UNIT: 02

Performing Calculations

Learning Outcomes

By the end of this unit the learner will be able to:

- ✓ **Create formulas in a worksheet**
- ✓ **Insert functions in a worksheet**
- ✓ **Reuse formulas**

UNIT 02 PERFORMING CALCULATIONS

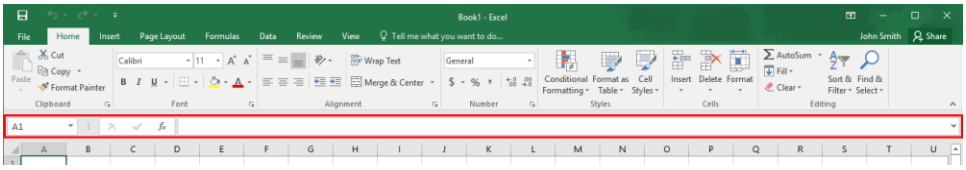
Create Formulas in a Worksheet

EXCEL FORMULAS

Formulas are mathematical expressions that operate on cell contents. When cells contain numerical data, you can perform multiple mathematical operations on the cell content as your worksheet requires. The results of these operations will be shown in the cell that contains the formula. Formulas can be simple, like adding two cell values, or quite complex, involving multiple mathematical operations.

THE FORMULA BAR

Located just below the ribbon, the Formula Bar is where you will type in functions for a selected cell:

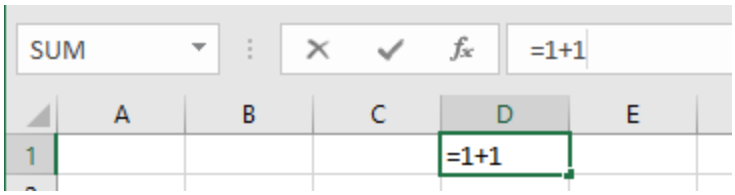


The Formula Bar is comprised of the **Name Box(1)**; the **Insert Function**,**Enter**, and **Cancel**buttons**(2)**;and the **Formula Bar** text box **(3)**:

The Formula Bar text box will display the contents of the selected cell and allow you to edit its contents. The Insert Function button allows you to insert functions that you type into the Formula Bar into the currently selected cell. The Enter button will enter any formula that appears in the bar into the current cell, while the Cancel button will cancel the process and clear the Formula Bar entirely.

ELEMENTS OF AN EXCEL FORMULA

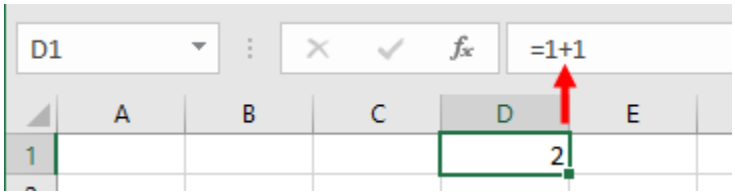
Formulae are always preceded by an equals sign (=). Formulae can contain cell references (like A1), numbers (like 23), or functions (like SUM(B2:B9)). Enter a formula by typing directly into a cell or into the Formula Bar:



=A1+23, = d2-c2, and =B10+b11/C6 are all valid formulae; cell references are not case-sensitive.

If you include a cell reference in a formula (like =B3*6), and that cell reference itself contains a second formula (like =B1+B2, stored in B3), that second formula (=B1+B2) will be evaluated first, and the result will be used in =B3*6.

You can tell if a cell contains a formula by making it active. If there is a formula in the active cell, it will be shown in the Formula Bar:



COMMON MATHEMATICAL OPERATORS

Excel uses eight basic mathematical operators:

Name	Symbol	Example
Exponent	^	10^2 = 100
Multiplication	*	10*2 = 20
Division	/	10/2 = 5

Addition	+	10+2 = 12
Subtraction	-	10-2 = 8
Equivalence	=	10 = 10
Greater Than	>	10>2
Less Than	<	2<10

THE ORDER OF OPERATIONS

The common mathematical operators shown above are listed from top to bottom in order of precedence. This means that Excel does not simply calculate expressions from left to right; certain operations are performed before others. Multiplication and division, addition and subtraction, and the greater than/less than operations each have equal precedence.

You can impose your own order of operations by enclosing expressions in parentheses (). The operations inside the parentheses will be evaluated before the operations outside.

If you have parentheses within parentheses, such as ((2+3)*4), the expression in the inner parentheses, (2+3) =5, will be evaluated first, and the result will be used to evaluate the expression in the outer parentheses, (5*4) =20.

One easy way to remember precedence order is to remember the word "BEDMAS," which stands for Brackets (aka Parentheses), Exponents, Division, Multiplication, Addition, and Subtraction. Note that:

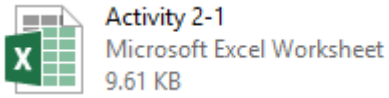
- Division and Multiplication have equal precedence, calculated from left to right.
- Addition and Subtraction have equal precedence, calculated from left to right.

ACTIVITY 2-1

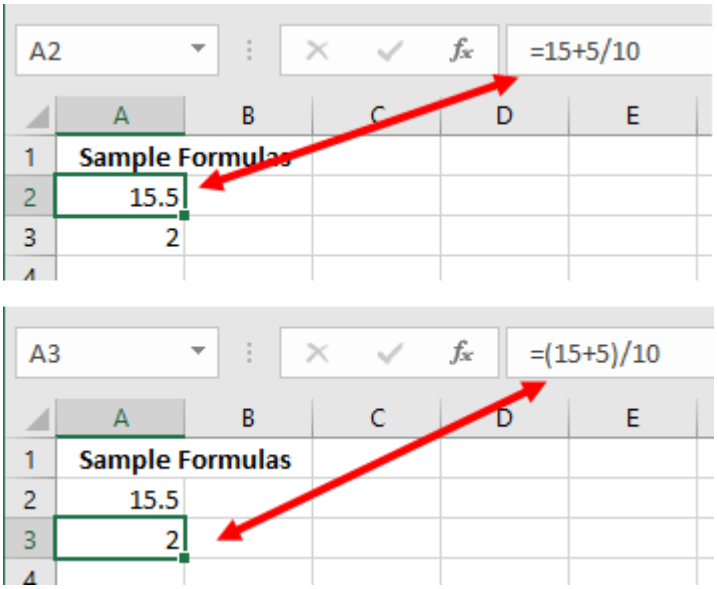
Creating Formulas in a Worksheet

You have been given a spreadsheet that requires a basic formula to calculate the total sales based upon the number of products that were sold. You will use the tools covered in this topic to complete this task.

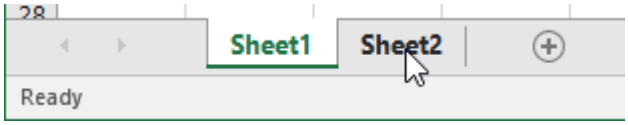
1. To begin, open Excel 2016 and open Activity 2-1 from your Exercise Files folder:



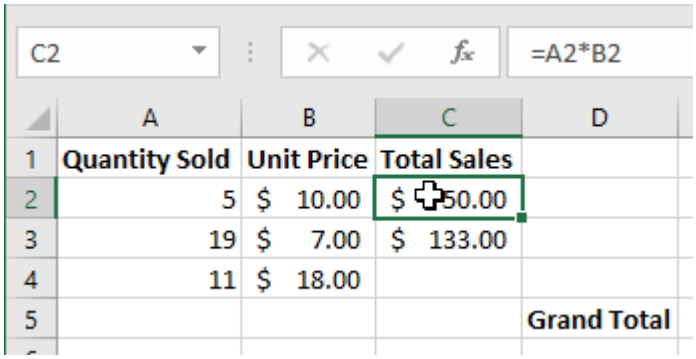
2. Ensure that Sheet1 is displayed. Cells A2 and A3 in this sheet have very similar formulas but display very different results. Click each cell and look in the Formula Bar to find the difference:



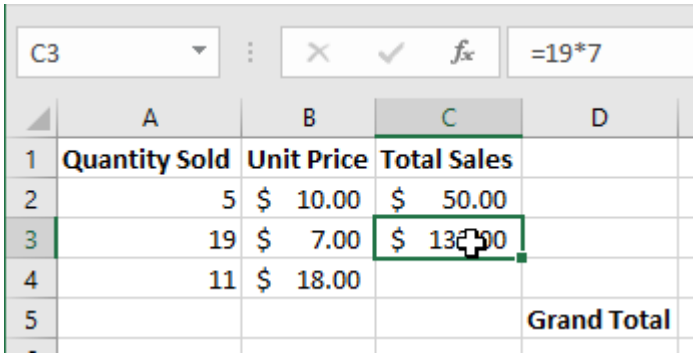
3. As you can see, the parentheses completely change the result of this formula. Let's move on to Sheet2:



4. This sheet contains a basic table with a few formulas calculating the data. Click cell C2 to see how it is calculated:

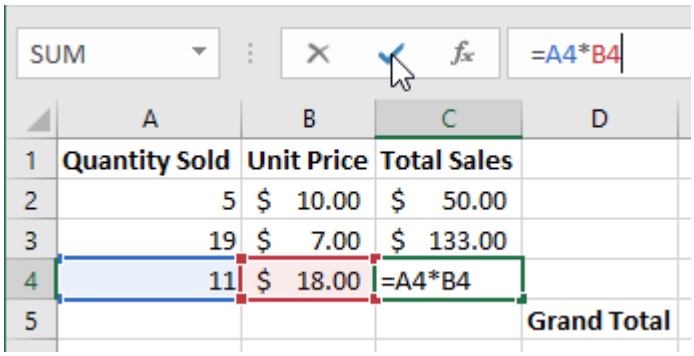


5. Click cell C3 to see how it is calculated:

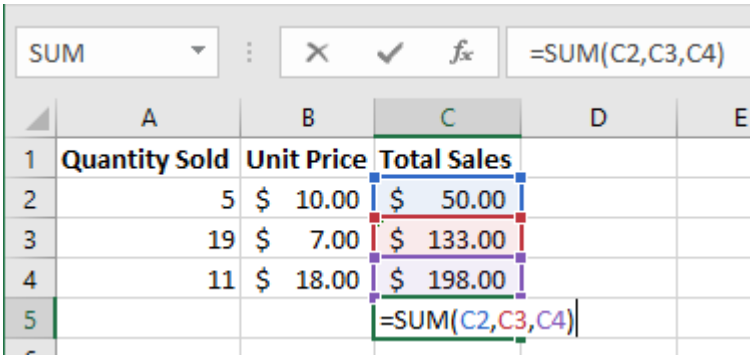


Which method do you think is better?

