" button then "Start your free trial" then the "Product Language" box then "English" then "Get started" then the "Install" button then the "Run" button (which is at the screen's bottom) then "Yes" then "Next" then "Send us information" then "View Agreement" (which is next to "Accept") then "OK" then "Accept" then "Next" then "Next" again then "No, thanks".

The screen will say "You can use Office now" then "You're good to go". Tap "All done".

Close the window (by tapping the X at the screen's top-right corner). You see another X; tap it.

Press the Windows Start key, so you can start fresh.

Starting

Here's how to start using Microsoft Word.

Version 2016 Choose one of these methods:

Menu method Tap the Start button. (For old Windows 10, then tap "All apps".) You start seeing an alphabetical list of all apps. Get to the "W" part of that list (by putting your finger in the list's middle and swiping up, or by tapping "A" then "W"). Tap "Word 2016".

Search method Next to the Windows Start button is the Windows Search box. Make sure that box is white or light gray. (If it's black or dark gray, make it lighter by tapping it or the Windows Start button.) Type "word". (Type on a physical keyboard, or make an on-screen keyboard appear by tapping the keyboard icon at the screen's bottom.) Your typing appears in the Windows Search box. You see a list of things that contain "word". Tap "Word 2016: Desktop app".

Then tap "Blank document".

Version 2013 While you're looking at the Apps screen (or Start screen), type "wo". Tap "Word 2013" then "Blank document".

See the Microsoft Word screen

Here's what you see:

Version 2016 The screen's top says "Document1 — Word". You also see this **tab bar**:

File Home Insert Draw Design Layout References Mailings Review View

Version 2013 The screen's top says "Document1 — Word". You also see this **tab bar**:

FILE HOME INSERT DESIGN PAGE LAYOUT REFERENCES MAILINGS REVIEW VIEW

If the computer also says "RENEW YOUR SUBSCRIPTION", do this soon (because your 30-day trial or 1-year license will end soon):

Click "Buy". Then click the "Buy now" that's next to "\$99.99 per year". Answer questions about how you wish to pay \$99.99. Click "Save" (which you'll see when you scroll down) then "Purchase" then "Continue". The screen will say "AVAILABLE INSTALLS: 4 OF 5". Do *not* click the Install button; instead, close the window (by clicking the X at the screen's top-right corner). Follow the screen's instructions about signing in.

Type your document

Start typing your document.

Microsoft Word resembles WordPad, so **read these topics on pages 79-81**:

"Use the keyboard" "Scroll arrows" "Insert characters" "Split a paragraph" "Combine paragraphs"

Exceptions:

Ctrl symbols Microsoft Word understands more Ctrl symbols than WordPad.

Here's what Microsoft Word understands:

Symbol How to type it

©	While pressing the Ctrl and Alt keys, type the letter "c".
®	While pressing the Ctrl and Alt keys, type the letter "r".
™	While pressing the Ctrl and Alt keys, type the letter "t".
€	While pressing the Ctrl and Alt keys, type the letter "e".
...	While pressing the Ctrl and Alt keys, type ".".
¿	While pressing Ctrl and Alt (and Shift), type "?".
¡	While pressing Ctrl and Alt (and Shift), type "!".
ç	While pressing Ctrl, tap the ";" key. Then type the letter "c".
ç	While pressing Ctrl, tap the "/" key. Then type the letter "c".
ø	While pressing Ctrl, tap the "/" key. Then type the letter "o".
ñ	While pressing Ctrl (and Shift), type "~". Then type "n".
ô	While pressing Ctrl (and Shift), type "^". Then type "o".
ü	While pressing Ctrl (and Shift), type ":". Then type "u".
â	While pressing Ctrl (and Shift), type "@". Then type "a".
æ	While pressing Ctrl (and Shift), type "&". Then type "a".
œ	While pressing Ctrl (and Shift), type "&". Then type "o".
ß	While pressing Ctrl (and Shift), type "&". Then type "s".
è	While pressing Ctrl, type the symbol ` . Then type "e".
é	While pressing Ctrl, type the symbol ' . Then type "e".
ö	While pressing Ctrl, type the symbol ` . Then type "d".
«	While pressing Ctrl, type the symbol ` . Then while Shifting, type "<".
»	While pressing Ctrl, type the symbol ` . Then while Shifting, type ">".

Insert characters Microsoft Word differs from WordPad in this way:

Tap the screen just if your screen is touch-sensitive.

Ctrl with Page Down makes the pointer move down to the next page.

Ctrl with Page Up makes the pointer move up to the previous page's beginning.

Automatic editing

The computer will automatically edit what you type.

AutoCorrect While you type, the computer will automatically make little corrections to your typing. For example:

If you type “teh” or “hte”, the computer will change your typing to “the”.

If you type “loove”, the computer will change your typing to “love”.

If you type a day (such as “sunday”), the computer will capitalize it.

If you capitalize the first *two* letters of a word, the computer will make the second letter small.

The computer will capitalize each sentence’s first word.

The computer will change (r) to ®, change (c) to ©, and change (tm) to ™.

The computer will change (e) to € (just in version 2010).

The computer will change 2nd to 2nd, change 3rd to 3rd, change 4th to 4th, etc.

The computer will change 1/2 to ½, change 1/4 to ¼, and change 3/4 to ¾.

The computer will change -- to –, change --> to →, and change <-- to ←.

The computer will change ==> to ➔, change <== to ←., and change <=> to ⇔.

The computer will change :) to ☺, change :(to ☹, and change :| to 😐.

If you type a phrase in quotation marks (“like this”), the quotation marks will become curly (“like this”).

If you type three periods (...), the periods will move farther apart (...).

If you type the first four letters of a month (such as “sept”) or day (such as “wedn”) then press Enter, the computer will finish typing the word and capitalize its first letter.

If you type the current month then press the Space bar then Enter, the computer will type the current date & year.

Some of those corrections happen immediately; others are delayed until you finish typing a word (and press the Space bar or a period).

The computer’s ability to make those corrections is called **AutoCorrect**.

If you dislike a correction that the computer made to your typing, **undo** the correction. Here’s how:

Button method Click the **Undo button**. (It’s a curved arrow pointing to the left. It’s at the screen’s top. In version 2016, it’s white and above the words “File” and “Home”. In version 2013, it’s blue and above the word “Home”).

Keyboard method While holding down the Ctrl key, tap the Z key.

Those methods work just if done *immediately*, before you do any other typing or editing.

Red squiggles While you type, the computer automatically puts a **red squiggle under any word that looks strange**. The computer considers a word to look “strange” if the word’s not in the computer’s dictionary or if the word’s the same as the word before. For example, if you type “For a sentury, I love you you”, the computer will put a red squiggle under “sentury” and under the second “you”.

If you see a red squiggle, you misspelled the word or accidentally repeated the word or forgot to put a space between words or your vocabulary is more advanced than the computer understands. So if you see a red squiggle, look carefully at the squiggled word to make sure it’s really what you want.

If a word has a red squiggle under it, try right-clicking that word (by using the mouse’s right-hand button). Then the computer will make suggestions about what the squiggled word should be.

For example, if you typed “sentury” and the computer put a red squiggle under it, right-clicking the “sentury” will make the computer display two suggestions (“century” and “sentry”) and two other popular choices, so you see this list:

sentry
century

Ignore All
Add to Dictionary

Choose what you want:

If you meant “century” or “sentry”, **click the word you meant**.

If you meant “sentury” and want to add that slang word to the computer’s permanent dictionary (because the word means “a sentry who watches for a century”), click “**Add to Dictionary**”. Warning: before clicking “Add to Dictionary”, make sure the word “sentury” really exists and you’ve spelled it correctly and your colleagues give you permission to add slang to the dictionary!

If you meant “sentury” but don’t want to add that slang word to the dictionary, click “**Ignore All**”. The computer will ignore the issue about how “sentury” is spelled in this document; the computer will remove the red squiggle from every “sentury” in this document; but since “sentury” is still not in the dictionary, the computer will put red squiggles under any “sentury” in other documents.

If you’re not sure what you meant, press the keyboard’s **Escape key** (which says Esc on it). The list of choices will disappear; “sentury” will still be in your document and squiggled.

Blue squiggles (just in version 2016) When you finish typing a sentence and start typing a new one, the computer automatically check the grammar of the sentence you just typed and puts a **blue squiggle under any obvious grammar error**. For example, if you type “We is” instead of “We are”, the computer will draw a blue squiggle under the “is”.

(The computer will draw the squiggle when you finish typing that sentence and start typing the next one.) If you accidentally press the Space bar twice instead of once, so you type “They kiss” instead of “They kiss”, the computer will put a blue squiggle under “They kiss” (when you finish typing that sentence and start typing the next one).

If a word has a blue squiggle under it, try right-clicking that word (by using the mouse’s right-hand button). Then the computer will suggest what the squiggled word should be.

If you agree with the computer’s suggestion, click that suggestion. The computer will fix what you wrote.

If you disagree with the computer’s suggestion, click “Ignore Once”. The computer will ignore the issue about that sentence’s grammar and remove the blue squiggle from that sentence.

If you’re not sure why the computer is complaining, click “Grammar”. The computer will tell you why it’s complaining. Then click “Change” (to accept the computer’s suggestion) or “Ignore” (to just erase the blue squiggle from that sentence).

Synonyms Suppose you’ve typed a word correctly (so it has no squiggle) but wish you could think of a better word instead. Just right-click the word then click “Synonyms”. The computer will show you **synonyms** (words that have similar meaning).

For example, if you type the word “girl” then right-click it then click “Synonyms”, the computer will show you these words, which have similar meaning:

lassie
teen-ager
teenager
miss
adolescent
mademoiselle
lass
daughter

If one of those words appeals to you, click it: that word will replace “girl” in your document. If none of those words appeals to you, press the **Escape key** (which says “Esc” on it) *twice*.

What about the word “hot”? It has 4 popular meanings: “high temperature”, “miserably warm and humid weather”, “spicy food”, and “excited person”. Try typing the word “hot” then right-click it. The computer will start by showing you these synonyms:

warm
burning
scorching
boiling
blistering
sizzling
searing
broiling

If one of those words appeals to you, click it. If none of those words appeals to you, try clicking “Thesaurus” (which appears under the synonym list and means “book of synonyms”): that makes the screen’s right edge show you a special windowpane, called the “Thesaurus pane”. In that pane, you see this longer list of “hot” synonyms and antonyms, grouped into 4 categories:

warm
warm, burning, scorching, boiling, blistering, sizzling, searing, broiling, fiery, heated, scalding cold (Antonym)

sweltering
sweltering, stifling, muggy, sultry, boiling, scorching, oppressive, broiling fresh (Antonym)

spicy
spicy, peppery, piquant, pungent, fiery, strong, red-hot mild (Antonym)

passionate
passionate, fierce, vehement, emotional, strong, intense, excitable, angry, ardent, fervent, stormy, torrid dispassionate (Antonym)
mild (Antonym)

If you click one of those words, the computer will show you *that* word’s synonyms. If you finally find a word you like, point at it *without pressing the mouse’s button*, then click the word’s down-arrow then “Insert”: that makes the word replace “hot” in your document. When you no longer need the special pane, close it (by clicking its X).

Translate The computer can translate words among English, Spanish, French, and many other languages.

This method translates your entire document immediately to many languages but requires you to first connect to the Internet.

While connected to the Internet and using Microsoft Word, right-click anywhere in your document. Click “Translate”.

If version 2016 asks “Do you want to proceed?”, click “Don’t show again” then “Yes”.

At the screen’s right edge, in the Research window, click the From box’s down-arrow then the language you want to translate from, such as “English”; click the To box’s down-arrow then the language you want to translate to, such as “Spanish”. (In version 2016, each box gives you these 46 choices: Arabic, Bosnian, Bulgarian, Catalan, Chinese from the mainland’s People’s Republic of China, Chinese from Taiwan, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hebrew, Hindi, Hungarian, Indonesian, Italian, Japanese, Kiswahili, Korean, Latvian, Lithuanian, Malay, Maltese, Norwegian, Persian, Polish, Portuguese, Romanian, Russian, Serbian written in Cyrillic characters, Serbian written in Latin characters, Slovak, Slovenian, Spanish, Swedish, Thai, Turkish, Ukrainian, Urdu, Vietnamese, Welsh. In version 2013, each box gives you 37 choices.)

Afterwards, click the right-arrow below those boxes. Press Enter.

If version 2013 says “The Office Document Cache Handler from Microsoft Corporation is ready for use”, click “Don’t Enable”.

You’ll see the translation. (The computer might make mistakes, especially if the document involves slang or complicated grammar; but you can have fun viewing the computer’s attempt.) When you finish reading it, close its window (by clicking the X at that window’s top-right corner). When you finish using the Research window, close it also (by clicking its X).

Bottom corners

Look at the screen’s bottom corners.

Page count The screen’s bottom-left corner tells you which page of your document you’re on and how many pages are in the entire document. For example, if you’re on page 2 of a 3-page document, that corner says:

Version 2016 Page 2 of 3
Version 2013 PAGE 2 OF 3

Here’s how to hop to a different page:

Click the word “Page” (or “PAGE”). In the Navigation pane (at the screen’s left edge), you see tiny copies of all pages in your document. Click the page you want to go to. Close the Navigation pane (by clicking its X).

Word count To the right of the page count, you see the word count. For example, if your document contains 279 words, you see this:

Version 2016 279 Words
Version 2013 279 WORDS

To find out more about your document’s length, click “WORDS” or “Words”. The computer will tell you how long your document is:

how many pages
how many words
how many characters if you don’t count blank spaces
how many characters if you *do* count blank spaces
how many paragraphs
how many lines

When you finish looking at those lengths, press Enter.

Zoom Microsoft Word can zoom. It zooms the same way as WordPad (explained on page 81), except Microsoft Word’s slider is a box instead of a pentagon. To move the slider easily, use your mouse instead of your finger, since your fat finger will probably accidentally bump other icons nearby.

Page break

After you’ve finished typing a paragraph (and pressed Enter), try this experiment: while holding down the Ctrl key, press Enter again. That creates a **page break**: it makes the next paragraph be at the top of the next page.

If you change your mind, here’s how to remove the page break:

Click at the beginning of the paragraph you’ve put at the top of a page. Then press the Backspace key *twice*.

All delete

Here’s how to delete the entire document, so you can start over:

While holding down the Ctrl key, press the A key. That means “all”. All of the document turns blue. Then press the Delete key. All of the document disappears, so you can start over!

Quick Access Toolbar

At the screen's top, near the left edge, you see the **Quick Access Toolbar**, which is a row of **icons** (little pictures) called **buttons**, starting with these:

The **Save button** is a purple-and-white square that's supposed to look like a floppy disk (though it also looks like a TV set).

The **Undo button** is an arrow curving toward the left. The arrow is blue (unless you haven't typed anything yet).

If you point at a button (by moving your mouse's arrow there, without clicking), the computer will tell you the button's name.

Here's how to use those buttons....

Save button To save the document you've been typing (copy it onto the disk), click the **Save button**. To keep matters simple, then do this if you haven't saved the document before:

Version 2016 Click "This PC" then "Enter file name here". Invent a name for your document. Type the name and press Enter.

Version 2013 Click "Computer" then "Documents". Invent a name for your document. Type the name and press Enter.

That makes the computer copy the document onto the hard disk. For example, if you named the document "mary", the computer puts a document called mary.docx into the Documents folder. (Windows 7 puts it into the Documents library's "My Documents" folder instead.) If you wish, you can prove it by doing this:

Version 2016 (using Windows 10) At the screen's bottom, you see an "e". Next to it, you see the **File Explorer** button (which looks like a yellow file folder). Click the File Explorer button then "Documents" (at the screen's left edge, indented under "Quick Access"). If you called the document "mary", you'll see mary is one of the files in Documents. Finally, clear that proof off your screen (by clicking the X at the screen's top-right corner).

Version 2013 (using Windows 8&8.1) Near the screen's bottom-left corner, you see an "e". Next to it, you see the **File Explorer** button (which looks like 3 yellow file folders). Click the File Explorer button then "Documents" (at the screen's left edge). If you called the document "mary", you'll see mary.docx is one of the files in Documents. Finally, clear that proof off your screen (by clicking the X at the screen's top-right corner).

Afterwards, if you change your mind and want to do more editing, go ahead! When you finish that extra editing, save it by clicking the Save button again.

Save often! If you're typing a long document, **click the Save button about every 10 minutes**. Click it whenever you get to a good stopping place and think, "What I've typed so far looks good!" Then if an accident happens, you'll lose at most 10 minutes of work, and you can return to the last version you felt good about.

Instead of clicking the Save button, you can use this shortcut: while holding down the Ctrl key, tap the S key (which stands for "Save").

Undo button If you make a mistake (such as accidentally deleting some text or accidentally inserting some useless text), click the **Undo button** (which is an arrow turning back). That makes the computer undo your last activity, so your text returns to the way it looked before you made your boo-boo. (To undo your last *two* activities, click the Undo button *twice*.)

Instead of clicking the Undo button, you can use this shortcut: while holding down the Ctrl key, tap the Z key (which stands for "Zap").

Redo button If you click the Undo button, the computer might undo a different activity than you expected. For example, it might even erase everything you typed! If clicking the Undo button accidentally makes the text look even worse instead of better, and you wish you hadn't clicked the Undo button, you can "undo the undo" by clicking the **Redo button** (which is next to the Undo button and shows an arrow curving to the right, so it bends forward).

The Redo button appears just after you click the Undo button. At other times, you see a **Repeat button** instead (which is an arrow making a circle). If you click the Repeat button, the computer repeats the last thing you typed.

Instead of clicking the Redo button or Repeat button, you can use this shortcut: while holding down the Ctrl key, tap the Y key (which stands for "Yes, I do want it, very much").

