MICROSOFT EXCEL 2007
Useful Features

Password protecting a range of cells

Most of us probably know how to password protect a workbook. How would you protect a specific range of cells or an individual cell? This method of protecting a cell or range of cells comes in handy when you are sharing a worksheet among a few and do not want the others to change or modify your input of cell(s). To protect a range of cells, here are the steps involved.

1. Assume you have the following set of data.

	C4				f_x	=B$1*B4
	A	B	C	D		
1	Unit price	$ 55.75				
2						
3	Salesmen	Quantity	Amount			
4	Sharon	34	$1,895.50			
5	Pancho	31	$1,728.25			
6	Villas	56	$3,122.00			
7	Kelly	43	$2,397.25			
8	Ruben	21	$1,170.75			
9	Abdul	53	$2,954.75			
10						

2. The formula for the cell **C4** is **B$1*B4** which is then copied to the rest of the cells in column **C**. Alternatively, you could press the **Ctrl** + ~ keys to display the formulas (in **Audit** mode) for the respective cells which is as follows.
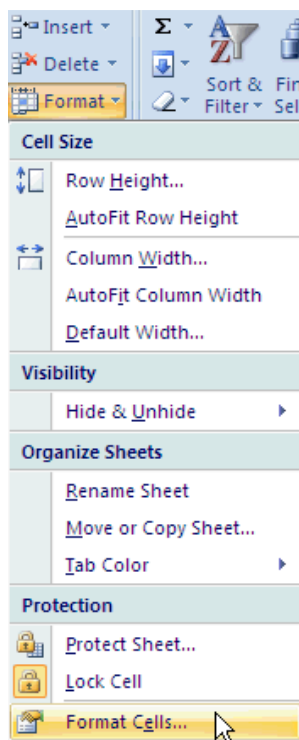
	C4		f_x	=B$1*B4
	A	B	C	
1	Unit price	55.75		
2				
3	Salesmen	Quantity	Amount	
4	Sharon	34	=B$1*B4	
5	Pancho	31	=B$1*B5	
6	Villas	56	=B$1*B6	
7	Kelly	43	=B$1*B7	
8	Ruben	21	=B$1*B8	
9	Abdul	53	=B$1*B9	
10				

3. To remove the formulas from being displayed, click the **Ctrl** + ~ keys once again. Let us say that you want to allow only the **Quantity** column to be able to be amended. In other words, all of the other cells cannot be changed for this worksheet. First, select the range of cells that you want other users to be able to modify the contents. In this case, select cells **B4** to **B9**.
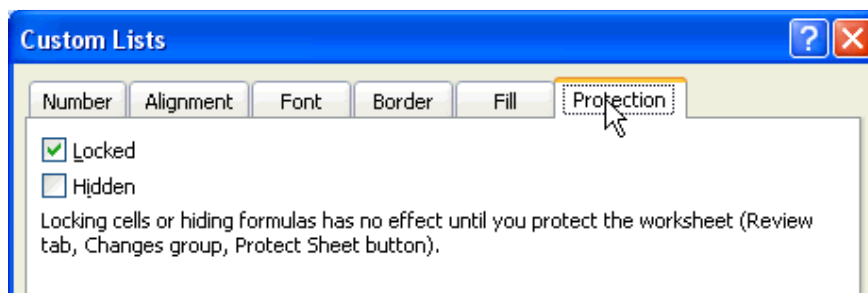
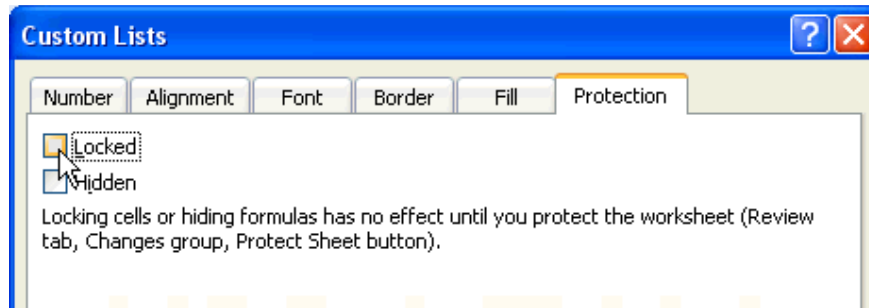4.   Click the **Format** icon in the **Cells** group of ⬚ Home tab. Select **Format Cells**.
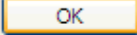