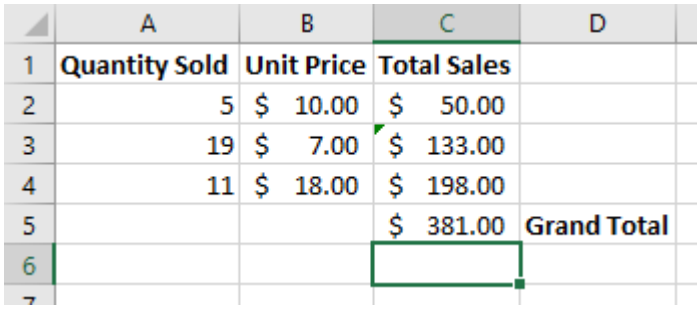
6. Use the preferred method to calculate row 4. Don't forget to press Enter or click the Enter button beside the Formula Bar after entering the formula:



7. Now, click in cell C5 and type: =SUM(C2,C3,C4). Watch how your text appears in the Formula Bar and how the calculated cells are identified:

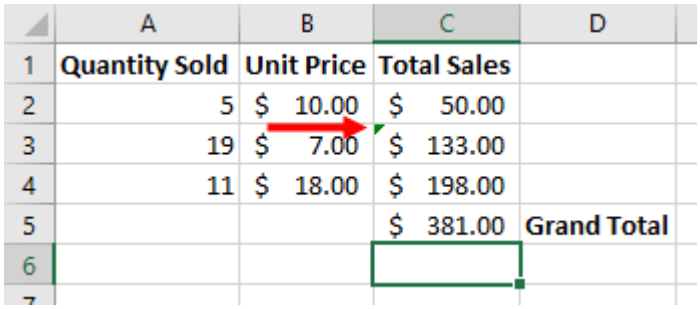


8. Press Enter to calculate the formula:



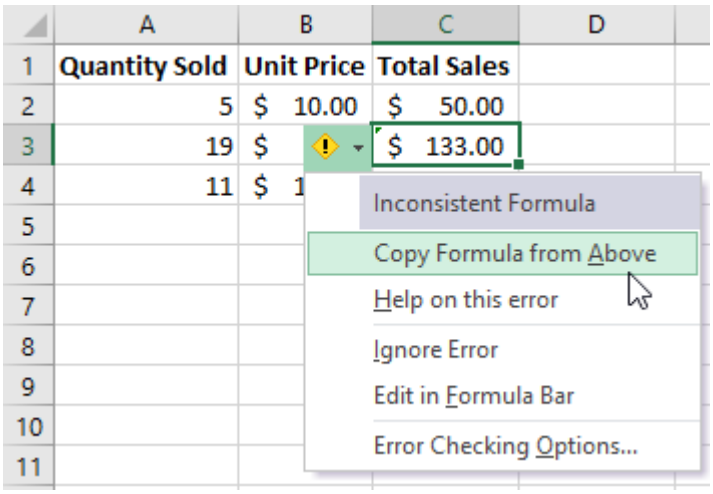
	A	B	C	D
1	**Quantity Sold**	**Unit Price**	**Total Sales**	
2	5	$ 10.00	$ 50.00	
3	19	$ 7.00	$ 133.00	
4	11	$ 18.00	$ 198.00	
5			$ 381.00	**Grand Total**
6				

9. Now, notice that Excel has identified cell C8, which does not use a proper formula, with a green triangle:

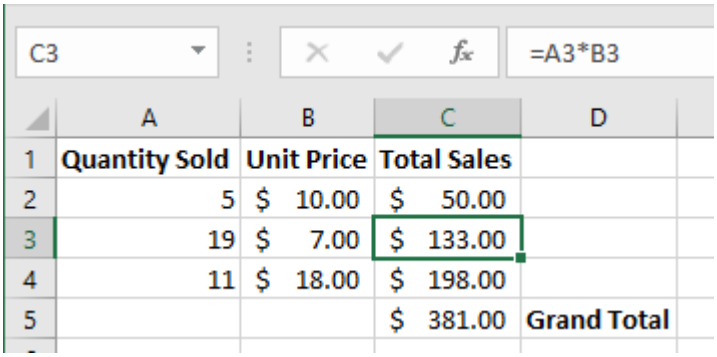


	A	B	C	D
1	**Quantity Sold**	**Unit Price**	**Total Sales**	
2	5	$ 10.00	$ 50.00	
3	19	$ 7.00	$ 133.00	
4	11	$ 18.00	$ 198.00	
5			$ 381.00	**Grand Total**
6				

10. Click this cell to display the Error option button. Click the Error option button and click "Copy Formula from Above:"



11. The formula from the cell above will now have been copied to the currently selected cell and updated to reflect the new adjacent rows (A3 and B3):



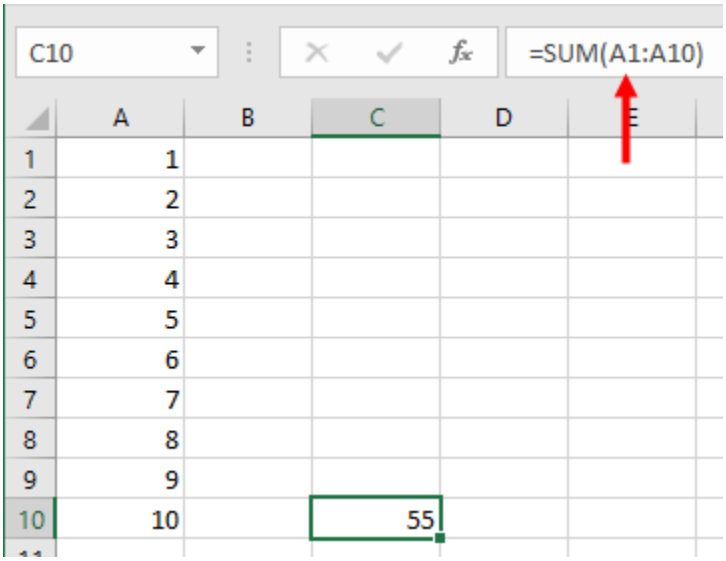
12. Save the file as Activity 2-1 Complete and then close Excel.

Insert Functions in a Worksheet

FUNCTIONS

Functions are pre-made operations that are used to perform calculations. Excel features a number of functions relating to basic math, financial applications, logic, date and time, and more.

For example, if you want to add a column of ten numbers, you could type =A1+A2+A3+…etc., but that would quickly become tedious and would also make the spreadsheet harder to work with. A much more efficient way of performing this calculation is to use the SUM function:



In this example, we typed "=SUM(" and then added the A1 to A10 cell range (A1:A10). Upon added a closing parenthesis and pressing Enter, the sum of all these numbers was calculated and displayed (55). That is much easier than typing out a very long formula and allows for more flexibility if additional rows are added within the defined range.

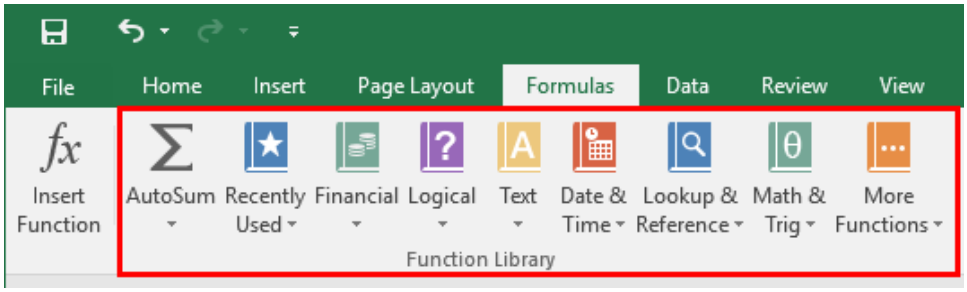
THE FUNCTION LIBRARY

Functions have been a very important part of Excel right from the beginning because they make data computation and analysis very easy. In fact, Excel features over 300 built-in functions to calculate or provide information regarding:

- Databases
- Date and time
- Engineering

- Finance
- Worksheet metadata
- Logic
- Lookup and reference
- Math and trigonometry
- Statistical analysis
- Text strings

You can browse the nine categories available in the Formulas tab:



You will likely use many of the functions available under AutoSum, Financial, and Math & Trig. Remember to check the Recently Used menu to look at functions you have used in the past.

