

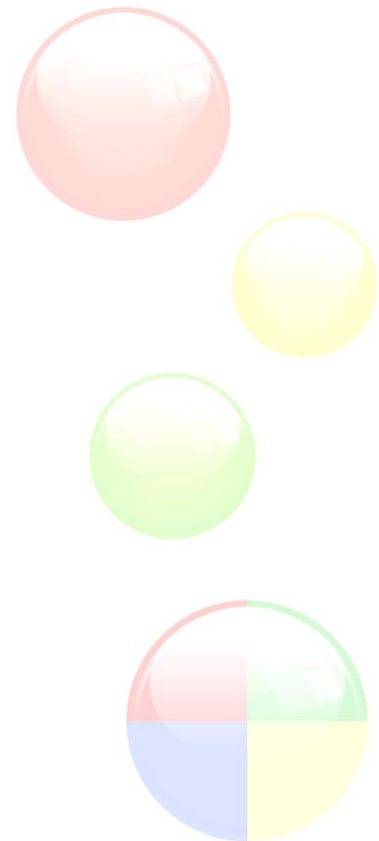


EXCEL – PERCENTAGES



TABLE OF CONTENTS

Excel – Percentages	1
What Is Percentage?	3
Exercise Walkthrough.....	4
Learning how to use Percentage	4
AutoSum	6
Percentage of Boys	6
Percentage of Girls.....	7
Workplace Departments	9
Working with Multiple Percentage Formulas in a Table	11
Summary	13
Excel Help File	14



WHAT IS PERCENTAGE?

"1" = 100%



EXERCISE WALKTHROUGH

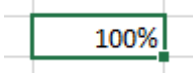
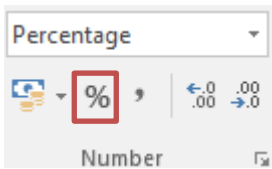
Learning how to use Percentage

Percentage

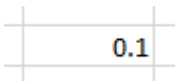
Open a blank workbook and in cell C2 type the following.



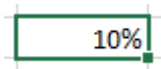
Now press the “%” button to change this cell value to a percentage.



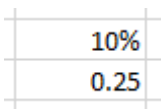
Delete the contents of the cell and type the following.



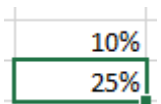
Now press the “%” button.



Now in cell C3 let's do 0.25.



The value we should have in cell C3 after pressing the “%” button is “25%”.



Now in cell C4 let's do 0.05.

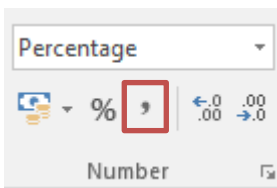
10%
25%
0.05

After pressing the “%” button the value displayed should be “5%”.

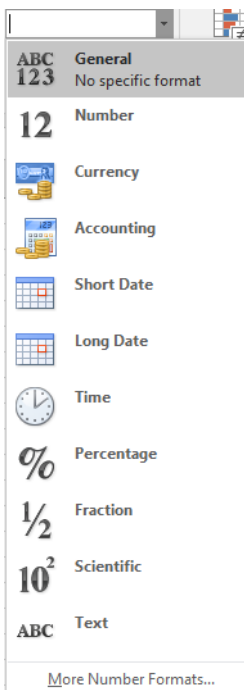
10%
25%
5%



If we would like to put our values back into decimal formatting then you can either select the “,” button



Or change the cell formatting to “General”.




AUTOSUM

Percentage of Boys

In a blank spreadsheet type the following.

	A	B
1	Boys	25
2	Girls	150
3	Total	

Now click on "AutoSum" and highlight cell range B1 – B2.



	A	B	C	D
1	Boys	25		
2	Girls	150		
3	Total	=SUM(B1:B2)		
4		SUM(number1, [number2], ...)		

We now have a working total.

	A	B
1	Boys	25
2	Girls	150
3	Total	175

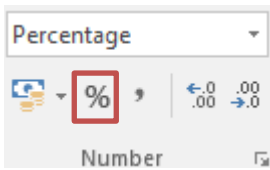
Next, we will add a formula to calculate the percentage of boys. Enter cell C1 and type the following.

	A	B	C
1	Boys	25	=B1/B3
2	Girls	150	
3	Total	175	

We now have a working formula.

	A	B	C
1	Boys	25	0.142857
2	Girls	150	
3	Total	175	

Now click the “%” button to turn our cell data into percentage formatting.



Our data is now formatted as a percentage.

	A	B	C
1	Boys	25	14%
2	Girls	150	
3	Total	175	

Percentage of Girls

In cell C2 type the following formula.

	A	B	C
1	Boys	25	14%
2	Girls	150	=B2/B3
3	Total	175	

Press enter and once again select the “%” button in order to format the cell data correctly.

	A	B	C
1	Boys	25	14%
2	Girls	150	86%
3	Total	175	

Now if we decide to change any data in our cell range our formulas will re-calculate their totals.

	A	B	C
1	Boys	400	40%
2	Girls	600	60%
3	Total	1000	



Workplace Departments

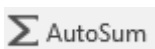
In cells C5 – C8 type the following department titles.

	A	B	C	D
1	Boys	400	40%	
2	Girls	600	60%	
3	Total	1000		
4				
5			IT Training	
6			Business Skills	
7			Health & Safety	
8			Support	

Now in cells D5 – D8 type the following values and add "Total" to cell C9

IT Training	10000
Business Skills	7000
Health & Safety	12000
Support	6000
Total	

Next, locate and select the "AutoSum" button to add a formula that calculates the total number of value from the cell range.



