



What's the Trend?



In chapter 4, we discussed a lot of different concepts as they pertained to functions. For this activity, you will find or construct a data set of at least 8 points, find the equation of the trend line for your data set, and discuss and use this equation to further explore the data.

First, you need to acquire a data set. You have options. Mr. Seeley has compiled several samples of sets. You may use one of these, but it will cost you a few points. Instead, you are more than welcome to either find your own set (make sure you cite your source) or to create your data through measurement or survey. In any case, you must be sure that your data is correlated in some way so that you can find a trend line – if your data has no correlation, it must not be used for this assignment. **It is very strongly suggested that you check these data sets with Mr. Seeley before the project due date so you can be sure you will have consistent results.**

You may display your scatterplot and find your trend line using different tools. Your options include:

1. Using a graphing calculator – you may use a handheld and take a photo of the screen for the table, the graph, and the trend line.
2. Using the SmartView software – you may schedule a time before or after school with Mr. Seeley to use the SmartView software on his computer and have computerized versions of the screenshots.
3. Use a web software client such as the one located at <http://www.alcula.com/calculators/statistics/linear-regression/> -- in this case, you should take a screenshot of the result (use the Print Screen key).
4. Excel software – if you (or someone you know) is familiar with Excel (or just good at following directions), you can use the program to create your graph and find the trend line. A video tutorial for this is available at <http://www.youtube.com/watch?v=lxmDCL2oIhY>.

Once you have completed your scatterplot and found the equation for the trend line, you will answer the questions on the back of this paper. You have your choice of display for this project; suggestions include a PowerPoint presentation, a professional report, or a poster. (If you wish to use another form of display, just check with Mr. Seeley!)

You will be graded on accuracy and neatness – a rubric is attached. This will be counted as a **test grade**. You may receive +1 for each school day early and -5 for each school day late.

Due Date: _____

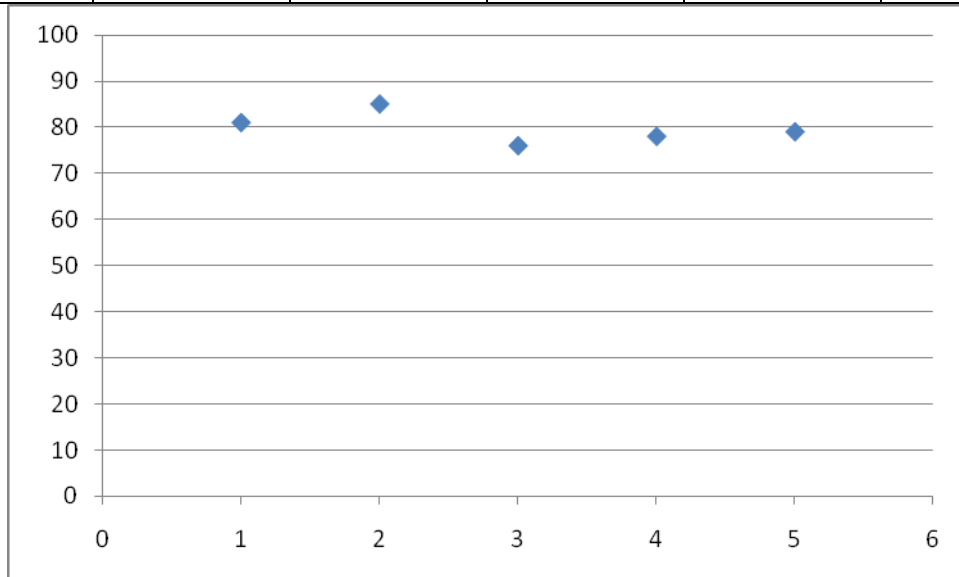
Questions for What's the Trend? Project

1. What is the x-variable?
2. What is the y-variable?
3. What is the domain and range of your data set?
4. Is your data positively or negatively correlated?
5. What is the equation for your trend line? (Write it using function notation.)
6. Use two domain values *not* on your data table. (For example, if your domain represents a number of years, choose two years in the future.) Use your function to find the range values associated with these domain values. Write a sentence for each pair describing what they mean.

Suggestions and Stumbling Blocks

- Be sure that both your domain and range are numeric values – for example, you can't use heights of the Philadelphia 76ers, because there is only one set of numbers in that data set!
 - Be sure your data set has at least 8 points!
 - You must label your axes and title your graph!
- Make sure that you choose a correct scale for you graph. The correlation should be apparent.

Player	Brand	Hawes	Holiday	Igoudala	Turner
Height (in)	81	85	76	78	79



This student would receive a zero. Their data set has only 5 points, and only the range values are numeric. Nothing is labeled, there is not trendline, and the scale is much too large for their data!

Name: _____ Period: _____ Date Turned In: _____

	Points Possible	Points Scored
Data	12	
Student Generated / Teacher Generated	4 / 0	
Domain and Range Both Numerical	2	
Data Is Correlated	4	
Data Is Labeled	2	
Scatterplot	12	
Accuracy	5	
Axes Are Labeled Correctly	2	
Scatterplot is Titled	1	
Trend Line Is Correct	4	
Questions	19	
Questions 1-2	2	
Question 3	4	
Question 4	3	
Question 5	4	
Question 6	6	
Presentation	7	
Professional Look	4	
Information Is Found Easily	3	
Extra Credit/Debit		
Turned in Early/Late	+1/-5 per day	
Neatness/Sloppiness	up to +3/-3	
Exemplary Work	up to +5	
Final Score	50	