Touch/Mouse button Microsoft Word works best if you have a mouse. If you don't have a mouse (or don't like to use it) but have a touchscreen instead, tap the **Touch/Mouse button** (a hand whose index finger points at a circle) then tap "Touch".

That makes all icons be farther apart, so your fat finger can tap an icon without accidentally tapping icons nearby. Since the icons are farther apart, the screen unfortunately shows fewer Style icons and fewer lines of your document. To return to normal (with a mouse), click the Touch/Mouse button then "Mouse".

File-office button

At the screen's left edge, very close to the top, you see the **File-office button**.

Version 2016 That button says "File".

Version 2013 That button says "FILE".

Click it. Then you see the **File-office menu**:

- Info
- New
- Open
- Save
- Save As
- Print
- Share
- Export
- Close
- Account
- Options
- Feedback

(Version 2013 lacks "Feedback".)

From that menu, choose whatever you wish (by clicking it). Here are the most popular choices....

Save

If you choose **Save** from the File-office menu (by clicking the word "Save" after clicking the File-office button), you get the same result as clicking the Save button that's on the Quick Access Toolbar.

Save As

Suppose you've already saved a document then edited it some more, but you're not sure you like the new editing. Try this experiment....

Choose **Save As** from the File-office menu, by clicking the phrase "Save As" after clicking the File-office button. (For version 2013, then click the first "My Documents".)

Invent (and type) a new name for the document. At the end of the new name, press Enter.

The computer will copy the document's new, edited version onto the hard disk. That new, edited version will have the new name you invented.

The document's old original version will be on the disk also and keep its old original name. The disk will contain *both* versions of the document.

Print

Here's how to print the document onto paper. Make sure you've bought a printer, attached it to the computer, turned the printer's power on, and put paper into the printer. Then choose **Print** from the File-office menu (by clicking the word "Print" after clicking the File-office button); when you do that, make sure you click the word "Print", not any arrow next to it.

If the computer says "Microsoft Print to PDF" (instead of your printer's name), do this:

Click the down-arrow next to "Microsoft Print to PDF" then your printer's name.

The computer assumes you want to print just 1 copy of the document. If you want to print *several* copies, do this:

Click in the "Copies" box. Then type how many copies you want.

Then tap the "Print" button (which is left of "Copies"). The computer will print the document onto paper.

How to finish

When you finish working on a document, choose **Close** from the File-office menu (or **X**).

X If you click **X** (at the screen's top-right corner), the computer will stop using Microsoft Word.

Close If instead you choose **Close** from the File-office menu, the computer will let you work on another document, and your next step is to say "new document" or "old document". Here's how....

If you want to **start typing a new document**, choose **New** from the File-office menu then click "Blank document".

If you want to **use an old document**, choose **Open** from the File-office menu. You see a list of the 25 documents you used most recently: that list starts with the most recent. From that list, click whichever document you want to use. If you want to use an older document (not on that list), do this:

Version 2016 Click "This PC". The computer starts showing you a list of *all* readable documents in the Documents folder. To use one of those documents, click the document's name; the computer will put that document onto the screen and let you edit it.

Version 2013 Click "Computer" then "My Documents". The computer starts showing you a list of *all* readable documents in the My Documents folder. If you want to *use* one of those documents, *double-click* the document's name; the computer will put that document onto the screen and let you edit it. If instead you want to *delete* one of those documents, click the document's name then press the Delete key; the computer will move that document to the Recycle Bin.

Didn't save? If you didn't save your document before doing those "how to finish" procedures, here's what happens:

The computer asks, "Want to save?" If you click the Save button, the computer copies your document's most recent version to the hard disk; if you click the Don't Save button instead, the computer eventually ignores and forgets your most recent editing.

How to erase the recently-used list The list of recently-used documents might annoy you, for 2 reasons:

One of the documents might be embarrassing (because it's pornographic or a private letter), and you want to hide it from your colleagues and family.

Even after you've deleted a document, that document's name might still be on that list.

If the **document list annoys you**, delete documents from it, as follows:

The recently-used list shows just the names of *the last few* Microsoft Word documents you mentioned. Go use other Microsoft Word documents; they'll go onto the recently-used list and bump off the older documents.

Font group

To make sure your computer is acting normally, click the word "**Home**" or "**HOME**" (which is near the screen's top-left corner).

Then you see these 5 words: **Clipboard**, **Font**, **Paragraph**, **Styles**, **Editing**. Above each word, you see a **group** of icons. I'll explain how to use each group. Let's start with the **Font group**, which looks like this:



Underline

Here's how to underline a phrase (like this).

Activate the **Underline button** (which says U on it) by clicking it. Activating the button makes it turn gray.

Then type the phrase you want underlined. Then deactivate the Underline button (by clicking it again).

Go ahead: try it now! Practice using the underline button before you progress to more advanced buttons!

Shortcut Instead of clicking the Underline button, you can use this shortcut: while holding down the Ctrl key, tap the U key.

Fancy underlines The computer assumes you want each underline to be a simple horizontal line. If you want the underline to be fancier (such as a double underline, a thick underline, a dotted underline, a dashed underline, or a wavy underline), do this instead of clicking the Underline button: click the Underline button's *down-arrow* then the kind of underline you want. The computer will remember which kind of underline is your favorite and automatically choose that kind for all future underlines — until you tell the computer otherwise or exit from Microsoft Word.

Advanced fonts

Microsoft Word handles advanced fonts the same way as WordPad. For details, **read these topics on pages 83-84**:

"Bold"
"Italic"
"Superscript"
"Subscript"
"Strikethrough"
"Font size"
"Font"

Font Color

Normally, the characters you type are black. Here's how to make them a different color, such as red.

Look at the **Font Color button**, which has an underlined A on it. Notice the color of the A's underline. If it's the color you want, click the underline. If it's *not* the color you want, do this instead:

Click the down-arrow that's to the right of the A's underline. You see 70 colors.

If you like one of those colors, click it.

If you *don't* like any of those colors, click "More Colors" then "Standard", which shows you 142 colors: *double-click* your favorite.

Afterwards, whatever characters you type will be in the color you chose. (The characters you typed earlier remain unaffected.)

When you finish typing in that color, here's how to return to typing characters that are normal (black): click the down-arrow that's to the right of the A's underline, then click "Automatic" (which means "normal").

Select text

Here's how to dramatically change a phrase you typed.

Point at the phrase's beginning, then drag to the phrase's end (while holding down the mouse's left button). The whole phrase turns gray. Turning the phrase gray that way is called **selecting the phrase**.

Then say what to do to the phrase. For example, choose one of these activities:

To underline the phrase, activate the Underline button (by clicking it).

To make the phrase be bold, activate the Bold button (by clicking it).

To italicize the phrase, activate the Italic button (by clicking it).

To make the phrase be tiny and raised, activate the Superscript button (by clicking it).

To make the phrase be tiny and lowered, activate the Subscript button (by clicking it).

To make the phrase look crossed out, activate the Strikethrough button (by clicking it).

To prevent the phrase from being underlined, bold, italicized, superscripted, subscripted, or crossed out, deactivate those buttons (by clicking them again).

To change the phrase's point size, choose the size you want from the Font Size menu.

To change the phrase's font, choose the font you want from the Font menu.

To make the phrase's characters be colored (instead of black), click the Font Color button's down-arrow then your favorite color.

To make the phrase's background be colored (such as yellow) as if you had a highlighting pen, find the **Text Highlight Color button** (which is in the Font group and shows "ab" with a highlighting pen): click that button's down-arrow then your favorite color.

To make the phrase's characters be outlined (**LIKE THIS**), click the **Text Effects button** (which is in the Font group and shows **A**): you see examples of 15 effects; click your favorite.

To change how the phrase is capitalized, click the **Change Case button** (which is in the Font group and shows "Aa") then click "UPPERCASE" (which capitalizes all letters) or "Capitalize Each Word" (which capitalizes just the first letter of each word) or "Sentence case" (which capitalizes just the first letter of each sentence) or "lowercase" (which uncapitalizes all letters) or "TOGGLE cCASE" (which capitalizes what was uncapitalized and uncapitalizes what was capitalized).

To cancel all the formatting you did to the phrase (so the phrase returns to being plain, unformatted 11-point Calibri), click the **Clear All Formatting button**. (That button is in the Font group and shows "A" being erased.)

To delete the phrase, press the **Delete key**.

To replace the phrase, just type whatever words you want the phrase to become.

Go ahead! Try it now! It's fun!

Advanced selection

Microsoft Word resembles WordPad, so **read these sections on page 86:**

"More ways to select"

"Document vanishes"

"Drag a phrase"

Here are differences...

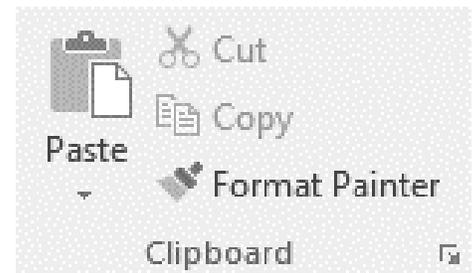
More ways to select Microsoft Word permits this extra method:

Method 10: To select just **one sentence**, click in its middle while holding down the Ctrl key.

Drag a phase Microsoft Word's vertical line is black.

Clipboard group

The **Clipboard group** looks like this:



(If your screen isn't wide enough to fit all those words, it hides the words "Cut", "Copy", and "Format Painter" but still shows their icons.)

Clipboard fundamentals

Microsoft Word resembles WordPad, so **read these topics on page 86:**

"Cut and paste"
"Copy"

Exception: the selected text is gray instead of blue.

Format Painter

Suppose one part of your document looks pretty, and one part looks ugly. Here's how to make the ugly part look as pretty as the pretty part:

Drag across the pretty part, so you've selected it (and it's turned gray). Click the **Format Painter button** (which is a paintbrush).

Then drag across the ugly part. The computer will make the ugly part look as pretty as the pretty part. For example, the ugly part will have the same font and font size as the pretty part; it will be underlined, boldfaced, and italicized the same way as the pretty part.

If you do the procedure incorrectly and wish you *hadn't* pressed the Format Painter button, just click the Undo button, which makes the document return to its previous appearance.

If one part of your document looks pretty, here's how to make *several* other parts look as pretty:

Drag across the pretty part, so you've selected it and it's turned gray. *Double-click* the Format Painter button.

Drag across the first ugly part; the computer will make it look pretty. Then drag across the second ugly part; the computer will make it look pretty. Drag across each additional ugly part; the computer will make each look pretty.

When all the ugly parts have turned pretty, deactivate the Format Painter button (by clicking it again or pressing the Esc key).

Show/Hide ¶

The symbol for “Paragraph” is ¶, which looks like a backwards P.

One of the buttons has a ¶ on it. Microsoft calls it the **Show/Hide ¶ button**, but most folks call it just the **¶ button** or the **Show Symbols button**.

If you activate that button (by clicking it), the screen will show a ¶ symbol at the end of each paragraph, so you can easily tell where each paragraph ends. The screen will also show a dot (·) wherever you pressed the Space bar and show a right-arrow (→) wherever you pressed the Tab key, so you easily tell how many times you pressed those keys.

For example, if you typed “I love you” correctly, the screen will show “I·love·you”. If you see “I·love···you” instead, you know you accidentally pressed the Space bar 3 times after “love” instead of just once, so you should delete the 2 extra spaces (by moving there then pressing the Delete key twice).

When you finish examining the ¶ symbols and dots and right-arrows, and you’re sure you’ve put just one space between each pair of words, here’s how to make those special symbols vanish: deactivate the ¶ button (by clicking it again).

Sort

Here’s how to alphabetize a list of names (or words or phrases).

Type each item on a separate line, like this:

Zelda
Al
Pedro

If the list is the whole document, click in the list. If the list is just *part* of the document, select the list by doing this:

Triple-click in the list’s first line. While holding down the Shift key, click in the list’s last line.

Click the **Sort button** (which shows an A over a Z, with a down-arrow). Then press Enter.

That makes the computer alphabetize the lines, so the document looks like this:

Al
Pedro
Zelda

Border

After you’ve typed a paragraph, here’s how to put a box around it:

Click in the paragraph. Click the “▼” at the Paragraph group’s right edge. Click “All Borders”.

If you change your mind, here’s how to remove the box:

Click in the paragraph. Click the “▼” at the Paragraph group’s right edge. Click “No Border”.

Styles group

The **Styles group** looks like this:



(If your screen isn’t wide enough to show all those styles, it shows fewer, such as just the first 4.)

Visible styles

The first 4 styles are called **Normal**, **No Spacing**, **Heading 1**, and **Heading 2**. Click whichever style you prefer. Here’s how they differ.

Normal is good for typing a short business memo. It’s the style that Microsoft assumes you want, unless you say otherwise. It uses 11-point Calibri (which resembles Arial andTahoma).

Instead of just single spacing, it puts extra space between the lines: it uses 1.08 line spacing.

Below each paragraph, it also puts a blank space, which is 8 points tall.

No Spacing resembles Normal (it uses 11-point Calibri) but wastes less space: it puts no extra space between the lines (they’re single spaced) and puts no blank space below each paragraph.

Heading 1 is good for typing a heading. It uses a big font: 16-point Calibri Light. The font is dark blue (instead of black).

Above the heading, it adds blank space, 12 points tall.

It makes the paragraph below the heading be Normal. If the paragraph below is too long to fit on the same page as the heading, the computer moves the heading and paragraph together to the next page, so the heading stays immediately above the paragraph.

Heading 2 resembles Heading 1 but is more modest: it’s smaller (just 13-point), and the added blank space above it is smaller, just 2 points instead of 12 points.

Table of styles

Those 4 styles are just the beginning of a table of styles. To see the whole table (which includes 16 styles), click the down-arrow that has a dash over it.

Those 16 styles have these features:

Style	Main features
Normal	11-point Calibri, 8-point space below paragraph
No Spacing	11-point Calibri
Heading 1	16-point Calibri Light, blue, 12-point space above para.
Heading 2	13-point Calibri Light, blue, 2-point space above para.
Title	28-point Calibri Light
Subtitle	11-point Calibri, gray, 8-point space below paragraph
Subtle Emphasis	italic, dark gray
Emphasis	italic
Intense Emphasis	italic, blue
Strong	bold
Quote	11-point Calibri, gray, italic, centered, 10-point space above para., 8-point space below para.
Intense Quote	11-point Calibri, blue, italic, bold, underline, centered, 18-point space above para., 18-point space below para.
Subtle Reference	smaller-font capitals, gray
Intense Reference	smaller-font capitals, blue, bold
Book Title	italic, bold
List Paragraph	11-point Calibri, indent, 8-point space below paragraph

If you click one of those 16 styles, the computer will choose it — and its row of the table will become the main row that you see on the screen (until you choose a different row instead by clicking the up-arrow or dashed down-arrow).

If you click Heading 2, the computer expands the table by including a Heading 3. If you click Heading 3, the computer expands the table by including a Heading 4. The computer can produce up to Heading 9.

Each heading is Calibri Light; here are the differences:

Style	Main features		
Heading 1	16-point	blue	12-point space above heading
Heading 2	13-point	blue	2-point space above heading
Heading 3	12-point	dark blue	2-point space above heading
Heading 4	11-point	blue italic	2-point space above heading
Heading 5	11-point	blue	2-point space above heading
Heading 6	11-point	dark blue	2-point space above heading
Heading 7	11-point	dark blue italic	2-point space above heading
Heading 8	10.5-point	dark gray	2-point space above heading
Heading 9	10.5-point	dark gray italic	2-point space above heading

Traditional fonts

Microsoft made Calibri the normal font for Microsoft Word because Calibri's easy to read even on a blurry screen. But to print on paper and high-quality screens, you should make the normal font be Times New Roman instead, which is the easiest font to read if you're not in a fog.

Here's how to make that switch:

Version 2016 Click **Design** then "Fonts" then "Arial-Times New Roman" (which you'll see when you scroll down) then "Home".

Version 2013 Click **DESIGN** then "Fonts" then "Arial-Times New Roman" (which you'll see when you scroll down) then "HOME".

That changes the normal (body) font from Calibri to Times New Roman (and changes the headings to Arial), so Calibri is eliminated from that document. (Other documents are unaffected.)

Invent your own style

Here's how to invent your own paragraph style.

In your document, create a paragraph whose appearance thrills you (by using the Font, Paragraph, and Styles groups). Then do this:

Click in the middle of the paragraph's first word. On the keyboard, tap the Alt key then the H key then the L key then the S key (which stands for "Home Loves Style"). Invent a name for your style (such as "Wow"): type the name, and at the name's end press the Enter key.

The style you invented ("Wow") will appear in the Styles group as the first style.

Go ahead and use it! For example, while you're typing another paragraph, you can make that paragraph's style be "Normal" or "Wow": just click the style you want.

The style you invented ("Wow") is part of the computer's repertoire just while you're using that document, not while you're using other documents.

Here's how to improve that style later. Click in a paragraph written in that style. Improve that paragraph's appearance (by using the Font, Paragraph, and Styles groups). Then do this:

Click in the middle of the paragraph's first word. Right-click the style's name. Click "Update".

Editing group

In the Editing group, you see 3 choices: **Find**, **Replace**, and **Select**.

Find

Here's how to make the computer search through your document to find whether you've used the word "love".

Modern method Click the word "**Find**" (or press Ctrl with F). At the screen's left edge, you see the **Navigation pane**. Type the word you want to find ("love"), so the word appears in the Navigation pane's box. That makes the computer highlight every "love" in your document, in yellow.

In the Navigation pane, below where you typed "love", the computer shows a list of your phrases containing "love". If you click in that list, that phrase's "love" turns gray.

When you finish using the Navigation pane, close it (by clicking its X). Then the yellow becomes white again.

