

INFORMATION COMMUNICATION AND TECHNOLOGY

WEEK : 1

TOPIC : Microsoft Excel

AIM : To understand how to use Excel to create a worksheet.

LEARNING OUTCOMES:

After completing this Unit you should be able to understand:

1. How to use MS Excel.
2. The Use of the Formula.

TOPIC OUTLINE

- 1.1 Entering Label
- 1.2 Entering Data
- 1.3 Using AutoSum Button
- 1.4 Entering Formula

NOTES:

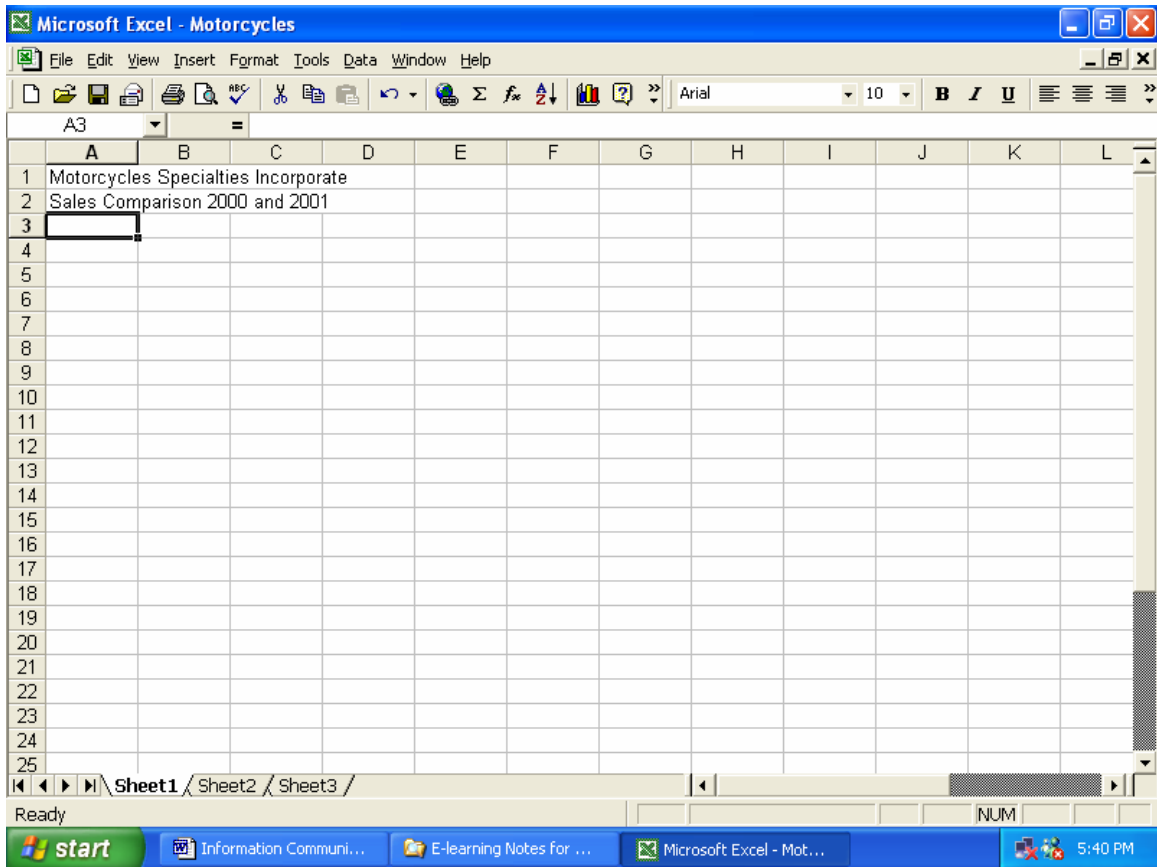


1.1 Entering Label

When you build a worksheet, it is a good idea to enter the labels before entering any other data. These labels will help you identify the cells where you will enter data and formulas in your worksheet. As you type a label in a cell, Excel aligns the label at the left side of the cell. Labels that are too long to fit in a cell spill over into the cells to the right, if those cells are empty. If the cells to the right are not empty, Excel displays only as much of the label that can fit in the cells.

