

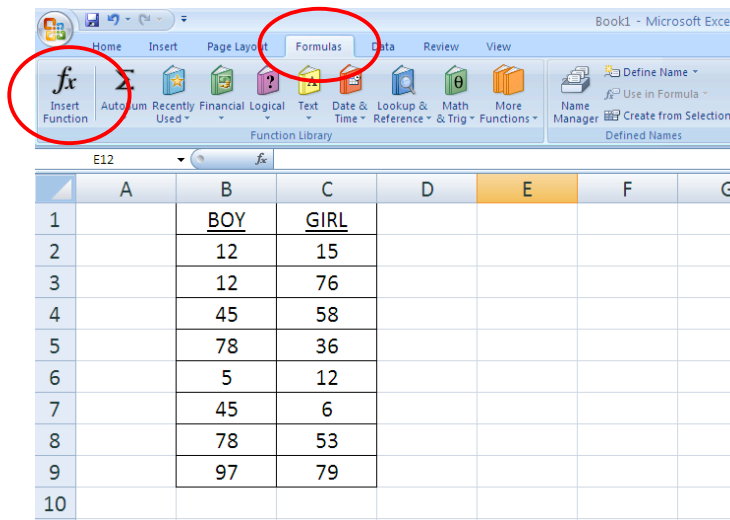
Mean, SD and Graphing in Excel 2007

1. Open Excel and enter your data in columns. You can label the columns if you prefer. For example:

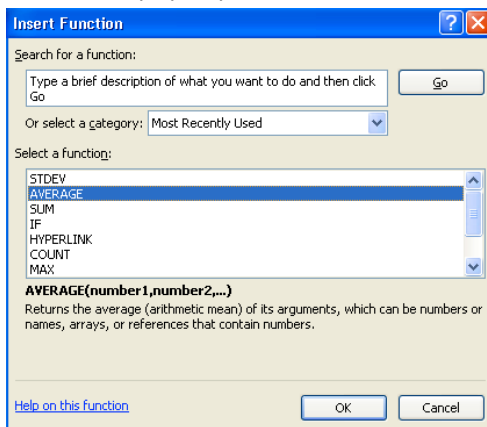
<u>BOY</u>	<u>GIRL</u>
12	15
12	76
45	58
78	36
5	12
45	6
78	53
97	79

2. To calculate mean:

- a. Click on the box in which you want the mean to be placed
- b. Click the formulas tab at the top of the screen
- c. Select the “insert function button”

