EXCEL – DOLLAR

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WHAT IS ABSOLUTE REFERENCING?

A dollar sign in a formula fixes a cell reference, this is called creating an 'absolute reference'.

You can use an 'absolute reference' to keep a row and/or column constant.

An absolute reference is designated in a formula by the addition of a dollar sign "$" before the column and row. If it is placed before the column or row (but not both), it's known as a mixed reference.
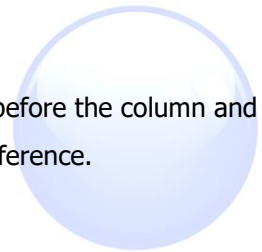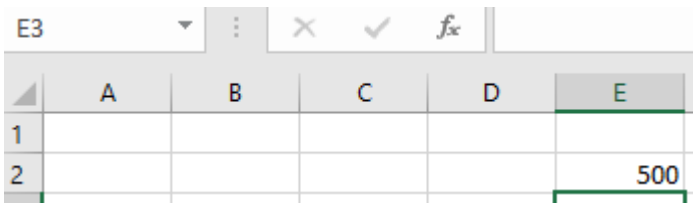
EXERCISE WALKTHROUGH
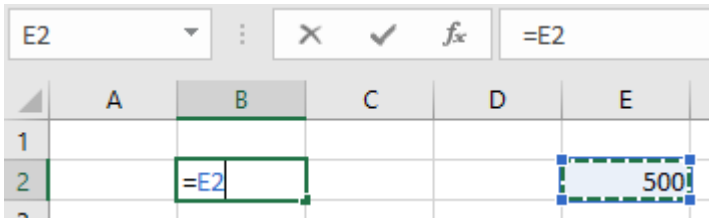## Learning how to use Absolute referencing
Absolute Referencing

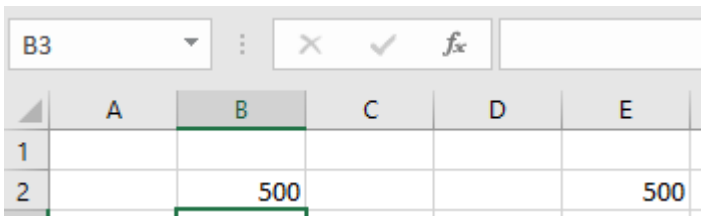Open up a blank Excel spreadsheet, and click into E2, then type the following.

	A	B	C	D	E
1					
2					500

Next, in cell B2 type an "=" and click on B2.
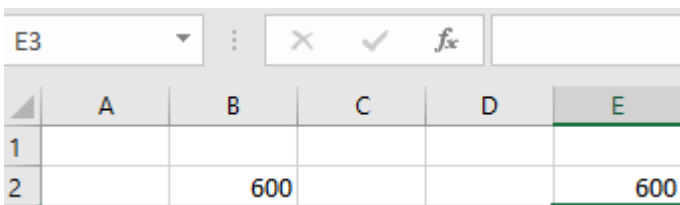
	A	B	C	D	E
1					
2		=E2			500

Now whatever value is in E2 will be displayed in B2.

	A	B	C	D	E
1					
2		500			500
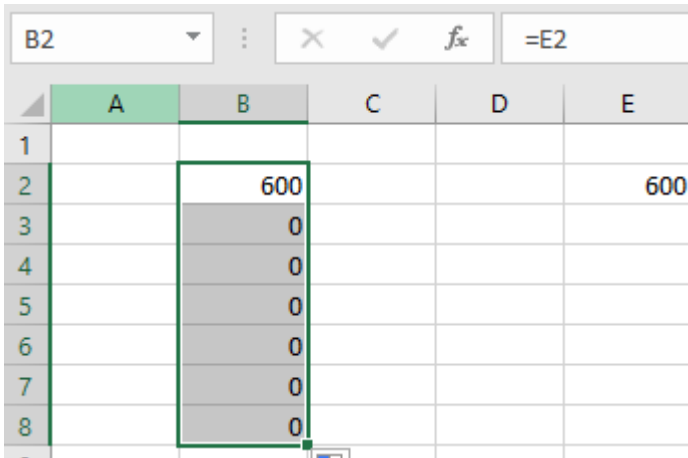
If we change E2 to "600" the E2 will automatically update.

