

Microsoft Excel 2007
Part 1: Introduction

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Outlines

1. Spreadsheet
2. Introduction to Microsoft Excel
3. Microsoft Excel 2007 Interface
4. Worksheet
5. Creating a New Workbook
6. Saving a Workbook
7. Opening a Workbook
8. Inserting Additional WorkSheet
9. Naming a Worksheet

2

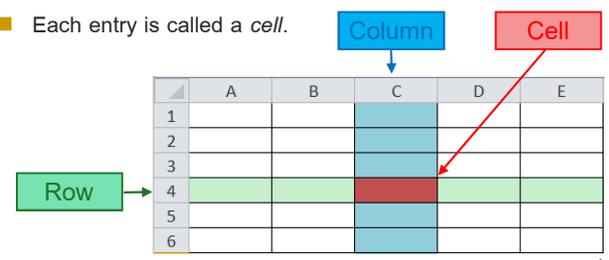
Outlines

10. Formatting the Worksheet
11. Entering Data
12. Line Break in a Cell
13. Auto Fill
14. Selecting Multiple Cells
15. Adjusting row height and column width
16. Inserting and Deleting Row and Column
17. Formatting Cells
18. Printing

3

1. Spreadsheet

- Storage of data in tabular (table) form
- Data is arranged in the rows and columns
- Each entry is called a *cell*.



The diagram shows a 6x5 grid representing an Excel spreadsheet. The columns are labeled A, B, C, D, and E. The rows are labeled 1, 2, 3, 4, 5, and 6. A green box labeled 'Row' has an arrow pointing to row 4. A blue box labeled 'Column' has an arrow pointing to column C. A red box labeled 'Cell' has an arrow pointing to the cell at the intersection of row 4 and column C.

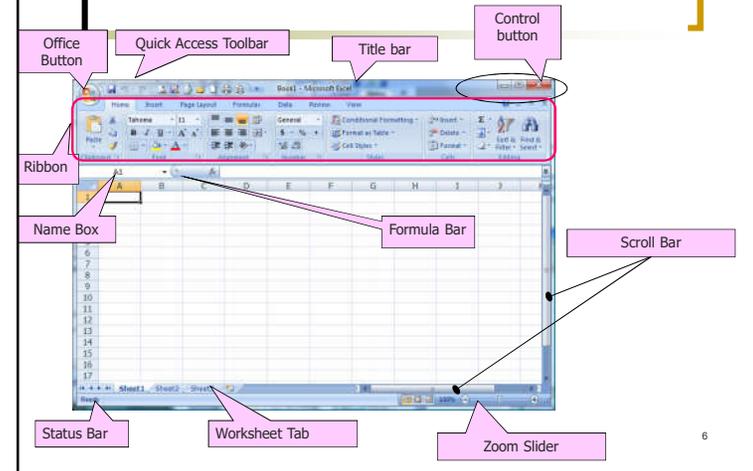
4

2. Introduction to Microsoft Excel

- Part of Microsoft Office program package, like Microsoft PowerPoint and Microsoft Word.
- Microsoft Excel is a spreadsheet application, with tools for:
 - Perform Calculation
 - Creating Summary
 - Drawing Charts & Graphs
- An Excel file is a collection of spreadsheet (worksheet), sometime called a *Workbook*.
- In Excel, you can also insert text, images, symbols.
- Excel provides many functions that allow quick calculation and analysis of data

