Making Decisions With Excel

We can instruct a spreadsheet to make decisions on entered labels and values. This is achieved by using the IF function, which takes the form:

IF (something is true, do this, otherwise, do something else)

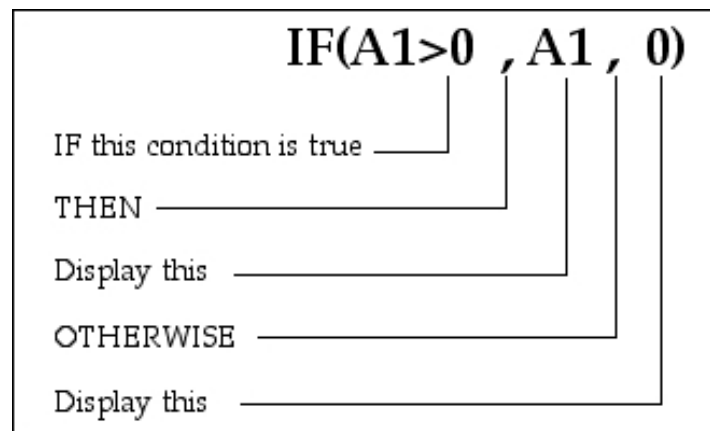The IF function uses mathematical symbols (operators) to make comparisons:

Operator	Meaning
<	less than
>	greater than
<=	less than or equal to
>=	greater than or equal to
=	equal to
<>	is not equal to

For example, look at the following formula:

=IF(A1>0,A1,0)

This formula reads: if the contents of cell A1 is greater than zero then display the contents of A1, otherwise display zero. The sections of an IF statement must be separated by commas. The commas stand for 'then' and 'otherwise'.
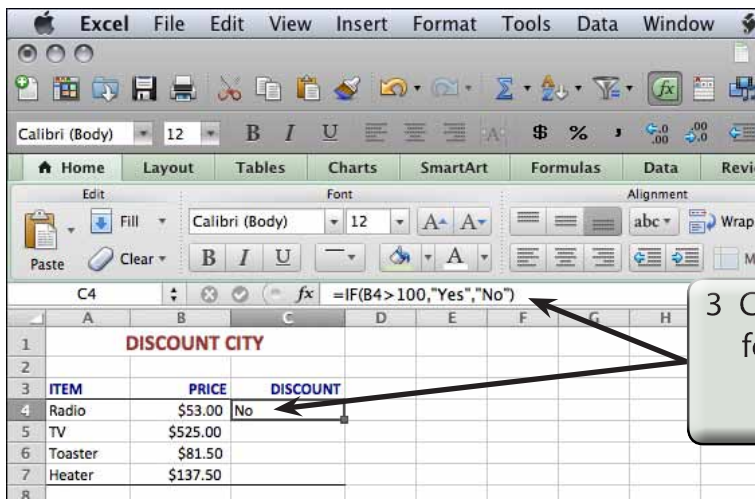
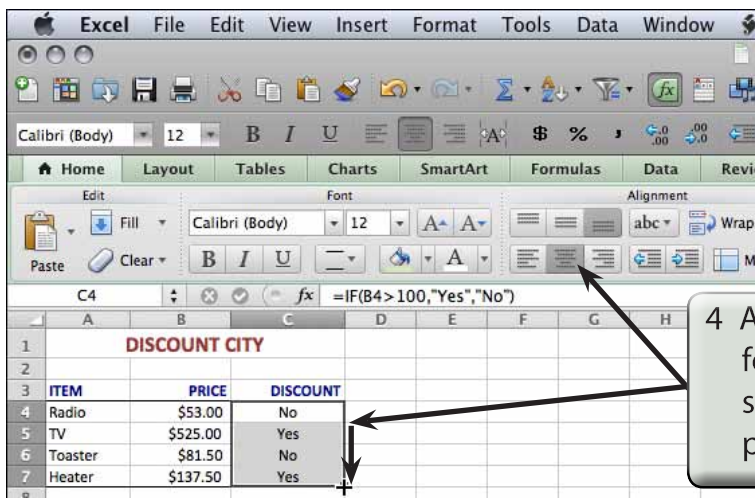The following diagram shows the sections of the formula:

The IF Command

A worksheet for a company that gives discounts on items priced over $100 will be used.