Classic method Click where you want the search to begin. (For example, if you want the search to begin at the document's beginning, click in the middle of the document's first word.)

Then click **Find's down-arrow then Advanced Find**.

Type the word you want to find ("love"), and press Enter.

The computer will search for "love". If the computer finds a "love" in your document, it will highlight that "love" so it turns gray. (If the "Find and Replace" window covers the part of your document that says "love", drag that window out of the way, by dragging "Find and Replace".)

If you want to find the next "love" in your document, press Enter.

If you click "Reading Highlight" then "Highlight All", the computer will immediately highlight *every* "love" in your document, in yellow (unless you changed the highlighting pen's color).

Highlighting disappears when you edit the document.

If you do *not* want to search for more "love", click the "Find and Replace" window's X.

Example: Lincoln Suppose you've written a history of America and want to find the part where you started talking about Lincoln. If you forget what page that was, no problem! Just put the cursor at the document's beginning and tell the computer to find "Lincoln".

Replace

Microsoft Word resembles WordPad, so **read "Replace" on page 88**.

Select

To select everything in the document (so the whole document is highlighted in blue), use one of these methods:

Click method Click **Select** then "Select All".

Ctrl method While holding down the Ctrl key, tap the A key (which means "All").

If you formatted a phrase (such as by underlining or bolding or italicizing or making the font bigger), here's how to find all other phrases that have been formatted the same way:

Click in the formatted phrase's middle. Click **Select's** down-arrow then "Select All Text with Similar Formatting". The computer will select (highlight in gray) all phrases that have been formatted the same way.

For example, suppose your document's only formatting is that you underlined some words. Here's how to make all those underlined words become bold also:

Click in the middle of one of the underlined words. Click **Select's** down-arrow then "Select All Text with Similar Formatting". The computer will highlight all the underlined words (so they turn gray). Then click the Bold button (which is in the Font group): that makes the computer embolden all the highlighted words (which are the underlined words). Then click anywhere in the document (to turn off the gray highlighting).

Tab bar

Near the screen's top, you see the **tab bar**. Here's how it looks in **version 2016**:

File Home Insert Draw Design Layout References Mailings Review View

Version 2013 says "Page Layout" instead of just "Layout", omits "Draw", and capitalizes the others (such as "FILE" instead of "File").

Each word or phrase on the tab bar is called a **tab**.

If you click the **Home tab** (which says "Home" in version 2016, "HOME" in version 2013), you see the 5 groups I discussed (Clipboard, Font, Paragraph, Styles, and Editing). If you click a different tab instead, you see different groups.

Tab	Groups you see
Home	Clipboard, Font, Paragraph, Styles, Editing
Insert	Pages, Tables, Illustrations, Add-ins (just 2016), Apps (just 2013), Media, Links, Comments, Header & Footer, Text, Symbols
Draw	Tools (just 2016), Pens (just 2016), Convert (just 2016)
Design	Document Formatting, Page Background
Layout	Page Setup, Page Background, Paragraph, Arrange
References	Table of Contents, Footnotes, Citations & Bibliography, Captions, Index, Table of Authorities
Mailings	Create, Start Mail Merge, Write & Insert Fields, Preview Results, Finish
Review	Proofing, Insights (just 2016), Language Comments, Tracking, Changes, Compare, Protect, Ink (just 2013)
View	Views, Show, Zoom, Window, Macros

Layout tab

Click the **Layout tab** (which version 2013 calls "Page Layout").

Margins Normally, Microsoft Word leaves a 1-inch margin at all 4 edges of your paper. If you want margins that are wider or narrower, click "Margins" (in the Page Setup group). Then click one of these popular choices:

Choice	How big the margins are
Normal	1 inch at all 4 edges
Narrow	½ inch at all 4 edges
Moderate	1 inch at top & bottom, ¾ inch at left & right
Wide	1 inch at top & bottom, 2 inches at left & right
Mirrored	1 inch at 3 edges, 1¼ inches at stapled edge (left edge on odd pages, right edge on even)
Office 2003	1 inch at top & bottom, 1¼ inches at left & right

Size In the U.S., a normal sheet of paper is 8½ inches wide and 11 inches tall. Microsoft Word assumes your paper is that size. If you want to print on paper that's a different size, click "Size" (in the Page Setup group) then the paper's size. (To see all the choices, point at the **scroll bar**, which is below the up-arrow, and drag that scroll bar down.)

In the U.S., these sizes are the most popular:

Letter	8½ inches wide and 11 inches tall
Legal	8½ inches wide and 14 inches tall
Executive	7¼ inches wide and 10½ inches tall

Pick a size your printer can handle!

Orientation When an artist paints a portrait of a face, the canvas's height is usually bigger than its width. That situation (height bigger than width) is called **portrait orientation**.

When an artist paints a landscape (showing many trees and hills), the canvas's width is usually bigger than its height. That situation (width bigger than height) is called **landscape orientation**.

The computer assumes you want portrait orientation (height bigger than width). For example, if you tell the computer to print on paper that's 8½ inches by 11 inches, the computer assumes you want the height to be bigger than the width, so it assumes you want height to be 11 inches and the width to be 8½ inches.

You can force the computer to do landscape orientation instead, so the width is bigger than the height, and so the width is 11 inches and the height is 8½ inches. That makes the paper wide, so you can fit more words on each line. To do that, click "Orientation" (in the Page Setup group) then "Landscape".

To accomplish landscape printing, the computer & printer rotate the paper or words 90 degrees.

For example, to print on a Statement (8½ inches wide and 5½ inches tall) or a #10 Envelope (9½ inches wide and 4¼ inches tall), tell the computer to do landscape printing (by clicking "Orientation" then "Landscape").

Columns In a newspaper, text is printed in many narrow **columns**. In a business letter, text is printed in a single wide column.

The computer assumes you want a single wide column. If you want several narrow columns instead (like a newspaper or magazine), click "Columns" (in the Page Setup group). Then click one of these popular choices:

Choice	How many columns you get
One	1 wide column (like a business letter)
Two	2 narrow columns
Three	3 very narrow columns
Left	2 columns (left column is very narrow, right column is wider)
Right	2 columns (right column is very narrow, left column is wider)

The gap between each pair of columns is a half-inch wide.

After you've finished typing a paragraph (and pressed Enter), try this experiment: while holding down the Ctrl and Shift keys, press Enter again. That creates a **column break**: it makes the next paragraph be at the top of the next column. (If you change your mind, here's how to remove the column break: click at the beginning of the paragraph you've put at the top of a column, then press the Backspace key.)

Breaks Here's how to divide your document into two **sections** and give each section its own margins and its own number of columns:

Click where you want the second section to begin. Click "Breaks" (in the Page Setup group). Click either "Continuous" (to start the second section on the same page as the first section ended) or "Next Page" (to start the second section on a separate page from the first section). Afterwards, any margin or columns command you give will affect just the section you're clicking in, not the other section.

If you wish, create extra sections: for each extra section, click where you want the section to begin, then click "Breaks" then either "Continuous" or "Next Page".

Line Numbers If you plan to mail the document to a friend and then chat about it by phone, you should number each line, so you can ask your friend “What do you think about line 27?” To make the computer number the lines for you (by writing the numbers in the left margin), click “Line Numbers” (in the Page Setup group). Then click either “Continuous” (which makes the computer number the lines 1, 2, 3, etc., until the document’s end) or “Restart Each Page” (which makes each page’s first line be numbered 1, each page’s second line be numbered 2, etc.).

When you finish chatting with your friend and don’t need the line numbers anymore, here’s how to erase them: click “Line Numbers” then “None”.

Insert tab

Click the **Insert** tab.

Symbol If you click “Symbol” (which is in the Symbols group), you see the symbols you used recently. If you haven’t used any symbols yet, you see these:

€	£	¥	©	®
™	±	≠	≤	≥
÷	×	∞	μ	α
β	π	Ω	Σ	☺

If you want to use one of those symbols now, click it. If you want a different symbol instead, do the following...

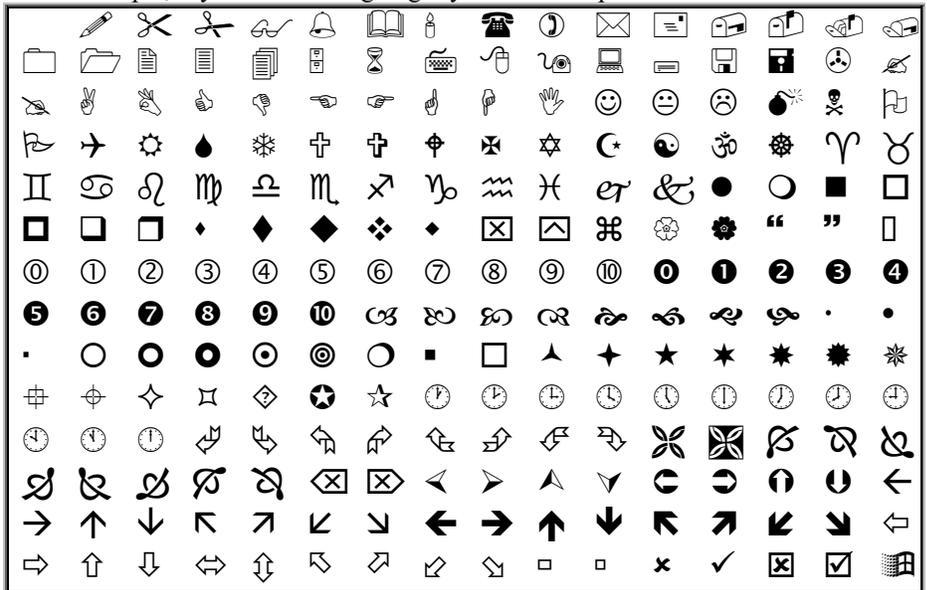
Click “More Symbols”. You see the **Symbol window**.

You see many symbols. If you want one of those symbols, double-click it. If you don’t like any of those symbols, view different symbols by using the scroll arrows or clicking “Special Characters” or the Font box’s down-arrow.

If you click the Font box’s down-arrow, you see a list of different fonts. Scroll down to see the different font choices. For best results, click one of these 6 fonts:

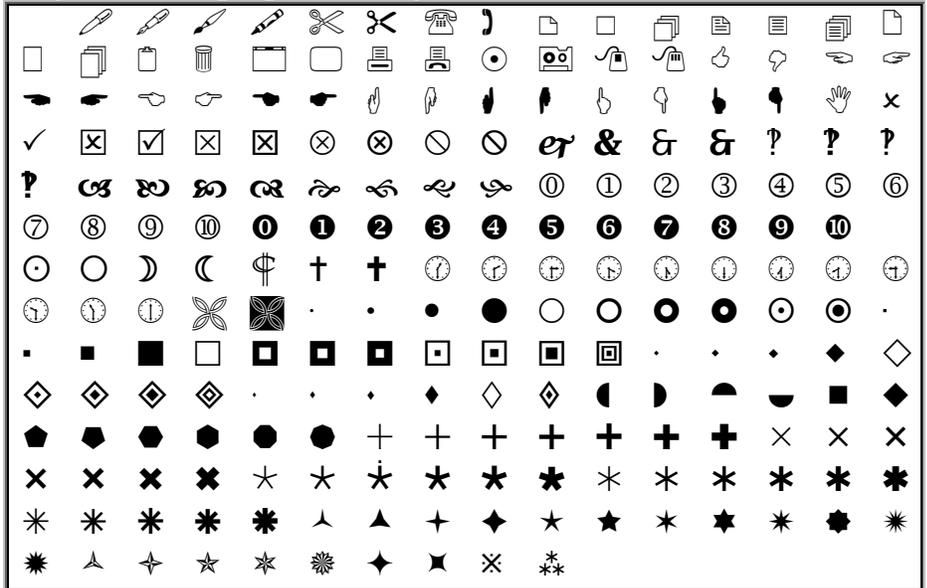
(normal text)
Symbol
Webdings
Wingdings
Wingdings 2
Wingdings 3

For example, if you click “Wingdings” you see these pictorial characters:

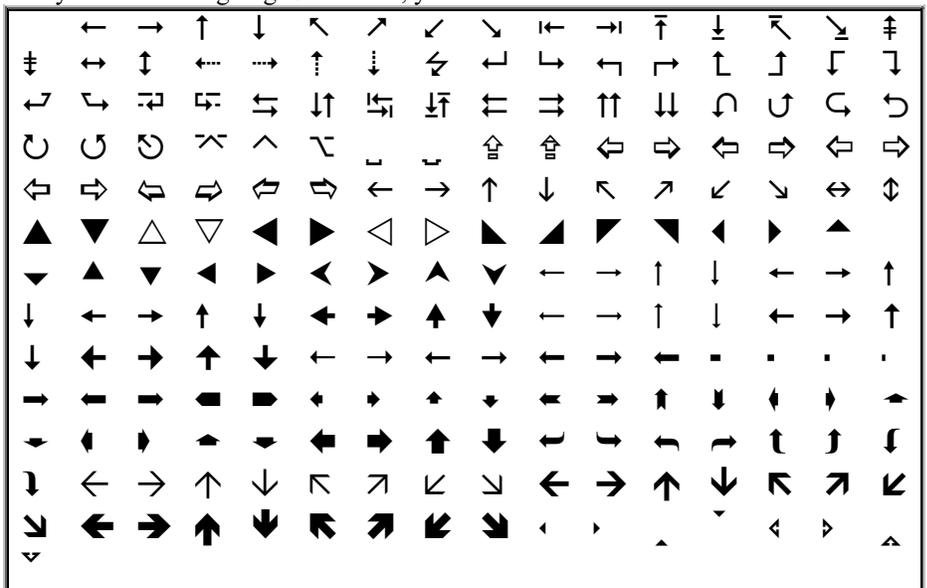


(To see them all, scroll down by clicking that window’s first down-arrow.)

If you click “Wingdings 2” instead, you see these:



If you click “Wingdings 3” instead, you see these:



Date & Time To type the date or time, click **Date & Time** (which is in the Text group). The computer will show a list of formats, like this:

12/25/2016
Sunday, December 25, 2016
December 25, 2016
12/25/16
2016-12-25
25-Dec-16
12.25.2016
Dec. 25, 16
25 December 2016
December 16
Dec-16
12/25/2016 10:59 PM
12/25/2016 10:59:20 PM
10:59 PM
10:59:20 PM
22:59
22:59:20

Click the format you want. Press Enter. The computer will type the date or time in the format you requested.

In that procedure, just before you press Enter, you might wish to put a check mark in the “**Update automatically**” box. Here’s how that box works:

Suppose you type a document on Monday, but you print the document the next day (Tuesday). Which date will the computer print on paper? The computer will print the date that the document was typed (Monday), unless you put a check mark in the “Update automatically” box, which makes the computer print the “date printed” (Tuesday).

If you put a check mark in the “Update automatically” box, the computer will automatically update the date & time whenever the document is printed (or print-previewed or opened).

Page Number To make the computer put a page number on each page, click **Page Number** (which is in the Header & Footer group). Then click “Top of Page” (if you want the number to be in each page’s top-margin area called the **header**) or “Bottom of Page” (if you want the number to be in each page’s bottom-margin area called the **footer**).

Click “Plain Number 2”. That makes the page number have plain style #2 (centered instead of near the paper’s left edge or right edge).

You see the page number, on the current page. (The computer has automatically put page numbers on all the other pages also.)

Do you want any words to appear to the left of the page number? If so, type them then press the Space bar. For example, if you want the 2nd page to say “This is page 2” instead of just “2”, type “This is page” then press the Space bar.

Do you want any words to appear to the right of the page number? If so, press the right-arrow key then the Space bar then type those words. For example, if you want the 2nd page to say “This is page 2 of the great American novel” and you’ve already typed “This is page ”, press the right-arrow key (to move past the page number) then the Space bar (to leave 1 blank space after the page number) then type “of the great American novel”.

Whatever words you put to the left and right of the page number appear on all the other page numbers also.

When you finish editing the page number’s line, double-click in the screen’s middle. Then you can continue editing your document’s paragraphs.

If you want to edit the page number’s line again, double-click in the middle of that line.

Table To type a table of numbers in the middle of your document, click where you want the table to appear then click **Table** (which is in the Tables group).

You see 80 little boxes (called **cells**), arranged to form a table having 8 rows and 10 columns. How many rows and columns do you want in *your* table? Point at the first cell (box) and drag down and to the right, until your desired number of rows and columns turns orange. For example, **if you want just 3 rows and 4 columns, drag down and to the right until 3 rows and 4 columns turn orange**, so you see 12 orange cells altogether.

When you take your finger off the mouse’s button, you’ll see the table you requested.

Then just fill in the cells, with whatever numbers and words you wish. To move from cell to cell, click with the mouse, or press the Tab key (which moves right to the next cell), or press Shift with Tab (which moves left to the previous cell), or press the arrow keys repeatedly.

In a cell, you can type a number, word, sentence, or even an entire paragraph! If you start typing a paragraph in a cell, the computer will automatically make the cell and its row taller, so the entire paragraph will fit in the cell. You can even type *several* paragraphs in a single cell: just press the Enter key at the end of each paragraph. If you want to indent the first line of one of those paragraphs, press the Space bar several times or press Ctrl with Tab.

Here’s how to make the table have more cells.

To create an extra row at the table’s bottom:
click in the table’s bottom right cell, then press the Tab key.

To insert an extra row into the table’s middle:
click in the row that’s under where you want the extra row to appear, then the “Layout” that’s under “Table Tools” on the tab bar, then “Insert Above” (in the Rows & Columns group).

To create an extra column at the table’s right edge:
click in last column, then the “Layout” that’s under “Table Tools” on the tab bar, then “Insert Right” (in the Rows & Columns group). To fit the extra column, the computer will make the previous columns narrower.

