



## Chapter 2: Recording Student Grades



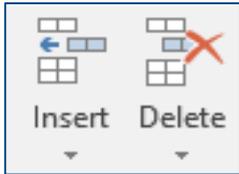
**LABYRINTH**  
LEARNING™

# Learning Objectives

- After studying this chapter, you will be able to:
  - ▲ Rearrange data on a worksheet
  - ▲ Manage multiple worksheets
  - ▲ Use functions to perform calculations
  - ▲ Use relative and absolute cell references in formulas
  - ▲ Define names for cells and range

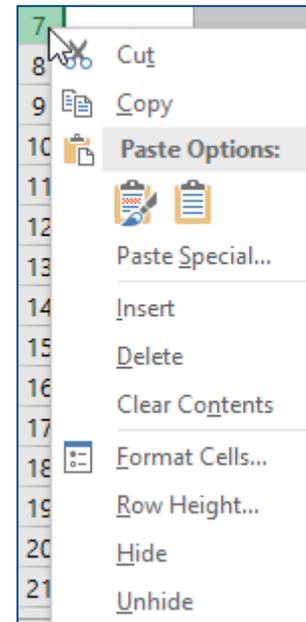
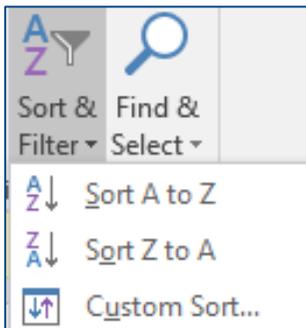
# Rearrange Data on a Worksheet

- Insert and delete rows, columns, and cells



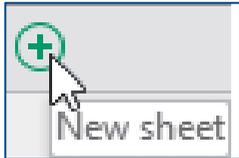
- Hide and unhide rows and columns

- Sort data by column

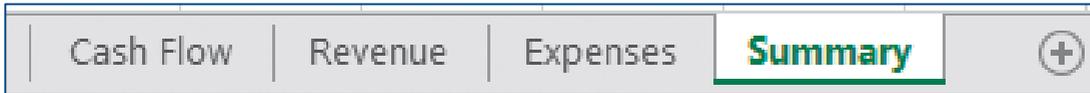


# Managing Multiple Worksheets

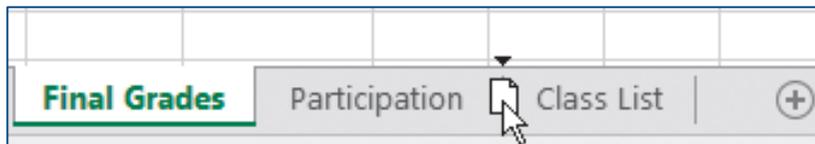
## ■ Insert and delete worksheets



## ■ Rename worksheets

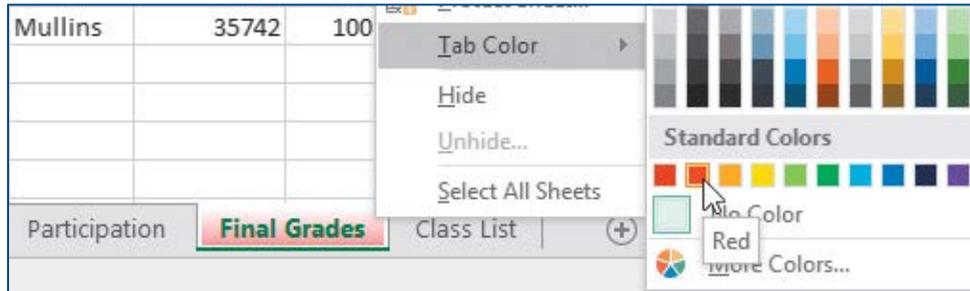


## ■ Move a worksheet

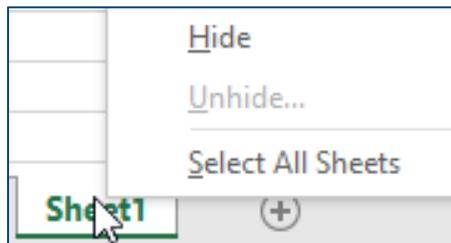


# Managing Multiple Worksheets

- Change the worksheet tab color



- Hide a worksheet



# Managing Multiple Worksheets

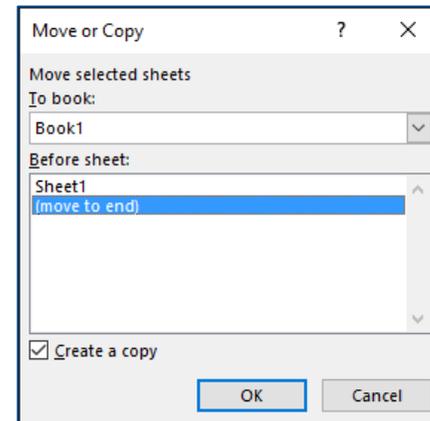
- Create a cell reference to another worksheet

`=[2015Financial.xlsx]Revenue!A3`

Different workbook  
name

Worksheet name in  
different workbook

- Create a copy of a worksheet



- Edit multiple sheets at one time



Participation and Exam worksheets are grouped  
and now can be edited simultaneously.

