



## Part III of Regression Analysis Project: Square Root Regression Analysis

### Part B: Square Root Regression

1. Plot your data on a set of axes (There is a sheet of graph paper at the end of this document, if you want to use it).
2. Label the axes, and scale them, appropriately. What information does the x-axis tell you? What information does the y-axis tell you?
3. Create a square root regression curve of the data.
4. Using the form  $y = a\sqrt{x} + b$ , find the b-value of your regression curve.
5. What does this value represent, in your situation?

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6. Using the form  $y = a\sqrt{x} + b$ , find the a-value of your regression curve.

7. What is the equation of your square root regression curve?

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### Part C: Square Root Regression Analysis

1. What does your regression curve equation predict the value of your 3<sup>rd</sup> and 8<sup>th</sup> points will be? *Show your work.*
2. How accurate is your curve at predicting these points of data?
3. Use your regression equation to predict the value of the point that is 4 time periods after your last data collection point. How accurate do you think your equation will be at predicting that point?
4. How accurate is this curve, as compared to your regression line and exponential regression curve, from the previous part of the project. In other words, which regression line/curve does the best job of representing your data? *Explain your answer.*

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