To insert an extra column into the table’s middle:
click in the column that’s right of where you want the extra column to appear, then the “Layout” that’s under “Table Tools” on the tab bar, then “Insert Left” (in the Rows & Columns group). To fit the extra column, the computer will make the other columns narrower.

The computer assumes you want the table’s columns to all be the same width. Here’s how to change that assumption:

For example, here’s how to adjust the width of the table’s left column (column 1). Move the mouse until its pointer is on the vertical gridline that separates column 1 from column 2, and the pointer’s shape turns into this symbol: . Then drag the vertical gridline to the right (to make the column wider) or left (to make the column narrower).

If you make a column wider, the computer makes room for it by shrinking the next column. If you make a column narrower, the computer compensates by expanding the next column.

If you want to fine-tune the widths of *all* columns, work from left to right: adjust the width of column 1 (by dragging the gridline that separates it from column 2), then adjust the width of column 2 (by dragging the gridline that separates it from column 3), then adjust the width of column 3 (by dragging the gridline that separates it from column 4), etc.

If a column contains mostly numbers, here’s how to make that column look prettier, so the numbers are aligned properly:

Move the mouse until its pointer is at the *very top* of the column and is centered on the gridline above the column, so the pointer’s shape turns into this down-arrow: . Then click. The entire column turns gray in versions 2013&2016.

Click “Home” (on the tab bar) then the Align Right button in the Paragraph group. That makes all cells in that column be aligned right, so the numbers are aligned better.

When you've finished typing numbers and words into all the cells, here's how to make the computer adjust the widths of all the columns, so each column becomes just wide enough to hold the data in it:

Click in the table. Click the "Layout" that's under "Table Tools" on the tab bar then "AutoFit" (in the Cell Size group) then "AutoFit Contents".

When you've finished editing the table, here's how to put paragraphs below it:

Click below the table by using the mouse, or go below the table by pressing the down-arrow key several times. Then type the paragraphs you want below the table.

Here's how to delete a row or column:

Click in the middle of what you want to delete. Click the "Layout" that's under "Table Tools" on the tab bar then "Delete" (in the Rows & Columns group). Click "Delete Rows" (if you want to delete a row) or "Delete Columns" (if you want to delete a column).

Here's how to delete the entire table:

Click in the table. Click the "Layout" that's under "Table Tools" on the tab bar then "Delete" (in the Rows & Columns group) then "Delete Table".

Here's how to create a table that has a customized shape.

In the middle of your document, press the Enter key several times, to create a blank space for the table. Then click **Table** (which is in the Insert tab's Tables group) then **Draw Table**.

Where do you want the table to be in your document? **Put the mouse pointer where you want the table's top left corner to be, and drag to where you want the table's opposite corner.** (While dragging, hold down the mouse's left button.) You'll see a box, which is your table. Inside the box, make a grid of rows and columns by drawing horizontal and vertical gridlines. **To draw a gridline, put the mouse pointer where you want the line to begin, and drag to where you want the line to end.**

If you make a mistake, click the Undo button or do the following.... Click the word "Eraser", which is in the Draw group. That makes the mouse pointer turn into an eraser. Move the mouse until the eraser's bottom corner touches the line you want to erase; then click (press the mouse's left button). That makes the line disappear. You can make other lines disappear also, by clicking them. When you finish using the eraser, click "Draw Table", which is in the Draw group, to continue drawing more lines.

View tab

Click the **View tab**.

Ruler If you put a check mark in the Show group's **Ruler box** (by clicking there), you'll see a ruler (saying 1", 2", 3") above the page and another ruler at the screen's left edge. Those rulers show how many inches will be printed on paper.

Afterwards, you'll be seeing rulers even when you're viewing other documents and even on other days, until you cancel the rulers (by removing the check mark from the Ruler box).

Split To see 2 parts of your document at the same time, click **Split** (which is in the Window group). Then a thin gray line (with top & bottom edges) appears across your screen's middle and splits your screen's window into 2 parts, a **top windowpane** and a **bottom windowpane**. If you dislike the line's position, drag the line up or down.

Now you can see 2 parts of your document at the same time!

Each windowpane has its own scroll arrows. You can click those scroll arrows to change what you see in that windowpane, without changing what's in the other windowpane.

You can also click in one windowpane's text and then use the keyboard's movement keys (up-arrow, down-arrow, left-arrow, right-arrow, Page Up, Page Down, Home, and End) to change what's in that windowpane, without changing what you see in the other windowpane.

Both windowpanes show parts of the same document. If you change a word in one windowpane (by deleting or inserting or revising that word), while the other windowpane happens to show the same part of the document, you see that word automatically

change in the other windowpane also, immediately!

Using those 2 windowpanes, you can compare 2 parts of your document and copy from one part to the other (by using the Home tab's Copy and Paste buttons or using Ctrl C and Ctrl V).

When you stop wanting 2 windowpanes, here's how to return to a single pane:

Which windowpane do you want to remove? Click in that windowpane. Click **Remove Split** (which is in the Window group). That windowpane disappears, so the entire screen becomes devoted to the other windowpane.

Arrange All Here's how to see 2 documents on the screen at once!

To be safe, make sure both documents have been saved on disk (by using the Save button). Close any documents that are on the screen (by choosing **Close** from the File-office menu), so the screen's main part is blank.

Open the first document (by using the File-office button). You see the document's words and paragraphs on the screen.

While that first document is still on the screen (without closing it), open the second document. You see the document's words and paragraphs on the screen; they cover up the first document, so you can't see the first document at the moment.

Click the View tab then **Arrange All** (which is in the Window group). Then you see 2 windows on the screen. The top window shows the second document; the bottom window shows the first document.

Each window is small, showing just a tiny part of the document. A window might seem blank if it's so small that it shows just the document's top margin.

Each window has its own scroll arrows. Use them to scroll through the documents and see the parts of the documents that are *not* blank.

By using those 2 windows, you can easily compare 2 documents and copy from one to the other (by using the Home tab's Copy and Paste buttons or using Ctrl C and Ctrl V).

When you stop wanting one of the windows, close it (by clicking its X button), then expand the other window (by clicking its maximize button, which is next to its X button).

References tab

Click the **References tab**.

Insert Footnote Suppose you're writing a religious pamphlet in which you want to say "Read the Bible tonight!" Suppose you want to add a footnote saying "written by God", so the main text looks like this —

Read the Bible¹ tonight!

and the page's bottom contains this footnote:

¹ Written by God.

Here's how to do it all...

Type "Read the Bible". Click "Insert Footnote" (which is in the Footnotes group) or, while holding down the Ctrl and Alt keys, tap the F key. Type the footnote ("Written by God."). Go back to the main text, where you left off, by using one of these methods:

Double-click method Double-click the footnote's number, then press the right-arrow key.

Climb method Climb back up to the main text (by using the keyboard's up-arrow key), then go right to where you left off typing (by using the End key).

The computer will automatically number the footnote: it will automatically type ¹ after "Bible" and type ¹ before "Written by God." If your document contains more footnotes, the computer will automatically number them ², ³, ⁴, etc. (Those numbers are easy to read on paper. On the screen, the numbers are easier to read while the Home tab's "¶" button is deactivated.)

The computer will put the footnotes at the bottom of the page. If the page is divided into newspaper columns, the computer will put each footnote at the bottom of the column it refers to.

The computer will put a 2-inch horizontal line above the footnotes to separate them from the main text.

If you insert extra footnotes, the computer will automatically renumber the other footnotes, so the first footnote appearing in your document will be numbered ¹, the second footnote will be numbered ², etc.

Here's the easiest way to delete a footnote:

Click the left edge of the footnote's number in the main text; then press the Delete key twice.

Help

For free help using Word, call my cell phone (**603-666-6644**) or do the following....

Version 2016 Click "Tell me what you want to do" (which is to the right of "View" and a lightbulb), then start typing your question (about Word) or the name of a Word topic. Below your typing, you see a list of related topics. Click the topic you want help about.

Instead of doing that, you can try this alternative way to get help:

Press the F1 key. Exception: on that key, if the "F1" is blue (such as on Toshiba's laptop) or very tiny (such as on HP's new laptop) or on a new computer by Microsoft or Lenovo, do this instead: press the F1 key *while holding down the Fn key* (which is left of the Space bar).

You see these topics:

- Rotate a page to landscape or portrait
- Insert WordArt
- Track changes in Word
- Change the capitalization of text
- Add a chart to your document
- Change or set the default font
- More
- Word training

If you click "More", you see these topics instead:

- Get started
- Troubleshoot problems
- Create and format documents
- Headers and footers
- Page numbers
- Tables of contents
- Links, images, and graphics
- Review a document
- Mail merge
- Share and print
- Accessibility

Click whatever topic you want help about.

Version 2013 Click the question mark. It's at the screen's top, near the right edge.

To get help about using Microsoft Word, click that question mark or press the F1 key. (You'll get the *best* help if you connect to the Internet before doing that, so Microsoft can give you the *newest* help lessons.)

You see the **Word Help window**, which contains this list of popular topics:

- Résumé
- Watermark
- Labels
- Table of contents
- Word count
- Mail merge
- Header
- Line spacing
- Margins
- See what's new
- Keyboard shortcuts
- Get free training
- Learn Word basics
- Use Word Web App
- Tips for tablets

If one of those topics interests you, click it.

If none of those topics interests you, click "more".

Then you'll see this list of topics:

- Make the switch to Word 2013
- Use Word on your tablet
- Use Word Web App
- Start here for basics
- Open documents from earlier versions
- Create a table of contents

If one of those topics interests you, click it. If none of those topics interests you, click in the Search box (the white box at the window's top) then type the question you want help about (or type your topic's main words) and press Enter.

Then you'll see a list of subtopics. (To see them all, click the scroll-down arrow at the window's bottom-right corner.) Click whichever subtopic interests you. You'll see a lesson about that subtopic.

If you want to return to a previous list of topics or subtopics, click the **Back button** (the left arrow at the window's top-left corner). When you finish using the Word Help window, close it (by clicking the X button at its top-right corner).

Excel

Page 46 discussed **spreadsheet programs**. The dominant spreadsheet program is **Excel**. I'll explain these popular versions:

Excel 2013 (which is part of **Microsoft Office 2013**)
Excel 2016 (which is part of **Microsoft Office 2016**)

Those versions run in Windows. (Other versions are similar.)

What to do

Prepare yourself

Before using Excel, practice using Microsoft Word, which is simpler and explained in the previous chapter. That chapter explains how to copy Word and Excel to your hard disk.

Launch Excel

Here's how to start using Excel.

Version 2016 Choose one of these methods:

Menu method Tap the Start button. (For old Windows 10, then tap "All apps".) You start seeing an alphabetical list of all apps. Get to the "E" part of that list (by putting your finger in the list's middle and swiping up, or by tapping "A" then "E"). Tap "Excel 2016".

Search method Next to the Windows Start button is the Windows Search box. Make sure that box is white or light gray. (If it's black or dark gray, make it lighter by tapping it or the Windows Start button.) Type "exc". (Type on a physical keyboard, or make an on-screen keyboard appear by tapping the keyboard icon at the screen's bottom.) Your typing appears in the Windows Search box. You see a list of things that contain "word". Tap "Excel 2016: Desktop app".

If the computer says "What's New in Excel", tap "Close". Tap "Blank workbook".

Version 2013 While you're looking at Windows 8.1's Apps screen (or Windows 8's Start screen), type "ex". Tap "Excel 2013" then "Blank workbook".

Fill in the cells

The screen shows a grid that begins like this:

	A	B	C	D	E	F
1						
2						
3						
4						

The grid's columns are labeled A, B, C, D, E, etc.

A cheap screen (800-by-600, which is called SVGA) shows columns A through L.

A normal screen (1024-by-768, which is called XGA) shows columns A through O.

A modern widescreen (1600-by-900, which is called 900p) shows columns A through X.

The grid's rows are labeled 1, 2, 3, etc.

A cheap screen (800-by-600, which is called SVGA) shows 17 rows in version 2010.

A normal screen (1024-by-768, which is called XGA) shows 25 rows in version 2010.

A modern widescreen (1600-by-900, which is called 900p) shows 29 rows in version 2016, 30 rows in version 2013, 32 rows in version 2010.

The grid is called a **spreadsheet** or **worksheet** (or just **sheet** or **table**).

Notice that the computer puts a box in column A, row 1. If you tap the right-arrow key, that box moves to the right, so it's in column B. If you tap the down-arrow key, the box moves down, to row 2. By tapping the 4 arrow keys, you can move the box in all 4 directions, to practically anywhere on the grid. Try it! (Tap just the arrow keys that are near the right Shift key, not the arrow keys that have numbers on them.)

Another way to move the box is to use a mouse (or a touch screen): click (or tap) where you want the box to go.

Each possible position of the box is called a **cell**.

The box's original position (in column A, row 1) is called **cell A1**. If you move the box there and then tap the right-arrow key, the box moves to column B, row 1; that position is called **cell B1**.

Just move the box from cell to cell, and put into each cell whatever words or numbers you wish!

For example, suppose you run a small business whose income is \$7000 and expenses are \$5000. Those are the figures for January; the figures for February aren't in yet. Let's put the January figures into a spreadsheet, like this:

	A	B	C	D	E	F
1		January				
2	Income	7000				
3	Expenses	5000				
4	Profit					

To begin, move the box to cell A2. Type the word Income. As you type that word, you see it appearing in cell A2. It also appears temporarily near the screen's top (above the grid), in an **input line** (which Excel calls the **formula bar**).

Press the down-arrow key, which moves the box down to cell A3. Type the word Expenses.

Press the down-arrow key (to move to cell A4). Type the word Profit.

Move the box to cell B1 (by pressing the up-arrow three times and then the right-arrow once). Type the word January.

Press down-arrow. Type 7000.

Press down-arrow. Type 5000.

Press down-arrow again.

Backspace Key

If you make a mistake while typing the words and numbers, press the **Backspace key** to erase the last character you typed.

Alternative Keys

Instead of pressing the right-arrow key, you can press the Tab key. Instead of pressing the down-arrow key, you can press the Enter key.

Type a formula

Although the computer's screen shows the words you typed (Income, Expenses, and Profit), the computer doesn't understand what those words mean. It doesn't know that "Profit" means "Income minus Expenses". The computer doesn't know that the number in cell B4 (which represents the profit) ought to be the number in cell B2 (the amount of income) minus the number in cell B3 (the dollars spent).

You must *teach* the computer the meaning of Profit, by teaching it that the number in cell B4 ought to be the number in cell B2 minus the number in cell B3. To do that, move the box to cell B4, then type this formula:

```
=B2-B3
```

Notice that **every formula begins with an equal sign**. The rest of the formula, B2-B3, tells the computer to subtract the number in cell B3 from the number in cell B2 and put the answer into the box's cell (which is cell B4).

When you've finished typing the formula, press the Enter key. Then the computer automatically computes the formula's answer (2000) and puts that number into the box's cell (B4), so the screen looks like this:

	A	B	C	D	E	F
1		January				
2	Income	7000				
3	Expenses	5000				
4	Profit	2000				

The formula "`=B2-B3`" remains in effect forever. It says that the number in cell B4 will always be the B2 number minus the B3 number. If you ever change the numbers in cells B2 and B3 (by moving the box to those cells, retyping the numbers, and pressing Enter), the computer automatically adjusts the number in cell B4, so the number in cell B4 is still B2 minus B3 and still represents the correct profit.

For example, suppose you move the box to cell B2, then type 8000 (to change the January income to \$8000), and then press Enter. As soon as you press Enter, the profit in cell B4 immediately changes to 3000, right in front of your eyes!

A typical spreadsheet contains *dozens* of numbers, totals, subtotals, averages, and percentages. Each cell that contains a total, subtotal, average, or percentage is defined by a formula. Whenever you retype one of the numbers in the spreadsheet, the computer automatically readjusts all the totals, subtotals, averages, and percentages, right before your eyes.

Remember to begin each formula with an equal sign. The rest of the formula can contain these symbols:

Symbol	Meaning
+	plus
-	minus
*	times
/	divided by
.	decimal point

It can also contain E notation and parentheses. For details about how to use those symbols, E notation, and parentheses, read pages 528-529, which explain Python's fundamentals and math.

Less typing When you're creating a formula such as "`=B2-B3`", you do *not* have to type the "B2". Instead, you can choose one of these shortcuts:

Instead of typing "B2", you can type "b2" without bothering to capitalize. When you've finished typing the entire formula ("`=b2-b3`"), press the Enter key. Then the computer will capitalize your formula automatically!

Instead of typing "B2", you can move the mouse pointer to the middle of cell B2, then press the mouse's button. That's called "clicking cell B2". When you click cell B2, the computer automatically types "B2" for you! So to create the formula "`=B2-B3`", you can do this: type the equal sign, then click cell B2, then type the minus sign, then click cell B3. When you've finished creating the entire formula, press Enter.

Instead of typing "B2", you can move the box to cell B2 by using the arrow keys. When you move the box to cell B2, the computer automatically types "B2" for you! So to create the formula "`=B2-B3`", you can do this: type the equal sign, then move the box to cell B2 (by using the arrow keys), then type the minus sign, then move the box to cell B3. When you've finished creating the entire formula, press Enter.

Edit old cells

To edit what's in a cell, move the box to that cell. Then choose one of these editing methods:

Delete method Press the Delete key. That makes the cell become totally blank.

Retype method Retype the entire text, number, or formula that you want to put into the cell.

Edit method In the input line (near the screen's top, above the grid), look at what you typed, find the part of your typing that you want to change, and click that part (by using the mouse). Then edit your typing as if you were using a word processor: you can use the left-arrow key, right-arrow key, Backspace key, Delete key, and mouse. When you finish editing, press the Enter key.

Functions

Here's how to perform functions.