	A	B	C	D	E
1					
2		600			600
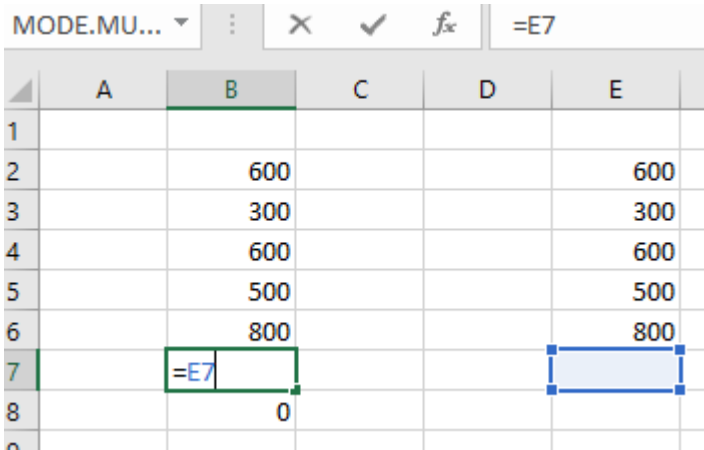
Now, move your mouse pointer to the bottom right corner of cell B2 and drag the box down to B8 like so.

B2	▼	⋮	✕	✓	*fx*	=E2

◢	A	B	C	D	E
1					
2		600			600
3		0			
4		0			
5		0			
6		0			
7		0			
8		0			
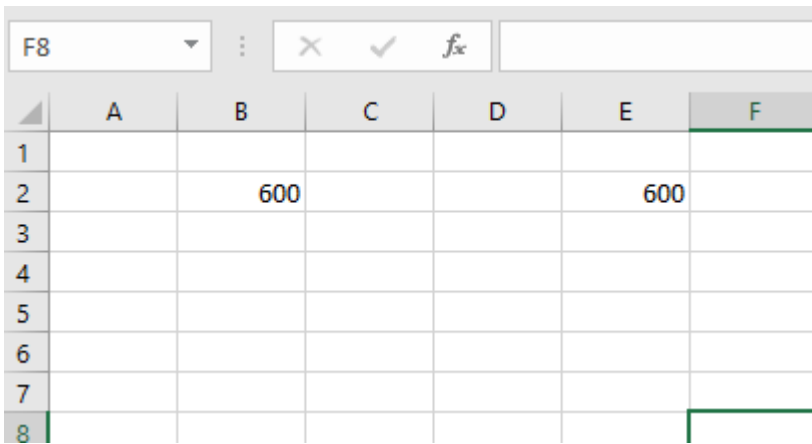
Now, whatever values we input into the cells below E2 will be updated in row B

MODE.MU...	▼	⋮	✕	✓	*fx*	=E7

◢	A	B	C	D	E
1					
2		600			600
3		300			300
4		600			600
5		500			500
6		800			800
7		=E7			
8		0			
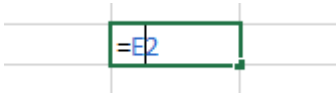
Okay, now delete the cells we just created leaving your screen looking like this.

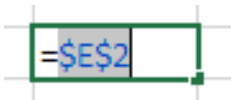| F8				f_x			
	A	B	C	D	E	F
1						
2		600			600	
3						
4						
5						
6						
7						
8						

Now enter cell B2, and click in between "E 2"
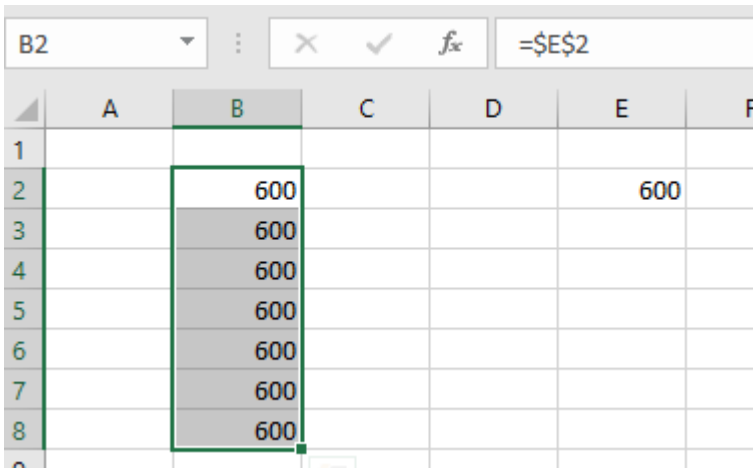
=E2

Now press the "F4" key on your keyboard

And the cell should look like this.

