

## **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:

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**.

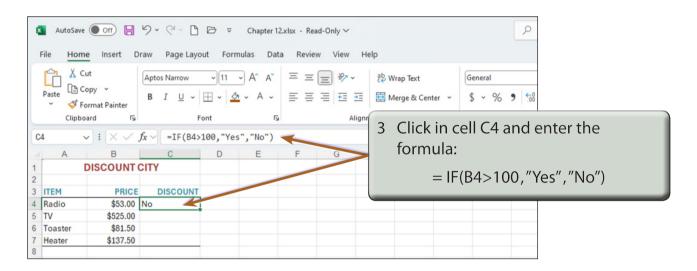
The following diagram shows the sections of the formula:

IF(A1>0 , A1 , 0)
IF this condition is true
THEN
Display this
OTHERWISE
Display this

## **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.

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4 5 6	ITEM Radio TV Toaster Heater	PRICE \$53.00 \$525.00 \$81.50 \$137.50	DISCOUN No Yes No Yes							

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Mathematical calculations can also be done within IF functions. 6

File

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Paste

**B7** 

1 2 3 ITEM

4 Radio

6 Toaster

7 Heater

5 TV

X Cut

Clipboard

\$81.50

\$95.60

NO

No

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2										
3	ITEM	PRICE	DISCOUNT			and press <	<enter> or &lt;</enter>	<return>.</return>		
4	Radio	\$53.00								
5	TV	\$525.00	Yes		_					
6	Toaster	\$81.50	No							
7	Heater	\$95.60	No							
8										

For the "", press the double quotation key twice. NOTE: i The formula reads: "IF the value in cell B4 is greater than 100, ii 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.

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3 ITEM 4 Radio	PRICE	DISCOUNT				allo	cated to it.		
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Toaster	\$137.50	\$13.75							
7 Heater	\$95.60								
8									]

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2 3 ITEM	PRICE DISCOUNT		because the value is not over \$100.							
4 Radio	\$53.00									
5 TV 6 Toaster	\$525.00 \$52.50 \$100.00									
7 Heater	\$95.60									