1. Click cell A1 to make it active.
2. Type Motorcycle Specialties Incorporate and press the Enter key. Since cell A1 is empty, the title appears in cell A1 and spill over into cells B1, C1 and D1. Cell A2 is now the active cell.
3. In cell A2, type Sales Comparison 2000 with 2001 and press Enter.

Here is what your worksheet should look like:



Next, you will enter the column headings:

1. Click cell A3 to make it active.
2. Type Region and press the tab key to complete the entry. Cell B3 is the active cell.
3. In cell B3, type Year 2001 and press the tab key.
4. Enter the remaining column heads as follows:
 - Cell C3: Year 2000
 - Cell D3: % Change
 - Cell E3: \$ of 2001 Sales
5. Finish your worksheet by entering the remaining labels in the following rows.
 - Cell A4: North America
 - Cell A5: South America
 - Cell A6: Australia
 - Cell A7: Europe
 - Cell A8: Total
 - Cell A9: Average
 - Cell A10: Maximum
 - Cell A11: Minimum

Your completed worksheet should look like this:

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A12 =

	A	B	C	D	E	F	G	H	I	J	K	L
1	Motorcycles Specialties Incorporate											
2	Sales Comparison 2000 and 2001											
3	Region	Year 2001	Year 2000	% Change	\$ of 2001 Sales							
4	North America											
5	South America											
6	Australia											
7	Europe											
8	Total											
9	Average											
10	Maximum											
11	Minimum											
12												
13												
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25												

Sheet1 / Sheet2 / Sheet3

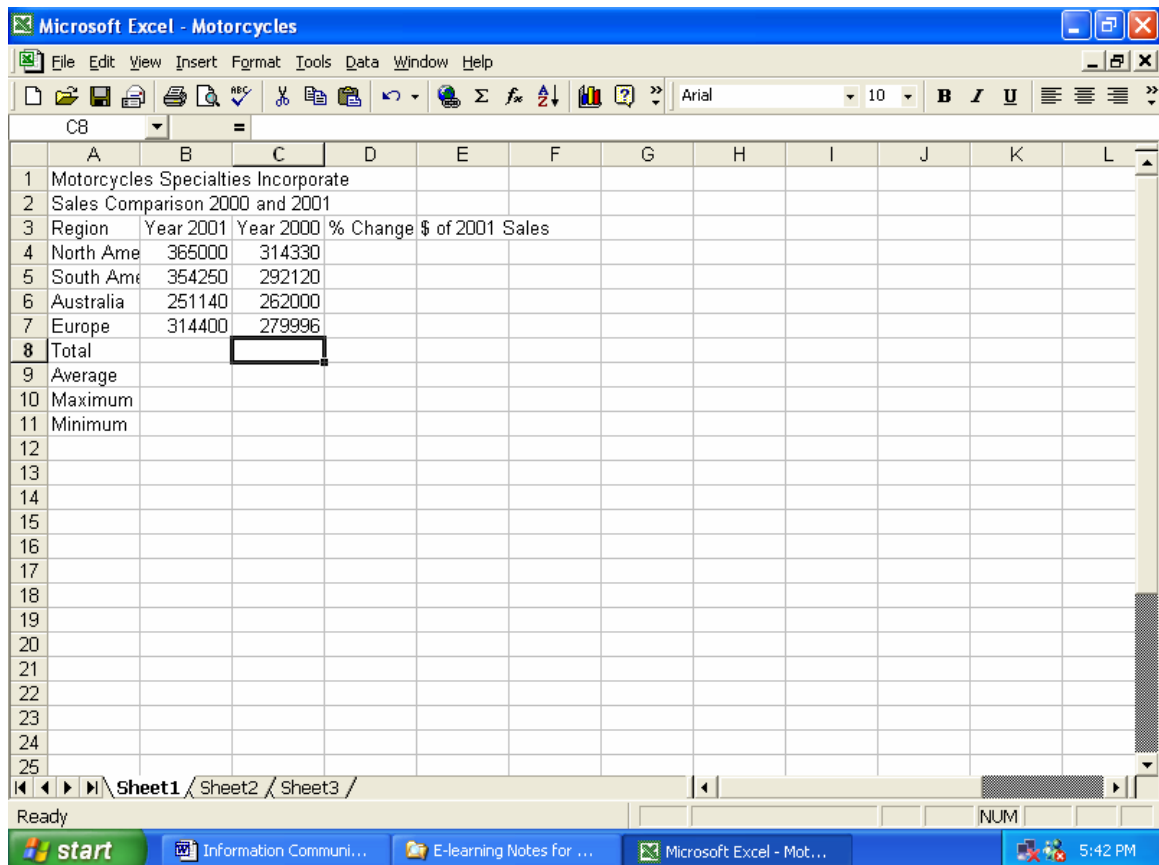
Ready NUM 5:41 PM

1.2 Entering Data

Data can be numbers, formulas or function. In this lesson, we will continue to work on the worksheet that we have prepared in the last lesson.

