

Using the IF Function

Quick Reference Guide



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The IF function in Excel is a powerful tool that allows you to make logical comparisons between values. By using this function, you can create formulas that return different results based on whether a condition is true or false. This guide will help you understand how to use the IF function effectively to streamline your data analysis and decision-making processes.

Basic IF Statement

A basic IF statement has 3 elements – a Logical Test (a test that has a true or false answer), a Value if True and a Value if False.

You can either go to the **Formulas** Tab & select **Insert Function** or simply write the formula in the desired cell.

Example:

Calculating Pass or Fail based on a student exam score.

Passing grade = 60 or above

Function Arguments

IF

Logical_test

B2>=60

= TRUE

Value_if_true

"Pass"

= "Pass"

Value_if_false

"Fail"

= "Fail"

Checks whether a condition is met, and returns one value if TRUE, and another value if FALSE.

Value_if_false

is the value that is returned if Logical_test is FALSE. If omitted, FALSE is returned.

Formula result = Pass

[Help on this function](#)

OK

Cancel

Value if True

i.e. if exam score is 60 or above

(in speech marks because we want to insert a text value)

Formula:

=IF(B2>=60,"Pass","Fail")

Logical Test

i.e. if exam score is greater than or equal to 60 (B2 is the cell reference we are 'testing')

Value if False

i.e. if exam score is not 60 or above

C2	=IF(B2>=60,"Pass","Fail")		
	A	B	C
1	Student Name	Exam Score (/100)	Pass/Fail
2	Doe, John	83	Pass

Nested IF Statement

To evaluate more than just a simple True or False and provide, for example, a series of Exam grades rather than a simple Pass/Fail, you can combine multiple IF statements together in a Nested IF Statement.

Example: Calculating Grades A->F based on a student exam score.

Grade A = 80+

Grade B = 70-79

Grade C = 60-69

Grade D = 50-59

Grade F = below 50

IMPORTANT: IF Statements continue until they find a True and only if they don't find a True do they use the Value if False. Therefore, it is important that you think about and apply a logical order to the IF statements. In this example we start at the 'top' with the A grade and work down to the 'bottom' F grade.

It is also recommended to limit Nested IF Statements to 5 or less as they can be difficult to maintain and build if higher. You should consider alternative functions such as VLOOKUP for more complex scenarios.