COMMON FUNCTIONS IN EXCEL

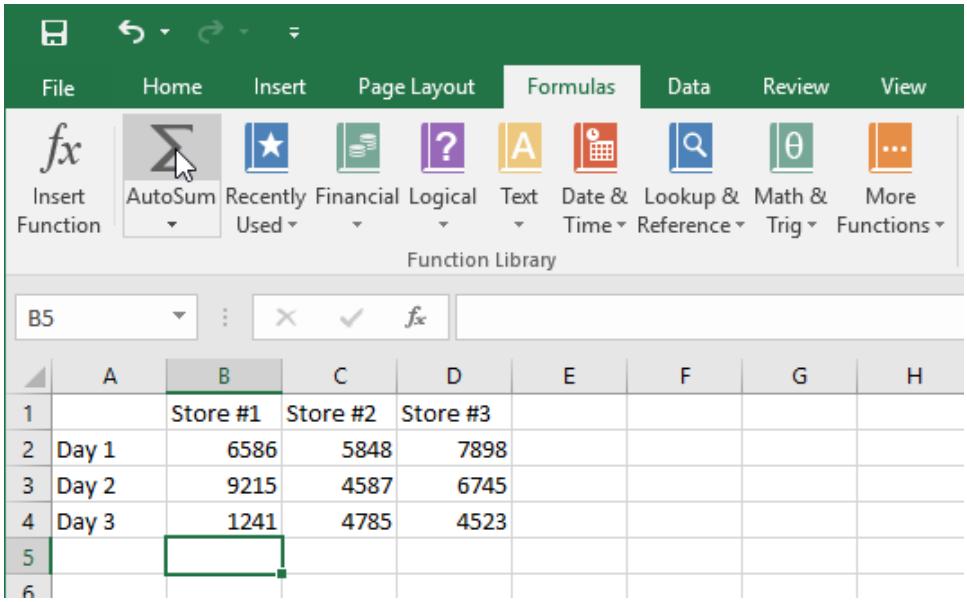
Using the AutoSum button, you can quickly insert some of the more commonly used functions into a worksheet. The followingbasic mathematical and statistical analysis functions are included:

Name	Usage
Sum	Add values together in a specified range or argument.
Average	Determine the average value in an argument.
Count Numbers	Determine the number of cells that contain a specific value in a specified cell range.

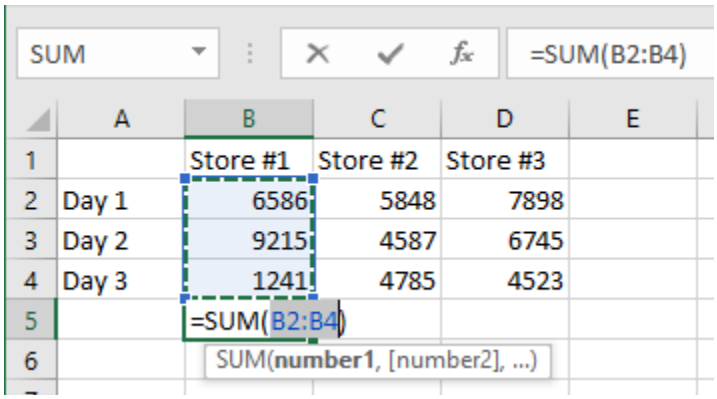
Max	Find the highest of the values in an argument.
Min	Find the lowest of the values in an argument.

The AutoSum Button

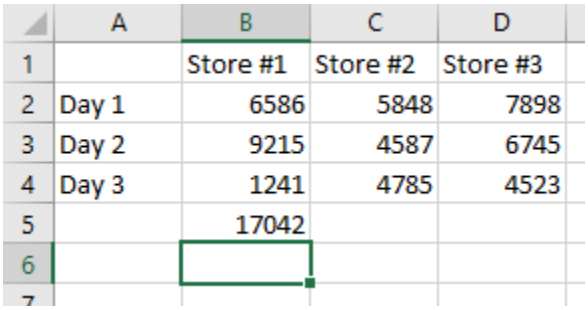
To use the AutoSum command, click the cell immediately below (if summing a column of data) or to the immediate right (if summing a row of data) of the data you want to sum.Next, click Formulas →AutoSum:



(Additional functions are available by clicking the drop-down arrow.) Excel will scan the data in the column/row. The column or row of data to be summed will be highlighted by an animated border:

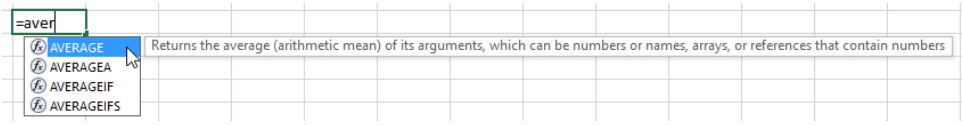


Press Enter to complete the AutoSum command:



THE FORMULA AUTOCOMPLETE FEATURE

The Formula AutoComplete feature allows you to type function names directly into cells. While typing the formula name, the matching functions will filter themselves based on what you have entered. Click a function to use it:



Once you have decided on a function to use, Excel will prompt you to enter each argument as necessary. Add the closing parenthesis, press Enter, and Excel will calculate the value:

	A	B	C	D	E	F	G
1		Store #1	Store #2	Store #3			
2	Day 1	6586	5848	7898		=AVERAGE(B2:D4)	
3	Day 2	9215	4587	6745			
4	Day 3	1241	4785	4523			
5		17042					

ACTIVITY 2-2

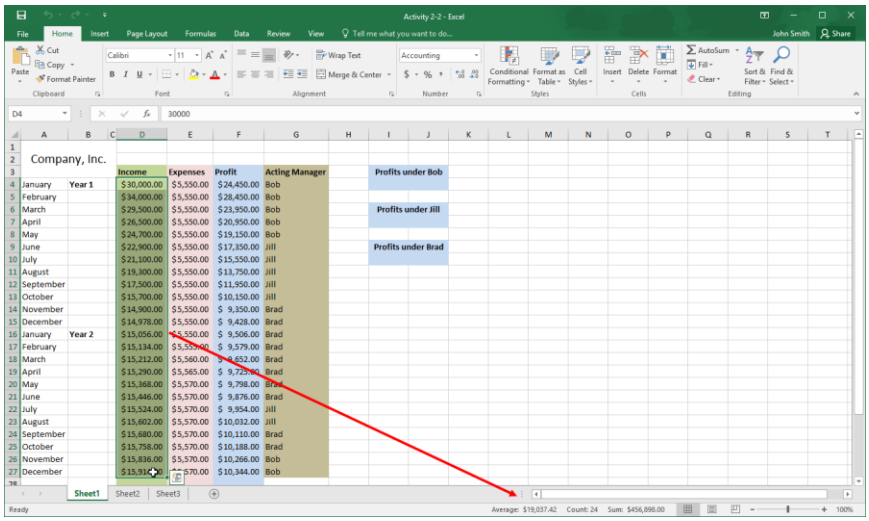
Inserting Functions into a Worksheet

You have been given sales numbers for the past two years. Using functions, you need to calculate the average income, expenses, and profit from this data. As well, you need to calculate the profit that each manager in the company has generated.

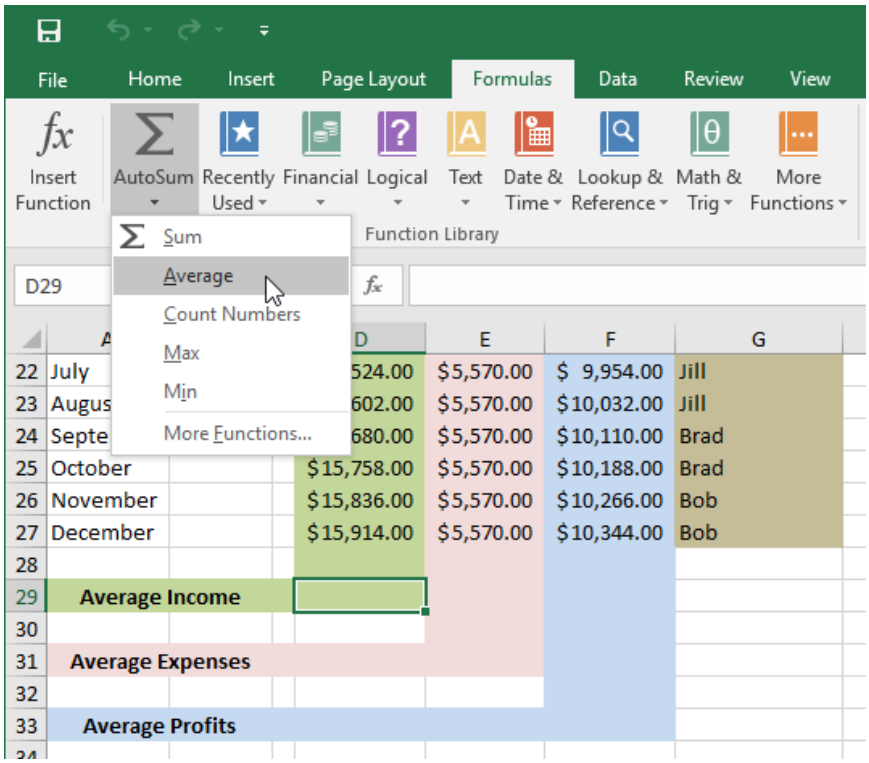
13. Open Activity 2-2 from your Exercise Files:

Activity 2-2
Microsoft Excel Worksheet
12.0 KB

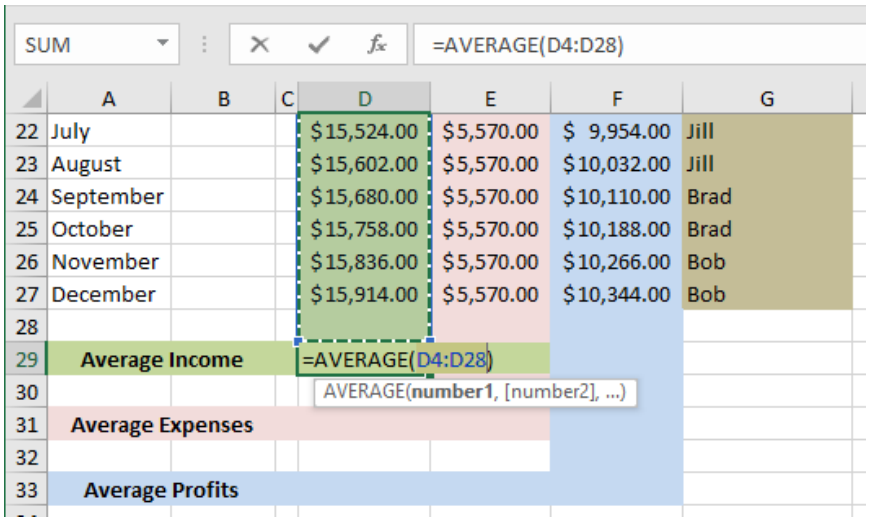
14. Select D4:D27. You should see the Average (along with Count and Sum) appear in the status bar:



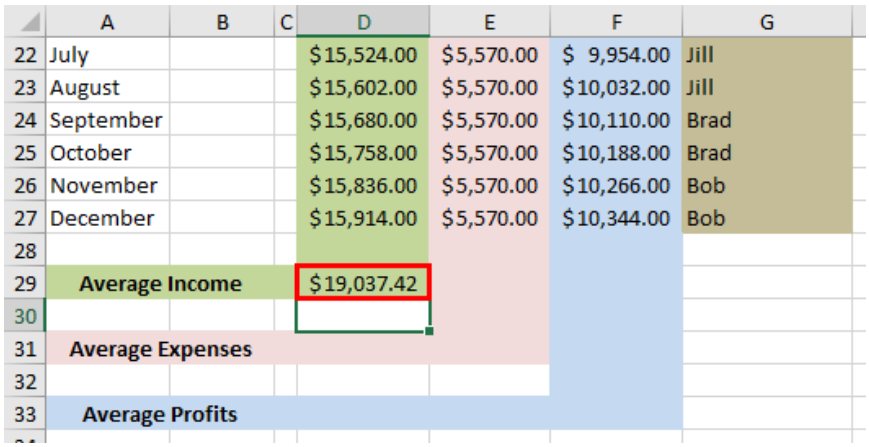
15. Select D29 (Average Income) and then click Formulas → AutoSum→ Average:



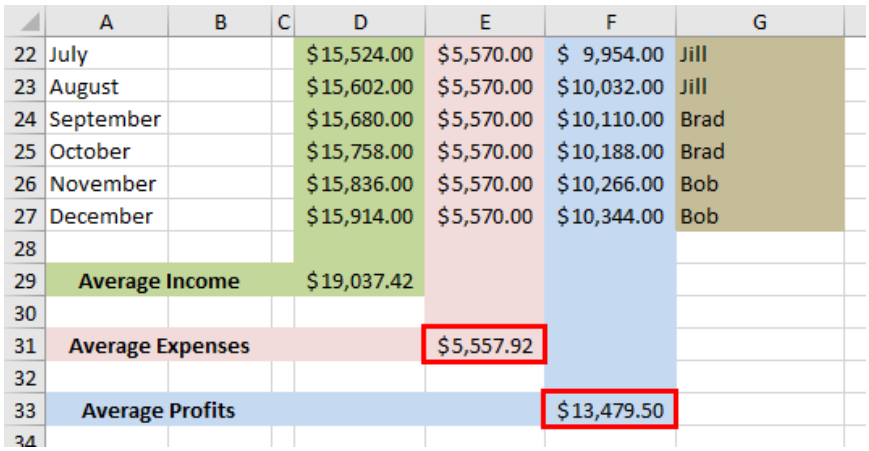
16. Excel will automatically insert the Average function and include a range up to the top of the column of data:



17. Press Enter to accept this value. The resulting value will now be shown:

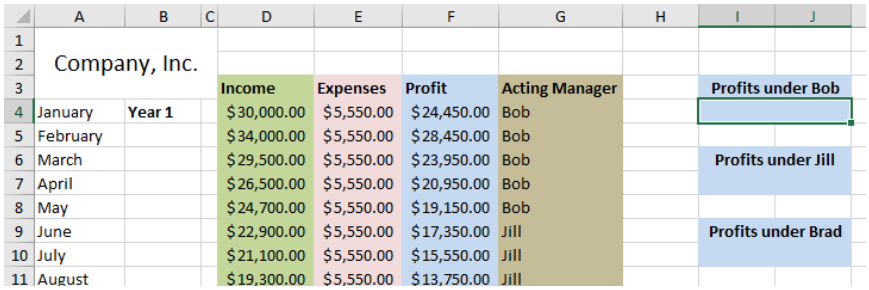


18. Repeat this action for Average Expenses (E31) and Average Profits (F33):



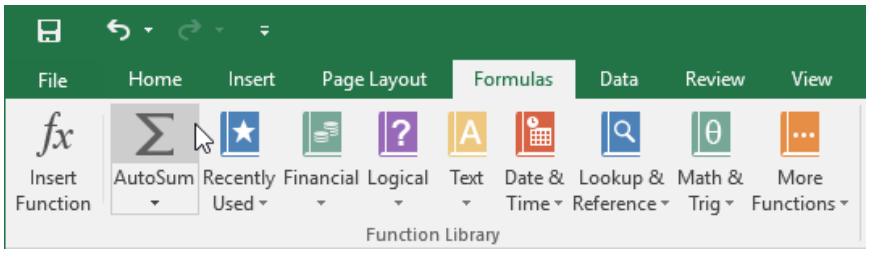
	A	B	C	D	E	F	G
22	July			$15,524.00	$5,570.00	$ 9,954.00	Jill
23	August			$15,602.00	$5,570.00	$10,032.00	Jill
24	September			$15,680.00	$5,570.00	$10,110.00	Brad
25	October			$15,758.00	$5,570.00	$10,188.00	Brad
26	November			$15,836.00	$5,570.00	$10,266.00	Bob
27	December			$15,914.00	$5,570.00	$10,344.00	Bob
28							
29	**Average Income**			$19,037.42			
30							
31	**Average Expenses**				$5,557.92		
32							
33	**Average Profits**					$13,479.50	
34							

19. Now select cell I4. (Note that cells I4 and J4 have been merged.)



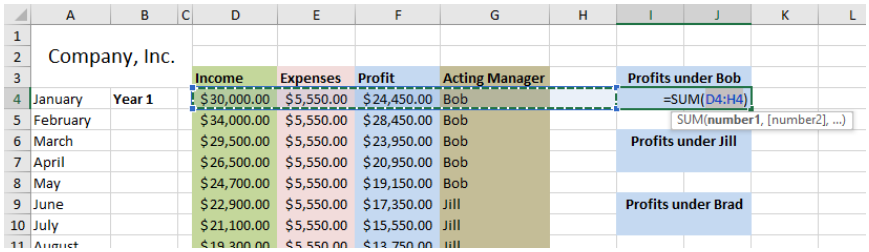
	A	B	C	D	E	F	G	H	I	J
1										
2	Company, Inc.									
3				**Income**	**Expenses**	**Profit**	**Acting Manager**		**Profits under Bob**	
4	January	**Year 1**		$30,000.00	$5,550.00	$24,450.00	Bob			
5	February			$34,000.00	$5,550.00	$28,450.00	Bob			
6	March			$29,500.00	$5,550.00	$23,950.00	Bob		**Profits under Jill**	
7	April			$26,500.00	$5,550.00	$20,950.00	Bob			
8	May			$24,700.00	$5,550.00	$19,150.00	Bob			
9	June			$22,900.00	$5,550.00	$17,350.00	Jill		**Profits under Brad**	
10	July			$21,100.00	$5,550.00	$15,550.00	Jill			
11	August			$19,300.00	$5,550.00	$13,750.00	Jill			

20. Click Formulas → AutoSum:

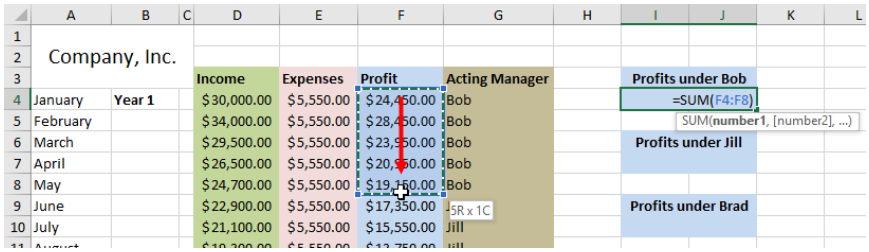


(Don't click the pull-down arrow.)

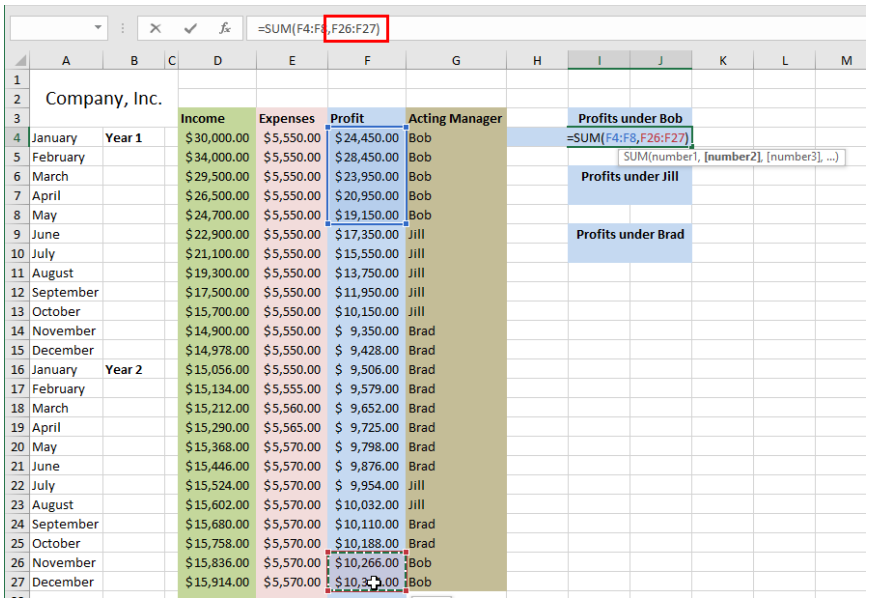
21. By default, Excel will want to sum cells D4:H4. However, this is not what you want to do:



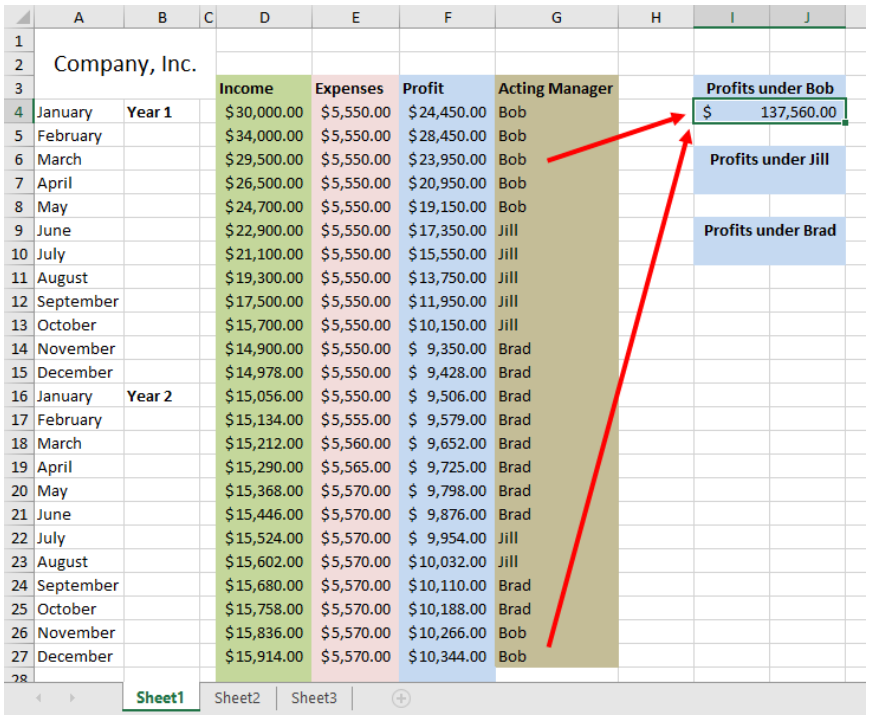
22. Use your cursor to click and drag over cells F4:F8 to select the cells associated with Bob:



23. Bob was acting manager for more than this time, so add a comma after the previously selected cell range and select F26:F27:



24. Press Enter. The total profits from when Bob was acting manager will now be displayed in the previously selected cell:



	A	B	C	D	E	F	G	H	I	J
1										
2	Company, Inc.									
3				Income	Expenses	Profit	Acting Manager		Profits under Bob	
4	January	Year 1		$30,000.00	$5,550.00	$24,450.00	Bob		$ 137,560.00	
5	February			$34,000.00	$5,550.00	$28,450.00	Bob			
6	March			$29,500.00	$5,550.00	$23,950.00	Bob		Profits under Jill	
7	April			$26,500.00	$5,550.00	$20,950.00	Bob			
8	May			$24,700.00	$5,550.00	$19,150.00	Bob			
9	June			$22,900.00	$5,550.00	$17,350.00	Jill		Profits under Brad	
10	July			$21,100.00	$5,550.00	$15,550.00	Jill			
11	August			$19,300.00	$5,550.00	$13,750.00	Jill			
12	September			$17,500.00	$5,550.00	$11,950.00	Jill			
13	October			$15,700.00	$5,550.00	$10,150.00	Jill			
14	November			$14,900.00	$5,550.00	$ 9,350.00	Brad			
15	December			$14,978.00	$5,550.00	$ 9,428.00	Brad			
16	January	Year 2		$15,056.00	$5,550.00	$ 9,506.00	Brad			
17	February			$15,134.00	$5,555.00	$ 9,579.00	Brad			
18	March			$15,212.00	$5,560.00	$ 9,652.00	Brad			
19	April			$15,290.00	$5,565.00	$ 9,725.00	Brad			
20	May			$15,368.00	$5,570.00	$ 9,798.00	Brad			
21	June			$15,446.00	$5,570.00	$ 9,876.00	Brad			
22	July			$15,524.00	$5,570.00	$ 9,954.00	Jill			
23	August			$15,602.00	$5,570.00	$10,032.00	Jill			
24	September			$15,680.00	$5,570.00	$10,110.00	Brad			
25	October			$15,758.00	$5,570.00	$10,188.00	Brad			
26	November			$15,836.00	$5,570.00	$10,266.00	Bob			
27	December			$15,914.00	$5,570.00	$10,344.00	Bob			
28										

Sheet1 Sheet2 Sheet3

(Note that the closing bracket will be added automatically when you press the Enter key or click the Insert Function button on the Formula Bar.)

25. Repeat these steps for Jill and Brad's data using the relevant ranges of data from the Profit column:

Profits under Jill	
$	88,736.00
Profits under Brad	
$	97,212.00

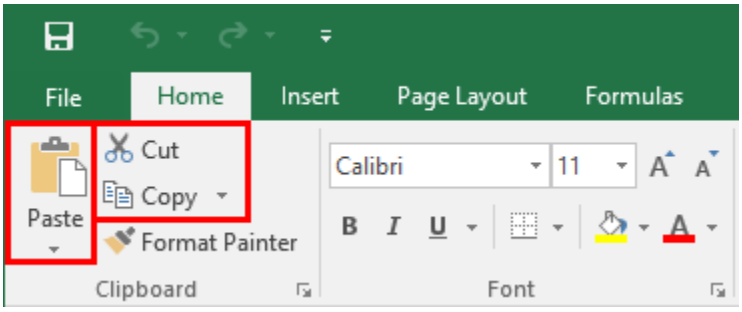
(You can select separate ranges of data at the same time by holding down the Ctrl key.)

26. Save the file as Activity 2-2 Complete and then close Excel.

Reuse Formulas

THE CUT, COPY, AND PASTE COMMANDS

Just like many applications that you work with, Excel allows you to move and/or copy cells and their contents to other areas of workbook or even other applications. You can move a cell or its contents using the Cut and Paste commands. If you wanted to copy a cell and its contents instead, you could use the Copy and Paste commands. You can find all of these commands in the Clipboard group of the Home tab:



These commands are also available on the right-click menu.

Keyboard Shortcuts

In addition to the commands in the Clipboard group of the Home tab, you can also perform the Cut, Copy, and Paste commands using keyboard shortcuts. To use the **Cut** command, press Ctrl + X. **Copy** is performed by pressing Ctrl + C, and **Paste** is performed by pressing Ctrl + V.

PASTE SPECIALOPTIONS

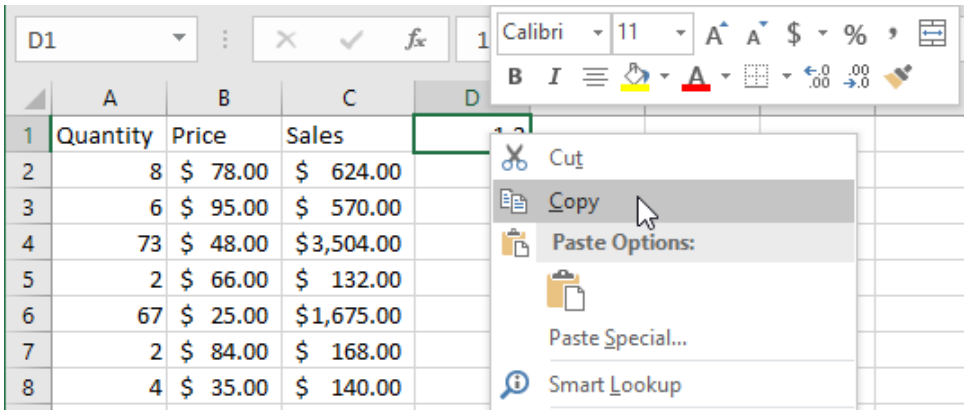
Paste Specialcan be a very useful Excel feature when trying to move data and objects around in your workbooks, as well as move them to and from other applications. Paste Special's options can be used to perform a lot of operations that might be tedious to perform using other Excel tools.Paste Special does indeed paste data, but it also allows you to perform operations on the destination cells using the pasted data.

Consider the following worksheet. It lists quantities in column A, prices in column B, and sales (A*B) in column C:

	A	B	C
1	Quantity	Price	Sales
2	8	$ 78.00	$ 624.00
3	6	$ 95.00	$ 570.00
4	73	$ 48.00	$3,504.00
5	2	$ 66.00	$ 132.00
6	67	$ 25.00	$1,675.00
7	2	$ 84.00	$ 168.00
8	4	$ 35.00	$ 140.00
9	46	$ 15.00	$ 690.00
10	7	$ 33.00	$ 231.00

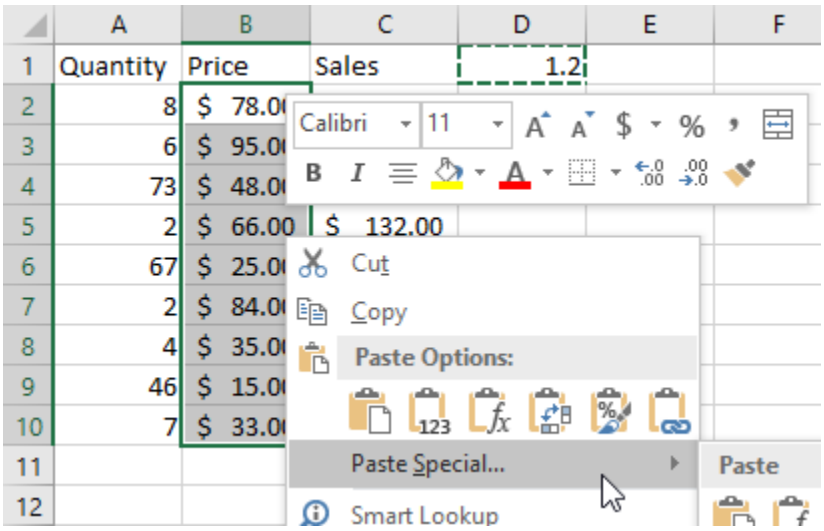
Suppose that all prices are to be raised by 20%. You can manually enter the new prices, use a formula in a new column to calculate the prices, or you can use Paste Special.