Sum of a column To make a cell be the sum of cells B2 through B9, you can type this formula:

```
=B2+B3+B4+B5+B6+B7+B8+B9
```

Instead of typing all that, you can type just this:

```
=SUM(B2:B9)
```

A **function** is a word that makes the computer calculate (such as SUM). After each function, you must put parentheses. For example, you must put parentheses after SUM.

Since the computer ignores capitalization, you can type:

```
=sum(b2:b9)
```

Here's how to type the formula `=sum(b2:b9)` quickly. Begin by typing:

```
=sum(
```

Then drag from cell B2 to cell B9. To do that, move the mouse to cell B2, then hold down the mouse button while moving to B9. That makes the computer type the "`B2:B9`". Then press Enter, which makes the computer automatically type the ")".

AutoSum button Here's an even faster way to type the formula `=SUM(B2:B9)`.

Click the **AutoSum button**. (It's near the screen's top-right corner. It has the symbol Σ on it. The symbol Σ is called "sigma". It's the Greek version of the letter S. Mathematicians use it to stand for the word "sum".)

Clicking the AutoSum button makes the computer type "=SUM()". It also makes the computer guess what you want the sum of. The computer puts that guess inside the parentheses.

If the computer's guess differs from what you want (B2:B9), fix the guess (by dragging from cell B2 to cell B9). When you finally see the correct formula, `=SUM(B2:B9)`, press Enter.

Sum of a row To find the sum of cells B2 through H2 (which is `B2+C2+D2+E2+F2+G2+H2`), type this:

```
=sum(b2:h2)
```

Sum of a rectangle To find the sum of all cells in the rectangle that stretches from B2 to C4 (which is `B2+B3+B4+C2+C3+C4`), type this:

=sum(b2:c4)

Average To find the average of cells B9 through B13, you can type this:

=(b9+b10+b11+b12+b13)/5

But this way is shorter:

=average(b9:b13)

Here's how to type that quickly:

Begin by typing “=average(”. Then drag from cell B9 to cell B13. Then press the Enter key, which makes the computer automatically type the “)”.

Here's an even faster way to type the formula “=average(b9:b13)”:

Click the ▼ that's next to the Σ button. Then click “Average”.

To find the average of cells C7, B5, and F2, you can ask for (c7+b5+f2)/3, but a nicer way is to type this:

=average(c7,b5,f2)

Undo

If you make a big mistake, click the **Undo button**. (It's at the screen's top, near the left corner. It shows an arrow turning back to the left.)

That makes the computer undo your last activity, so your spreadsheet returns to the way it looked before you made your boo-boo.

To undo your last *two* activities, click the Undo button *twice*.

Redo If you click the Undo button, the computer might undo a different activity than you expected. If clicking the Undo button accidentally makes the spreadsheet look even worse instead of better, and you wish you hadn't clicked the Undo button, here's how to “undo the undo”:

Click the Redo button (which is to the right of the Undo button and shows an arrow bending forward to the right).

Hop far

Here's how to be quick as a bunny and hop far in your spreadsheet.

Farther rows

The screen shows just a few rows, which are numbered 1, 2, 3, etc. Row 1 is at the top of the screen. Row 15 is near the bottom of the screen.

Try this experiment. Move the box down to row 15 (by pressing the down-arrow key repeatedly). Then press the down-arrow key several more times. Eventually, you'll get to row 30, and later to row 100, and much later to row 1000. (The largest row number you can go to is 1048576.)

To make room on the screen for those new rows, row 1 disappears temporarily. If you want to get back to row 1, press the up-arrow key repeatedly.

Touch screen If you have a touch screen, put your finger in the screen's middle, then swipe *up* toward the screen's top. You see higher row numbers (such as row 30).

To return to normal, put your finger in the screen's middle, then swipe *down* toward the screen's bottom.

Scroll wheel On your mouse, between the left button and the right button, you see a thin wheel, typically gray, called the **scroll wheel**.

Rotate the scroll wheel *toward you*. You see higher row numbers (such as row 30).

To return to normal, rotate the scroll wheel *away from you*.

Farther columns

The screen shows just a few columns, which are lettered A, B, C, etc. If you press the right-arrow key repeatedly, you'll eventually get to column Z.

After column Z, you can still continue pressing the right-arrow key. The next 26 columns are lettered from AA to AZ. The next 26 columns are lettered from BA to BA. And so on.

You can have 16384 columns. The last column is XFD.

Touch screen If you have a touch screen, put your finger in the screen's middle, then swipe *left*. You see later column numbers (such as column Z).

To return to normal, put your finger in the screen's middle, then swipe toward the *right*.

AutoRepeat

Here's a shortcut: instead of pressing an arrow key repeatedly, just hold down the key awhile.

Screenfuls

Here's how to move far:

To move far down, press the **Page Down key**.

To move far up, press the **Page Up key**.

To move far to the right, press the Page Down key while holding down the Alt key.

To move far to the left, press the Page Up key while holding down the Alt key.

Each of those keys moves the box far enough so you see the next screenful of rows and columns.

Home Key

Cell A1 is called the **home cell**, because that's where life and your spreadsheet begin: at home! Column A is called the **home column**.

Your keyboard has a **Home key**. Here's how to use it:

Pressing the Home key makes the box move far left, so it lands in column A.

If you press the Home key *while holding down the Ctrl key*, the box moves to cell A1.

Spreadsheet's edge

To move to the spreadsheet's edge, press an arrow key *while holding down the Ctrl key*.

For example, to move the box to the spreadsheet's right edge, press the right-arrow key while holding down the Ctrl key. That moves the box moves to the right, until it reaches the final column (IV or XFD) or a boundary cell (a cell containing data and next to an empty cell).

Go Key

To make the box go to a distant cell immediately, choose one of these methods:

G method While holding down the Ctrl key, tap the G key (which means “Go”).

F5 method Press the F5 key. Exception: on that key, if the “F5” is blue (such as on Toshiba's laptop) or very tiny (such as on HP's new laptop) or on a new computer by Microsoft or Lenovo, do this instead: press the F5 key *while holding down the Fn key* (which is left of the Space bar).

Then type the name of the cell where you want to go (such as C9) followed by Enter.

You can also use this alternative:

Above column A, you see the **Name box**, which tells you the name of the cell where the box is. For example, while the box is at cell B4, the name box says “B4”.

To move the box to a distant cell immediately, click in the Name box, then type the name of the cell where you want to go (such as C9) followed by Enter.

Adjust rows & columns

How many rows and columns are in your spreadsheet, and how big are they? Here's how to adjust them.

Widen a column

When you start a new spreadsheet, each cell is wide enough to hold an 8-digit number. If you type a longer number, the column widens to fit it.

Here's **how make column D be wider**, so each cell in column D can hold long numbers *and long words*:

At the top of column D, you see the letter D. **Move the mouse** until its pointer is **between the letters D and E**, and **on the vertical gridline that separates them**. The pointer's shape turns into a **double-headed arrow**. Then drag that vertical gridline toward the right (to make the column wider) or left (to make the column narrower).

Widen several columns Here's how to widen columns D, E, F, and G simultaneously:

Drag from the letter D to the letter G. All those columns darken. (In versions 2007&2013&2016, they turn gray. In version 2010, they turn blue.)

Look at the vertical gridline to the right of the D. Drag the top of that gridline toward the right. That widens column D; and when you release your finger from the mouse's button, all the other columns you selected will widen also.

Perfect width Here's how to make column D just wide enough to hold the widest data in it:

Double-click the gridline that separates the letter D from E.

(If the column doesn't contain data yet, the computer will leave the column's width unchanged.)

Here's how to make columns D, E, F, and G have perfect widths simultaneously:

Drag from the letter D to the letter G, so all those columns turn dark. Then double-click the gridline that separates the letter D from E.

Long numbers If you try to type a long number in a cell that's too narrow to hold the number, the cell might display number signs (#) instead of the number.

For example, if you try typing a long number in a cell that's just 4 characters wide, the cell might display 4 number signs (like this: ####).

Although the cell displays just number signs, the computer remembers the long number you typed. To see the long number, widen the cell (by widening its column).

So if you see number signs in a cell, the computer is telling you the cell's too narrow and should be widened.

Long words Try this experiment. Make cell B1 be just 4 characters wide. Then try to type the word "January" in that cell.

That cell, B1, might show just the first 4 letters (Janu). But if the next cell (C1) is blank, cell B1 will temporarily widen to hold "January", then contract to its original size (4 characters) when you enter data in cell C1.

Delete a column

Here's **how to delete column D**:

Right-click the D at the top of column D (by using the mouse's *right* button instead of the left). Then choose Delete from the menu that appears.

The computer erases all the data from column D, so column D becomes blanks, which the computer immediately fills by shifting some data from other columns. Here's how...

Into column D, the computer moves the data from column E. Then into column E, the computer moves the data from column F. Then into column F, the computer moves the data from column G. And so on.

At the end of the process, the top of the screen still shows all the letters (A, B, C, D, E, F, G, etc.); but now column D contains the data that used to be in column E; and column E contains the data that used to be in column F; etc.

After rearranging the spreadsheet, the computer fixes all formulas. For example, after column E's data has moved to column D, the computer hunts through all formulas in the spreadsheet and fixes them by changing each "E" to "D". The computer also changes each "F" to "E", each "G" to "F", etc.

Delete several columns You've learned how to delete column D. Here's how to delete *several* columns. To delete columns D, E, F, and G, do this:

Drag from the D to the G. Then *right-click* anywhere in columns D through G (by using the mouse's *right* button instead of the left). Then choose Delete from the menu that appears.

Delete a row

Here's **how to delete row 2**:

Right-click the 2 (by using the mouse's *right* button instead of the left). Then choose Delete from the menu that appears.

Then the computer erases all the data from row 2, so row 2 becomes empty; but then the computer immediately fills that hole, by shifting the data from other rows. Here's how...

Into row 2, the computer moves the data from row 3. Then into row 3, the computer moves the data from row 4. Then into row 4, the computer moves the data from row 5. And so on.

At the end of the process, the left edge of the screen still shows all the numbers (1, 2, 3, 4, 5, etc.); but now row 2 contains the data that used to be in row 3; and row 3 contains the data that used to be in row 4; etc.

The computer fixes all formulas.

Insert a column

Here's how to insert an extra column in the middle of your spreadsheet:

Right-click where you want the extra column to appear. For example, if you want the extra column to appear where column D is now, *right-click* the D. Then choose Insert from the menu that appears.

The computer will move other columns out of the way, to make room for the extra column. The computer will also fix each formula.

Insert a row

Here's how to insert an extra row in your spreadsheet's middle:

Right-click where you want the extra row to appear. For example, if you want the extra row to appear where row 2 is now, *right-click* the 2. Then choose Insert from the menu that appears.

The computer will move other rows out of the way, to make room for the extra row. The computer will also fix each formula.

Zoom

Here's how to see make your screen show twice as many rows and columns, simultaneously.

At the screen's bottom-right corner, you see a plus sign (+). Left of it, you see a minus sign (-). Halfway between those signs, you see box, called the **zoom slider**. (The box is black in version 2016, white in version 2013.)

If you drag the zoom slider toward the left, the screen's characters shrink, so you can fit more characters and pages onto the screen. For example, if you drag the zoom slider toward the left until the number right of the plus sign is "50%", the computer will make all the screen's characters tiny (half as tall and half as wide), so twice as many rows and twice as many columns fit on the screen. If you drag the zoom slider toward the right instead, the screen's characters enlarge, so you can read them even if you're sitting far from the screen or have poor vision.

When you finish playing with the zoom slider, put it back to its normal position (the middle), so the number right of the plus sign is "100%".

Touch screen If you have a touch screen, do this:

Put two fingers near the screen's middle, then **pinch** those fingers together (by sliding them). That shrinks all the grid's characters & cells, so more rows & columns fit on the screen.

To return to normal, put two fingers together at the screen's middle, then **spread** those fingers apart (by sliding them). That enlarges all the grid's characters & cells, so you can read them more easily without squinting.

Scroll wheel If your mouse has a scroll wheel, do this:

While holding down the **Ctrl** key, rotate the scroll wheel toward you. That shrinks all the grid's characters & cells, so more rows & columns fit on the screen.

To return to normal, rotate the scroll wheel away from you while holding down the **Ctrl** key. That enlarges all the grid's characters & cells, so you can read them more easily without squinting.

What's on paper? All those zoom methods affect just what you see on the screen. They do *not* affect what's printed on paper.

Freeze title panes

You should put a title at the top of each column.

For example, if column B contains financial information for January, and column C contains financial information for February, you should put the word January at the top of column B, and the word February at the top of column C. Since the words January and February are at the top of the columns, they're in row 1. They're called the **column titles**.

If row 2 analyzes Income, and row 3 analyzes Expenses, you should put the word Income at the left edge of row 2, and the word Expenses at the left edge of row 3. Since the words Income and Expenses are at the left edge of the spreadsheet, they're in column A. They're called the **row titles**.

So in a typical spreadsheet, the column titles are in row 1, and row titles are in column A.

Unfortunately, when you move beyond column M or beyond row 25 (by pressing the arrow keys repeatedly), the titles normally disappear from the screen, and you forget the purpose of each row and column. Here's how to solve that problem.

Get cell A1 onto the screen (by pressing **Ctrl** with **Home**). Click cell B2 then "View" (at the screen's top) then **Freeze Panes** then "Freeze Panes" again then "Home" (at the screen's top).

Now the window is divided into 4 **panes**, separated by thick black gridlines. The main top pane contains the column titles (January, February, etc.); the main left pane contains the row titles (Income, Expenses, etc.); a tiny pane in the upper-left corner contains a blank cell; and a huge pane contains all the spreadsheet's data.

Then move through the huge pane, by using the arrow keys or mouse. As you move, the column and row titles stay fixed on the screen, since they're not in the big pane.

To stop using freeze title panes, click "View" (at the screen's top) then Freeze Panes then Unfreeze Panes then "Home" (at the screen's top).

Move

On your spreadsheet, find these cells: B2, B3, B4, C2, C3, and C4. Those six cells are next to each other. In fact, they form a giant rectangular area, whose top left corner is B2.

Here's how to take all the data in that rectangle and move it to a different part of your spreadsheet.

Drag from the rectangle's first cell (B2) to the rectangle's last cell (C4). The entire rectangle turns dark (except for the first cell, which stays white).

Surrounding the rectangle, you'll see four walls. Those walls are the four sides of the rectangle.

Using your mouse, **point at one of the rectangle's walls.** (Do *not* point at a corner.) When you've pointed correctly, the mouse pointer turns into 4 arrows, pointing in all 4 directions.

Then hold down the mouse's button and **drag the wall.** While you drag the wall, the rest of the rectangle drags along with it. Drag until the entire rectangle is at a part of the spreadsheet that was blank. Then lift your finger from the mouse's button.

That's how you move a rectangle of data to a new place in your spreadsheet that had been blank.

Try it!

After moving the rectangle of data, the computer automatically adjusts all formulas mentioning the moved cells. For example, if the data in cell B2 has moved to cell E7, the computer searches through the entire spreadsheet and, in each formula, changes "B2" to "E7".

Copy

Spreadsheet programs let you copy info in several ways.

Fill to the right

Here's how to make lots of love with the computer!

In a cell, type the word "love".

Click in that cell (to make sure the cell is highlighted), then take your finger off the mouse's button. With your finger still off the mouse's button, move the mouse until the mouse's pointer is at that cell's bottom right corner. When the pointer is exactly at the corner, the pointer changes to this thin cross: +.

Then hold down the mouse's left button, and drag toward the right, until you've dragged across several cells.

When you lift your finger off the mouse's button, all those cells will contain copies of the word in the first cell. They'll all say "love"!

Go ahead! Try turning your computer into a lovemaking machine! Do it *now!* This is an important exercise to try before you get into more advanced computer orgies!

Here's another example:

In a cell, type the word "tickle". To make lots of tickles, click in that cell, then point at that cell's bottom right corner (so you see +) and drag it to the right. The cells you drag across will all say "tickle".

Fill down

When you point at a cell's bottom right corner and drag, you usually drag to the *right*. But if you prefer, you can drag *down*, so you're copying to the cells *underneath* (instead of the cells to the right).

Extend a series

You've learned that if the original cell said "love", the adjacent cells will say "love"; and if the original cell said "tickle", the other cells will say "tickle".

But if the original cell said "January", the adjacent cells will *not* say "January". Instead, the computer makes them say "February", "March", "April", "May", etc.

So **here's how to put the words "January", "February", "March", "April", etc., across your spreadsheet's top:**

Begin by typing "January" in cell B1. Then drag that cell's bottom right corner to the right, to column H or I or even farther! The farther you drag, the more months you'll see!

Your computer performs these tricks:

If you start with January,	the computer will say February, March, April, etc.
If you start with Jan,	the computer will say Feb, Mar, Apr, etc.
If you start with October,	the computer will say November, December, January, etc.
If you start with Oct-98,	the computer will say Nov-98, Dec-98, Jan-99, etc.
If you start with 29-Jan,	the computer will say 30-Jan, 31-Jan, 1-Feb, etc.
If you start with 12/29/2016,	the computer will say 12/30/2016, 12/31/2016, 1/1/2017, etc.
If you start with 29-Dec-98,	the computer will say 30-Dec-98, 31-Dec-98, 1-Jan-99, etc.
If you start with 29-Dec-99,	the computer will say 30-Dec-99, 31-Dec-99, 1-Jan-00, etc.
If you start with Monday,	the computer will say Tuesday, Wednesday, Thursday, etc.
If you start with Mon,	the computer will say Tue, Wed, Thu, etc.
If you start with 10:00 AM,	the computer will say 11:00 AM, 12:00 PM, 1:00 PM, etc.
If you start with 10:00,	the computer will say 11:00, 12:00, 13:00, etc.
If you start with 22:00,	the computer will say 23:00, 0:00, 1:00, etc.
If you start with Quarter 2,	the computer will say Quarter 3, Quarter 4, Quarter 1, etc.
If you start with Q2,	the computer will say Q3, Q4, Q1, etc.
If you start with 2nd Quarter,	the computer will say 3rd Quarter, 4th Quarter, 1st Quarter, etc.
If you start with 2nd Qtr,	the computer will say 3rd Qtr, 4th Qtr, 1st Qtr, etc.
If you start with 2 Q,	the computer will say 3 Q, 4 Q, 1 Q, etc.
If you start with Idiot 1,	the computer will say Idiot 2, Idiot 3, Idiot 4, etc.
If you start with Year 2016,	the computer will say Year 2017, Year 2018, Year 2019, etc.
If you start with 2016 Results,	the computer will say 2017 Results, 2018 Results, 2019 Results, etc.
If you start with 1st,	the computer will say 2nd, 3rd, 4th, etc.
If you start with 1st Idiot,	the computer will say 2nd Idiot, 3rd Idiot, 4th Idiot, etc.