5.   The **Custom Lists** dialog box is opened. Ensure that the **Protection** tab is selected as pointed to below.
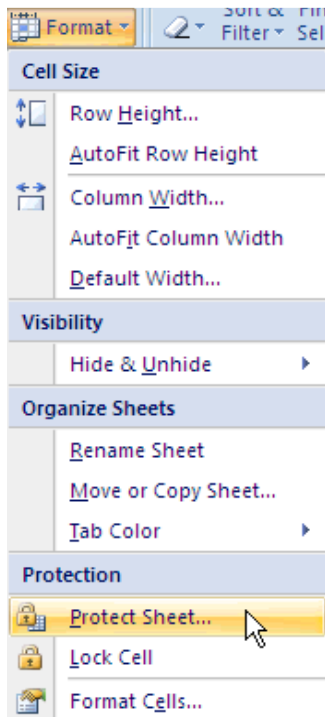

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6.   By default, the **Locked** option is checked. Uncheck the **Locked** checkbox.


7.   Click the [OK] button to close the **Custom Lists** dialog box.

8.   Click the **Format** icon in the **Cells** group again. Select the **Protect Sheet** option as pointed to.


9.   The **Protect Sheet** dialog box is opened. Make sure that only the **Select Unlocked Cells** checkbox is checked. By default, both the **Select Locked Cells** and **Select Unlocked Cells** checkboxes are checked. You need to uncheck the **Select Locked Cells** checkbox.

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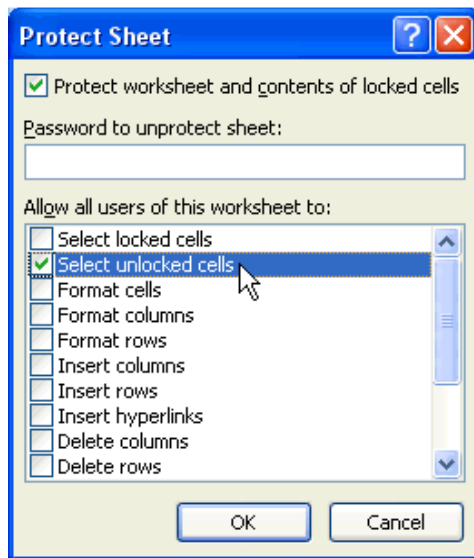
10. In the **Password to unprotect sheet** text box, type in a password of your choice. For example, type the characters **lock** in the text box (displayed as ********). It is important that you do not forget this password!
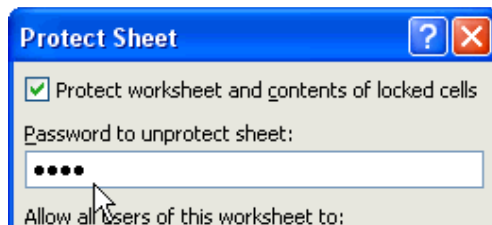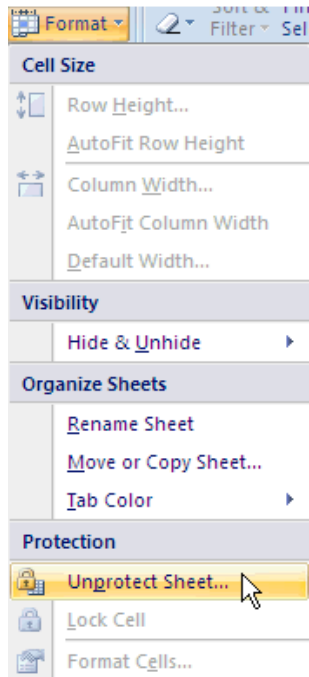

11. Click the OK button.

12. You will be prompted with the following **Confirm Password** dialog box. Type the same password again i.e. **lock** in the text box provided.