IT Training	10000
Business Skills	7000
Health & Safety	12000
Support	6000
Total	=SUM(D5:D8)

SUM(number1, [number2], ...)

Now we have a formula that we re-calculate our total.

IT Training	10000
Business Skills	7000
Health & Safety	12000
Support	6000
Total	35000



Working with Multiple Percentage Formulas in a Table

Now we will add formulas to calculate the percentage of each row.

Type in the following.

IT Training	10000	=D5/D9
Business Skills	7000	
Health & Safety	12000	
Support	6000	
Total	35000	



Before we press enter we need to press the "F4" button on the keyboard. This fixes the absolute reference to cell D9 but ensures that when we extend the formula to the rows below the first cell reference change accordingly.

After pressing "F4" this is what you should see.

IT Training	10000	=D5/\$D\$9
Business Skills	7000	
Health & Safety	12000	
Support	6000	
Total	35000	



Press enter.

IT Training	10000	0.285714
Business Skills	7000	
Health & Safety	12000	
Support	6000	
Total	35000	

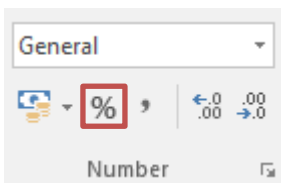


Now with the square in the bottom right of the cell drag downwards to cell E9.

IT Training	10000	0.285714
Business Skills	7000	0.2
Health & Safety	12000	0.342857
Support	6000	0.171429
Total	35000	



Now locate and select the “%” button to format this data as a percentage.



IT Training	10000	29%
Business Skills	7000	20%
Health & Safety	12000	34%
Support	6000	17%
Total	35000	

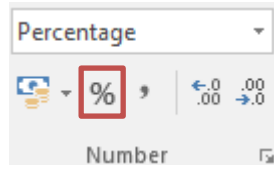


Now we have working percentage formulas, if we decide to change any of the values in our cell range then all formulas will re-calculate.

IT Training	10000	30%
Business Skills	7000	21%
Health & Safety	10000	30%
Support	6000	18%
Total	33000	



SUMMARY



If we press the % button on any number, it gets * by 100 to become a percentage.

1	22	333	0.25	0.06	0.8
---	----	-----	------	------	-----

100%	2200%	33300%	25%	6%	80%
------	-------	--------	-----	----	-----



EXCEL HELP FILE

Sometimes percentages can be frustrating because it's not always easy to remember what we learned about them in school. Let Excel do the work for you – simple formulas can help you find the percentage of a total, for example, or the percentage difference between two numbers.

Windows

▪

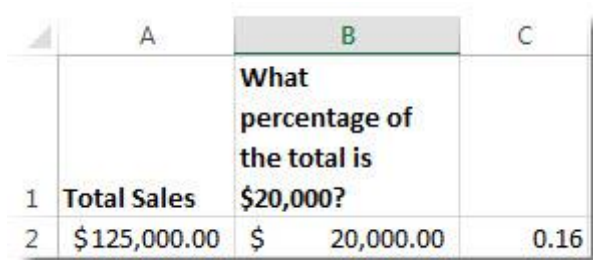
macOS

Important: The calculated results of formulas and some Excel worksheet functions may differ slightly between a Windows PC using x86 or x86-64 architecture and a Windows RT PC using ARM architecture. Learn more about the differences.

Find the percentage of a total

Say that your company sold \$125,000 this quarter, and you need to find out what percentage \$20,000 is of the total.

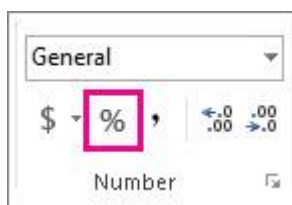
1. To find out, divide \$20,000 by \$125,000. Here's the formula in cell C2: **=B2/A2**. The result is shown as 0.16 because cell C2 is not formatted as a percentage.



	A	B	C
		What percentage of the total is	
1	Total Sales	\$20,000?	
2	\$125,000.00	\$ 20,000.00	0.16

2. To format 0.16 as a percentage, (which will also remove the zero) on the **Home** tab, click the **Percentage** button.

If you are using Excel for the web, click **Home > Number Format > Percentage**.



Now we see that \$20,000 is 16% of \$125,000.

	A	B	C
		What percentage of the total is	
1	Total Sales	\$20,000?	
2	\$125,000.00	\$ 20,000.00	16%

Tip: Formatting is the key to getting answers shown in percentages. Find out more in displaying numbers as percentages.

Find the percentage of change between two numbers

A company sold \$485,000 in 2011 and \$598,634 in 2012. What's the percent change between the two years?

1. First, click in cell B3 to apply the Percentage format to the cell. On the **Home** tab, click the **Percentage** button.

If you are using Excel for the web, click **Home > Number Format > Percentage**.

2. In cell B3, divide the second year's sales (\$598,634.00) by the first year (\$485,000.00), and then subtract 1.

	A	B
1	2011 Sales	2012 Sales
2	\$485,000.00	\$598,634.00
3		23%

3. Here's the formula in cell C3. **=(B2/A2)-1**. The percentage of change between the two years is 23%.

Notice the parentheses around **(B2/A2)**. Excel calculates what's in parentheses first, and then subtracts the 1.