

# Lesson 1 IF Functions

## The IF Function

The IF Function is a useful tool that allows you to see if a certain condition in a spreadsheet is true or false, if the condition is **true**, the function will carry out action. If the condition is **false**, it will carry out a different function.(e.g. If students have a test score above 75, then they will be marked as pass.)

The system for the IF function is as follows: =IF(logical\_test,value\_if\_true,value\_if\_false).

- . **Logical\_test** – a value or expression that is tested to see if it is true or false.
- . **Value\_if\_true** – the value that is displayed if the logical\_test is true.
- . **Value\_if\_false** – the value that is displayed if the logical\_test is false.

The following example explains how to use the IF function. Cells **A3** through **A12** contain exam grades. we will use the IF function to create a formula in cells **B3** through **B12** that will indicate if the corresponding grade is a *Pass* or a *Fail*.

|    | A                  | B                   |
|----|--------------------|---------------------|
| 1  | <b>Exam Grades</b> |                     |
| 2  | <b>Grade</b>       | <b>Pass or Fail</b> |
| 3  | 90                 |                     |
| 4  | 83                 |                     |
| 5  | 78                 |                     |
| 6  | 75                 |                     |
| 7  | 54                 |                     |
| 8  | 48                 |                     |
| 9  | 84                 |                     |
| 10 | 90                 |                     |
| 11 | 95                 |                     |
| 12 | 61                 |                     |

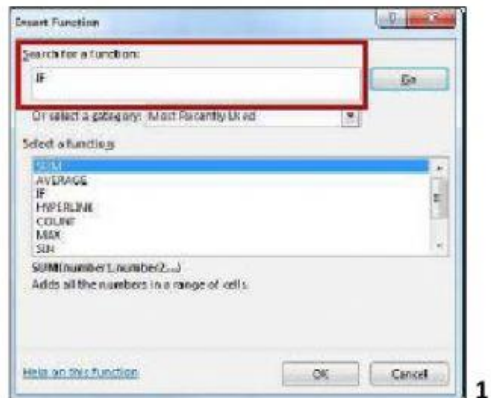
1

1. Click on cell **B1**.
2. In the *Formula Bar*, click on **Insert Function**.

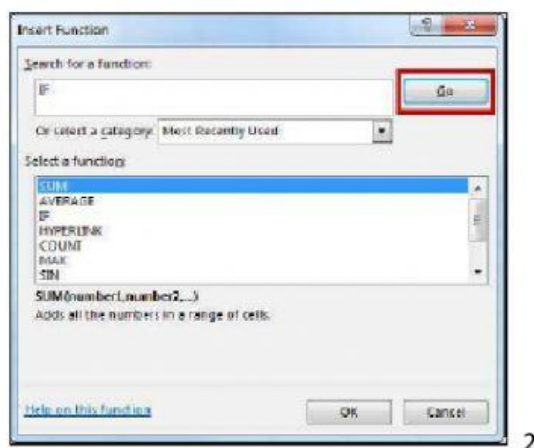


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3. The **Insert Function** window appears. In the Search for a *Function* field, type **IF**. 1



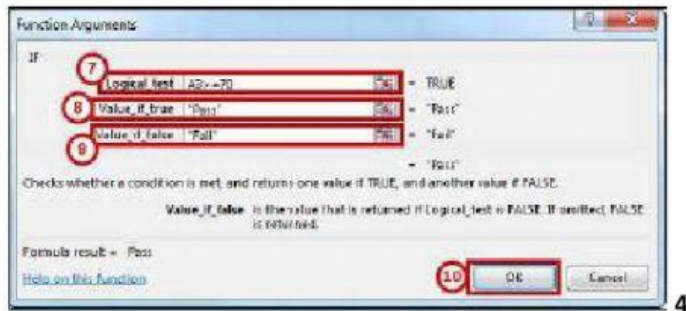
4. Click **Go**. 2



5. The *IF* function will appear in the Select a Function results. Click the **IF** function. 3



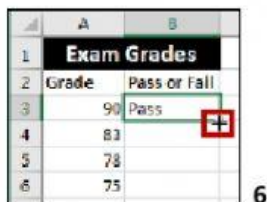
6. Click **Ok**.  
7. The *Function Arguments* window will open. In the *Logical \_ test* field, type **A3>=70**. 4  
8. In the *Value \_ if \_ true* field, type **" Pass."**4  
9. In the *value \_ if \_ false* type **" Fail."**4  
10. Click **Ok** .4



11. The word Pass should now appear in cell B3



12. Copy the formula in cell B3 to cells B4 through to B12 using Excel's autofill feature.



Note : To activate *AutoFill* hover the mouse in the **lower-right** corner of a cell until it turns into a black crossbar. The **left-click** and holds as you **drag** your mouse down to select the cells to copy the formula into. When you release, *Excel* will copy the formula into the selected cells.

Note: You can also type the formula out in the *Formula Bar*, by starting with an equal sign (=), then typing out the function, followed by your formula (e.g. =IF({A3>=70,"Pass","Fail."}))

## Questions

1. Describe the steps for setting the IF Function?