13. Click the OK button

14. Now try to click on any of the other non-selected cells. You are unable to do so. You can only click on the cells that you had highlighted earlier.

15. To unprotect the spreadsheet, click on the **Format** icon in the **Cells** group. Select **Unprotect Sheet**.

16. The **Unprotect Sheet** dialog box is opened. Type in the password **lock**.
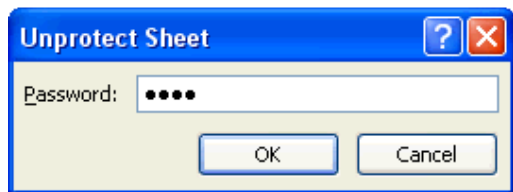
17. Click the OK button. Now you can click on any of the cells in the worksheet.

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Hiding formulas from being displayed

The previous example had shown you how to password protect a range of cells. Sometimes, you may not want to perform the above but rather, hide formulas from being displayed when a user clicks on cells that supposedly contain formulas. The next example highlights how you can prevent formulas from being displayed.
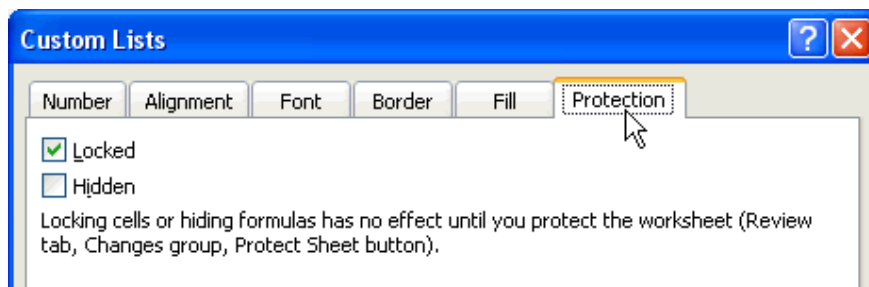
1. Assume the following data set is given. Highlight the **Amount** cells i.e. cells **D4** to **D11**. Note that the **Amount** column has formulas in it as illustrated.

	D4		f_x	=B$1*C4
	A	B	C	D
1	Unit price	$ 55.75		
2				
3	Region	Salesmen	Quantity	Amount
4	East	Abdul	53	$ 2,954.75
5	East	Michael	24	$ 1,338.00
6	North	Sharon	34	$ 1,895.50
7	North	Villas	56	$ 3,122.00
8	South	Billy	44	$ 2,453.00
9	South	Pancho	31	$ 1,728.25
10	West	Kelly	43	$ 2,397.25
11	West	Ruben	21	$ 1,170.75
12				

2. Right click on the selected cells. Select **Format Cells** from the shortcut menu displayed.
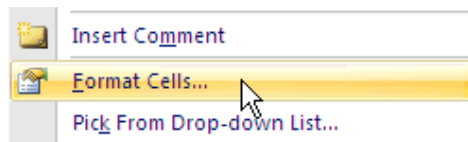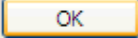
	Insert Comment
	Format Cells...
	Pick From Drop-down List...

3. The **Custom Lists** dialog box is opened. Ensure that the **Protection** tab is selected as pointed to below.

Custom Lists

| Number | Alignment | Font | Border | Fill | Protection |

☑ Locked
☐ Hidden

Locking cells or hiding formulas has no effect until you protect the worksheet (Review tab, Changes group, Protect Sheet button).