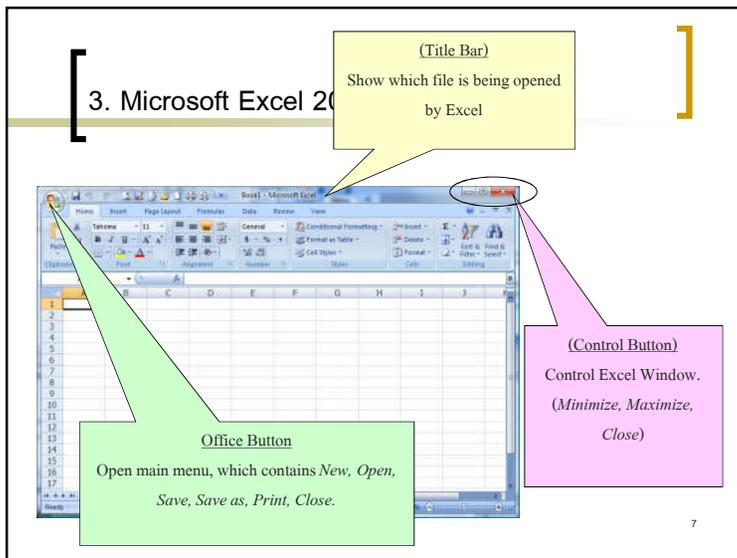
5

3. Microsoft Excel 2007 Interface



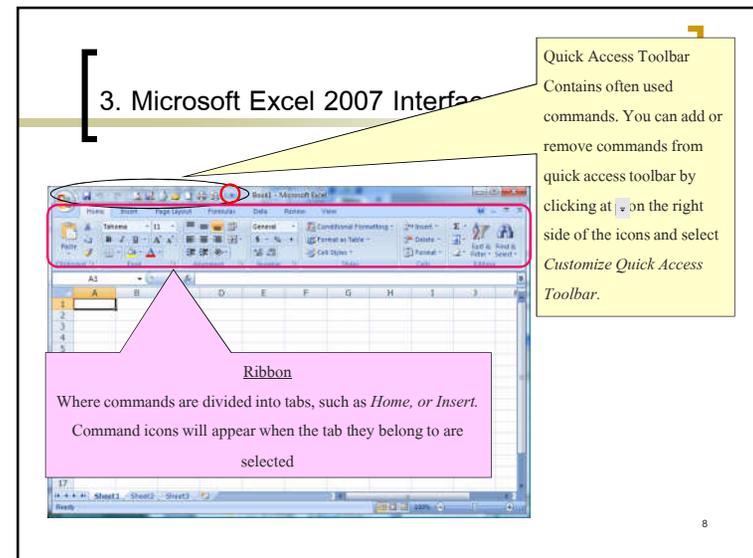
6

3. Microsoft Excel 2007 Interface



7

3. Microsoft Excel 2007 Interface



8

3. Microsoft Excel 2007 Interface

(Formula bar)
Where you can enter data or formula.

(Status Bar)
Show the status of the program such as Ready, Document being Printed.

(Scroll Bars)
Move current view to other parts of the spreadsheet.

9

3. Microsoft Excel 2007 Interface

(Name Box)
Show which cell is being selected.
You can enter cells you want to select here.

(Sheet or worksheet Tab)
You can select one of the worksheet in the excel file (workbook) here.

10

3. Microsoft Excel 2007 Interface — Cell Name

- **Row Name** is used to referenced data in horizontal organization. Ranged from 1 to 1,048,576.
- **Column Name** is used to referenced data in vertical organization. Ranged from A, B, C, ..., Z, AA,... to XFD.
- Name of a cell, such as E3 comes from the name of the column the cell is on concatenated with name of row the cell is on.
 - A cell can be thought of as an intersection of a row and a column.
 - So E3 is the cell where column E crosses with row 3.

	C	D	E
1			
2			
3			
4			
5			
6			

11

4. Worksheet in Excel

- In Excel, a spread sheet is called *worksheet*.

Column Heading

Row Heading

Selected cell, where you can input data

Worksheet tab

12

5. Creating a new Workbook

- In Excel, creating a new file is creating a new workbook, which can contain multiple worksheets.
- The name of the workbook means the name of the file.
- There are two ways to create a new workbook in Excel:

- | Method 1 | Method 2 |
|--|-----------------------|
| 1. Click the Office Button  | Press <i>Ctrl + N</i> |
| 2. Select <i>New</i> | |

Notice: The Title Bar will now contain the name of the new workbook file

13

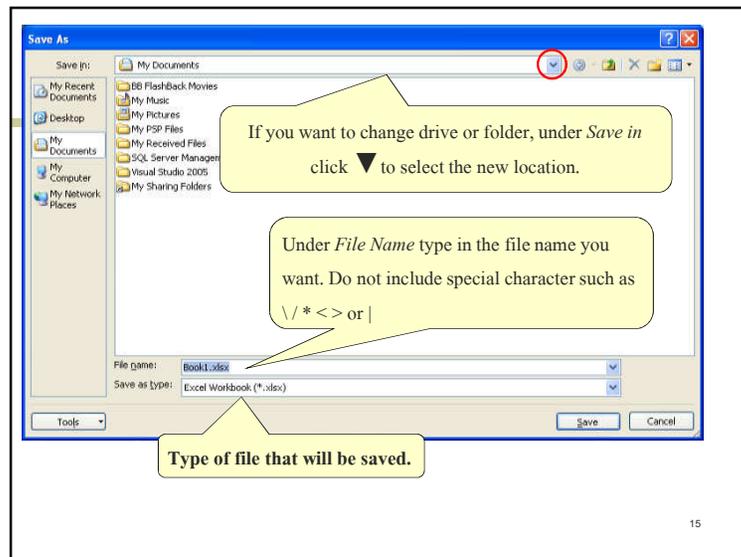
6. Saving a Workbook

When you want to save a file in Excel, you can do:

- | Method 1 | Method 2 |
|--|-----------------------|
| 1. Click the Office Button  | Press <i>Ctrl + S</i> |
| 2. Select <i>Save</i> | |

- File in Excel 2007 is in new format, with extension *.xlsx*
- If you want the older version, with extension *.xls*, Change the file type (*Save as Type*) to (*Excel 97-2003 workbook (*.xls)*)

14



15

7. Opening a Workbook

If you want to open an existing workbook, you can:

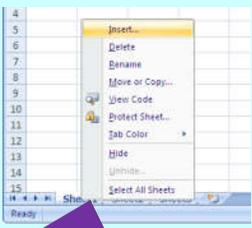
- | Method 1 | Method 2 |
|--|-----------------------|
| 1. Click the Office Button  | Press <i>Ctrl + O</i> |
| 2. Select <i>Open</i> | |

16

8. Inserting Additional Worksheet

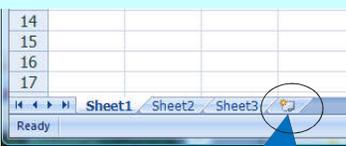
You can add more worksheet to the existing worksheets.

Method 1



Right-click → *Insert*
New worksheet will appear on the left of the one currently selected

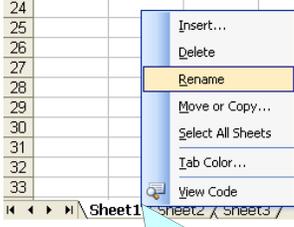
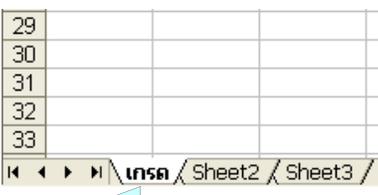
Method 2



Left-click this button
New worksheet will appear on the right of the old ones.

9. Naming a Worksheet

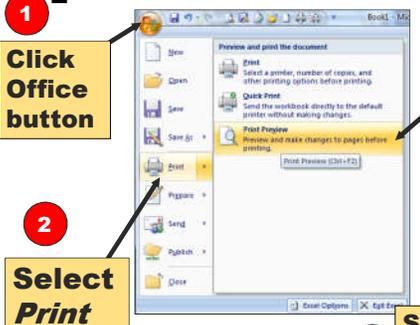
You should change the name of the worksheet to fit the data it contains. This will help you remember and make reference easier afterward.

1. Right-click → *Rename*
2. Type in new worksheet name → Press Enter

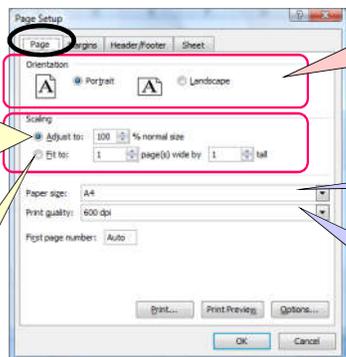
10. Formatting the Workbook

1. Click Office button
2. Select **Print**
3. Select **Print Preview**
4. Select **Page Setup** Dialog box will appear.




10. Formatting the Workbook (2)

10.1 Page tab.



Orientation
Select Portrait or Landscape.

Scaling : Adjust to
Enlarge or contract the worksheet

Scaling : Fit to
Make the worksheet fit to set number of pages

Paper Size

Print quality
How details the print will be

10. Formatting the Workbook (3)

10.2 Setting page margins: Select Margins tab.

Center on page
Set that the worksheet will appear at the center of the page. You can check *Vertically*, *Horizontally* or both.

Set margins, where units are in inches

21

10. Formatting the Workbook (4)

10.3 Header/Footer tab.

Select text that will appear at the header of the page.
Click ▼ to select the text format.

Make the header and footer of the odd-numbered page different from those of even-numbered page.

Make the header and footer of the first page different from the rest.

Click *Custom Header* or *Custom Footer* to create your own text and format.