# Using Functions in Formulas

## ■ Use the AutoSum feature

Item	Price	Price
USPS	3.85	
FedEx	4.75	
Airborne	5.35	
DHL	5.07	
	=SUM(B7:B10)	

AutoSum automatically adds adjacent cells in columns or rows.

## ■ Sum, Average, Count, Max, and Min

Item	Price
USPS	3.85
FedEx	4.75
Airborne	5.35
DHL	5.07
	19.02
Average Rate	4.76
Highest Rate	5.35
Lowest Rate	3.85

Name of the function tells Excel which operator perform on a selected cell range.

# Use Insert Function

- Clicking the Insert function button displays the Insert function dialog box

The image shows two overlapping dialog boxes in Microsoft Excel. The background dialog is the 'Function Arguments' box for the SUM function, showing the range B2:B6 and a result of 35. The foreground dialog is the 'Insert Function' box, which lists various functions like SUM, AVERAGE, IF, etc. A blue arrow points from the 'SUM' function in the 'Insert Function' dialog to the 'Number1' field in the 'Function Arguments' dialog. Another blue arrow points from the list of functions in the 'Insert Function' dialog to the text 'Many functions from which to choose'.

**Function Arguments**

SUM

Number1 B2:B6 = {6;8;8;7;6}

Number2 = number

(B2:B6)

Adds all the numbers in a range of cells.

= 35

Number1: number1,number2,... are 1 to 255 numbers to sum. Logical values and text are ignored in cells, included if typed as arguments.

**Insert Function**

Search for a function:

Type a brief description of what you want to do and then click Go

Go

Or select a category: Most Recently Used

Select a function:

SUM

AVERAGE

IF

HYPERLINK

COUNT

MAX

SIN

SUM(number1,number2,...)

Adds all the numbers in a range of cells.

The Function Arguments dialog box displays the range of cells to be included in the function.

Many functions from which to choose

# Understanding Relative and Absolute Cell References

- **Relative:** When you copy a formula, cell references update automatically and refer to new cells relative to the new formula cell
- **Absolute:** Absolute references always refer to the same cell, regardless of which cell the formula is moved or copied to

Relative cell references

Item Name	Quantity	Price	Subtotal
T-shirts	200	12.99	=C4*D4
Buttons	100	6.5	=C5*D5
Hamburgers	45	9.29	=C6*D6
Buns	45	2.19	=C7*D7
Water	12	1.99	=C8*D8

E	F
Tax Rate: 0.08	
Subtotal	Tax
=C4*D4	=E4*\$F\$1
=C5*D5	=E5*\$F\$1
=C6*D6	=E6*\$F\$1
=C7*D7	=E7*\$F\$1
=C8*D8	=E8*\$F\$1

Absolute cell references

*Note! Absolute cell references are denoted with \$ signs.*



# Displaying Formulas

- Choose to display formulas, rather than the resulting values, in cells

Sales			
Discount		0.08	0.1
	<i>Monthly</i>	<i>Discounted</i>	<i>Discounted</i>
<i>Sales Person</i>	<i>Sales</i>	<i>Price</i>	<i>Price</i>
John	3543	=B7*(1-\$C\$3)	=B7*(1-\$D\$3)
Susan	2024	=B8*(1-\$C\$3)	=B8*(1-\$D\$3)
David	9335	=B9*(1-\$C\$3)	=B9*(1-\$D\$3)
Joel	5533	=B10*(1-\$C\$3)	=B10*(1-\$D\$3)
Average Sale	=AVERAGE(B7:B10)		
Highest Sales	=MAX(B7:B10)		
Lowest Sales	=MIN(B7:B10)		

**Tip!** Use the **Show Formulas** button (  Show Formulas ) to toggle between displaying formulas and values.

# Define Names for Cells and Ranges

- Use names for a range of cells used often in formulas
  - ▲ Easier to remember than a cell range

Name Box

	A	B
1	Rates	
2	Tax	18%
3	Interest	12%

- Cell names in a formula act as absolute cell references in formulas