

Making Decisions With Excel

A spreadsheet can be instructed 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:

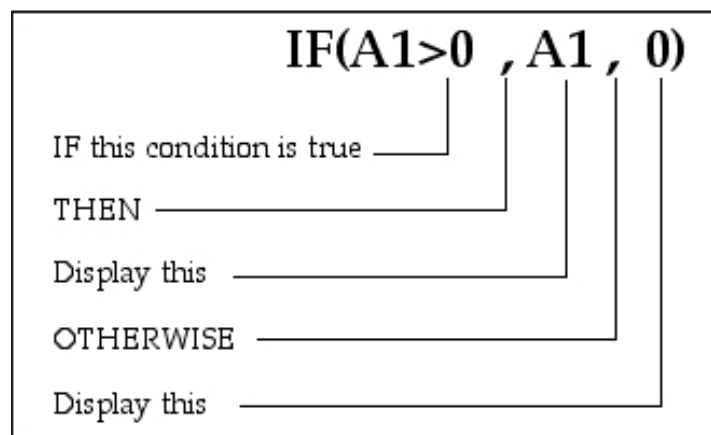
Operator	Meaning
<	less than
>	greater than
<=	less than or equal to
>=	greater than or equal to
=	equal to
<>	is not equal to

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 first comma stands for **THEN** and the second comma stands for **OTHERWISE**.

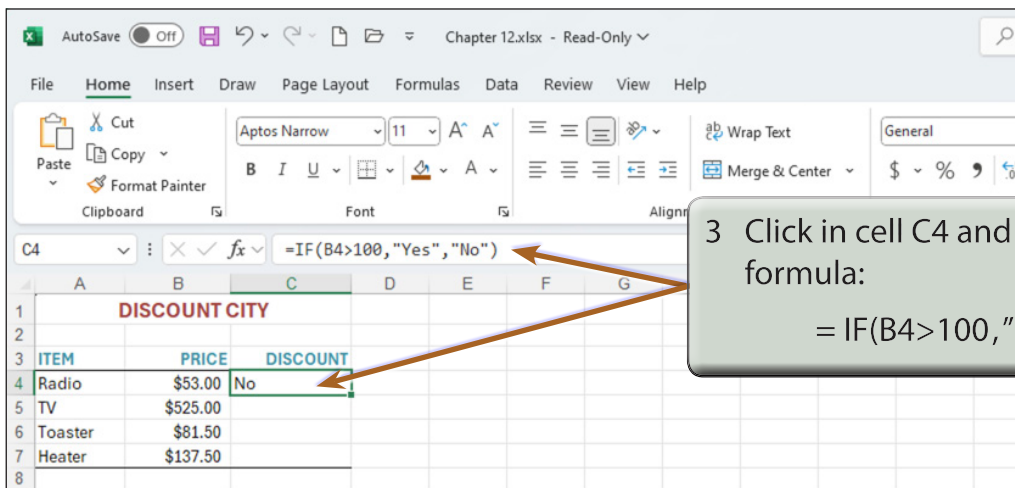
The following diagram shows the sections of the formula:



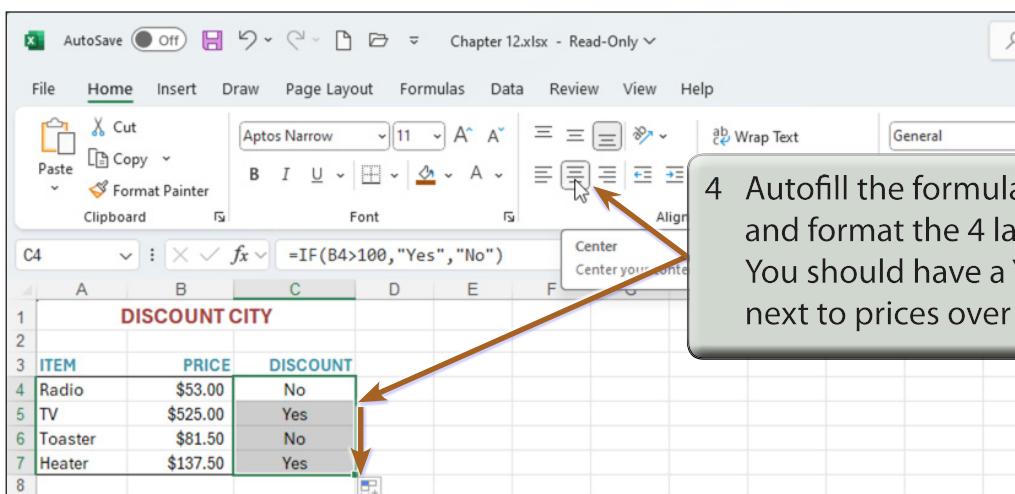
The IF Function

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

- 1 Load Microsoft Excel or close the current documents and click on the OPEN icon in the QUICK ACCESS TOOLBAR or select OPEN from within the FILE tab or FILE menu.
- 2 Access the EXCEL 2025 SUPPORT FILES, open the CHAPTER 12 folder and open the CHAPTER 12 file, selecting YES to the READ-ONLY message.



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.



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

ITEM	PRICE	DISCOUNT
Radio	\$53.00	No
TV	\$525.00	Yes
Toaster	\$81.50	No
Heater	\$95.60	No

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 <enter> or <return>.

ITEM	PRICE	DISCOUNT
Radio	\$53.00	
TV	\$525.00	Yes
Toaster	\$81.50	No
Heater	\$95.60	No

- 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 then format the 4 cells to CURRENCY with two decimal places and to be RIGHT ALIGNED.

DISCOUNT CITY		
ITEM	PRICE	DISCOUNT
Radio	\$53.00	
TV	\$525.00	\$52.50
Toaster	\$81.50	
Heater	\$95.60	

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

DISCOUNT CITY		
ITEM	PRICE	DISCOUNT
Radio	\$53.00	
TV	\$525.00	\$52.50
Toaster	\$137.50	\$13.75
Heater	\$95.60	

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

DISCOUNT CITY		
ITEM	PRICE	DISCOUNT
Radio	\$53.00	
TV	\$525.00	\$52.50
Toaster	\$100.00	
Heater	\$95.60	