22

10. Formatting the Workbook (5)

10.3 (2) Custom header or footer

Setting text font/size/color/style

Page Number

Total Pages Number

Date

Time

Image

ค่าทงของข้อความต่างๆ ที่ต้องการแสดง

Folder name

File Name

Worksheet Name

23

11. Entering Data into a Cell

To enter data into a cell, do the following:

1. Click cell you want to enter data.
2. Type the data into the cell
 - Text (aligned to left, cannot be calculated)
 - Numeral (aligned to right, can be calculated)
3. When you're done on that cell, press Enter key or click the other cell.

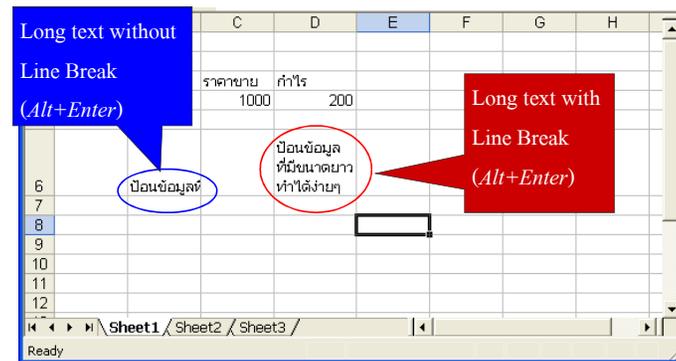
12. Line Breaking in a Cell

Sometime, text data in a cell is too long to display properly without increasing the width of the cell. You will need to insert a line break into the text. Do the following:

- Type to the edge of the cell, then press **Alt + Enter**
 - Or, if you already have the long text, you can move the cursor to where you want to insert the line break, then press *Alt + Enter*.
- The text will continue to the new line, but still inside the same cell.

25

Comparing a cell with line break (red) and the one without (blue)



26

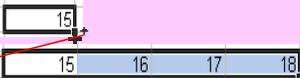
13. Auto Fill

You can input data into cell in increasing order automatically with Auto Fill by doing the followings:

Method 1

1. Type in numeral data at the starting cell.
2. Click at the starting cell.
3. Move mouse to bottom-right corner of the cell.
4. Press *Ctrl* + left-click and hold both.
5. Drag mouse vertically (same column) or horizontally (same row):
 - ❖ Drag upward/leftward to decrease the number by one per cell.
 - ❖ Drag downward/rightward to increase the number by one per cell.
6. Release the mouse where you want to end the data sequence.

Example The value of starting cell, A1 is 15. You can use auto fill to fill in the rest of the data.



**** Notice **** When you press *Ctrl*, a small plus (+) will appear at mouse. You can then auto fill the data, increasing/decreasing by one per cell.

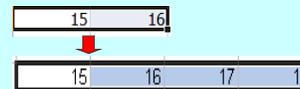
28

13. Auto Fill (2)

Method 2

1. Type numeral data into two cells next to each other, in the order you want.
2. Drag mouse to select the two cells.
3. Move mouse to the bottom-right corner of the second cell.
4. Left-click and hold.
5. Drag mouse vertically (same column) or horizontally (same row) to increase/decrease values of cells, like in Method 1.
6. Release the mouse where you want to end the data sequence.

Example Starting cells are A1 and A2 with values 15 and 16. Using Auto Fill horizontally results as follows:



28

Example: Auto Fill with Numbers

Format 1: font → Angsana New, Size 36, Bold and Italics

Format 2: font → Angsana New, Size 16, Normal

- ❖ When you click, drag and then release, Auto Fill button will appear.
- ❖ When you click on the Auto Fill button, Drop-down menu will appear.

29

Example: Auto Fill with Numbers (2)

Format 1: font → Angsana New, Size 36, Bold and Italics

Format 2: font → Angsana New, Size 16, Normal

30

Example: Auto Fill with Day-of-the-Week

Format 1: font → Angsana New, Size 36, Bold and Italics, left-aligned

Format 2: font → Angsana New, Size 16, Normal, right-aligned

- ❖ When you click, drag and then release, Auto Fill button will appear.
- ❖ When you click on the Auto Fill button, Drop-down menu will appear.

31

Example: Auto Fill with Day-of-the-Week (2)

32

14. Selecting Multiple Cells

4 ways to do this:

- Drag mouse to select cells
- Selecting whole rows
- Selecting whole columns
- Selecting the entire worksheet

33

14.1 Drag Mouse to Select Cells

1.1 Cells in a Rectangle

- 1 Left-click the starting cell
- 2 Drag mouse over cell you want to select, but don't release yet.
- 3 Drag mouse to the last cell (diagonal of starting cell), then release.