1. Click cell B4 to make it active. Type 365000 and press enter. Notice that the region name North America is no longer completely displayed in cell A4 because cell B4 is no longer empty.
2. In cell B5 type 354250.
3. Enter the values for cells B6, 251140, and B7, 310440
4. Click cell C4 and enter 314330
5. Enter the remaining values in the specified cells as follows:
 - Cell C5: 292120
 - Cell C6: 262000
 - Cell C7: 279996

Your screen should now look like this:



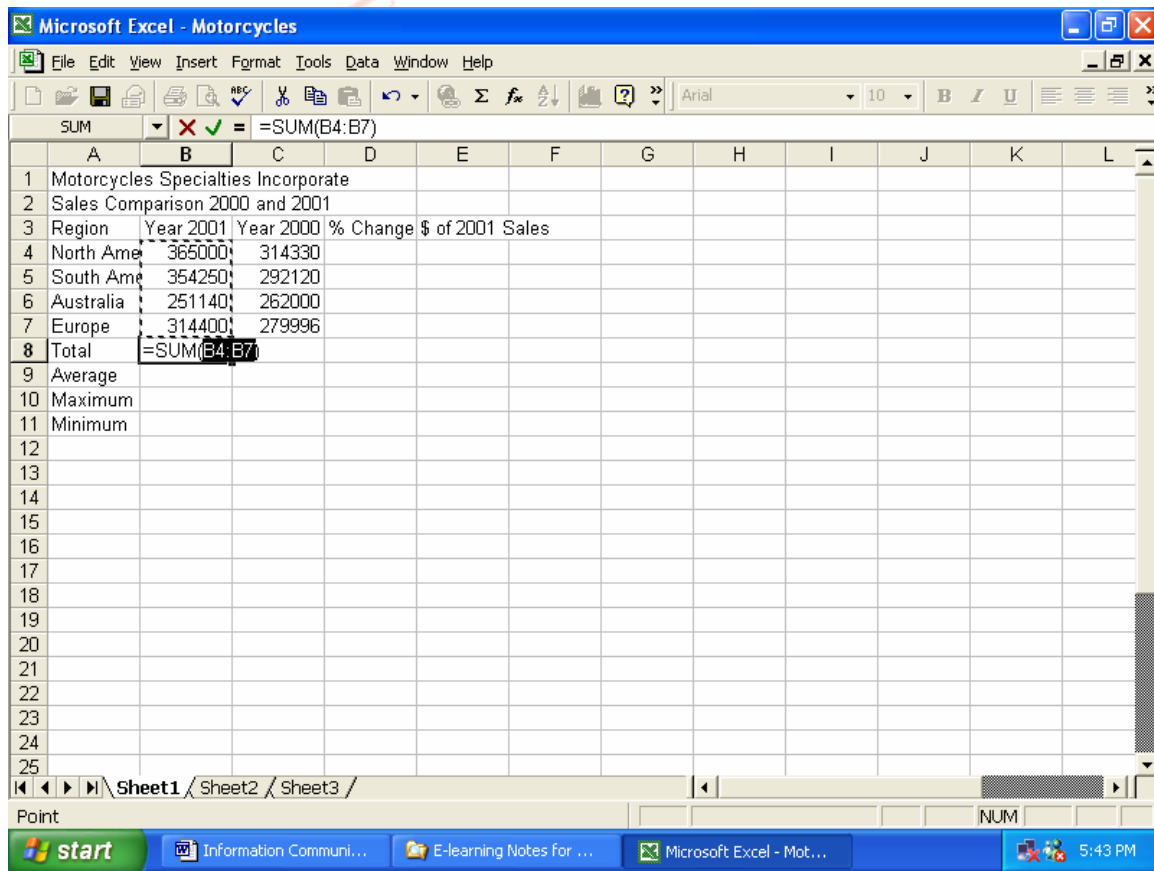
1.3 Using the AutoSum Button

Now that you have entered the labels and data, you need to enter the formulas that will calculate the data to produce the output, or the results.

