

Practice Scatterplot Wkst

Nate's Data from Car Ads

- Set up a graph showing Odometer Reading on the x -axis and Price on the y -axis.
- Label equal intervals on each axis so that all of the data will fit on the graph.
- Plot the data points from problem

Odometer Reading (thousands of miles)	Price (thousand of \$)
35	\$38
55	\$16
6	\$50
28	\$30
50	\$26
31	\$35
15	\$28
99	\$10
99	\$13

- b. Describe the scatterplot you just created. What do you notice about how the points are placed on the graph? Do you see any patterns?
- c. Place an additional point on your graph for Nate's car that has an odometer reading of 23,000 miles. Explain your strategy for deciding where to put the point.
- d. When a relationship exists, one way to help show a trend in the data is to place a line or curve that, in general, represents where the data falls. This line, sometimes called a **line of best fit**, does not need to touch any of the actual data points. Instead, it shows where the data generally falls. The line is a mathematical model of the data. Models of data help you describe the data more easily and help you make predictions for other cars with different mileages.
- With your team, decide where a line of best fit could be placed that would best model the data points. Are there any limits to where your line makes sense?
- e. Using the line of best fit, can you predict the price of a car with an odometer reading of 80,000 miles? If so, explain how the line of best fit helps. If not, explain why it is not helpful.
- f. Based on the scatterplot, would you agree with Nate's claim that cars with a higher odometer reading cost less? Use the scatterplot to justify your answer.