To use Paste Specialin this situation, enter the value 1.2 (the numerical equivalent of 120%) in cell D1. Then, right-click D1 and click Copy:



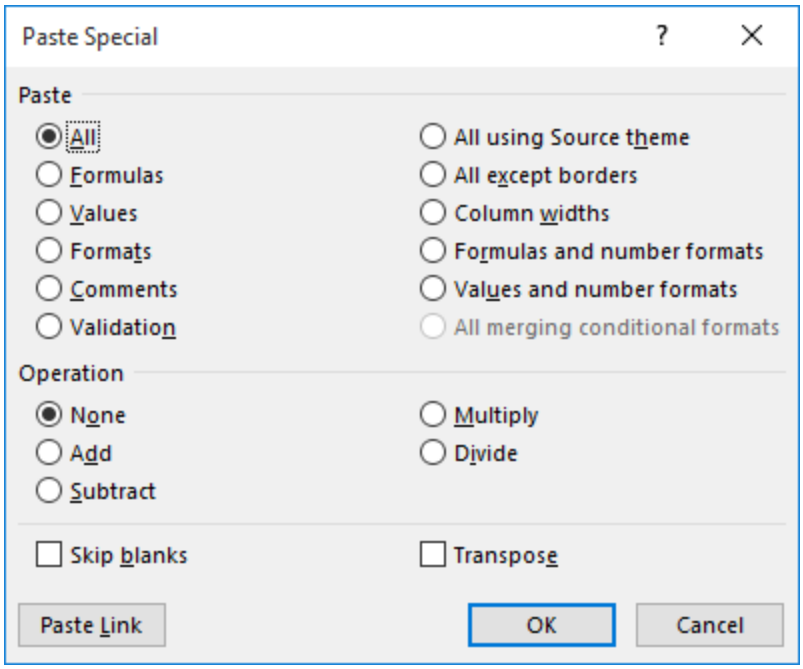
	A	B	C	D
1	Quantity	Price	Sales	
2	8	$ 78.00	$ 624.00	
3	6	$ 95.00	$ 570.00	
4	73	$ 48.00	$3,504.00	
5	2	$ 66.00	$ 132.00	
6	67	$ 25.00	$1,675.00	
7	2	$ 84.00	$ 168.00	
8	4	$ 35.00	$ 140.00	

Next, select the prices in column B.Right-click on the selected area and clickPaste Special:

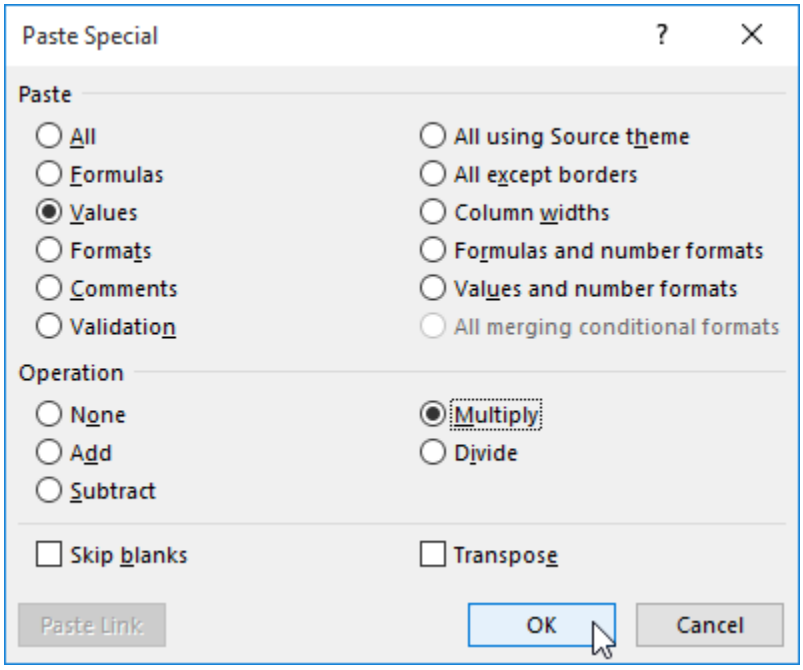


	A	B	C	D	E	F
1	Quantity	Price	Sales	1.2		
2	8	$ 78.0				
3	6	$ 95.0				
4	73	$ 48.0				
5	2	$ 66.00	$ 132.00			
6	67	$ 25.0				
7	2	$ 84.0				
8	4	$ 35.0				
9	46	$ 15.0				
10	7	$ 33.0				
11						
12						

This will display the Paste Specialdialog box:


Paste Special
Paste
All
Formulas
Values
Formats
Comments
Validation
All using Source theme
All except borders
Column widths
Formulas and number formats
Values and number formats
All merging conditional formats
Operation
None
Add
Subtract
Multiply
Divide
Skip blanks
Transpose
Paste Link
OK
Cancel

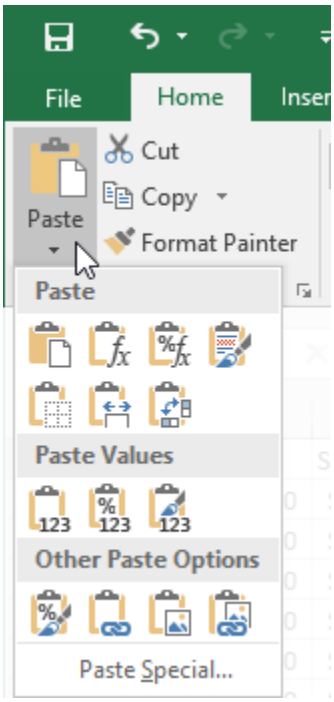
There are a number of options In the Paste Specialdialog box that you can choose from. To increase the prices in the selected range by 20%, we want to multiply each price in the selected range by 1.2. Therefore, select the Values and Multiply radio buttons and then click OK:



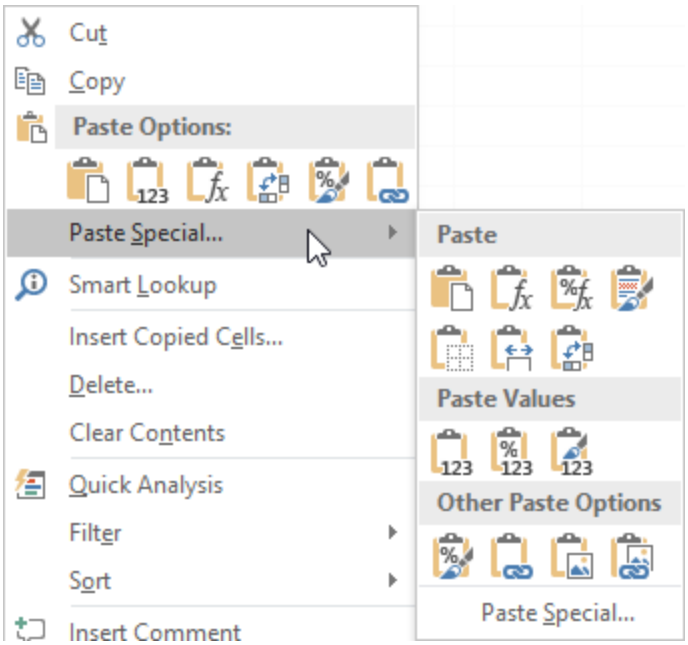
Returning to the worksheet, you will see that the prices have now been increased by 20%, and Sales have increased as well, taking the new prices into account. The currency formatting applied to column B also remains:

	A	B	C	D
1	Quantity	Price	Sales	1.2
2	8	$ 93.60	$ 624.00	
3	6	$ 114.00	$ 570.00	
4	73	$ 57.60	$ 3,504.00	
5	2	$ 79.20	$ 132.00	
6	67	$ 30.00	$ 1,675.00	
7	2	$ 100.80	$ 168.00	
8	4	$ 42.00	$ 140.00	
9	46	$ 18.00	$ 690.00	
10	7	$ 39.60	$ 231.00	
11				

Note that you can access some additional paste options by clicking the Home → Paste drop-down menu:



Or, by right-clicking a destination on the worksheet and moving your cursor over the Paste Special sub-menu:



RELATIVE REFERENCES

Worksheets are composed of rows (horizontal, referenced with numbers) and columns (vertical, referenced with letters). The intersection of each row with a column forms a cell, and each cell is given a name in the "ColumnRow" format. These are called **relative references**and are typically the most commonly used type of reference in Excel**.** Such references are flexible in that they change depending upon the position of the formula.

ABSOLUTE REFERENCES

While relative references are fine for many, if not most situations,if data moved around or copied using AutoFill, relative cell references can create incorrect and confusing results. To avoid this, **absolute cell references**are used. These references use dollar signs ($) to make sure a formula always references the same location, no matter where it is moved.

You can assign absolute cell references in three ways:

- $Column$Row: Both the row and column designation won't change (A1).
- $ColumnRow: The column designation won't change, but the row can ($A1).
- Column$Row: The row designation won't change, but the column can (A$1).

MIXED REFERENCES

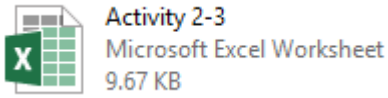
Mixed references are cell references that include a mix of absolute and relative references. For example, $ColumnRow ($A1) is a mixed reference because while the column designation is an absolute reference, the row designation is relative. Additionally, Column$Row (A$1) is also a mixed reference because the row designation is an absolute reference, while the column designation is a relative reference.