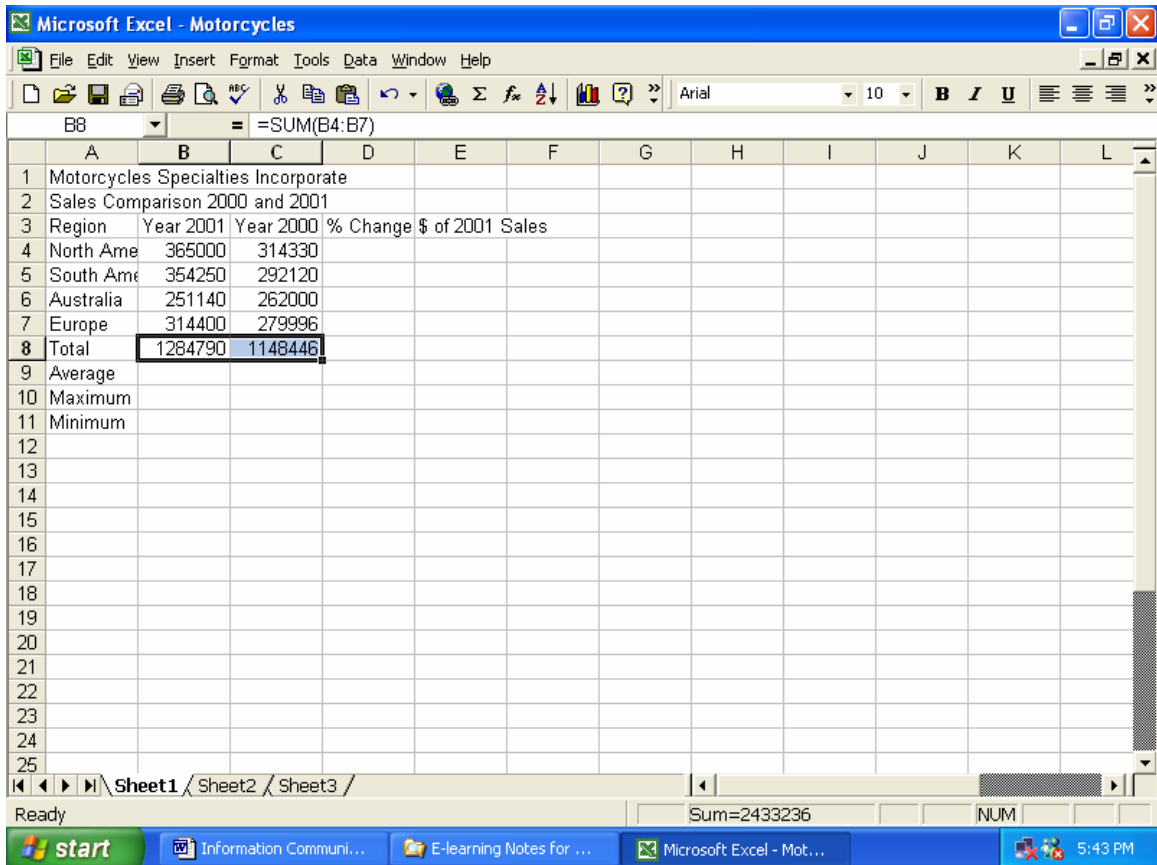
Since the sum function is used more often than any other function, Excel includes the AutoSum button on the toolbar. This button automatically creates a formula that contains the sum function.

To do this, Excel looks at the cells adjacent to the active cell, makes an assumption as to which cells you want to sum, and displays a formula based on its best determination about the range you want to sum. You can press the Enter key to accept the formula, or you can select a different range of cells to change the range in the formula. In this lesson, you will use the AutoSum button to calculate the total sales for each year.

1. Click cell B8 because this is where you want to display the total for 2000.
2. Click the AutoSum button on the toolbar Σ . Excel enters a sum function in the selected cell and determines that the range of cells to sum is B4:B7, the range directly above the selected cell.
3. Press the Enter key to complete the formula. The result appears in cell B8.