4. Click to check (i.e. select) the **Hidden** checkbox.
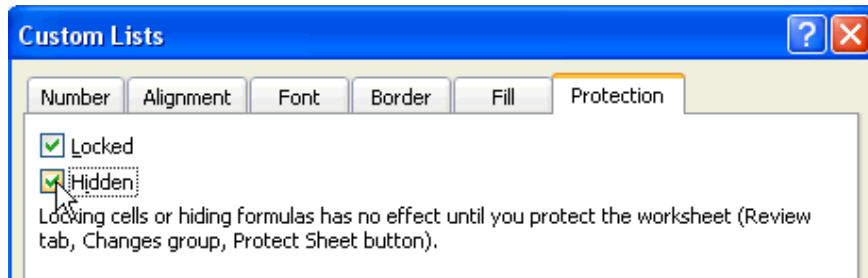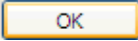
5. Click the **OK** button to close the **Custom Lists** dialog box.

6. Next, click on the **Format** icon in the **Cells** group. Select the **Protect Sheet** option as pointed to.
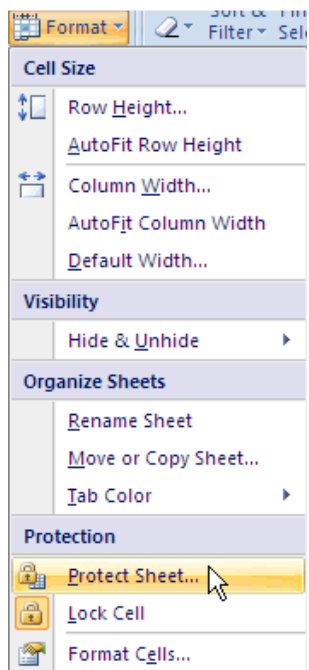
7. The **Protect Sheet** dialog box is displayed. Ensure that both the **Select locked cells** and **Select unlocked cells** options are selected.

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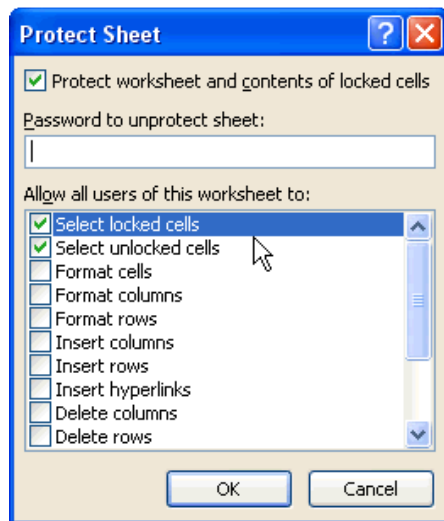
8. Click the [OK] button to close the above **Protect Sheet** dialog box.

9. Click on any of the cells in the **Amount** column. For example, click on cell **D10**. Note that the **Formula Bar** does not display the formula i.e. it appears blank. However, when you select any of the other cells outside the range selected earlier, the details are displayed in the **Formula Bar**.

Working with Subtotals

For the everyday user of Excel, he/she would most probably be using the SUM function more so than any other functions. However, there are times when you may need to perform a subtotal before performing the final summation.

There is a built-in feature in Excel to calculate the subtotals for simplicity sake. When would you use the **Subtotals** feature? The following example will highlight this.

1. Assume you have the following set of data of **Salesmen** quantity sold by **Region** as follows.

	A	B	C	D
1	Unit price	$ 55.75		
2				
3	Region	Salesmen	Quantity	Amount
4	North	Sharon	34	$1,895.50
5	South	Pancho	31	$1,728.25
6	North	Villas	56	$3,122.00
7	West	Kelly	43	$2,397.25
8	West	Ruben	21	$1,170.75
9	East	Abdul	53	$2,954.75
10	South	Billy	44	$2,453.00
11	East	Michael	24	$1,338.00
12				

2. Note that in the above illustration, the **Region** is not in sorted order. Before applying the **Subtotals** feature, you need to sort the **Region** first (if you plan to have subtotals by **Region**). Let us sort it in ascending order by first selecting the range of data without the headers.