	A	B	C	D
1	Mon	1	5	25
2	Tue	2	10	30
3	Wed	3	15	35
4	Thu	4	20	40
5	Fri	5	25	45

Cells dragged over (selected cells) are highlighted

34

14.1 Drag Mouse to Select Cells (2)

1.2 Non-adjacent Cells

- 1 Use dragging mouse with first group of cell you want to select.
- 2 Press *Ctrl* and hold
- 3 Use dragging mouse with second (and more) group of cell you want to select.

	A	B	C	D
1	Mon	1	5	25
2	Tue	2	10	30
3	Wed	3	15	35
4	Thu	4	20	40
5	Fri	5	25	45

Cells dragged over (selected cells) are highlighted

35

14.2 Selecting Whole Rows

2.1 Adjacent Rows

- 1 Click the heading of first row you want.
- 2 Drag mouse to last row you want.
OR press *Shift* + Click the last row
- 3 If use dragging mouse, release at the last row you want.

	A	B	C	D
1	Mon	1	5	25
2	Tue	2	10	30
3	Wed	3	15	35
4	Thu	4	20	40
5	Fri	5	25	45

Selected cells will be highlighted.

36

14.2 Selecting Whole Rows (2)

2.2 Non-adjacent Rows

- 1 Click the heading of first row you want.
- 2 Press *Ctrl* + Click the next row

Selected cells will be highlighted

37

14.3 Selecting Whole Column

2.1 Adjacent Columns

- 1 Click the heading of first column you want.
- 2 Drag to the last column you want
OR Press *Shift* + Click the last column you want
- 3 If use dragging mouse, release at the last column you want.

Selected cells will be highlighted

38

14.3 Selecting Whole Column (2)

2.2 Non-adjacent Columns

- 1 Click the heading of first column you want
- 2 Press *Ctrl* + Click next column you want

Selected cells will be highlighted

39

14.4 Selecting the Entire Worksheet

- Click where the headings of column and row meet OR
- Press *Ctrl+A*

Selected cells will be highlighted

40

15. Adjusting Column Width and Row Height

- Adjusting row height / for multiple rows
- Adjusting column width / for multiple columns
- Adjusting column width and row height for the entire worksheet

41

15.1 Adjusting Row Height / for Multiple Rows

1 Select Rows

2 Move mouse to the border between two rows. Mouse pointer will change into a cross with up and down arrows. Click and drag to adjust height for selected rows.

Decrease

Increase

1	Mon	1	5	25
2	Tue	2	10	30
3	Wed	3	15	35
4	Thu	4	20	40
5	Fri	5	25	45

1	Mon	1	5	25
2	Tue	2	10	30
3	Wed	3	15	35
4	Thu	4	20	40
5	Fri	5	25	45

42

15.2 Adjusting Column Width / For Multiple Columns

1 Select Columns

2 Move mouse to the border between two columns. Mouse pointer will change into a cross with left and right arrows. Click and drag to adjust width for selected columns.

Decrease

Increase

1	Mon	1	5	25
2	Tue	2	10	30
3	Wed	3	15	35
4	Thu	4	20	40
5	Fri	5	25	45

1	Mon	1	5	25
2	Tue	2	10	30
3	Wed	3	15	35
4	Thu	4	20	40
5	Fri	5	25	45

43

15.3 Adjusting Column Width And Row Height For The Entire Worksheet

1 Click where the headings of column and row meet OR
 Press **Ctrl+A**

2 Move mouse to the border of two columns or two rows to adjust widths or heights respectively.

Decrease

Increase

1	Mon	1	5	25
2	Tue	2	10	30
3	Wed	3	15	35
4	Thu	4	20	40
5	Fri	5	25	45

1	Mon	1	5	25
2	Tue	2	10	30
3	Wed	3	15	35
4	Thu	4	20	40
5	Fri	5	25	45

44

16. Inserting/Deleting Row and Column

- **Selecting one or more rows**
 - Right-click and select *Insert* to add more rows
 - Right-click and select *Delete* to remove selected rows
- **Selecting one or more columns**
 - Right-click and select *Insert* to add more columns
 - Right-click and select *Delete* to remove selected columns

45

17. Formatting Cells

You can format a cell so that the data in the cell is displayed in a way you like. You can format the followings in a cell:

- **How the number in the cell is displayed**
- **Alignment of Data**
- **Font**
- **Cell Border**
- **Cell Fill (Background)**

46

17. Formatting Cells (2)

1 Select Cells

2 Right-click on those cells. A menu will appear.

3 Select *Format Cells...* Dialog box will appear.

47

17.1 Number Formatting

Method 1

- Click *Number* tab.
- Under *Category* there are these number display categories:

Category	Description and Extra Options
General	No specific number format. Number will appear as you type it.
Number	Used for general display of number. You can choose decimal places (how many digits after '.'), whether to use <i>1000 separator</i> (',' to separate every 3 digits), and how to display negative numbers.
Currency	General display for monetary values. You can pick currency symbol and how negative number will be displayed.