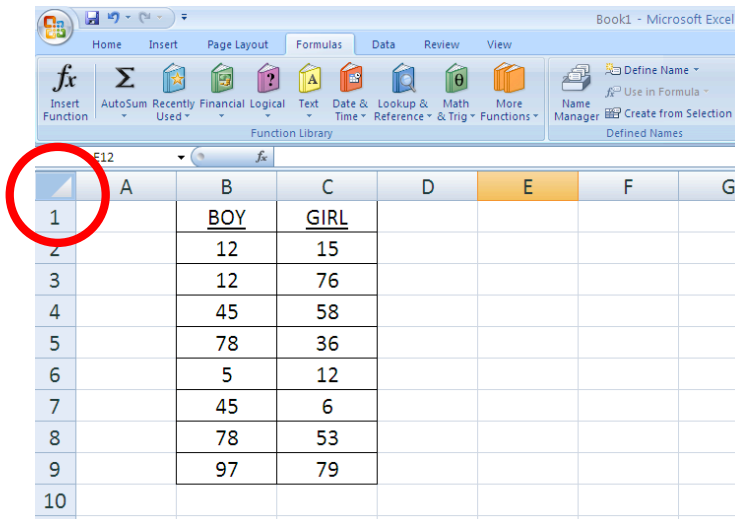


- d. A new box pops up. Search to find the AVERAGE option, click OK



- e. Highlight the data of which you want the average to be calculated, click OK

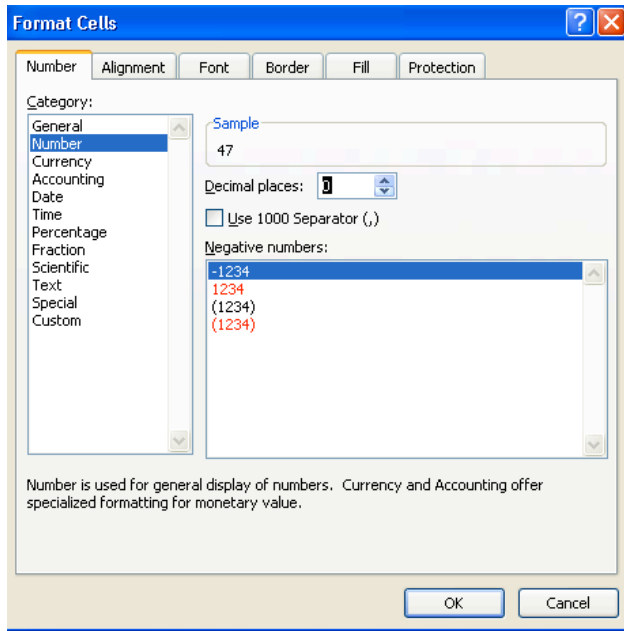
3. To calculate standard deviation
 - a. Click on the box in which you want the SD to be placed
 - b. Click the formulas tab at the top of the screen
 - c. Select the “insert function button”
 - d. Search to find the STDEV option, click OK
 - e. Highlight the data of which you want the SD to be calculated, click OK.
 - f. NOTE: be sure not to select the mean as one of your data points for calculating standard deviation. This is a common mistake.
4. To select the correct number of digits for your answer (remember, you want correct precision)
 - a. Select the top box between row 1 and column A. This should highlight your entire spreadsheet.



- b. Click the HOME tab along the top
- c. Select format cells and then format cells again.



- d. Select number, and indicate the number of decimal places you want included. Hit OK.