	A	B	C	D
1	Unit price	$ 55.75		
2				
3	Region	Salesmen	Quantity	Amount
4	North	Sharon	34	$1,895.50
5	South	Pancho	31	$1,728.25
6	North	Villas	56	$3,122.00
7	West	Kelly	43	$2,397.25
8	West	Ruben	21	$1,170.75
9	East	Abdul	53	$2,954.75
10	South	Billy	44	$2,453.00
11	East	Michael	24	$1,338.00
12				

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3. Click the **Data** tab. Click on the **Sort** icon in the **Sort & Filter** group.
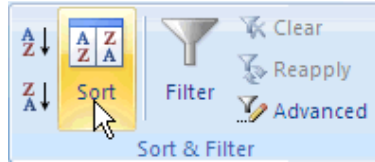
4. The **Sort** dialog box is opened. Ensure that the **My data has headers** checkbox is unchecked (deselect) as you have not included the header row in your earlier selection.
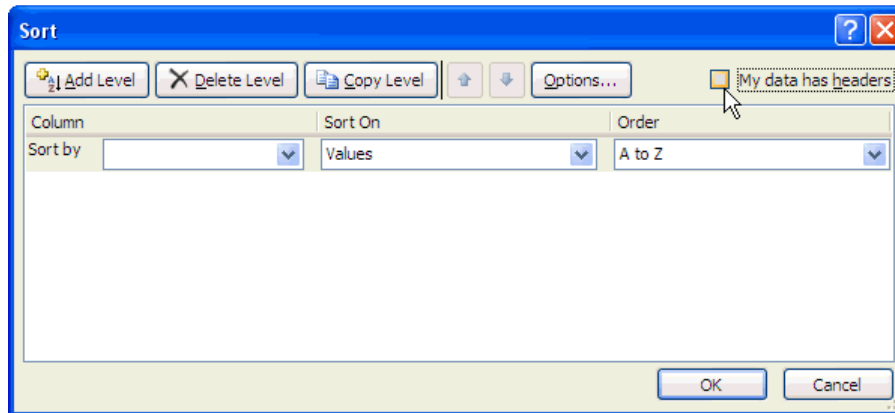
5. Select **Column A** in the **Sort by** drop down list and ensure that the **Order** option is **A to Z** (default) as illustrated.
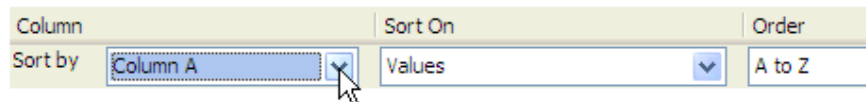
6. Click on the **Add Level** button to perform another sort after the first.

7. Another sort level is added below the first level as outlined below.

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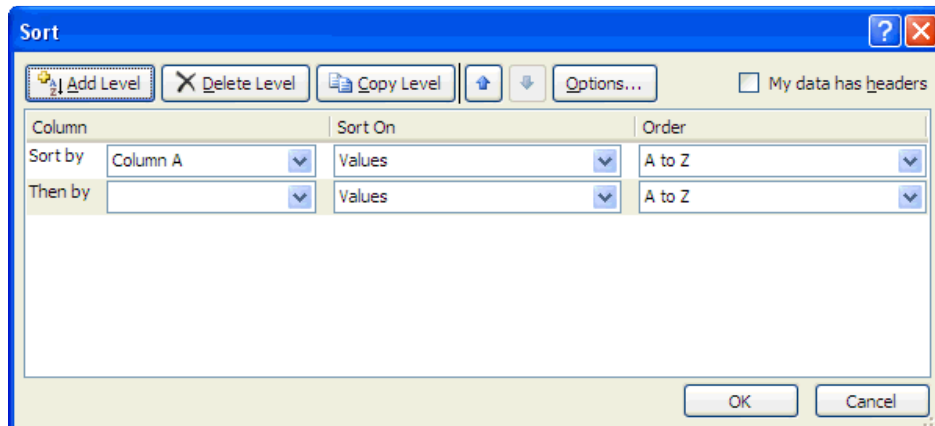
8. In the **Then by** drop down list, select **Column B**. Again, ensure that the **Order** is still **A to Z**.