=$E$2

Basically, the first dollar sign fixes the column, and the second fixes the row.

Press enter, and with the bottom right box pull the box down to cell B8 again

B2				f_x	=$E$2		
	A	B	C	D	E	F
1						
2		600			600	
3		600				
4		600				
5		600				
6		600				
7		600				
8		600				
9						

Now if we change the value of E2, all of the extended cells will change to match.

700		700
700		
700		
700		
700		
700		
700		

We can drag B2 across, and it will successfully replicate the cell.

66	66	66	66
66			
66			
66			
66			
66			
66			

Okay, once again delete the cells we just made and return E2 to 500

Enter into cell B2 and press the "F4" key twice.

Now if we press enter, and drag the boxes down the cell B8 again, we will see that it only displays "0".

However, if we pull it across the row, it will work.
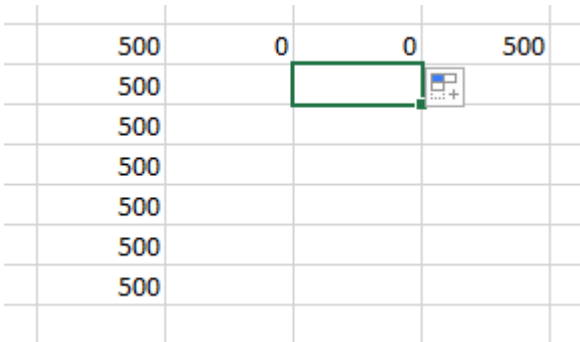

This is because the first dollar sign fixes the column.

Once again delete what we have just done, click into cell B2 and press the "F4" key 3 times.
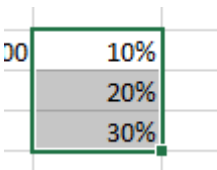
	=E$2		500
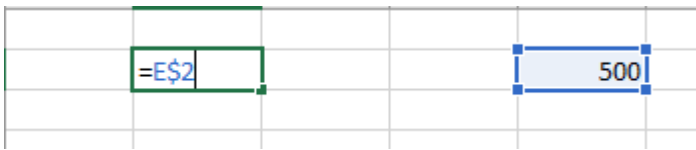
Now if we drag the box down and across, we can see that it works for the row only, not the column.

500	0	0	500
500			
500			
500			
500			
500			
500			

Okay, now delete what we have just added, and add these three decimals.

500	0.1		500
	0.2		
	0.3		
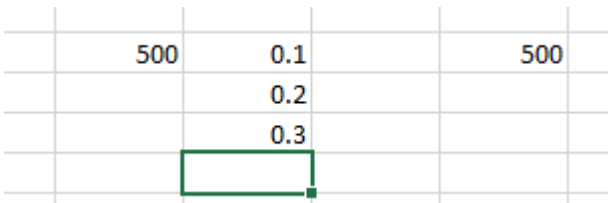
Now change them to percentages "%".

00	10%
	20%
	30%

With this button.

Percentage

%

Number
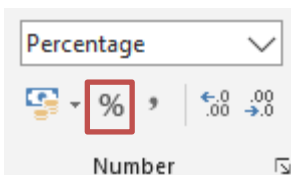
Now enter cell B2, and type the following.

=E$2*C2	10%		500
	20%		
	30%		

If we now pull cell B2 down with the bottom right box, we will get the following values.