ACTIVITY 2-3

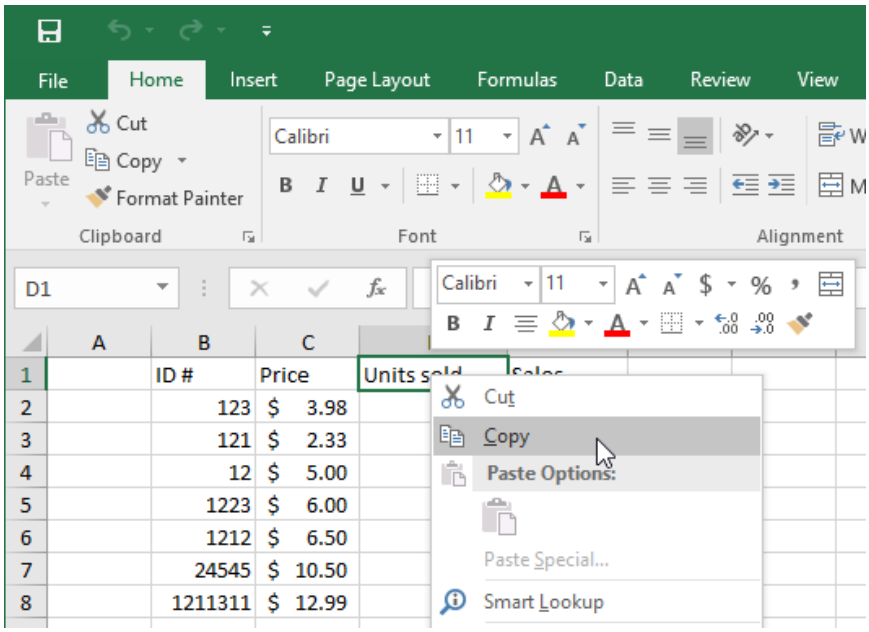
Reusing Formulas

While working on a workbook, you discover that you need to adjust the prices of a variety of products by 10%. Additionally, you need to duplicate the values in column D to another area of the worksheet.

27. Open Activity 2-3 from your Exercise Files:

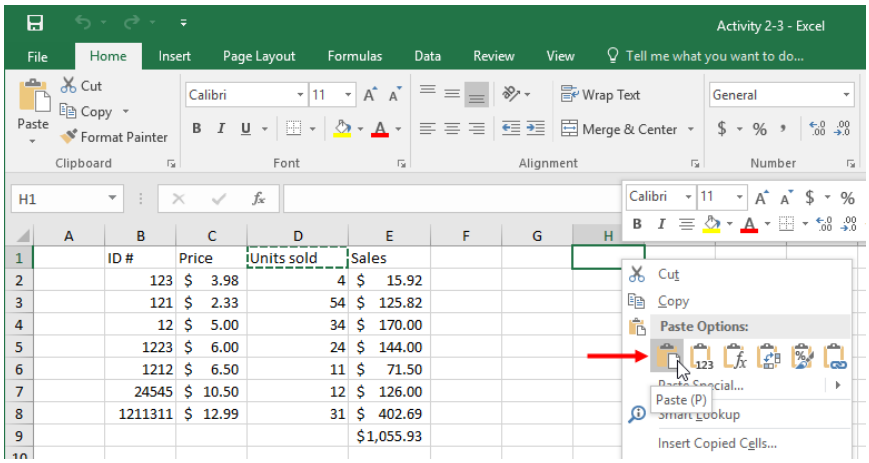


28. Right-click D1 and click Copy:



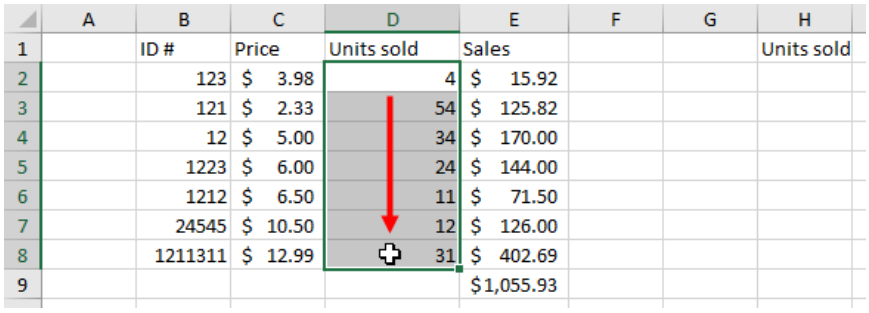
The copied cell(s) will have a flashing border.

29. Right-click H1 and click the Paste button which is highlighted below:



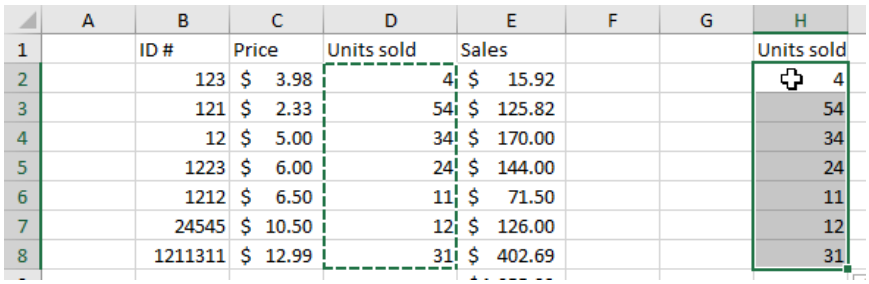
This will copy the “Units sold” heading to this location.

30. Cell D1 will still have a flashing border. Click anywhere outside cell D1 and H1 and press Ctrl + D to deselect the cell. Now select the D2:D8 cell range:



Press Ctrl + C to copy these cells.

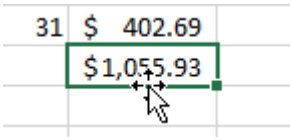
31. Click H2 and press Ctrl + V to paste:



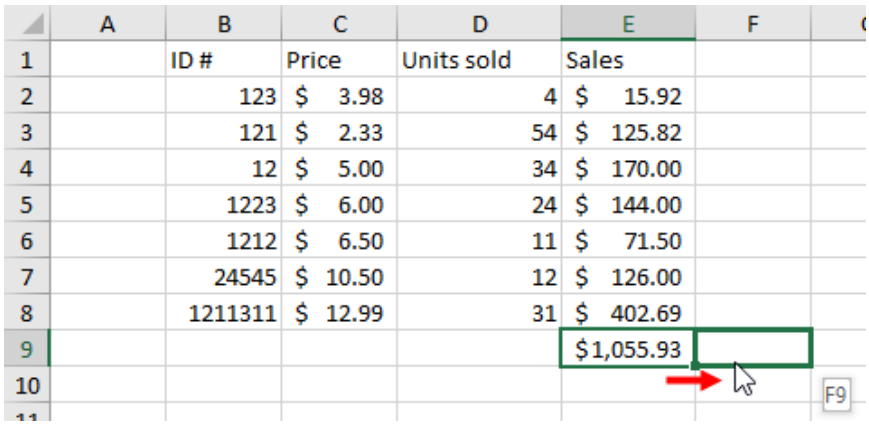
	A	B	C	D	E	F	G	H
1		ID #	Price	Units sold	Sales			Units sold
2		123	$ 3.98	4	$ 15.92			4
3		121	$ 2.33	54	$ 125.82			54
4		12	$ 5.00	34	$ 170.00			34
5		1223	$ 6.00	24	$ 144.00			24
6		1212	$ 6.50	11	$ 71.50			11
7		24545	$ 10.50	12	$ 126.00			12
8		1211311	$ 12.99	31	$ 402.69			31

Click outside the pasted area and press Ctrl + D to deselect the values in column D.

32. Click E9 to select it. Move your mouse pointer to one of the cell borders. The pointer will turn into a four-headed arrow:



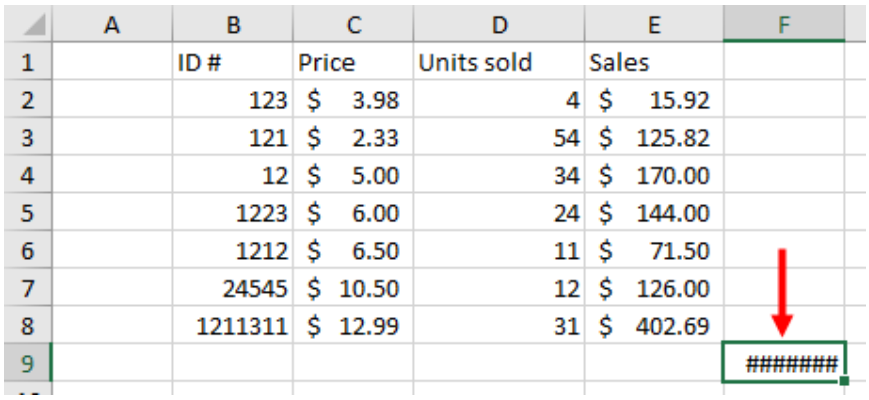
33. Click and drag this cell one column to the right:



	A	B	C	D	E	F
1		ID #	Price	Units sold	Sales	
2		123	$ 3.98	4	$ 15.92	
3		121	$ 2.33	54	$ 125.82	
4		12	$ 5.00	34	$ 170.00	
5		1223	$ 6.00	24	$ 144.00	
6		1212	$ 6.50	11	$ 71.50	
7		24545	$ 10.50	12	$ 126.00	
8		1211311	$ 12.99	31	$ 402.69	
9					$1,055.93	
10						

F9

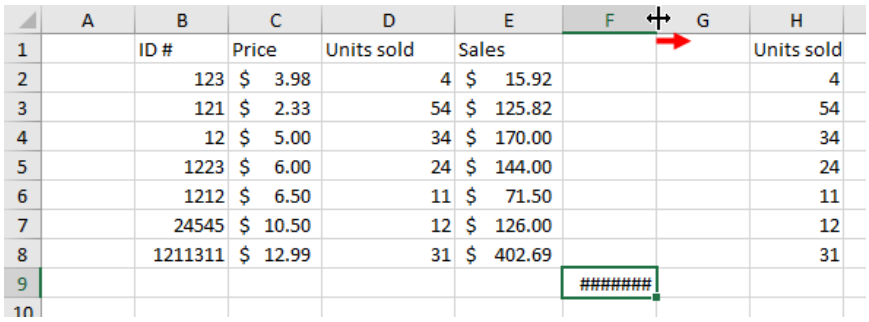
34. The cell will look like this:



	A	B	C	D	E	F
1		ID #	Price	Units sold	Sales	
2		123	$ 3.98	4	$ 15.92	
3		121	$ 2.33	54	$ 125.82	
4		12	$ 5.00	34	$ 170.00	
5		1223	$ 6.00	24	$ 144.00	
6		1212	$ 6.50	11	$ 71.50	
7		24545	$ 10.50	12	$ 126.00	
8		1211311	$ 12.99	31	$ 402.69	
9						########

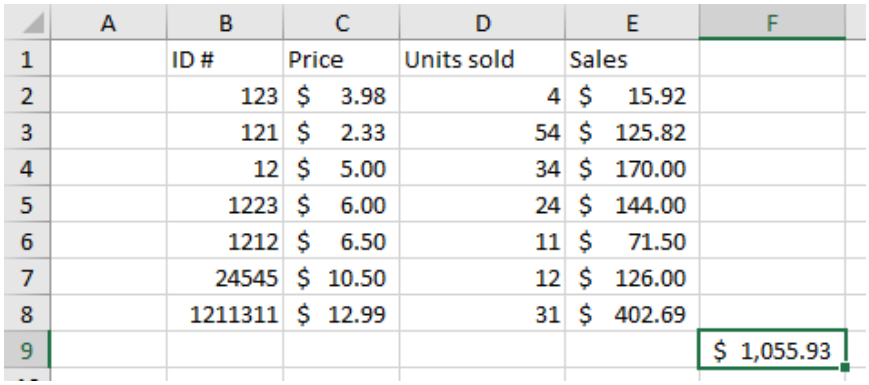
This is an error stating that the value in this cell is too wide to be shown due to the column width.

35. Move your mouse pointer to the divider between columns F and G, and then click and drag to the right:



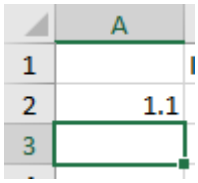
	A	B	C	D	E	F	G	H
1		ID #	Price	Units sold	Sales			Units sold
2		123	$ 3.98	4	$ 15.92			4
3		121	$ 2.33	54	$ 125.82			54
4		12	$ 5.00	34	$ 170.00			34
5		1223	$ 6.00	24	$ 144.00			24
6		1212	$ 6.50	11	$ 71.50			11
7		24545	$ 10.50	12	$ 126.00			12
8		1211311	$ 12.99	31	$ 402.69			31
9						########		
10								

36. If you make the column a bit wider, the value will reappear:



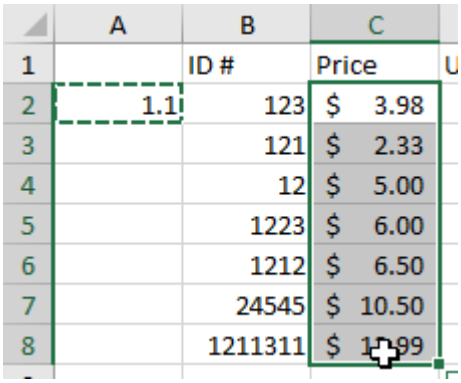
	A	B	C	D	E	F
1		ID #	Price	Units sold	Sales	
2		123	$ 3.98	4	$ 15.92	
3		121	$ 2.33	54	$ 125.82	
4		12	$ 5.00	34	$ 170.00	
5		1223	$ 6.00	24	$ 144.00	
6		1212	$ 6.50	11	$ 71.50	
7		24545	$ 10.50	12	$ 126.00	
8		1211311	$ 12.99	31	$ 402.69	
9						$ 1,055.93

37. Add the number 1.1 to cell A2 and press Enter:

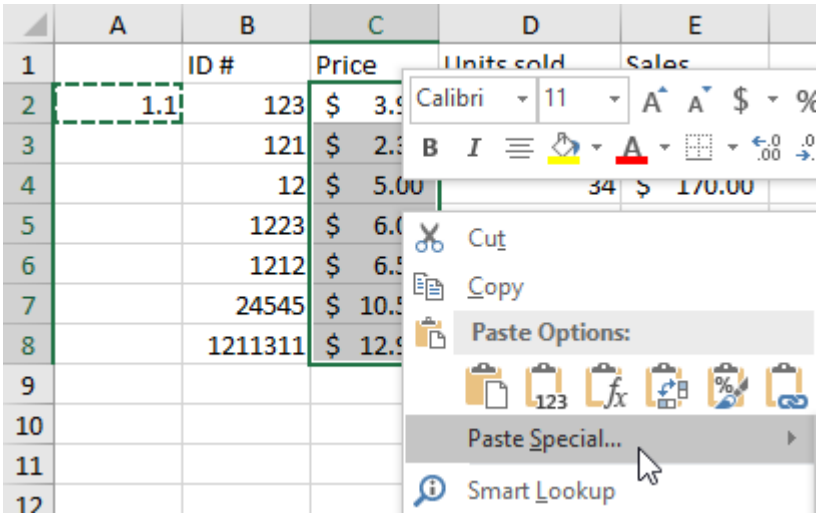


	A
1	
2	1.1
3	

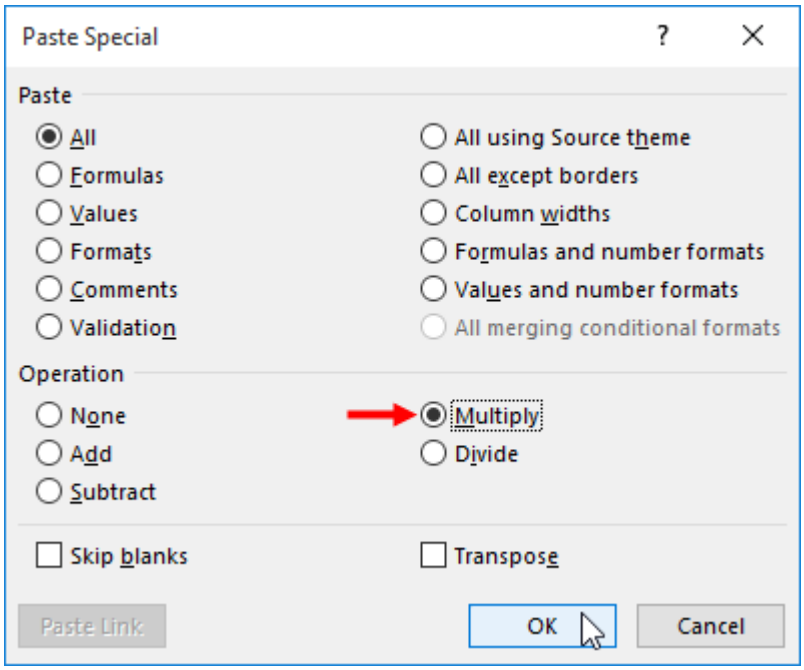
38. Click to select cell A2 and press Ctrl + C to copy this cell. Now select cells C2:C8:



39. Right-click these selected cells and click Paste Special:



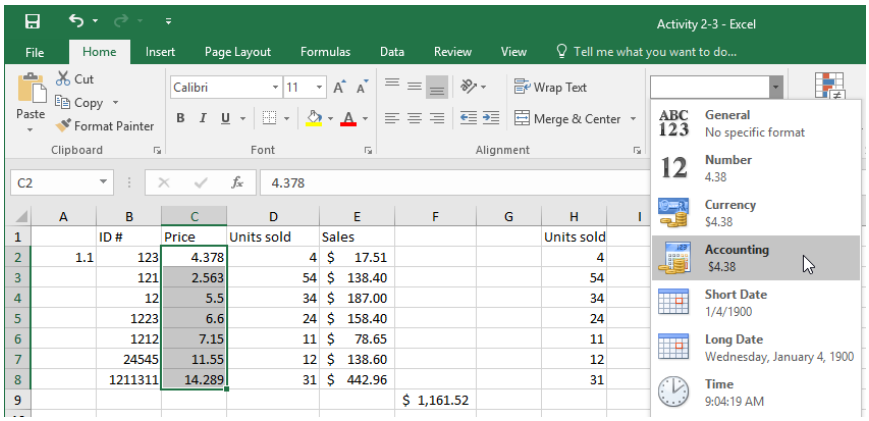
40. When the Paste Special dialog box appears, click the Multiply radio button and then click OK:



41. All values will be multiplied by the value in A2, and thus will change the value of column E and cell F9:

	A	B	C	D	E	F	G	H
1		ID #	Price	Units sold	Sales			Units sold
2	1.1	123	4.378	4	$ 17.51			4
3		121	2.563	54	$ 138.40			54
4		12	5.5	34	$ 187.00			34
5		1223	6.6	24	$ 158.40			24
6		1212	7.15	11	$ 78.65			11
7		24545	11.55	12	$ 138.60			12
8		1211311	14.289	31	$ 442.96			31
9				(Ctrl)		$ 1,161.52		

42. With cells C2:C8 still selected, reapply the account number format by clicking Home → Number Format → Accounting:



43. Your worksheet will now look this:

	A	B	C	D	E	F	G	H
1		ID #	Price	Units sold	Sales			Units sold
2	1.1	123	$ 4.38	4	$ 17.51			4
3		121	$ 2.56	54	$ 138.40			54
4		12	$ 5.50	34	$ 187.00			34
5		1223	$ 6.60	24	$ 158.40			24
6		1212	$ 7.15	11	$ 78.65			11
7		24545	$ 11.55	12	$ 138.60			12
8		1211311	$ 14.29	31	$ 442.96			31
9						$ 1,161.52		

44. Save your file as Activity 2-3 Complete and then close Excel.