What are Excel Relative References?

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Excel Relative References are a feature within Microsoft Excel that allows users to create dynamic formulas and functions. They are used to refer to cells in a spreadsheet relative to the location of the formula, rather than using fixed cell references. This means that the formula will adjust and apply to different cells when copied or moved to different locations. This allows for efficient and flexible data analysis and manipulation. Relative references save time and effort for users, as they do not need to manually change cell references in formulas when working with a large dataset. They are an essential tool for creating complex and accurate calculations in Excel.

Excel Relative References

Relative and Absolute References

Cells in Excel have unique references, which is its location.

References are used in formulas to do calculations, and the fill function can be used to continue formulas sidewards, downwards and upwards.

Excel has two types of references:

Relative referencesAbsolute references

Absolute reference is a choice we make. It is a command which tells Excel to lock a reference.

The dollar sign ($) is used to make references absolute.

Example of relative reference: `A1`

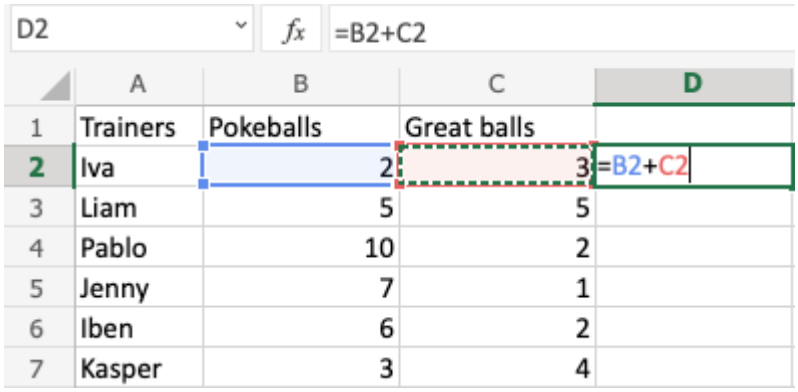
Example of absolute reference: `$A$1`

Relative reference

References are relative by default, and are without dollar sign ($).

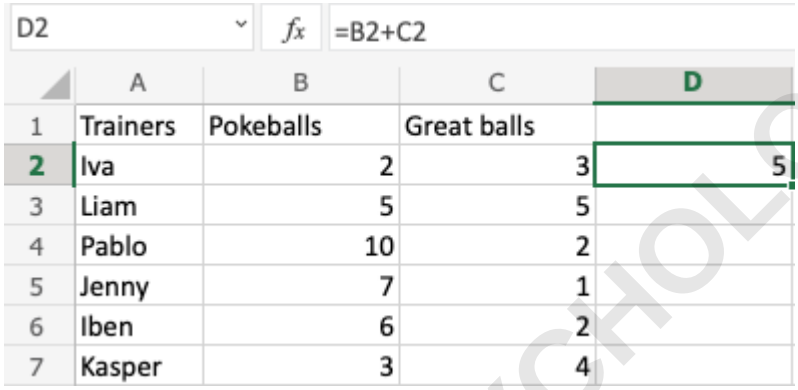
The relative reference makes the cells reference free. It gives the fill function freedom to continue the order without restrictions.

Let's have a look at a relative reference example, helping the Pokemon trainers to count their Pokeballs (`B2:B7`) and Great balls (`C2:C7`).

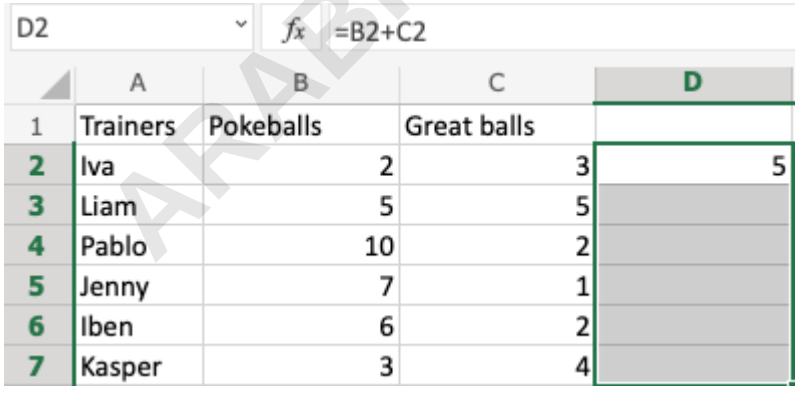


Copy Values

The result is: `D2(5)`:



Next, fill the range `D2:D7`:



D2 =B2+C2

	A	B	C	D
1	Trainers	Pokeballs	Great balls	
2	Iva	2	3	5
3	Liam	5	5	10
4	Pablo	10	2	12
5	Jenny	7	1	8
6	Iben	6	2	8
7	Kasper	3	4	7

The references being relative allows the fill function to continue the formula for rows downwards.

Have a look at the formulas in `D2:D7`. Notice that it calculates the next row as you fill.

D2 =B2+C2

	A	B	C	D
1	Trainers	Pokeballs	Great balls	
2	Iva	2	3	=B2+C2
3	Liam	5	5	=B3+C3
4	Pablo	10	2	=B4+C4
5	Jenny	7	1	=B5+C5
6	Iben	6	2	=B6+C6
7	Kasper	3	4	=B7+C7

A Non-Working Example

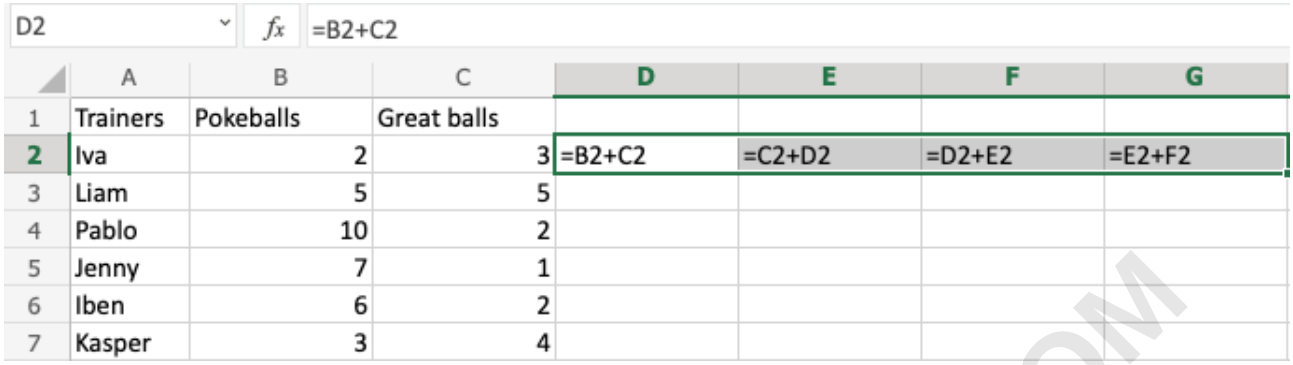
Let's try an example **that will not work**.

Fill `D2:G2`, filling to the **right** instead of downwards. Resulting in strange numbers:

D2 =B2+C2

	A	B	C	D	E	F	G
1	Trainers	Pokeballs	Great balls				
2	Iva	2	3	5	8	13	21
3	Liam	5	5				
4	Pablo	10	2				
5	Jenny	7	1				
6	Iben	6	2				
7	Kasper	3	4				

Have a look at the formulas.



D2 =B2+C2

	A	B	C	D	E	F	G
1	Trainers	Pokeballs	Great balls				
2	Iva	2	3	=B2+C2	=C2+D2	=D2+E2	=E2+F2
3	Liam	5	5				
4	Pablo	10	2				
5	Jenny	7	1				
6	Iben	6	2				
7	Kasper	3	4				

It assumes that we are calculating sidewards and not downwards.

The numbers that we want to calculate need to be in the same direction as we fill.

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