48

17.1 Number Formatting (2)

Category	Description and Extra Options
Accounting	Similar format with <i>Currency</i> but the currency symbol will be at the left side of the cell, while the number will be right-aligned.
Date	Display number as date.
Time	Display number as time.
Percentage	Multiply the value by 100 and close the number with percent symbol (%) at the end. For example, number .75 will be displayed as 75%

49

17.1 Number Formatting (3)

Category	Description and Extra Options
Fraction	Show number as fraction, where we can select the denominator (base). For example, .75 can be displayed as 3/4, 12/16, or 75/100.
Scientific	Display number in scientific format. For example, .75 as 7.50E- 01
Text	Number are treated as text and will be displayed as entered.
Special	Special number such as postal code or phone number
Custom	Use number format code to display number.

50

How many digit will appear after '.'

Using ',' to separate every three digits.

How to display negative numbers

Number is used for general display of numbers and specialized formatting for monetary value.

51

17.1 Number Formatting (5)

Method 2

1 Select Home tab

2 Under Number Group

- \$ Display currency symbol
- % Display number as percentage
- , Use 1,000 separator
- +.0 Increase decimal places by one
- .0 Decrease decimal places by one

For more complex format, click here to open the dialog box and follow method 1.

17.2 Alignment

Method 1

Text alignment
How text will be placed in the cell.
You can select:
■ Horizontal
■ Vertical

Text control
How text are displayed
■ Wrap text will start new line (s) if text is longer than the cell width.
■ Shrink to fit will decrease font size until the entire cell can be displayed.
■ Merge Cell will combined selected cells into one.

Orientation
How text will be rotated. (-90 degree to 90 degree)

17.2 Alignment (2)

Method 2

- 1 Click Home tab.
- 2 Under Alignment group.

Wrap text will start new line (s) if text is longer than the cell width.

Merge & Center
Joins selected cells and centers the content in the new cell.

Orientation
How text will be rotated. (-90 degree to 90 degree)

Text alignment
How text will be placed in the cell.

For more complex alignment, open dialog box and follow Method 1.

17.3 Fonts in a Cell

Method 1

Font
Select which font to use.

Underline
Select if text will be underlined.

Effect
Assign effect to text, such as:
■ Strikethrough
■ Super_{script}
■ Sub_{script}

Size
Select Font Size

Font Style
Select Font Style: Bold, Italic, or Regular.

Color
Select Font Color

17.3 Fonts in a Cell (2)

Method 2

- 1 Click Home tab.
- 2 Under Font Group

- **B** Bold
- *I* Italic
- U Underline
- **A** Increase font size
- **A** Decrease font size
- Fill color (background)
- Text color

Select font

Select font size

Open dialog box and follow Method 1

17.4 Format Cell Border

Method 1

Line
Set the style of the line to draw

Color
Set color for the line, must set color first

Presets

- None cancels and erases all borders of selected cells.
- Outline draws border around selected cells
- Inside draws border between selected cells.

Border allows user to select certain borders to draw/erase.

17.4 Format Cell Border (2)

Method 2

- 1 Click Home tab.
- 2 Under Font group
- 3 Click here to show border menu

More Borders... to go to Method 1.

17.5 Format Cell Fill

Method 1

Background Color
Set background color

Pattern Color
Set color for background pattern

Pattern Style
Set background pattern

Fill Effects
Set gradient effect to background colors

More Colors
For extra choices of colors

17.5 Format Cell Fill (2)

Method 2

- 1 Click Home tab
- 2 Under Font group
- 3 Click here to select color

More Colors... to go to Method 1.

18. Printing

1 Click Office button

2 Select Print

3 Select Print

18. Printing (2)

Print range Select range of pages to print

Print what
 Select data to print:

- Selection will only print selected cells.
- Entire Workbook will print all worksheets in that workbook.
- Active Sheet(s) will only print the worksheet current selected.

Number of copies
 Click ▲ (or ▼) to select number of copies to print

Collate: Check to print one copy at a time. Uncheck to print all copies of one page first.