Limitation: if you start with just a plain number (such as 1), the computer will just copy that number; it will *not* say 2, 3, 4, etc. If you start with just the plain number 2016, the computer will just copy that number; it will *not* say 2017, 2018, 2019, etc. To make the computer do more than just copy, include a word. For example, instead of saying just 1, say "Idiot 1"; then the computer will say "Idiot 2", "Idiot 3", "Idiot 4", etc. Instead of saying just 2016, say "Year 2016" or "2016 Results" or "People We Accidentally Shot In 2016"; then the computer will generate similar headings for 2017, 2018, etc.

Copy a formula's concept

If you ask the computer to copy a formula, the computer will copy the *concept* underlying the formula.

Here's an example:

Suppose you put this formula in cell B4: =B2+B3. That means cell B4 contains "the sum of the two numbers above it". If you drag that cell's bottom right corner to the right, the computer will copy that formula's *concept* to the adjacent cells (C4, D4, E4, etc.).

For example, the computer will make C4's formula be "the sum of the two numbers above it", by making C4's formula be =C2+C3. The computer will make D4's formula be =D2+D3. The computer will make E4's formula be =E2+E3.

Here's another example:

Suppose cell B4 contains the formula =2*B3, so that B4 is "twice the cell above it". When the computer copies that concept to cell C4, the computer will make C4's formula be "twice the cell above it"; the computer will make C4's formula be =2*C3.

Here's another example:

Suppose cell B4 contains the formula =2*A4, so that B4 is "twice the cell to the left of it". When the computer copies cell B4 to C4, the computer will make C4's formula be "twice the cell to the left of it"; the computer will make C4's formula be =2*B4.

Absolute addresses Notice again how copying from B4 to C4 turns the formula =B2+B3 into =C2+C3: it turns each B into a C.

If you want to prevent those changes, put dollar signs in the original formula. For example, if you want to prevent B3 from turning into D3, put dollar signs around the B3, so cell B4 contains this formula:

=B2+\$B\$3

When you copy that cell to C4, the dollar signs prevents the computer from turning the B3 into C3; C4's formula will become =C2+\$B\$3 (instead of =C2+C3).

Here's how to type "=B2+\$B\$3" quickly. Type the "=" sign, then move the box to cell B2, then type the "+" sign. Finally, **create the \$B\$3 by using this trick: move the box to cell B3, then press the F4 key.** When you've finished creating the entire formula, press Enter.

A cell's name (such as B3) is called the cell's **address**, because the cell's name tells you where to find the cell. An address that contains dollar signs (such as \$B\$3) is called an **absolute address**, because the address is absolutely fixed and will never change, not even when you copy the formula. An address that lacks dollar signs is called a **relative address**, because when you copy that address you'll be copying the cell's relationship to the other cells.

After you've finished

Finished creating your spreadsheet? Here's how to copy it to the disk and printer and move on to another task.

Find the buttons

Most spreadsheet programs (such as old versions of Excel) have 4 buttons near the screen's top left corner:

The first is the **New button**. It can look like a new blank sheet of paper. The second is the **Open button**. It looks like a file folder pried open. The third is the **Save button**. It looks like a 3½-inch floppy disk. The fourth is the **Print button**. It can look like a printer, printing on paper.

But Excel's modern versions have these peculiarities:

Version 2016 Click "**File**" to see "New", "Open", and "Print". The Save button is at the screen's top, near the left edge.

Version 2013 Click "**FILE**" to see "New", "Open", and "Print". The Save button is at the screen's top, near the left edge.

Here's how to use the helpful buttons...

Save button

To save the spreadsheet (copy it onto the disk), click the **Save button**.

Version 2016 If you haven't saved the spreadsheet before, then click "This PC", to keep matters simple.

Version 2013 If you haven't saved the spreadsheet before, then click "Computer" then "Documents", to keep matters simple.

If you haven't saved the spreadsheet before, the computer will say "File Name". Invent a name for your spreadsheet. Type the name and press Enter.

That makes the computer copy the spreadsheet onto the hard disk.

For example, if you named the spreadsheet "mary", the computer makes that spreadsheet be a file called mary.xlsx (meaning "Mary's Excel spreadsheet extended"). The computer puts that file into the Documents folder. (Windows 7 puts it into the Documents library's "My Documents" folder instead.)

Afterwards, if you change your mind and want to do more editing, go ahead! When you finish that extra editing, save it by clicking the Save button again.

Save often If you're typing a long document, click the Save button about every 10 minutes. Click it whenever you get to a good stopping place and think, "What I've typed so far looks good!"

Then if an accident happens, you'll lose at most 10 minutes of work, and you can return to the last version you felt good about.

Print button

To print your spreadsheet onto paper, click the **Print button** then press Enter.

Page Setup

Before clicking the Print button, you can tell the computer what kind of printing you prefer. Here's how...

Click **Page Layout** (which is to the right of "Home" and "Insert").

If you want the computer to rotate the spreadsheet 90 degrees, so more columns will fit on the paper, click **Orientation** then **Landscape**.

If the spreadsheet has many columns and you want to make the characters small enough so all columns fit on one sheet of paper, click the **Width box's** down-arrow then "1 page". If the spreadsheet has many rows and you want to make the characters small enough so all rows fit on one sheet of paper, click the **Height box's** down-arrow then "1 page". If you change your mind and want to return to normal-size printing, do this for the Width box and Height box: click the box's down-arrow then "Automatic".

Normally, the left and right margins are each 0.7 inches wide. To make the left and right margins narrower (so you can fit more columns on the paper), click **Margins** then **Narrow**. That makes the left and right margins each be just ¼-inch wide.

Normally, the computer doesn't bother to print the spreadsheet's gridlines (the lines that separate the columns from each other and the rows from each other). If you *insist* that the computer print the gridlines, put a check mark in the **Gridlines Print** box, by clicking that box.

Normally, the computer doesn't bother to print the column names (A, B, C) and row names (1, 2, 3). If you *insist* that the computer print those names, put a check mark in the **Headings Print** box, by clicking that box.

Click **Insert** (which is to the right of "Home") then **Header & Footer**.

If you want the top of each page to say "Annual blood drive", type "Annual blood drive". If you want the top of each page to show the page number also, do this afterwards: type a comma, press the Space bar, type the word "Page", press the Space bar, then click "Page Number".

Finally, to return your screen to normal, click one of the cells then "View" then "Normal".

When you finish expressing your preferences to the computer, click **Home** then the File-office button (which says "FILE" in version 2013) then "Print" then Enter.

Leave the spreadsheet

When you finish working on a spreadsheet, do this...

Version 2016 If you want to stop using Excel, click the X at the screen's top-right corner.

If instead you want to continue using Excel, click **File** then **Close**. Then the computer lets you work on another document. Your next step is to say "new document" or "old document". Here's how...

If you want to **start typing a new spreadsheet**, click "File" then **New** then "Blank workbook".

If you want to **use an old spreadsheet**, click "File" then **Open**. You see a list of the **25 spreadsheets you used most recently**. Click whichever spreadsheet you want to use. If you want to use a spreadsheet that's not on that list of 25, click "This PC" then proceed as follows...

The computer starts showing you a list of *all* spreadsheets in the Documents folder (unless you've requested a different folder instead). If the list is too long to show completely, here's how to see the rest of the list: either "click in that list then rotate the mouse's wheel toward you" or "repeatedly click the down-arrow that's to the right of that list". If you want to *use* one of those spreadsheets, *double-click* the spreadsheet's name; the computer will put that spreadsheet onto the screen and let you edit it. If instead you want to *delete* one of those spreadsheets, click the spreadsheet's name then press the Delete key; the computer will move that spreadsheet to the Recycle Bin.

Version 2013 If you want to stop using Excel, click the X at the screen's top-right corner.

If instead you want to continue using Excel, click **FILE** then **Close**. Then the computer lets you work on another document. Your next step is to say "new document" or "old document". Here's how...

If you want to **start typing a new spreadsheet**, click "FILE" then **New** then "Blank workbook".

If you want to **use an old spreadsheet**, click "FILE" then **Open**. You see a list of the **25 spreadsheets you used most recently**. Click whichever spreadsheet you want to use. If you want to use a spreadsheet that's not on that list of 25, click "Computer" then "Documents" then proceed as follows...

The computer starts showing you a list of *all* spreadsheets in the Documents library (unless you've requested a different folder instead). If the list is too long to show completely, here's how to see the rest of the list: either "click in that list then rotate the mouse's wheel toward you" or "repeatedly click the down-arrow that's to the right of that list". If you want to *use* one of those spreadsheets, *double-click* the spreadsheet's name; the computer will put that spreadsheet onto the screen and let you edit it. If instead you want to *delete* one of those spreadsheets, click the spreadsheet's name then press the Delete key; the computer will move that spreadsheet to the Recycle Bin.

Didn't save? If you didn't save your spreadsheet yet, the computer asks, "Do you want to save the changes?" If you click "Yes" or "Save", the computer copies your document's most recent version to the hard disk; if instead you click "No" or "Don't Save", the computer ignores and forgets your most recent editing.

Beautify your cells

Here's how to make the cells in your spreadsheet look beautiful.

First, if you're in the middle of typing a number or word, finish typing it and then press the Enter key.

Next, **select which cells you want to beautify**. Here's how.

To select **one cell**, click it. To select **several adjacent cells**, drag from the first cell you want to the last cell. To select **a whole rectangular area**, drag from one corner of rectangle to the opposite corner.

To select **column D**, click the D. To select **columns D through G**, point at the D and drag to the G.

To select **row 2**, click the number 2 at the left edge of row 2. To select **rows 2 through 5**, point at the 2 and drag to the 5.

To select **the entire spreadsheet**, click the box that's left of the letter A.

When doing one of those selections, use the mouse.

The part of the spreadsheet you've selected is called the **selection** (or **range**). It's turned entirely gray, except for the cell where the box is.

If your selection includes at least 2 numbers, you can make the screen's bottom show you statistics.

The screen's bottom can show you 6 statistics: the **count** (how many cells you selected), **numerical count** (how many of the selected cells are numbers), **sum** (total of the selected numbers), **average** (sum divided by the numerical count), **minimum** (which of the selected numbers is the smallest), and **maximum** (which of the selected numbers is the biggest). The first time you use Excel, the computer assumes you want to see just 3 of those statistics: the count, sum, and average. Here's how to make all 6 statistics appear: right-click one of the statistics you see; then you see a list of those 6 statistics; put check marks in front of each of those 6 (by clicking). That makes the computer show those 6 statistics forevermore (every day for every spreadsheet), until you say otherwise (by right-clicking one of the statistics and removing check marks).

After you've made your **selection**, tell the computer how to beautify it. Choose one of the following forms of beauty...

Italic

Here's how to make all writing in the selection be italicized (*like this*).

Find the *I* button (which is near the screen's top, above column B or C). Activate that button by clicking it. **Activating the button changes the button's appearance.**

Version 2016 The button turns gray.

Version 2013 The button turns green.

That makes all writing in the selection be italicized.

If you change your mind and want the writing *not* to be italicized, select the writing again (so it turns dark again) then deactivate the *I* button (by clicking it again).

Bold

Here's how to make all writing in the selection be bold (**like this**).

Find the **B** button (which is near the screen's top, next to the *I* button, and above column A, B, or C). Activate that button by clicking it. That makes all writing in the selection be bold.

If you change your mind and want the writing *not* to be bold, select the writing again (so it turns dark again) then deactivate the **B** button (by clicking it again).

To get bold italics, activate the bold button and also the italic button (by clicking both of them).

Underline

Here's how to make all writing in the selection be underlined (like this).

Find the U button (which is near the screen's top, next to the *I* button, and above column B or C). Activate that button by clicking it. That makes all writing in the selection be underlined.

If you change your mind and want the writing *not* to be underlined, select the writing again (so it turns dark again) then deactivate the U button again (by clicking it again).

Font size

You see the number 11 above column C, D, or E. To make all writing in the selection get bigger (**like this**), click the down-arrow to the right of that number, then click a font size that's a bigger number. (For example, click 14 or 16.)

To make your spreadsheet easier to read, use big writing for the column headings (such as January), the row headings (such as Income, Expenses, and Profit), any totals, and the bottom-line results (such as the \$2000 profit).

Align

Here's how to make all writing in the selection be nudged slightly to the left or slightly to the right.

Click one of these three buttons:



Those buttons are near the screen's top, above column E, F, or G.

Here's what those buttons do.

Clicking the left button makes each cell's writing be aligned left

like this

Clicking the center button makes each cell's writing be centered

like this

Clicking the right button makes each cell's writing be aligned right

like this

Don't click? If you don't click any of the buttons, here's what happens:

If the cell contains a **word**, the computer puts the word **aligned left**.
If the cell contains a **number** instead, the computer puts the number **aligned right**.

Align the headings In a simple spreadsheet, row 1 usually contains words that are column headings. Below those headings are numbers, which are aligned right. **To align the headings with the numbers beneath them, make the headings be aligned right also.** To do that, select row 1 (by clicking the 1), then click the right button.

Delete

To make all writing in the selection vanish (so it's erased), press the Delete key.

Money

The computer can handle money.

To make each number in the selection look like dollars-and-cents, click the \$ button. That makes the computer put a dollar sign before each number and put two digits after the decimal point. If the number is big, the computer inserts commas.

For example, if the number is 1538.4, the computer turns it into:

\$1,538.40

Rounding If the number is .739, the computer rounds it and shows you this:

\$ 0.74

Negative numbers If a number is negative (because you *lost* money instead of gained), the computer follows the tradition of accountants and the Internal Revenue Service: it puts the number in parentheses (instead of writing a minus sign).

For example, suppose the number is -974.25. The computer shows you this:

\$ (974.25)

Advanced features When showing a number, the computer puts the dollar sign at the cell's left edge (aligned left), so all dollar signs in that column will line up. The computer puts the digits (and parentheses) aligned right, and widens the cell if necessary to make them all fit.

Near the \$ button, you see a button that has a comma on it. Clicking the comma button has the same effect as clicking the \$ button, except that the comma button does *not* make the computer write a dollar sign.

Percent

The computer can handle percentages.

To make each number in the selection look like percentage, click the % button. For example, if the number is .74, the computer turns it into 74%.

When writing the percentage, the computer doesn't write any decimal point. For example, if the number is .519, the computer rounds it to 52%.

If the number is negative the computer puts a negative sign in front.

Decimal places

If you click the \$ or comma button, the computer normally puts two digits after the decimal point. If you click the % button, the computer normally puts no digits after the decimal point.

Here's how to change those tendencies.

If you click the **Increase Decimal button** (which shows a .0 becoming a .00), the computer will put an extra digit after the decimal point. If you click it *several* times, the computer will put *several* extra digits after the decimal point.

If you click the **Decrease Decimal button** (showing a .00 becoming a .0) several times, the computer will put fewer digits after the decimal point. For example, here's how to round to the nearest dollar: click the \$ button (which produces dollars and cents) and then twice click the Decrease Decimal button (which gets rid of the cents by rounding).

Font

Normally, the characters you type are in a font called **Calibri**. To make all writing in the selection have a different font (such as Times New Roman), click the down-arrow that's next to "Calibri", then click whichever font you want.

For spreadsheets, the most useful fonts are Calibri, Arial Narrow, Tahoma, and Times New Roman. They look like this in 11 points:

This font is Calibri. It's the normal font for spreadsheets. It's plain and simple. It's what Excel assumes you want. **It looks like this when bold.**

This font is Arial Narrow. It resembles Calibri but is narrower, so you can squeeze more words into the same space, more columns onto a page. **It looks like this when bold.**

This font is Tahoma. It resembles Calibri but has a better capital "I". It's also wider. **It looks like this when bold.**

This font is Times New Roman. It's the easiest to read, especially if you're writing lots of words instead of numbers. **But its bold looks awkward.**

Text color

Normally, the characters you type are black. Here's how to make all characters in the selection be a different color (such as red).

Above column D or E, you see the **Font Color** button, which has an underlined A on it. Notice the color of the A's underline.

If it's the color you want, click the underline.

If it's *not* the color you want, do this instead: click the down-arrow that's to the right of the A's underline; you'll see 70 colors; click the color you want.

Background color

Normally, you type on a white background. Here's how to make the entire selection's background become a different color (such as yellow).

Above column C, D, or E, you see the **Fill Color** button, which shows a paint can pouring onto a floor. Look at the floor's color.

If it's the color you want, click the paint can.

If it's *not* the color you want, do this instead: click the down-arrow that's to the right of the paint can; you'll see 70 colors; click the color you want.

Distorted color If you selected *several* cells, some of them temporarily show distorted colors, until you click a single cell.

