# 5.05 Instructions

## Part 1: Modifying the Worksheet

- 1. Click on the **F** in the shaded area at the top of the spreadsheet. This should cause the entire **column** to become highlighted.
- 2. Click on the **Home** tab and find the section labeled **Cells**, then click on the arrow beside the word **Insert**, and then select **Insert Sheet Columns**. **Do this 3 times so you will have three new columns**. (Spreadsheet should look like this.)

	Α	В	С	D	E	F	G	Н	I	J	K	L	М
1	Student	Test 1	Test 2	Test 3	Test 4				Total	AVG	Coun t	MAX	MIN
2	Joe Smith	80	100	93	89				362	90.50	4	100	80
3	Ann Thomas	92	85	89					266	88.67	3	92	85
4	Frank Hardy	95	90	88	91				364	91.00	4	95	88
5	Mary Sims	76		90	89				255	85.00	3	90	76
6	Mike Wison	74	90	89	90				343	85.75	4	90	74
	Total	417	365	449	359								
8	AVG	83.4 0	91.2 5	89.8 0	89.7 5								
	Count	5	4	5	4								
#	MAX	95	100	93	91								
#	MIN	74	85	88	89								

- 3. At the top of the spreadsheet, highlight your column headings Test 3, and Test 4 4.
- 4. Move your mouse of the bottom right corner of the cell that contains the word Test 4 in it. There should be a black square in that corner and as your mouse hovers over it, it will turn into a plus sign.
- 5. Hold down your left mouse button and move your mouse to the right over the three new columns that you inserted. You should notice that a box will populate showing the words Test 5, Test 6, and Test 7.

- 6. Release the mouse button and the words populate in the cells. The black square in the bottom right corner of an active cell is called the **fill handle**. This button allows you to copy the formatting in a cell and extend a series such as the Test. It also works for dates, months of the year, and a number series.
- 7. Enter the following information for the new columns. Do not type F, G, OR H. That information refers to the name of the column where the new columns were inserted.

	F	G	Н			
1	Test 5	Test 6	Test 7			
2	70	95	100			
3	65	92	69			
4	90	98	78			
5	87	90	94			
6	74	90				

This is how spreadsheet should look after the information has been entered.

<sup>\*</sup>Note: before your work will match the picture, you must change the functions in Column I because the function in "Totals" will not include the added cells.

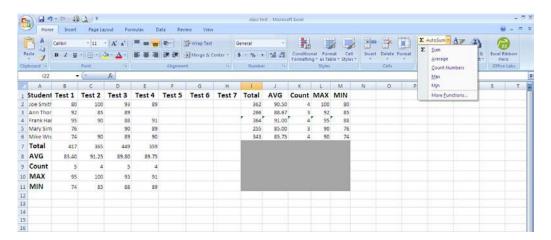
	Α	В	С	D	E	F	G	Н	- 1	J	K	L	М
1	Student	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Total	AVG	Count	MAX	MIN
2	Joe Smith	80	100	93	89	70	95	100	627	89.57	7	100	70
3	Ann												
	Thomas	92	85	89		65	92	69	492	82.00	6	92	65
4	Frank												
7	Hardy	95	90	88	91	90	98	78	630	90.00	7	98	78
5	Mary												
	Sims	76		90	89	87	90	94	526	87.67	6	94	76
6	Mike												
O	Wison	74	90	89	90	74	90		507	84.50	6	90	74
7	Total	417	365	449	359								
8	AVG	83.40	91.25	89.80	89.75								
9	Count	5	4	5	4								
10	MAX	95	100	93	91								
11	MIN	74	85	88	89								

## Part 2: Creating the AutoSum formula

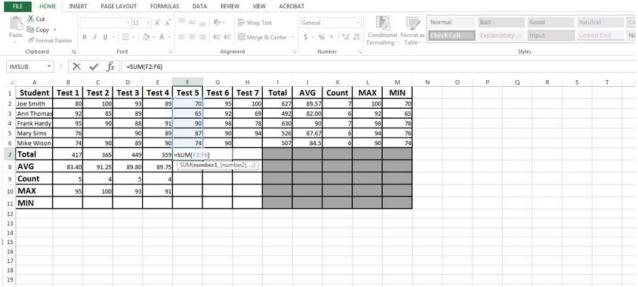
Now you will create the formulas using the **AutoSum** button  $\sum$  located on the Home tab of the Excel software.

Please follow the steps provided for creating your first formula in cell **F7**.

- 1. Click on cell F7 to make it active.
- 2. Find the **AutoSum** button on the **Home** tab in the **Editing** section.



- 3. Click on the arrow beside the AutoSum button.
- 4. Select Sum.
- 5. Notice that it creates the sum formula and highlights the cells above F7.



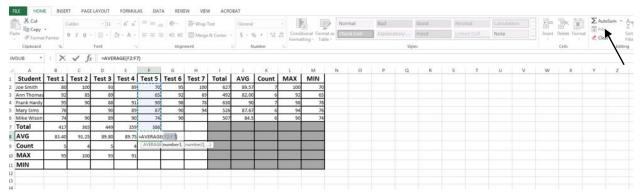
- 6. Press enter. The formula has been created and you didn't have to type it.
- 7. Click on F7 to make it active
- 8. Move mouse over the fill handle at the bottom right of cell until it turns into a plus sign.
- 9. Hold down left mouse button and move the mouse to the right over cells G7 and H7.
- 10. Release mouse button and the formulas are copied over to the cells.
- 11. Click on G7 to make active and you will see the formula in the formula bar above the spreadsheet. Notice how the cell names changed to reflect the correct column for that formula.

Click on H7 as well to see how the formula changed. Do you remember what this is called? **Relative Cell Reference** 

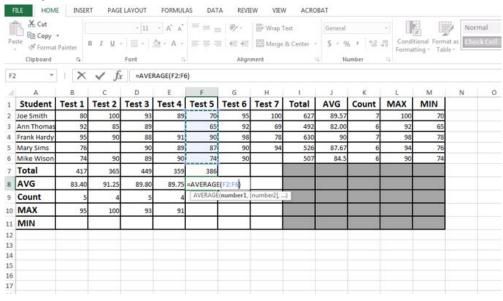
### Part 3: Creating the AutoSum Average formula

Now work on the Average formula for your new columns. Please follow the steps provided for creating the average formula in cell **F8**.

- Click on cell F8 to make it active.
- 2. Find the **AutoSum** button on the **Home** tab in the **Editing** section.
- 3. Click on the arrow beside the AutoSum button.
- 4. Select Average (instead of sum)



5. Do not press enter yet. You will need to make sum adjustments. Notice that the formula includes cell F7. You do not want this cell in your formula because it will make your answer incorrect. To correct the formula click on cell F2 and highlight through cell F6. This should change the cells in the formula to make it correct. (Note the changes in the formula on the screen shot below)



- 6. Press enter.
- 7. Use the fill handle to copy the formulas across the cells G8 and H8.

#### **Part 4: Other AutoSum Formulas**

To complete the formulas for Count, Min, and Max, follow the above steps changing the formula type to the appropriate selection for each item. Make sure you reselect the cells (Step 5) that you want included in the formula or it will include the cells that contain the formulas in them. Use the fill handle to copy the cells across.

Check the formulas for your rows. These formulas should have changed automatically when you inserted the columns.