1   Load Microsoft Excel 2011 and cancel the EXCEL WORKBOOK GALLERY, or close the current workbook.

2   Display the FILE menu, select OPEN, access the EXCEL 2011 SUPPORT FILES, open the CHAPTER 12 folder and load the CHAPTER 12 file, selecting YES to the READ-ONLY message.
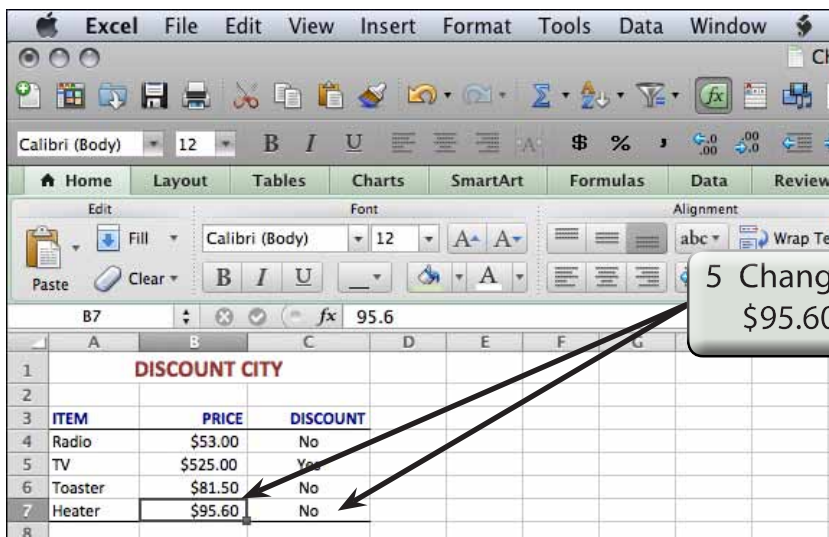

3 Click in cell C4 and enter the formula:
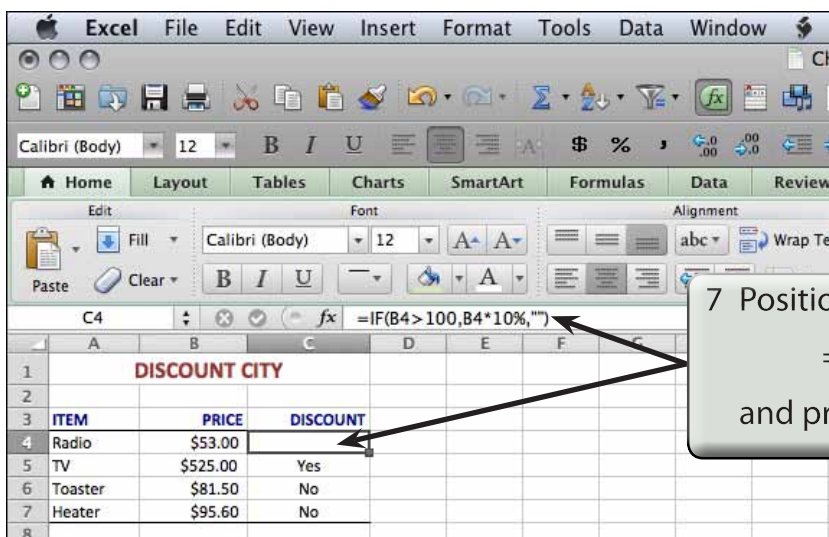
$$= IF(B4>100,"Yes","No")$$

NOTE: The spreadsheet is being told that if the contents of the cell B4 is greater than 100, then display YES, otherwise display NO. Quotation marks are used around YES and NO because they are LABELS.

4 Autofill the formula down 3 cells and format the 4 labels to CENTRE. You should have a YES displayed next to prices over $100.

5 Change the cost of the Heater to $95.60 and observe the change.

6   Mathematical calculations can also be done within IF functions.

7 Position the cursor at cell C4, enter:

= IF(B4>100,B4*10%,"")

and press the <return> key.

NOTE: **i** **For the " ", press the double quotation key twice.**

ii **The formula reads: if the value in cell B4 is greater than 100, then work out and display B4 times 10%, otherwise display a blank space (two quotes entered next to one another).**

iii **You should receive a blank space in cell C4 as the Radio costs less than $100.**

8 Autofill the formula down for the other 3 cells and format the 4 cells to CURRENCY with two decimal places and RIGHT aligned.

9 Change the price of the Toaster to $137.50 and a discount should be allocated to it.

10 Change the cost of the Toaster to $100. A discount is not given because the value is not over $100.