Sort

This spreadsheet shows how three students (Zelda, Al, and Pedro) scored on a test:

	A	B	C	D	E	F	G	H
1	Student	Score						
2	Zelda	42						
3	Al	7						
4	Pedro	100						

Alphabetize In that list of students, Zelda is on the top; Pedro is on the bottom.

Here's how to rearrange the rows, to put the students in alphabetical order (from A to Z).

Click any student's name. Click "**Sort & Filter**" then "**Sort A to Z**".

That makes the spreadsheet become:

	A	B	C	D	E	F	G	H
1	Student	Score						
2	Al	7						
3	Pedro	100						
4	Zelda	42						

Increasing scores Here's how to rearrange the rows, to put the scores in numerical order (starting with the lowest score and ending with the highest).

Click any score. Click "**Sort & Filter**" then "**Sort Smallest to Largest**".

That makes the spreadsheet become:

	A	B	C	D	E	F	G	H
1	Student	Score						
2	Al	7						
3	Zelda	42						
4	Pedro	100						

Decreasing scores Here's how to make the computer put the scores in *reverse* numerical order (from highest score to lowest score).

Click any score. Click "**Sort & Filter**" then "**Sort Largest to Smallest**".

That makes the spreadsheet become:

	A	B	C	D	E	F	G	H
1	Student	Score						
2	Pedro	100						
3	Zelda	42						
4	Al	7						

That list is useful, since it puts the winners at the top and the losers at the bottom.

Chart

You can graph your data. In modern spreadsheet programs (such as Excel), graphs are called **charts**.

For example, suppose you want to graph the data from a company you run. Your company sells Day-Glo Pink Hair Dye. (Your motto is: "To brighten your day, stay in the pink!")

You have two salespeople, Joe and Sue. Joe's worked for you a long time, and sells about \$8,000 worth of dye each month. Sue joined your company recently and is rapidly improving at encouraging people to turn their hair pink. She does that by inventing slogans for various age groups, such as:

"Feminine babes wear pink!"
"You look so sweet, hair as pink as cotton candy!"
"Don't be a dink! Think pink!"
"Pink is punk!"
"Pink means I'll be your Valentine, but lighten up!"
"Be what you drink — a Pink Lady!"
"Let the sexy, slinky, pink panther inside you glow!"
"Love is a pink Cadillac — with hair to match!"
"When in a sour mood, look like a pink grapefruit!"

This spreadsheet shows how many dollars' worth of dye Joe and Sue sold each month:

	A	B	C	D	E	F	G	H
1		January	February	March				
2	Joe	8000	6500	7400				
3	Sue	2000	4300	12500				

The spreadsheet shows that Joe sold \$8000 worth of dye in January, \$6500 in February, and \$7400 in March.

Sue's a trainee. She sold just \$2000 worth in January, but her monthly sales zoomed up to \$12500 by March.

Here's how to turn that spreadsheet into a graph (chart).

First, type the spreadsheet.

Next, format the numbers. To do that, drag from the first number (cell B2) to the last number (cell D3), click the \$ button (to put dollar signs in front of the numbers), then twice click the Decrease Decimal button (to round to the nearest dollar). The spreadsheet becomes this:

	A	B	C	D	E	F	G	H
1		January	February	March				
2	Joe	\$ 8,000	\$ 6,500	\$ 7,400				
3	Sue	\$ 2,000	\$ 4,300	\$ 12,500				

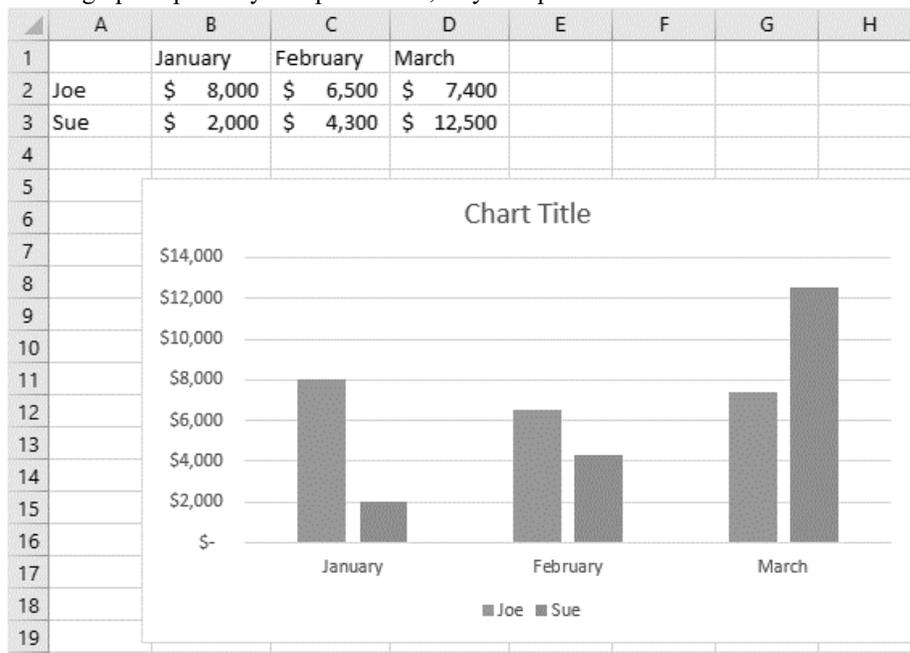
Tell the computer which cells to graph. To do that, drag from the blank starting cell (A1) to the *last number* (cell D3). Drag just to *that cell*, since the computer gets confused if you drag across extra cells or rows or columns.

Then do this:

Version 2016 Click "Insert" (which is near the screen's top-left corner, next to "Home"). Click "Recommended Charts". Press Enter. Then the computer draws the graph. To return the screen's top part to normal, click "Home" (which is near the screen's top-left corner).

Version 2013 Click "INSERT" (which is near the screen's top-left corner, next to "HOME"). Click "Recommended Charts". Press Enter. Then the computer draws the graph. To return the screen's top part to normal, click "HOME" (which is near the screen's top-left corner).

The graph is part of your spreadsheet, so your spreadsheet looks like this:



Edit If you change the numbers in the spreadsheet's cells, the graph will change too, automatically!

The entire graph is inside a box. Try this experiment: click inside that box, but near the box's outer edge. Then you'll see 8 **handles** at the box's edges.

Version 2016 Each handle is a gray circle with white interior.

Version 2013 Each handle is a tiny white square bulge.

Those handles mean the white box is **selected**. Four of those handles are at the corners; they're called the **corner handles**.

To change the size of the box (and the graph inside it), drag one of the corner handles.

To move the box (and the graph inside it), put the mouse inside the box and near (but not on) a corner handle, then drag in the direction you want to box to move.

To delete the box (and the graph inside it), press the Delete key.

Print Here's how to print the graph onto paper.

Click in the graph's box. Then do this:

Version 2016 Click "File".

Version 2013 Click "FILE".

Then click "Print". Then press Enter.

That procedure begins by having you click *in* the graph's box. If you click *outside* the graph's box instead, the printer will print *entire spreadsheet*, including the graph! (But before you do that procedure, you should move the graph's box closer to the screen's left edge and closer to the spreadsheet's numbers, to avoid wasting paper.)

Save If you click the Save button, your hard disk will store a copy of the entire spreadsheet, including the graph.

PowerPoint

Page 47's last paragraph discussed **presentation programs**. The dominant presentation program is **PowerPoint**. I'll explain these popular versions:

PowerPoint 2013 (which is part of **Microsoft Office 2013**)
PowerPoint 2016 (which is part of **Microsoft Office 2016**)

Those versions run in Windows. (Other versions are similar.)

Before you try using PowerPoint, practice using Microsoft Word (explained on pages 444-459) and make sure it works fine.

Launch PowerPoint

Here's how to start using PowerPoint.

Version 2016 In the Windows 10 search box (which is on the screen, next to the Start button), type "po". Tap "PowerPoint 2016: Desktop app" then "Blank Presentation".

Version 2013 While you're looking at Windows 8.1's Apps screen (or Windows 8's Start screen), type "po". Tap "PowerPoint 2013" then "Blank Presentation".

Type your outline

Here's the fastest way to create a slide show:

Version 2016 Click "View" (which is at the screen's top center) then "Outline View" (which is near the screen's left edge). Then click anywhere in the huge light-gray area that's under "Presentation Views".

Version 2013 Click "VIEW" (which is at the screen's top center) then "Outline View" (which is near the screen's left edge) then "Outline" (which is at the screen's left edge). Then click anywhere in the huge light-gray area that's under "Presentation Views".

Type an outline of your speech. For example, suppose you want to give a speech, with slides, about who should be the USA's next president, according to youngsters. Type this outline:

- 1 **Who should be president?**
Advice from America's youth
Analyzed by Smart E. Pants
- 2 **The top two candidates**
 - Barbie
 - Barney
- 3 **Arguments for Barbie**
 - She's so attractive, we all call her a "doll"
 - She has no ideas, so not controversial
 - She'd give feminists a reason to unite
- 4 **Arguments for Barney**
 - "Colored," he shows we don't discriminate
 - If anyone calls him a "dinosaur," he laughs
 - Believes in family values, sings of them
- 5 **Act now**
 - Make your feelings known
 - Throw the eggs from your packet

While typing, remember 3 principles:

To save you time, the computer automatically puts a number (1, 2, 3, 4, 5) and a slide icon (□) in front of each slide, puts a bullet (•) in front of each indented line (except on the first slide), and capitalizes each line's first word. If you indent a line extra-far, its bullet's shape changes to a dash.

Press the **Enter key** at the end of each line (except the outline's final line).

While typing a line, the computer assumes you want it indented the same amount as the line above. To indent a line more, press the **Tab key** while typing the line (or before typing the line). To indent a line less, press **Shift with Tab** while typing the line (or before typing the line).

So here's how to start typing:

The computer's already typed the "1" and the slide icon (□). On that same line, type your speech's **title** ("Who should be President?"). At the end of that title, press the Enter key.

The next line should be your speech's **subtitle** ("Advice from America's youth") and be indented. To make it indented, begin the line by pressing the Tab key. Then type the subtitle's words ("Advice from America's youth"). At the end of the subtitle, press Enter.

The next line can be an extra subtitle ("Analyzed by Smart E. Pants"). Type those words; the computer automatically indents them. At the end of the line, press Enter.

For the next line ("The top two candidates"), unindent (by pressing Shift with Tab). Then the computer will automatically number the slide (2). Type the words ("The top two candidates"). Press Enter.

For the next line ("Barbie"), indent (by pressing Tab). The computer automatically types a bullet (•). Type "Barbie". Press Enter.

Type "Barney". Press Enter.

Unindent (by pressing Shift with Tab), type "Arguments for Barbie", and press Enter.

Indent (by pressing Tab).

Continue typing the outline. Remember to **press Tab whenever you want the computer to indent more, Shift Tab to indent less, and Enter to end the line.**

Undo

If you make a mistake, click the **Undo button** (which is near the screen's top and shows an arrow curving toward the left).

Watch your panes

The outline, which you're typing, is at the screen's left edge, in a windowpane called the **outline pane**.

While you type (in the outline pane), the screen's middle shows the slide you're creating or editing. That middle part of the screen is called the **slide pane**.

You can click and type in either the outline pane or the slide pane. Any words you type in one pane appear in the other also, simultaneously and automatically. Those 2 panes just give you 2 different views of the same words.

Though you can type directly into the slide pane, typing into the outline pane is faster because, while typing in the outline pane, you can progress to the next line (and slide) without fiddling with the mouse: just press Enter (and sometimes Tab or Shift Tab).

While typing in the outline pane, glance at the slide pane, to see how the words will really look on your slide and whether they'll really fit.

Below the slide pane is a **notes pane**, which is a box that temporarily says "Click to add notes". You can click it and then type your own personal notes about the slide above it. The notes will not appear on the slide. Type notes that will help you prepare your speech, or type notes to hand out to the audience afterwards.

The outline pane, slide pane, and notes pane are separated by **dividers** (thin gray lines).

You can drag the dividers to make your favorite pane bigger (and the other panes smaller). But beware: if you make your favorite pane too big, one of the other panes will become too small (or disappear!) and frustrate you.

Delete

Here's how to delete part of your slide show:

In the outline, click a slide icon (to delete the entire slide) or a subtopic's bullet (to delete a subtopic) or the blank space left of a subtitle (to delete a subtitle). Then press the Delete key.

Insert

Here's how to insert an extra line into your outline:

Where do you want the extra line? Which line will be above it? Click the end of the line that will be above the extra line. Then press Enter.

Type the extra line. While typing, if you want the extra line to be indented more, tap the Tab key. If you want the extra line to be indented less, press Shift with Tab.

View different slides

After you've created a set of slides (by typing the outline), here's how to change which slide you're viewing.

Outline-pane method In the outline pane, click whichever slide you want to view.

Slide-pane method Click in the slide pane's top-left corner; then do one of the following activities. To move ahead to the next slide, press the **Page Down** key (or rotate the mouse's wheel toward you). To move back to the previous slide, press the **Page Up** key (or rotate the mouse's wheel away from you). To skip ahead to the final slide, press the **End** key. To skip back to the first slide, press the **Home** key.

Design

The word "Design" is near the screen's top. Here's how to use it...

Version 2016

The word "Design" is on the **tab bar**, which looks like this:

File Home Insert Draw Design Transitions Animations Slide Show Review View

Click "Design". You start seeing pictures of these 37 designs (which are also called "themes"):

Used	Office	Facet	Gallery	Integral	Ion	Ion B.	Organic	Retrospect	Slice
Wisp	Badge	Banded	Basis	Berlin	Celestial	Circuit	Crop	Damask	Depth
Dividend	Droplet	Feathered	Frame	Gallery	Headlines	Main Event	Mesh	Metro.	Parallax
Parcel	Quotable	Savon	Slate	Vapor T.	View	Wood Type			

At first, you see just the top row; to see the other rows, click the down-arrow that's to the right of the last "Aa".

Version 2013

The word "DESIGN" is on the **tab bar**, which looks like this:

FILE HOME INSERT DESIGN TRANSITIONS ANIMATIONS SLIDE SHOW REVIEW VIEW

Click "DESIGN". You start seeing pictures of these 30 designs (which are also called "themes"):

Used	Office	Facet	Integral	Ion	Ion B.	Organic	Retrospect	Slice	Wisp
Banded	Basis	Berlin	Celestial	Circuit	Damask	Depth	Dividend	Droplet	Frame
Main Event	Mesh	Metro.	Parallax	Quotable	Savon	Slate	Vapor	View	Wood T.

At first, you see just the top row; to see the other rows, click the down-arrow that's to the right of the last "Aa".

What to do next

Try clicking a design, then look at the slide pane and see whether you like what the design does to *your* slide. If you don't like the result, click a different design instead.

When you've found a design you like, try clicking one of its "Variants", which are to the right of the "Themes". The "Variants" have their own down-arrow, which you can click if the down-arrow is black (instead of gray).

Check carefully

The design affects *all* your slides, so look at *all* your slides to make sure you like the result. (To see them all, press the Page Up or Page Down key repeatedly.) The design treats your first slide (which has the title and subtitles) differently than the other slides, so make sure you look at that first slide and other slides also.

Unfortunately, some designs use fonts that are too big to fit your words on the slide nicely. Check carefully!

If you don't like the result, click a different design instead. If you want to return to the original plain design, click the 2nd design ("Office").

What's affected?

If you want the design to affect just the slide you see in the slide pane, without affecting all the other slides, do this: *right-click* the design then click "Apply to Selected Slides".

If you want the design to affect just a *few* slides, do this:

At the screen's left edge, make sure you see tiny pictures of the slides, numbered. To see them, click "View" (or "VIEW") then "Normal".

Those tiny pictures are called **thumbnails**, because they're nearly as tiny as your thumb's nail. Click the thumbnail (tiny picture) of the first slide you want to affect. While holding down the Ctrl key, click the thumbnails of the other slides you want to affect, so they're all **selected** (have orange borders). Right-click the design you wish to give them (which you can do after clicking "Design" or "DESIGN"), then click "Apply to Selected Slides".

After you've done "Apply to Selected Slides", those selected slides are treated special: clicking a design afterwards might ignore those slides or treat them differently than other slides. So after doing "Apply to Selected Slides", do future design changes more precisely, by always following this procedure:

To make sure you affect *all* the slides, right-click the desired design then click "Apply to All Slides". To affect just one or a few slides, highlight them then right-click the desired design then click "Apply to Selected Slides".

Finish design

When you finish playing with designs, do this:

Version 2016 Make the outline pane appear again by clicking “View” then “Outline View”. Click “Home” (which is near the screen’s top-left corner).

Version 2013 Make the outline pane appear again by clicking “VIEW” then “Outline View”. Click “HOME” (which is near the screen’s top-left corner).

Font Size

If one of your bulleted lines is too long to fit on the slide, do this:

In the slide pane, click that line by using a mouse or trackpad (*not* by touching a touchscreen). Press Ctrl with A (which highlights *all* the bulleted lines). Look at the number in the Font Size box (which is near the screen’s top, toward the left). Switch to a smaller font size instead (by clicking the Font Size box’s down-arrow then clicking a smaller number). That makes *all* the bulleted lines on that slide have a smaller font. If a line *still* doesn’t fit on the slide properly, choose an even smaller number.

Watch the show

To watch your entire slide show, from beginning to end, **tap the F5 key**. (Exception: if the “F5” is blue or tiny or you’re on a new computer by Microsoft, HP, Lenovo, or Toshiba, tap the F5 key *while holding down the Fn key*, which is left of the Space bar.)

If you’d rather watch just *part* of the slide show, starting at the current slide, do this instead: *while holding down the Shift key* (and Fn key if necessary), tap the F5 key.

Your first slide (which has the speech’s title) will consume the whole screen.