50	10%	500
100	20%	
150	30%	
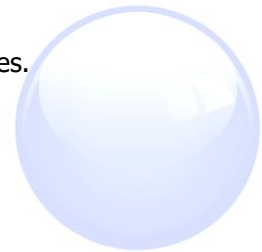
As we can see, the values of the cells left of the percentages, are corresponding with the percentages.
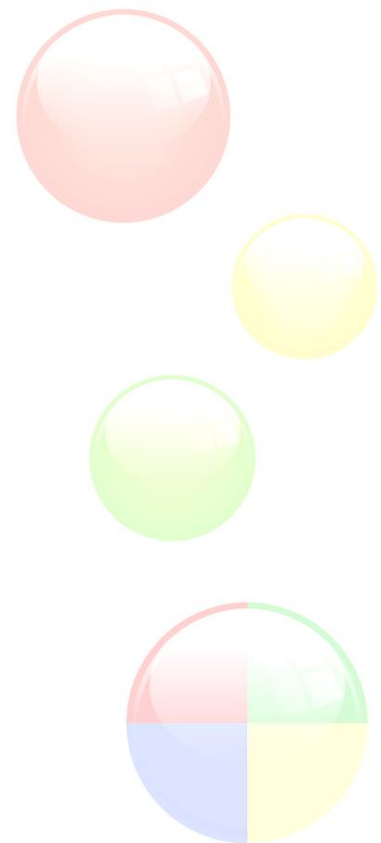
SUMMARY

Absolute referencing can be used in many different styles of spreadsheets, it is important to know how to use it effectively in financial and figure based sheets.

"$" inside a formula means:

If the $ is before the letter of the cell reference it means it fixes the column if you drag the formula vertically (UP DOWN), =$A1 * 10

500	0	0	500
500			
500			
500			
500			
500			
500			

If the $ is after the letter of the cell reference it means it fixes the column if you drag the formula horizontally (LEFT RIGHT), =A$1 * 10

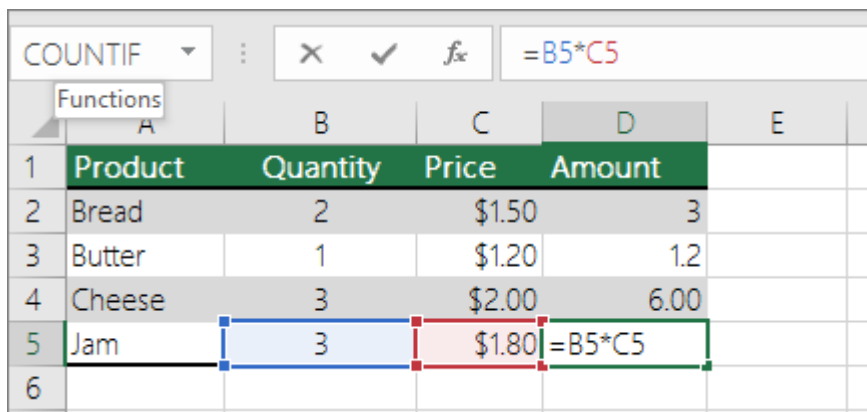|			
500	500	500	500
0			
0			
0			
0			
0			
0			

Absolute referencing is widely used for financial spreadsheets and using knowledge on percentages can help you work on a much larger scale spreadsheet used for inputting important figures and statistics for any business.

50	10%		500
100	20%		
150	30%		

EXCEL HELP FILE

By default, a cell reference is a relative reference, which means that the reference is relative to the location of the cell. If, for example, you refer to cell A2 from cell C2, you are actually referring to a cell that is two columns to the left (C minus A)—in the same row (2). When you copy a formula that contains a relative cell reference, that reference in the formula will change.

As an example, if you copy the formula **=B4*C4** from cell D4 to D5, the formula in D5 adjusts to the right by one column and becomes **=B5*C5**. If you want to maintain the original cell reference in this example when you copy it, you make the cell reference absolute by preceding the columns (B and C) and row (2) with a dollar sign (**$**). Then, when you copy the formula **=$B$4*$C$4** from D4 to D5, the formula stays exactly the same.

Less often, you may want to mixed absolute and relative cell references by preceding either the column or the row value with a dollar sign—which fixes either the column or the row (for example, $B4 or C$4).

To change the type of cell reference:

1. Select the cell that contains the formula.

2. In the formula bar _fx_ [   ], select the reference that you want to change.

3. Press F4 to switch between the reference types.

The table below summarizes how a reference type updates if a formula containing the reference is copied two cells down and two cells to the right.

For a formula being copied:	If the reference is:	It changes to:
	$A$1 (absolute column and absolute row)	$A$1 (the reference is absolute)
	A$1 (relative column and absolute row)	C$1 (the reference is mixed)
	$A1 (absolute column and relative row)	$A3 (the reference is mixed)
	A1 (relative column and relative row)	C3 (the reference is relative)