

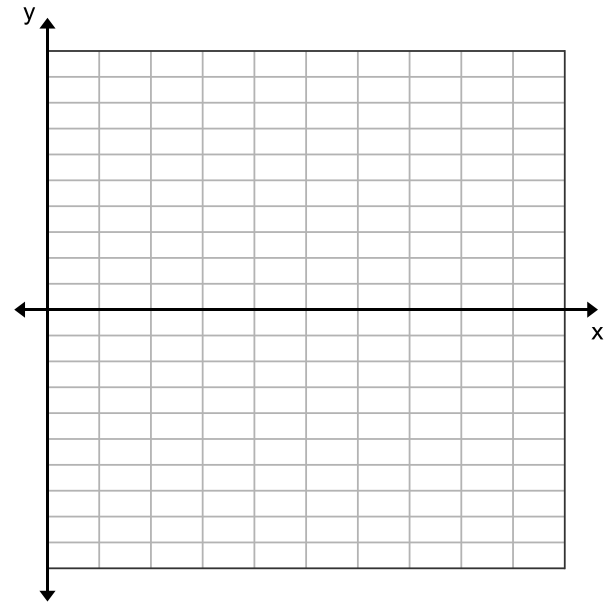
4.2 Residuals Day 2 Homework

Name: _____

Date: _____

1. Calculate the residuals and make a residual plot for the data below using the model $y = -0.4x + 16.3$.

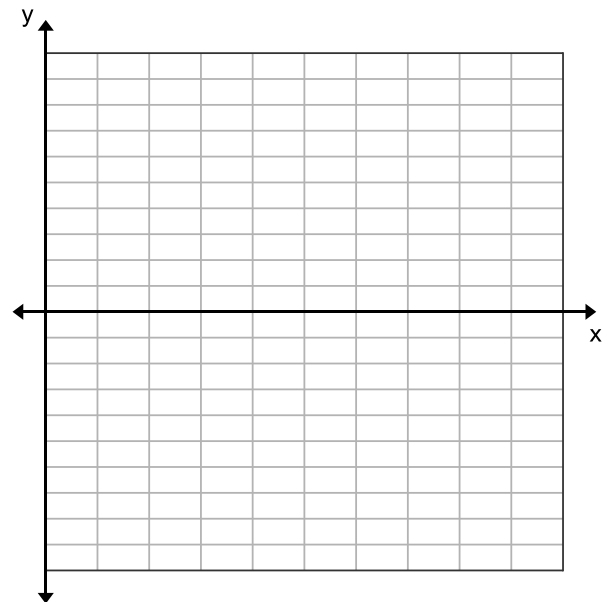
Original x	2	4	6	8	10	12
Original y	5	15	26	23	11	3
Predicted \hat{y}						
Residuals, $y - \hat{y}$						



Is the equation a good model for the data? Explain.

2. Calculate the residuals and make a residual plot for the data below using the model $y = 4.9x + 16.4$.

Original x	100	90	80	70	60	50
Original y	505	460	415	360	305	265
Predicted \hat{y}						
Residuals, $y - \hat{y}$						

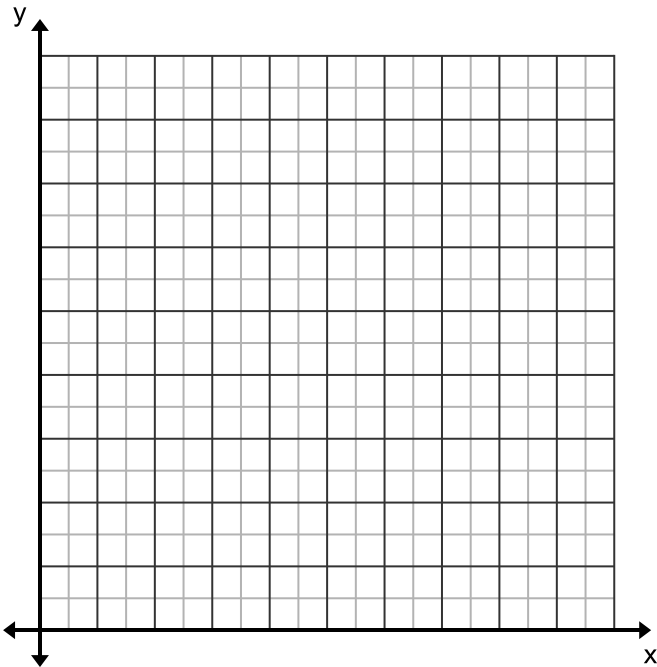


Is the equation a good model for the data? Explain.

3. The table shows the percent of the United States population who did not receive needed dental care services due to cost.

Original x	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Original y	7.9	8.1	8.7	8.6	9.2	10.7	10.7	10.8	10.5	12.6	13.3

- a) Sketch a scatter plot



- b) Using two points from the data, estimate the equation of the line of best fit.

- c) Using the estimated line of best fit equation, calculate the residuals for the set of data (round to one decimal place). Construct a residual plot for the data.

Is the equation a good model for the data? Explain.

