

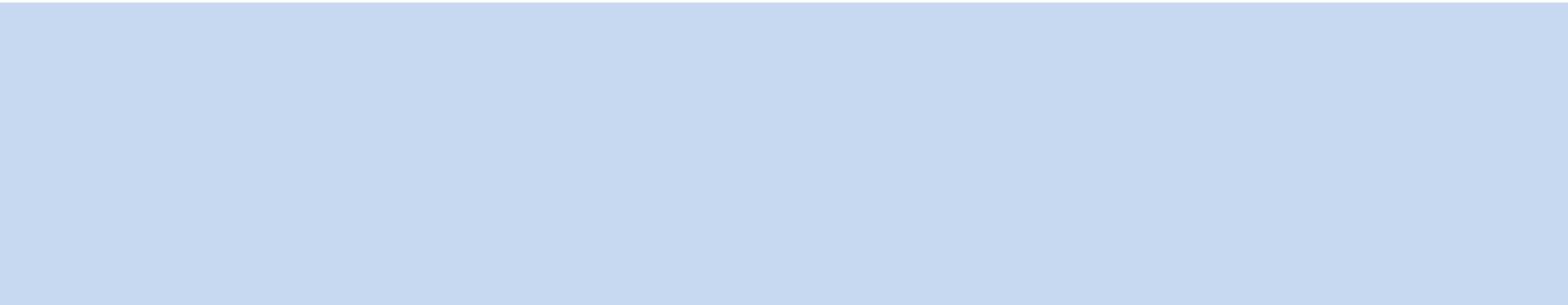


Algebra II Journal

Module 1: Linear, Quadratic and Exponential Regression

A Good Enough Fit?

This journal belongs to:



Module 1: A Good Enough Fit?

Algebra II Journal: Reflection 1

Use the line of best fit to calculate the estimated winning times and residual values in the table below. Submit your responses to your teacher.

Years since 2007	Winning time (minutes)	Estimated Winning Time (from Line of Best Fit)	Residual Value (Actual – Estimated)
0	16.33	16.8	
1	16.77	16.756	
2	17.5		
3	16.77		
4	16.35		
5	16.42		

Module 1: A Good Enough Fit?

Algebra II Journal: Reflection 2

Now that you have found an equation for line of best fit and made a prediction for the 2014 winning time, it is time to assess the estimated value. Respond to this reflection question and submit your reflection to your teacher.

How accurate is the estimated winning time for 2014? Why?

Module 1: A Good Enough Fit?

Algebra II Journal: Reflection 3

In this lesson, you learned how to analyze a fit for a data set using residuals and, for linear models, correlation coefficient. Respond to the following reflection questions and submit to your teacher.

Calculate and plot the residuals for the exponential model of best fit. Is Marissa making a reasonable conclusion that an exponential model is a good fit for her data? Why or why not?

How can you determine if a linear regression equation is the best fit for a data set?

What are residuals? How can we use residuals to analyze the fit for a model?