Column		Sort On		Order
Sort by	Column A ∨	Values	∨	A to Z
Then by	Column B ∨	Values	∨	A to Z

9. Click the [OK] button to close the above **Sort** dialog box.

10. Your selected data is now sorted in ascending order by **Region** followed by **Salesmen** as follows.

	A	B	C	D
1	Unit price	$ 55.75		
2				
3	Region	Salesmen	Quantity	Amount
4	East	Abdul	53	$2,954.75
5	East	Michael	24	$1,338.00
6	North	Sharon	34	$1,895.50
7	North	Villas	56	$3,122.00
8	South	Billy	44	$2,453.00
9	South	Pancho	31	$1,728.25
10	West	Kelly	43	$2,397.25
11	West	Ruben	21	$1,170.75
12				

11. Click on any one of the cells in the range of data i.e. click on cell **C6**.

	A	B	C	D
1	Unit price	$ 55.75		
2				
3	Region	Salesmen	Quantity	Amount
4	East	Abdul	53	$2,954.75
5	East	Michael	24	$1,338.00
6	North	Sharon	34	$1,895.50
7	North	Villas	56	$3,122.00
8	South	Billy	44	$2,453.00
9	South	Pancho	31	$1,728.25
10	West	Kelly	43	$2,397.25
11	West	Ruben	21	$1,170.75
12				

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12. Ensure that the [Data] tab is selected. Click on the **Subtotal** icon in the **Outline** group as pointed to.

13. The **Subtotal** dialog box is opened. For the **At each change in** text box, select **Region** from the drop down list. Leave the default **Use function** option of **Sum**. You can click to view some of the other options available such as **Average**, **Count**, etc. In the **Add subtotal to** section, ensure that the **Qty Sold** and total **Amount** checkboxes are checked. This selection will display the subtotal for both these two fields for every **Region**.
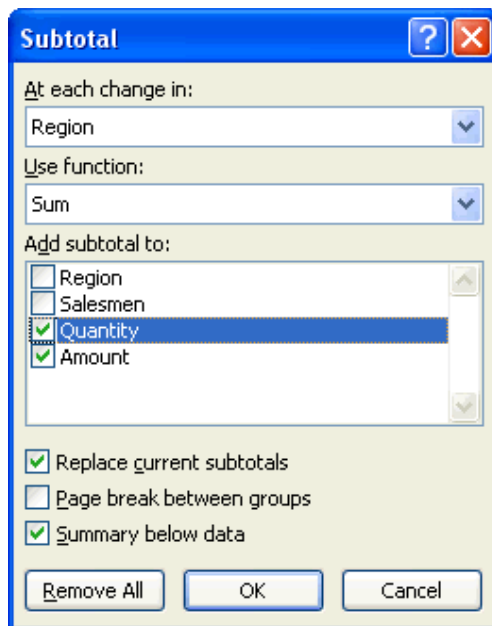
14. Click the [OK] button.

15. Observe the data now. It is sorted with subtotals for every change of **Region** as illustrated with the **Grand Total** at the bottom most row.

1 2 3		A	B	C	D	
	1	Unit price	$ 55.75			
	2					
	3	Region	Salesmen	Quantity	Amount	
	4	East	Abdul	53	$ 2,954.75	
	5	East	Michael	24	$ 1,338.00	
	6	East Total		77	$ 4,292.75	
	7	North	Sharon	34	$ 1,895.50	
	8	North	Villas	56	$ 3,122.00	
	9	North Total		90	$ 5,017.50	
	10	South	Billy	44	$ 2,453.00	
	11	South	Pancho	31	$ 1,728.25	
	12	South Total		75	$ 4,181.25	
	13	West	Kelly	43	$ 2,397.25	
	14	West	Ruben	21	$ 1,170.75	
	15	West Total		64	$ 3,568.00	
	16	Grand Total		306	$17,059.50	
	17					

16. Observe the outline symbols **1**, **2**, and **3** to the extreme left of the column headers. These numbers indicate the details of data to be displayed. For example, click on the **1** outline symbol. You will only see the **Grand Total** for the **Quantity** and total **Amount** as illustrated.