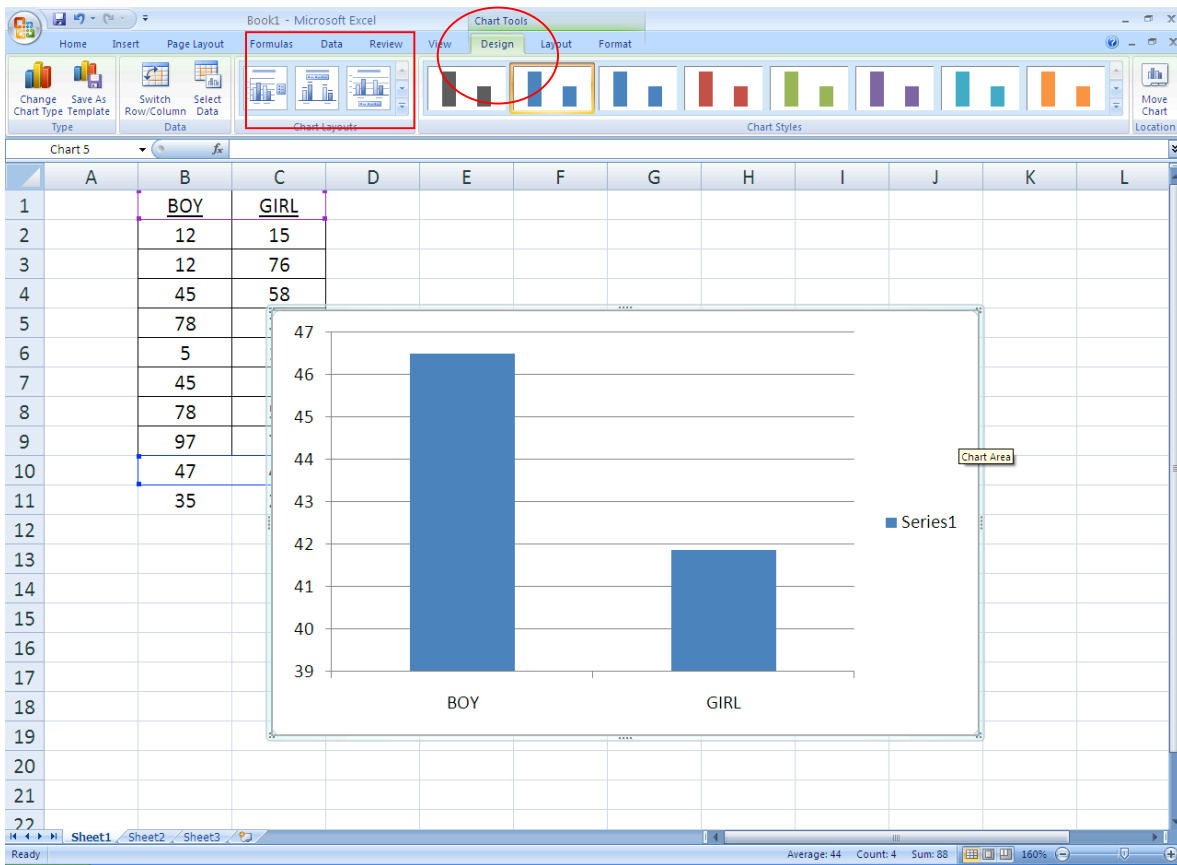


5. To graph

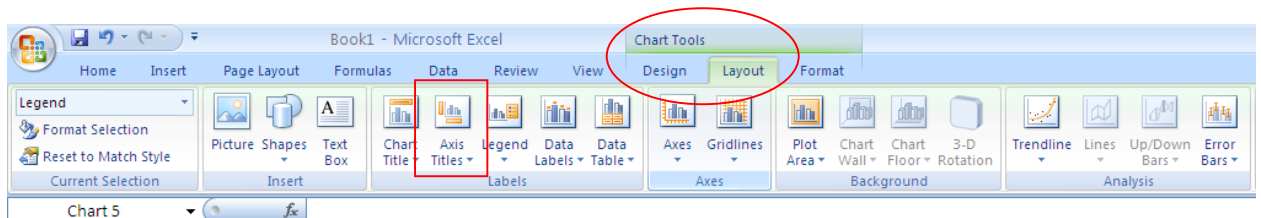
- a. Along the top, select INSERT
- b. Highlight the column headings (i.e. boy/girl), hold down the CTRL key and highlight the means
- c. Select the type of graph you want

	A	B	C	D
1		<u>BOY</u>	<u>GIRL</u>	
2		12	15	
3		12	76	
4		45	58	
5		78	36	
6		5	12	
7		45	6	
8		78	53	
9		97	79	
10		47	42	MEAN
11		35	29	SD
12				

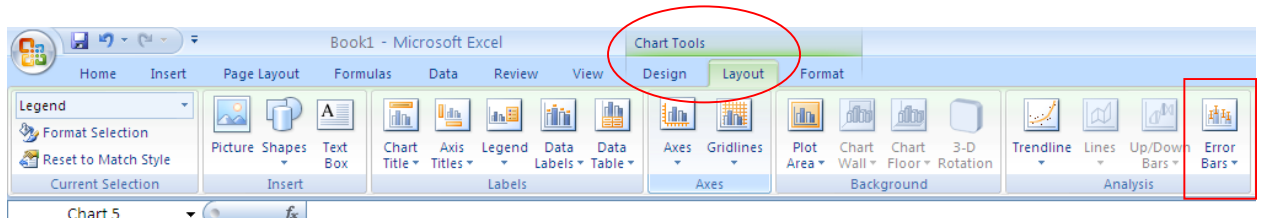
- d. When you click on the graph, a new set of tools opens up, called CHART TOOLS. From this you can change the chart layout (do this to add a title) or bar colors.



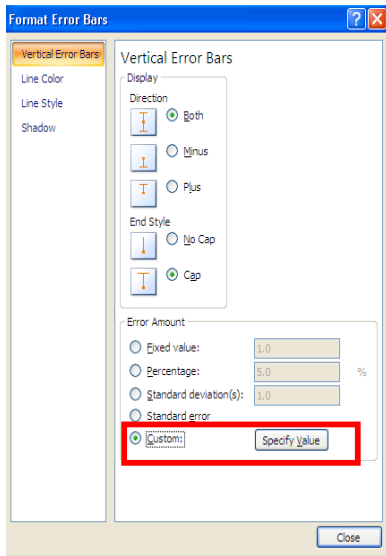
- e. Within your graph, click on and delete the key that says “series 1”
- f. To add axis labs, select the LAYOUT tab under CHART TOOLS and choose the “axis titles” option.



6. To add SD error bars
 - a. Click anywhere on the graph to open the chart tools
 - b. Click the layout tab
 - c. Select error bars and then more error bar options.



- d. Select custom and specify value



e. A little box comes up that looks like:



- f. Delete what is in each box
- g. For EACH box (positive and negative) select the cells on the Excel page that include the standard deviations. Highlight them all at once.
- h. Hit ok.