4. Click cell C8 to make it active.
5. Click the autoSum button on the toolbar.
6. Press the enter key to complete the formula. The result appears in cell C8.



1.4 Entering Formulas

A formula is an equation that performs calculations in a cell. By entering an equal sign (=) as the first entry in a cell, you are telling Excel that the numbers, or symbols that follow constitute a formula, not just data. In the worksheet that we are working on, you note that you need to calculate the percent change in sale in North America. The formula is

% change in sales for North America = (2001 sales in North America – 2000 sales in North America)/ 2000 sales in North America.

So, in looking at the worksheet, the formula in Excel would be:

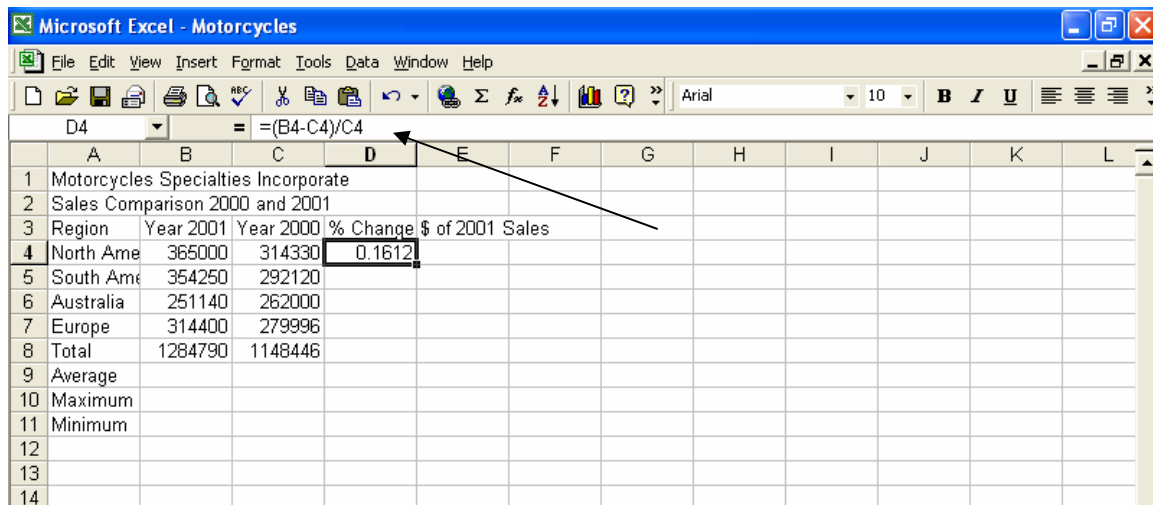
$$= (B4-C4)/C4$$

If a formula contains more than one arithmetic operator, Excel performs the calculations in the standard order of operations:

Order	Operator	Description
1	^	Exponent
2	* or /	Multiplication or Division
3	+ or -	Addition or Subtraction

Let's continue with our worksheet.

1. Click the D4 to make it active.
2. Type =(B4-C4)/C4 or = and “(“ followed by clicking the cell B4, type “-“, click C4, “)” and click C4. Excel performs the calculation and displays the result in cell D4. The formula is no longer visible in the cell. If you select the cell, the result of the formula appears in the cell and the formula appears in the formula bar.



You can copy formulas using menu commands, toolbar button or fill handle. The fill handle is a small black square located in the lower-right corner of the selected cell. Now

we will use the fill handle to copy a formula into other cells. You want to copy the formula in cell D4 to cells D5, D6, D7 and D8.

3. Click cell D4 to make it active.
4. Position the pointer over the fill handle (in the lower-right corner of the cell D4) until the pointer change into a small +.
5. Click and drag the pointer down the worksheet to outline cells D5 through D8.