1 2 3		A	B	C	D	
	1	Unit price	$ 55.75			
	2					
	3	Region	Salesmen	Quantity	Amount	
	16	Grand Total		306	$17,059.50	
	17					

17. Next, click on the **2** outline symbol. A summary of all **Regions** subtotals' are displayed.

1 2 3		A	B	C	D	
	1	Unit price	$ 55.75			
	2					
	3	Region	Salesmen	Quantity	Amount	
	6	East Total		77	$ 4,292.75	
	9	North Total		90	$ 5,017.50	
	12	South Total		75	$ 4,181.25	
	15	West Total		64	$ 3,568.00	
	16	Grand Total		306	$17,059.50	
	17					

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18. Clicking on the **+** sign on the left will expand the **Total** to display the **Subtotals** by **Region**. For example. Point to the **West Total +** sign as pointed to below.

		A	B	C	D
	1	Unit price	$ 55.75		
	2				
	3	Region	Salesmen	Quantity	Amount
+	6	East Total		77	$ 4,292.75
+	9	North Total		90	$ 5,017.50
+	12	South Total		75	$ 4,181.25
+	15	West Total		64	$ 3,568.00
−	16	Grand Total		306	$17,059.50
	17				

19. Click on the above **+** sign. The details of the **West Total** are displayed.

		A	B	C	D
	1	Unit price	$ 55.75		
	2				
	3	Region	Salesmen	Quantity	Amount
+	6	East Total		77	$ 4,292.75
+	9	North Total		90	$ 5,017.50
+	12	South Total		75	$ 4,181.25
·	13	West	Kelly	43	$ 2,397.25
·	14	West	Ruben	21	$ 1,170.75
−	15	West Total		64	$ 3,568.00
−	16	Grand Total		306	$17,059.50
	17				

20. Click on the **–** sign for the **West Total** hides the above subtotal details.

21. Finally, clicking on the **3** outline symbol displays all details of the data with the subtotals and grand total as below.

1 2 3		A	B	C	D
	1	Unit price	$ 55.75		
	2				
	3	Region	Salesmen	Quantity	Amount
	4	East	Abdul	53	$ 2,954.75
	5	East	Michael	24	$ 1,338.00
	6	East Total		77	$ 4,292.75
	7	North	Sharon	34	$ 1,895.50
	8	North	Villas	56	$ 3,122.00
	9	North Total		90	$ 5,017.50
	10	South	Billy	44	$ 2,453.00
	11	South	Pancho	31	$ 1,728.25
	12	South Total		75	$ 4,181.25
	13	West	Kelly	43	$ 2,397.25
	14	West	Ruben	21	$ 1,170.75
	15	West Total		64	$ 3,568.00
	16	Grand Total		306	$17,059.50
	17				

22. To remove the **Subtotals** feature, ensure that the **Data** tab is selected. Click on the **Subtotal** icon in the **Outline** group as pointed to.

➡ Group ▾
⬅ Ungroup ▾
⊞ Subtotal
Outline
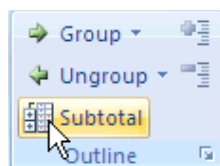
23. The **Subtotals** dialog box is displayed. Click on the **Remove All** button at the bottom of the dialog box.

24. All of the above subtotals displayed will be removed as follows.

	A	B	C	D
1	Unit price	$ 55.75		
2				
3	Region	Salesmen	Quantity	Amount
4	East	Abdul	53	$ 2,954.75
5	East	Michael	24	$ 1,338.00
6	North	Sharon	34	$ 1,895.50
7	North	Villas	56	$ 3,122.00
8	South	Billy	44	$ 2,453.00
9	South	Pancho	31	$ 1,728.25
10	West	Kelly	43	$ 2,397.25
11	West	Ruben	21	$ 1,170.75
12				

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