

Introduction to Microsoft Excel

Formulas

Presenter: Jamie Pena



Upcoming Events

- 10/16, 6:00 – 7:30 pm (registration required)

Huntingford Humanities Lecture: When Your Grandpa Is a Bot AI, Death, and Digital Doppelgangers

After his father passed away, Muhammad Aurangzeb Ahmad brought him back—digitally. In this talk, Ahmad uses his experience to explore how artificial intelligence will transform our society, culture, and relationships.

He is a research scientist at the University of Washington's Harborview Medical Center and an affiliate assistant professor in the Department of Computer Science at the University of Washington, Bothell.

Upcoming Events

- 10/23, 2:30 – 3:30 pm

Citizen Science: Migratory Shorebird Count at Irondale Beach County Park

Help scientists count local migratory shorebirds on our coasts! Join volunteers of the Admiralty Audubon Society and fellow Citizen Scientists to count migratory shorebirds this fall.

Phone apps eBird and Merlin are required. Please plan to arrive at Irondale Beach County Park by 2:00 pm if you need assistance downloading the eBird and Merlin apps.

Note about Excel

- Please note that in these classes we will be learning how to use Microsoft Excel 2019.
- If you are using another version, features may appear differently.

Warm Up

	A	B	C	D
1	Item	Price	Quantity	# Sold
2	Folder		3	12
3	Pens	1.5	30	25
4	Markers	3	15	12
5	Notebook	4.5	10	8
6	Calculator	10	10	4

- 1) How many folders are unsold? What math formula did you use?
- 2) How much money did the school store make from calculator sales? What math formula did you use?
- 3) Which item made the most money?

Learning Objectives

- Write equations including addition, subtraction, multiplication, and division into the formula bar.
- Use Fill to calculate a lot of numbers quickly.
- Use AutoSum to add up numbers.

Vocabulary

- AutoSum – to find the total for a given range of cells.
- Equation - a mathematical expression.
- Fill - a function that allows a user to copy data to multiple cells.
- Formula – how an equation is expressed in Excel.
- Formula bar – where formulas can be entered and edited.

- Enter the data from Handout A.

	A	B	C	D
1	Item	Price	Quantity	# Sold
2	Folder	3	12	9
3	Pens	1.5	30	25
4	Markers	3	15	12
5	Notebook	4.5	10	8
6	Calculator	10	10	4

Enter Unsold and Sales headings

	A	B	C	D	E	F
1	Item	Price	Quantity	# Sold	Unsold	Sales
2	Folder	3	12	9		
3	Pens	1.5	30	25		
4	Markers	3	15	12		
5	Notebook	4.5	10	8		
6	Calculator	10	10	4		
7						

Formulas - Subtraction

To determine the number of unsold folders we will write a subtraction formula.

Click on cell **E2**.


Type **=C2-D2**

	C	D	E
	Quantity	#Sold	Unsold
3	12	9	=C2-D2
3	30	25	

Total Unsold

The total number of unsold folders appears in cell E2.

C	D	E
Quantity	# Sold	Unsold
12	9	3



Formulas - Multiplication

To find out how much money was made from folder sales write a multiplication formula

Click on cell **F2**.

Type **=B2*D2**

	B	C	D	E	F
1	Price	Quantity	# Sold	Unsold	Sales
2	3	12	9	3	=b2*d2
3	4	20	25		

The symbol for multiplication is the asterisk (*).

How much was made

We now have the total amount made from folder sales in cell F2.

B	C	D	E	F
Price	Quantity	# Sold	Unsold	Sales
3	12	9	3	27

Formulas - Addition

Excel can also perform addition.

In cell A8 enter 20.
In cell A9 enter 5.

In cell A10, type =a8+a9

8	20
9	
10	=A8+A9
11	

This adds cells A8 and A9 to give us a total of 25 in cell A10.

Formulas - Addition

8	20
9	5
10	25
11	

This adds cells A8 and A9 to give us a total of 25 in cell A10.

Formulas - Division

To perform division:

In cell A11, type `=a8/a9`

8	20
9	5
10	
11	=A8/A9
12	

Formulas - Division

8	20
9	5
10	25
11	4

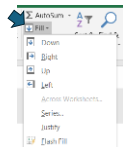
This divides cells A8 and A9 to give us a total of 4 in cell A11.

Fill

Fill is a function that lets you copy data, and formulas, to multiple cells at once.

Fill can be found on the Ribbon under Home Tab.

It is located by the AutoSum function.



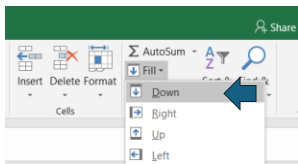
Fill – Sales Formula

To copy the sales formula from cell F2:

Highlight cells F2 through F6.

E	F
Unsold	Sales
3	27

Fill – Sales Formula



Click **Fill – Down**.

We want to copy the formula to the cells below, hence down.

Fill

The formula has been copied to cells F3 through F6.

The totals have been automatically calculated.

F
Sales
27
37.5
36
36
40

Autosum

To find the total amount the school made, select cells F2 through F7.

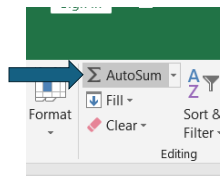
F7 is blank. This is where are total will appear.

F
Sales
27
37.5
36
36
40

Autosum

On the ribbon, click AutoSum.

AutoSum is located under the Home tab.



AutoSum

The total amount of sales for all items appears in cell F7.

F
Sales
27
37.5
36
36
40
176.5

Practice

	A	B	C	D
1	Item	Price	Quantity	# Sold
2	Folder		3	12
3	Pens	1.5	30	25
4	Markers	3	15	12
5	Notebook	4.5	10	8
6	Calculator	10	10	4

Question	Formula
How many folders are unsold?	$+C2-D2$
How much money was made selling folders?	$+B2*D2$
How much money was made selling markers?	
How many pens are unsold?	
How many calculators are unsold?	
How much money was made selling notebooks?	

Practice

1. Open Excel and type the following chart of restaurant sales:

	A	B	C	D
1	Item	# Sold	Price	Sales
2	Burgers		12	7.5
3	Cookies		29	1.5
4	Tacos		19	3.5
5	Egg rolls		26	3
6	Oranges		28	1

2. **Multiply** to find the total **Sales** for Burgers.
3. Use **Fill** to find the **Sales** for all items.
4. Which item made the most money?
5. Use **AutoSum** to find the total sales.

Next Class

- Title: Inserting Charts
- Date: 10/18
- Time: 2:00 – 3:30 pm



This lesson will teach you how to use charts to display your spreadsheet data. You will also practice modifying charts by changing their titles and size.

For assistance, please contact the Jefferson County Library at **360-385-6544** or information@jclibrary.info to set up a **One-on-One Tech Help** appointment.