	A	B	C	D	E	F	G	H	I	J	K	L
1	Motorcycles Specialties Incorporate											
2	Sales Comparison 2000 and 2001											
3	Region	Year 2001	Year 2000	% Change	\$ of 2001 Sales							
4	North Ame	365000	314330	0.1612								
5	South Ame	354250	292120									
6	Australia	251140	262000									
7	Europe	314400	279996									
8	Total	1284790	1148446									
9	Average											
10	Maximum											
11	Minimum											
12												
13												
14												
15												

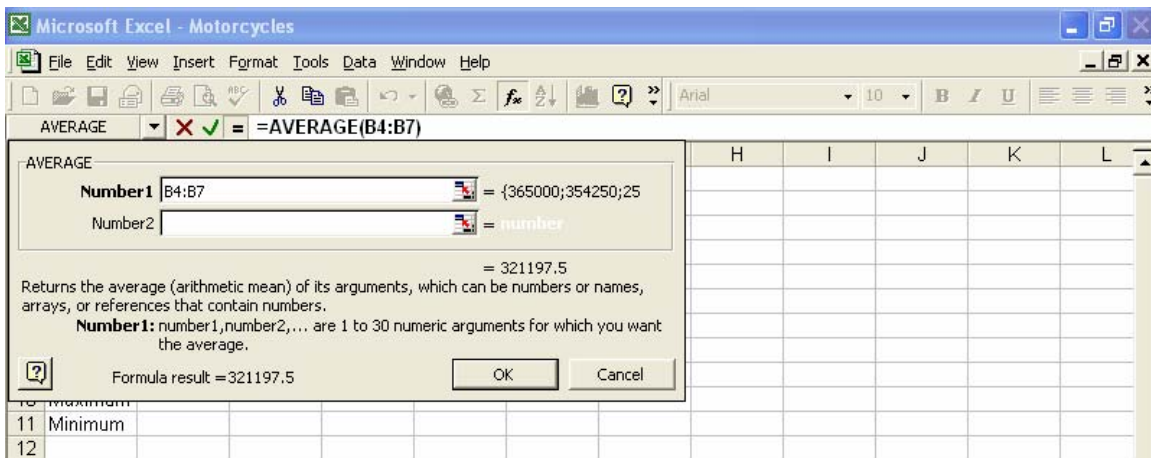
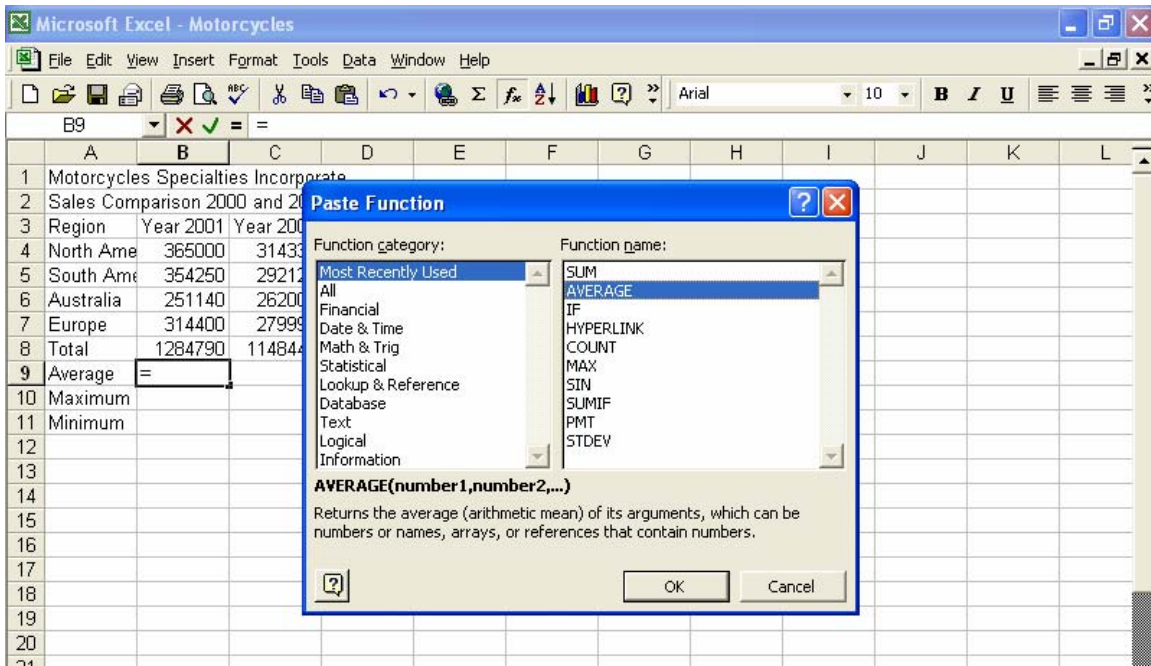
The result;



	A	B	C	D	E	F	G	H	I	J	K	L
1	Motorcycles Specialties Incorporate											
2	Sales Comparison 2000 and 2001											
3	Region	Year 2001	Year 2000	% Change	\$ of 2001 Sales							
4	North Ame	365000	314330	0.1612								
5	South Ame	354250	292120	0.212687								
6	Australia	251140	262000	-0.04145								
7	Europe	314400	279996	0.122873								
8	Total	1284790	1148446	0.11872								
9	Average											
10	Maximum											
11	Minimum											
12												
13												
14												

Let's continue with our worksheets. Now we are going to calculate the Average, Maximum and Minimum value.