Everything else will disappear. You’ll see no outline, no notes, no menu bar, no toolbar, and no Windows: you won’t even see the Start button. You won’t see any X button.

While watching the slide show, you can give these commands:

To progress to the **next slide**, press the **Page Down or Enter** key (or the Space bar or down-arrow or right-arrow or N or click the mouse’s button or rotate the mouse’s wheel toward you or, if you have a touch screen, put your finger in the screen’s middle and swipe toward the left).

To go **back to the previous slide**, press the **Page Up or Backspace** key (or up-arrow or left-arrow or P or rotate the mouse’s wheel away from you or, on a touch screen, swipe your finger toward the right).

To go back to the **first slide**, press the **Home** key (or while holding down the mouse’s left button, press the right button for 2 seconds).

To skip ahead to the **final slide**, press the **End** key.

To go to **slide 3**, press 3 then Enter — or press **Ctrl with S** (which shows a slides menu, then double-click slide 3).

To make the screen be all **black**, press the **B** key. That makes the slide temporarily disappear, so you can talk to the audience without letting the slide distract the audience. To resume, press the B key again.

To make the screen be all **white**, press the **W** key. (Press it again to resume.)

To see the mouse pointer (an arrow), move the mouse awhile. Then the arrow appears on the screen, along with buttons at the screen’s bottom left corner. To make the arrow & buttons disappear again, stop moving the mouse for 3 seconds.

To make the mouse pointer appear as a **pen**, press **Ctrl with P**. Then the mouse pointer becomes a pen that has red ink. To scribble on the slide, just drag your finger on the screen (if you have a touch screen) or drag the mouse (move the mouse while holding down the mouse’s left button). To emphasize a phrase, scribble *a circle around it* or *an underline below it* or *arrows aimed at it*. Your scribbles are called **annotations**. When you finish using the pen, make it return to an ordinary arrow by pressing the **Esc** key.

To make the mouse pointer appear as a **laser pointer**, hold down the Ctrl key; and while you keep holding down the Ctrl key, drag the mouse (holding down the left mouse button). That makes the mouse pointer look like a laser pointer (red circle) instead of an arrow.

For further **tricks**, **right-click** to see a menu of choices.

To **escape from the slide show**, press the **Esc** key. That returns you to **normal view**, where you can edit the slide you were looking at, then edit other slides too. After editing, press the **F5** key again (if you want to see the slide show from the beginning again) or press **Shift with F5** (to skip the slide show’s beginning and jump to the current slide).

How it ends

If you look at the final slide and then try to progress further by pressing Page Down (or Enter or equivalent), the computer will say “End of slide show” and wait again for you to press Page Down (or Enter or equivalent), which returns you to the normal 3-pane view.

Keep ink annotations?

If you ever scribbled on a slide during the show (by turning the mouse pointer into a pen with Ctrl P), here’s what happens when you end (or escape from) the show: the computer asks “Want to keep your ink annotations?”

To make things simple, click “Discard”.

Save

To copy your presentation to your hard disk, click the **Save button** (which is near the screen's top-left corner and looks like a 3½-inch floppy disk).

If you haven't named your presentation yet, here's what happens.

Version 2016 To keep things simple, click "This PC" then "Documents".

Version 2013 To keep things simple, click "Computer" then "Documents".

The computer assumes you want your presentation's name to be the same as the first slide's title. (If you want the presentation's name to be different, type what you want.) Press Enter. The computer puts your presentation into the Documents folder and makes your publication's filename end in ".pptx", which stands for "PowerPointExtended".

Afterwards, if you change your mind and want to do more editing, go ahead! When you finish that extra editing, save it by clicking the Save button again.

Finish

When you finish working on your presentation, here's what to do.

If you want to stop using PowerPoint, click the X at the screen's top-right corner.

If instead you want to continue using PowerPoint, click "File" (or "FILE") then "Close". Then the computer lets you work on another presentation. Your next step is to say "new presentation" or "old presentation". Here's how:

If you want to **start creating a new presentation**, click "File" (or "FILE") then "New" then "Blank Presentation".

If you want to **use an old presentation**, click "File" (or "FILE") then "Open". You see a list of the **25 presentations you used most recently**. Click whichever presentation you want to use. If you want to use a presentation that's not on that list of 25, click "This PC" (which version 2013 called "Computer") then "Documents" then proceed as follows....

The computer starts showing you a list of *all* presentations in the Documents folder (unless you've requested a different folder instead). If the list is too long to show completely, here's how to see the rest of the list: repeatedly click the down-arrow that's to the right of that list. If you want to *use* one of those presentations, *double-click* the presentation's name; the computer will put that presentation onto the screen and let you edit it. If instead you want to *delete* one of those presentations, click the presentation's name then press the Delete key; the computer will move that presentation to the Recycle Bin.

Didn't save?

If you didn't save your document before doing those procedures, the computer asks, "Do you want to save?" If you click the Save button, the computer copies your presentation's most recent version to the hard disk; if you click the Don't Save button instead, the computer ignores and forgets your most recent editing.

Advanced features

PowerPoint is powerful!

Print

Besides showing slides onto the computer's screen and the room's wall, you can print copies of the slides onto paper, to hand to your audience (as handouts) and keep for yourself. Here's how.

Click "File" (which version 2013 calls "FILE") then "Print".

The computer assumes you want to print just 1 copy (for yourself). If you want to print *many* copies (for yourself and everybody in your audience), double-click in the "Copies" box then type how many copies you want to print. For example, if you're giving a speech to 50 people and want to hand each member of the audience a printout, plus have a printout for yourself, type "51".

The computer assumes you want "Full Page Slides", which makes each slide consume an entire page. To print differently, click "Full Page Slides"; then you'll see many choices; these are the most popular:

Choice	What each person will receive
Full Page Slides	many pages; each page contains 1 slide
Notes Pages	many pages; each page contains 1 slide (shrunk) & its notes
2 Slides	a few pages; each page contains 2 slides (shrunk)
6 Slides Horiz.	even fewer pages; each page contains 6 slides (shrunk)
Outline	1 page; it contains the outline

Click the choice you want.

Finally, click the Print button. The computer will print on paper.

Tables

Here's how to put a table of numbers onto a slide.

Start a new slide, as follows:

In the outline pane, click at the end of the previous slide's last line. Press Enter (to create a new line in your outline). Press Shift with Tab (to unindent). Type a title for your table, but do *not* press Enter afterwards.

Then click the **Insert Table button**. It's a 4-by-3 grid, made of gray lines, in the slide pane.

Pick a size How many columns do you want in your table? Type how many, then press Tab. How many rows do you want in your table? Type how many, then press Enter.

You see a blank table. Fill it in, by typing whatever words and numbers you wish. Move from cell to cell by using the arrow keys. (Another way to move to the next cell is to press the Tab key. Another way to move back to the previous cell is to press Shift with Tab.)

Multi-line cells Normally, each cell holds just a single number or a single phrase. If you want to squeeze *several* lines of info into a single cell, just press the Enter key at the end of each line. If you type more lines than the cell can hold, the computer will automatically make the cell be taller (by making the entire row be taller).

Improve the alignment Here's how to make the numbers line up better.

Click one of the numbers, then drag across all the numbers (so they all change color). Click "Layout" (which appears on the tab bar) then the **Align Right button** (the 3rd button in the Alignment group).

Charts

Here's how to put a chart (graph) onto a slide.
Start a new slide, as follows:

In the outline pane, click at the end of the previous slide's last line. Press Enter (to create a new line in your outline). Press Shift with Tab (to unindent). Type a title for your chart, but do *not* press Enter afterwards.

Then do this:

Click the **Insert Chart** button. It's in the slide pane; it shows a blue bar, a yellow bar, and gray bar. Then press Enter.

You see a table of numbers and a chart based on that table.

Edit the numbers in the table, so the table shows *your* numbers.
Edit the words in the table, so the table shows *your* words.
Then the chart will be a chart of *your* data.

Hide the datasheet The table of numbers is called the **datasheet**. The slide includes just the chart and its headline, not the datasheet. While you're editing the datasheet, the datasheet temporarily blocks your view of the slide.

To hide the datasheet, click its X button.

To make the datasheet reappear (so you can edit it some more), do this:

Version 2016 In the slide, click the chart. Click "Design" (which is on the tab bar) then the grid above "Edit Data" (which is in the ribbon's Data group).

Versions 2013 In the slide, click the chart. Click "DESIGN" (which is on the tab bar) then "Edit Data" (which is in the ribbon's Data group).

Types of charts The computer assumes you want a column chart. Here's how to switch to a different type of chart (such as a bar chart or line chart).

In the slide, click the chart. Click "Design" (which is on the tab bar) then "Change Chart Type", which is near the screen's top-right corner in versions 2013&2016.

Then you see this list of **chart types**:

Version 2016 column, line, pie, bar, area, XY (scatter), stock, surface, radar, treemap, sunburst, histogram, box&whisker, waterfall, funnel, combo

Version 2013 column, line, pie, bar, area, XY (scatter), stock, surface, radar, combo

Click the type you want. To the right of it, you see subtypes; double-click the subtype you want.

Shapes

Here's how to decorate your slide by adding stars, arrows, and other shapes.

In normal 3-pane view, make the slide pane show the slide you want to decorate.

Request "shapes", as follows:

Near the screen's top-left corner, click "Home" (to make sure your screen is normal). Above the word "Drawing", click the word "Shapes" or the symbol ▾ (which you'll see if you have a wide screen).

You see these simple categories:

lines, rectangles, basic shapes, block arrows, equation shapes, flowchart, stars and banners

You also see these two advanced categories:

call-outs, action buttons

The "call-outs" category lets you put words into a balloon coming out of somebody's mouth, as in a cartoon. The "action buttons" category lets you create Internet-style links, which you can click on to hop to different slides in your show.

Click the shape you want.

Imagine that the shape is enclosed in a box. Point at the slide, where you want the box's top left corner to be, and drag to where you want the box's opposite corner.

If you chose the "call-outs" category, type whatever words you want in the balloon. If you chose the "action buttons" category, make whatever adjustments you wish (such as clicking "Mouse Click" then "Hyperlink to") then click "OK".

Adjust the shape After you've drawn a shape, here's how to adjust it.

If you don't like the shape's position, point at the shape's middle and drag it wherever you want. (Exception: if the shape is a call-out, point at the shape's edge instead of middle.)

Here's how to stretch the shape, to make it wider or taller:

Click in the shape's middle.
(If the shape's a call-out, click the shape's edge instead.)

Surrounding the shape, you see 9 tiny **handles** (which are gray circles with white centers in version 2016, white squares in version 2013). To stretch the shape, drag one of the handles.

If you see a **rotation circle** (which is gray & white in version 2016, white in version 2013), you can drag it to rotate the shape.

If you make a mistake, click the Undo button. To delete a shape, do this:

Click the shape. (If the shape's a call-out, do this instead: click outside the shape, then click inside the shape but *not* in the shape's text.) Then press the Delete key.

Slide Sorter

To see many slides simultaneously, **click the Slide Sorter button, which looks like 4 squares**. (It's near the screen's bottom-right corner but left of the percentage.)

You'll see the **Slide Sorter view**: many slides, next to each other, all numbered. If you right-click one of the slides, you'll see a menu giving you many choices: explore them!

When you finish admiring that view, double-click your favorite slide. Then you'll return to a usual 3-pane view.

Transitions

While you're presenting a slide show, you make the computer switch to the next slide by pressing Page Down or Enter or equivalent. When you do, the computer tends to display the next slide immediately and simply. Here's how to make the computer perform a fancier transition to that slide, so the slide appears gradually and spookily.

While that slide is on the screen in usual 3-pane view, click "**Transitions**" (which is on the tab bar).

Click the bottom down-arrow that's to the *left* of "Effect Options".

You see these 49 (or 48) transition choices:

none, morph, cut, fade, push, wipe, split, reveal, random bars, shape, uncover, cover, flash, fall over, drape, curtains, wind, prestige, fracture, crush, peel off, page curl, airplane, origami, dissolve, checkerboard, blinds, clock, ripple, honeycomb, glitter, vortex, shred, switch, flip, gallery, cube, doors, box, comb, zoom, random, pan, Ferris wheel, conveyor, rotate, window, orbit, fly through

(Version 2013 lacks "morph".)

Click the transition choice you want.

To change the transition's speed, you can click in the **Duration box** and change the number of seconds. To change the transition's details, you can click "**Effect Options**" then click the effect you prefer.

The computer assumes you want the transition to apply to just one slide. If you want the transition to apply to *all* slides, click **Apply To All**.

Animated lines

Usually, while you're presenting a slide show, the computer shows an entire slide at once. Here's how to **animate** a slide, so the computer shows just one line at a time and waits for you to say when to show the next line.

While that slide is on the screen in usual 3-pane view, click (in the slide pane) a line that's *not* the title. Click "**Animations**" (which is on the tab bar). Click the bottom down-arrow that's to the *left* of "Effects Options".

You see these 52 animation choices....

None: none

Entrance: appear, fade, fly in, float in, split, wipe, shape, wheel, random bars, grow & turn, zoom, swivel, bounce

Emphasis: pulse, color pulse, teeter, spin, grow/shrink, desaturate, darken, lighten, transparency, object color, complementary color, line color, fill color, brush color, font color, underline, bold flash, bold reveal, wave

Exit: disappear, fade, fly out, float out, split, wipe, shape, wheel, random bars, shrink & turn, zoom, swivel, bounce

Motion paths: lines, arcs, turns, shapes, loops, custom path

Click one of those choices. (I recommend "fly in" because it's simple but dramatic.)

When you run the slide show (by pressing F5 or Shift F5, with the Fn key if necessary) and the computer comes to that slide, here's what happens....

If your animation is from the "Entrance" category, the computer does this:

The computer will show just that slide's title. When you say "go" (by pressing Page Down or Enter or equivalent), the computer will show the slide's first subtopic (bulleted line or subtitle), animated the way you requested.

When you say "go" again, the computer will show the slide's next subtopic, animated the same way. Each time you say "go", you'll see one more line of text.

If your animation is from the other categories, the computer does this:

The computer will show the whole slide. When you say "go" (by pressing Page Down or Enter or equivalent), the computer will animate the slide's first subtopic (bulleted line or subtitle), the way you requested: if your animation is from the Emphasis category, the subtopic will be emphasized; if your animation is from the Exit category, the subtopic will vanish from the screen in an amusing way; if your animation is from the Motion paths category, the subtopic will move to a different part of the screen.

When you say "go" again, the computer will animate the slide's next subtopic, in the same way. Each time you say "go", you'll animate one more line of text.

Timing

When you give a slide show, you typically want the computer to keep showing the same slide until you press Page Down or Enter or equivalent.

But sometimes, you'd rather have the computer switch to the next slide *automatically*, without waiting for you to say so.

For example, if you're giving a passionate speech ("Oh, darling, I love you!") or playing in a rock band, you might want the images on the wall to change automatically without forcing you to interrupt your performance to press a key or click a mouse. If you're running an animated ad in an airport or shopping mall or store (by hiding a computer inside a kiosk), you'll want the computer's kiosk to run a PowerPoint presentation even when no salesperson is present.

Here's how:

Click "Slide Show" (on the tab bar).

Click "Rehearse Timings" (or click "Record Slide Show" then "Start Recording from Beginning" then "Start Recording", which makes the computer also record your laser-pointer motions and your voice, if your computer has a microphone).

That makes the computer run a **rehearsal**. The computer starts the rehearsal by showing you slide 1 (as if you had pressed F5.) To progress from slide to slide, the computer waits for you to press Page Down or Enter or equivalent. **The computer notices how long it waits; each waiting time is recorded.**

When you finish viewing the final slide (and press Page Down or Enter or equivalent again), the computer tells you how many minutes and seconds your entire slide show lasted. Press Enter.

Here's what you've accomplished:

In the future, whenever you start the slide show (by pressing the F5 key), the computer will automatically move to the next slide after the appropriate amount of time (the time you took in rehearsal), even if nobody's pressed Page Down or Enter or equivalent yet.

If you made a mistake about timings, you can try the procedure again.

If you just want to cancel the timings, use one of these methods:

Method 1 Try to undo all the timings (by clicking the Undo button's down-arrow then "Record Slide Show", if you see that choice).

Method 2 Click "Slide Show" (at the screen's top) then remove the check mark from the "Use Timings" box (by clicking it).

Puppets

When you give a PowerPoint presentation, don't just read the slides to your audience. Be more active!

Walk into the audience. Get emotional. Jump around while you talk. Be a fascinating human, not a wooden puppet.

Use the slides whenever you wish, but remember that *you're* in control. Don't let the slides control *you*.

Use the slides to *supplement* what you have to say. Don't make the slides be the whole presentation. If your presentation's just a bunch of slides, your audience will wonder why you didn't just distribute printouts instead of forcing the audience to listen to you read slides.

Use your personality to add your own drama to the event.

If you're giving a speech about something that seems boring (such as a table of numbers), reveal why it's interesting. Be bold enough to laugh at the material and be cynical about it. Tell the audience how you really feel, and why, and get them to think about it. Use your emotions to excite the audience into thinking about the issues.

If the audience looks at your slides without seeing or hearing your emotion, the presentation can become boring. Since sitting through a PowerPoint presentation can be painfully boring (a pain in the ass), PowerPoint is nicknamed **PowerPain**.

When I'm in front of an audience, I avoid PowerPoint. I prefer to talk from my soul; I want my audience to look at my face, not slides. I'd rather scribble on a whiteboard (while I bang it or kiss it) than be in a darkened room dominated by a slide show.

PowerPoint has wrecked the U.S. military. Too many military bureaucrats have been giving fancy PowerPoint presentations instead of getting real work done. The U.S. military is in the process of banning PowerPoint. Soldiers joke that the best way for the U.S. to win battles is to donate PowerPoint to the enemy.