1. Click the B9 to make it active.
2. Click the Paste Function button on the toolbar . This will bring the Paste Function dialog box.
3. Choose the **Average** function from the **Function Name**. If you cannot find the **Average** function, click the “**Statistical**” on the **Function category** then you will be able to see the Average on the function Name.
4. Click the OK button.



- Excel displays the formula dialog box, **Number 1** box contain B4:B8. Just type B4:B7, and click OK.


Region	Year 2001	Year 2000	% Change \$ of 2001 Sales
North Ame	365000	314330	0.1612
South Ame	354250	292120	0.212687
Australia	251140	262000	-0.04145
Europe	314400	279996	0.122873
Total	1284790	1148446	0.11872
Average	321197.5		
Maximum			
Minimum			

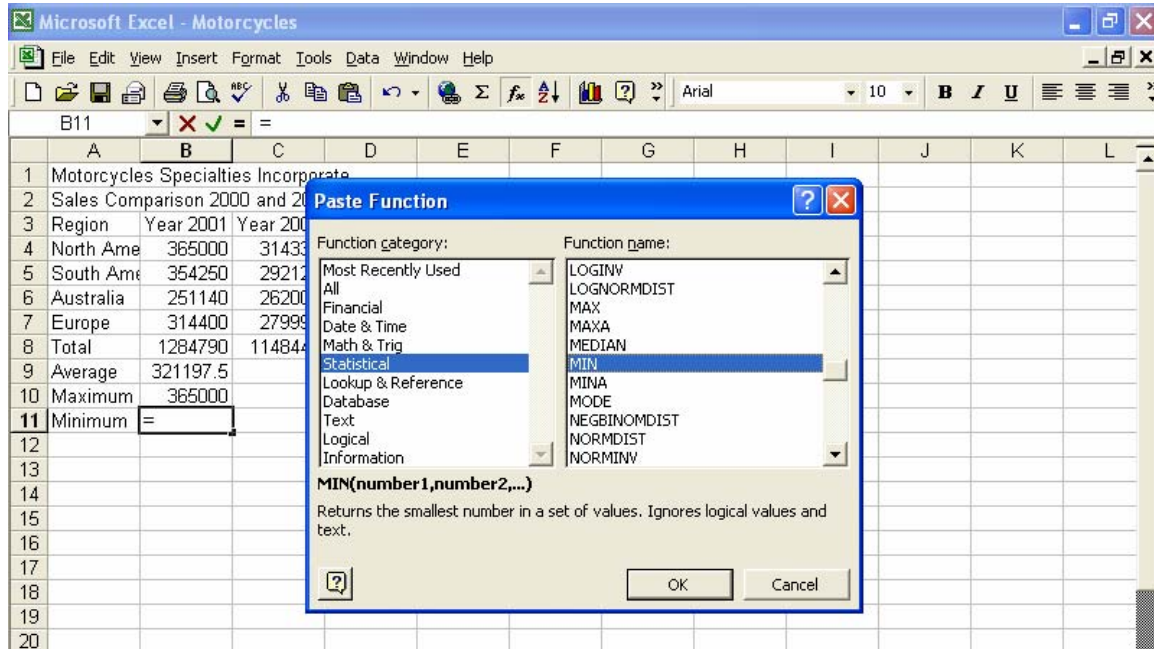
Perform the following steps to calculate Maximum and minimum.

- Click B10 to make it active.
- Click the Paste Function button on the toolbar . This will bring the Paste Function dialog box.
- Choose **Max** from the Function Name. Click OK.
- Change the range to B4:B7 and click OK.

Region	Year 2001	Year 2000	% Change \$ of 2001 Sales
North Ame	365000	314330	0.1612
South Ame	354250	292120	0.212687
Australia	251140	262000	-0.04145
Europe	314400	279996	0.122873
Total	1284790	1148446	0.11872
Average	321197.5		
Maximum			
Minimum			

As for Minimum

1. Click B11 to make it active.
2. Click the Paste Function button on the toolbar . This will bring the Paste Function dialog box.
3. Choose Statistical from the Function category, scroll the arrow down on the Function Name to choose **Min**. Click OK.
4. Change the range to B4:B7. Click OK



Now let us calculate the \$ of the year 2001 sales.

1. Click E4 to make it active.
2. Type **=B4-C4** or = and followed by clicking the cell B4, type “-“, click C4. Excel performs the calculation and displays the result in cell E4. The formula is no longer visible in the cell. If you select the cell, the result of the formula appears in the cell and the formula appears in the formula bar.
3. Click cell E4 to make it active.
4. Position the pointer over the fill handle (in the lower-right corner of the cell E4) until the pointer changes into a small +.
5. Click and drag the pointer down the worksheet to outline cells E5 through E8.

	A	B	C	D	E	F	G	H	I	J	K	L
1	Motorcycles Specialties Incorporate											
2	Sales Comparison 2000 and 2001											
3	Region	Year 2001	Year 2000	% Change	\$ of 2001 Sales							
4	North Ame	365000	314330	0.1612	50670							
5	South Ame	354250	292120	0.212687	62130							
6	Australia	251140	262000	-0.04145	-10860							
7	Europe	314400	279996	0.122873	34404							
8	Total	1284790	1148446	0.11872	136344							
9	Average	321197.5										
10	Maximum	365000										
11	Minimum	251140										
12												
13												
14												
15												
16												
17												
18												

Complete the table by copy the Average, Maximum, Minimum to the remaining cells.

	A	B	C	D	E	F	G	H	I	J	K	L
1	Motorcycles Specialties Incorporate											
2	Sales Comparison 2000 and 2001											
3	Region	Year 2001	Year 2000	% Change	\$ of 2001 Sales							
4	North Ame	365000	314330	0.1612	50670							
5	South Ame	354250	292120	0.212687	62130							
6	Australia	251140	262000	-0.04145	-10860							
7	Europe	314400	279996	0.122873	34404							
8	Total	1284790	1148446	0.11872	136344							
9	Average	321197.5	287111.5	0.113827	34086							
10	Maximum	365000	314330	0.212687	62130							
11	Minimum	251140	262000	-0.04145	-10860							
12												
13												
14												
15												
16												

1. Move the mouse pointer to the boundary between column heading A and column B so the mouse pointer changes to a split double arrow.
2. Drag the mouse pointer to the right until the ScreenTip displays Width: 16.00

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A9 Width: 16.00 (117 pixels) Average

	A	B	C	D	E	F	G	H	I	J	K
1	Motorcycles Specialties Incorporate										
2	Sales Comparison 2000 and 2001										
3	Region	Year 2001	Year 2000	% Change	\$ of 2001 Sales						
4	North Ameri	365000	314330	0.1612	50670						
5	South Ameri	354250	292120	0.212687	62130						
6	Australia	251140	262000	-0.04145	-10860						
7	Europe	314400	279996	0.122873	34404						
8	Total	1284790	1148446	0.11872	136344						
9	Average	321197.5	287111.5	0.113827	34086						
10	Maximum	365000	314330	0.212687	62130						
11	Minimum	251140	262000	-0.04145	-10860						
12											
13											
14											
15											
16											
17											

3. Continue for the rest of the cells by double clicking the mouse pointer.

The result;

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A12 =

	A	B	C	D	E	F	G	H	I	J
1	Motorcycles Specialties Incorporate									
2	Sales Comparison 2000 and 2001									
3	Region	Year 2001	Year 2000	% Change	\$ of 2001 Sales					
4	North America	365000	314330	0.161200013	50670					
5	South America	354250	292120	0.212686567	62130					
6	Australia	251140	262000	-0.041450382	-10860					
7	Europe	314400	279996	0.122873184	34404					
8	Total	1284790	1148446	0.118720427	136344					
9	Average	321197.5	287111.5	0.113827346	34086					
10	Maximum	365000	314330	0.212686567	62130					
11	Minimum	251140	262000	-0.041450382	-10860					
12										
13										
14										
15										
16										
17										