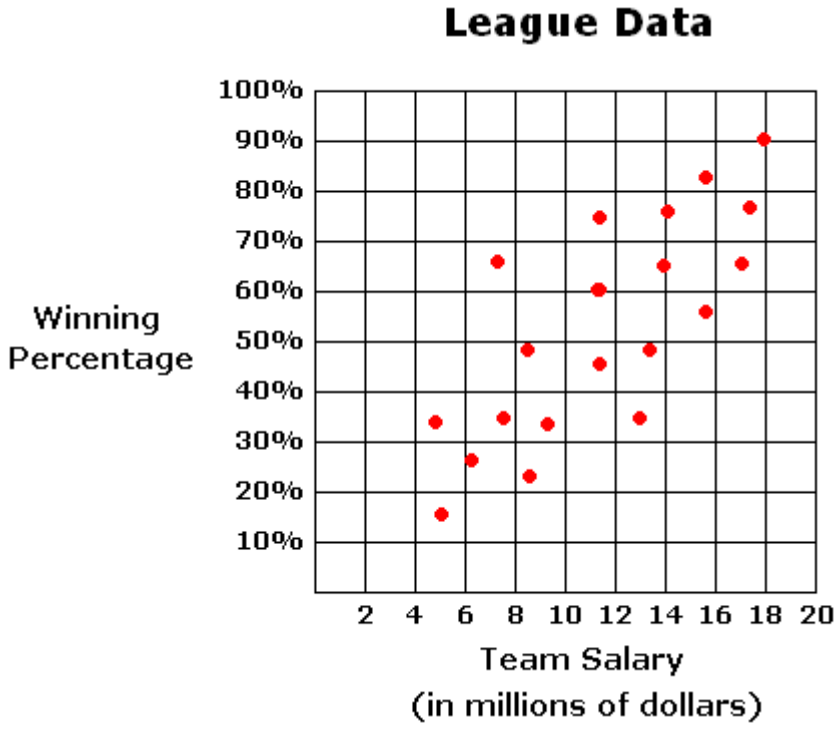
Algebra 1 Keystone Module 2 Name:

Line of Best Fit and Scatter Plot - Practice

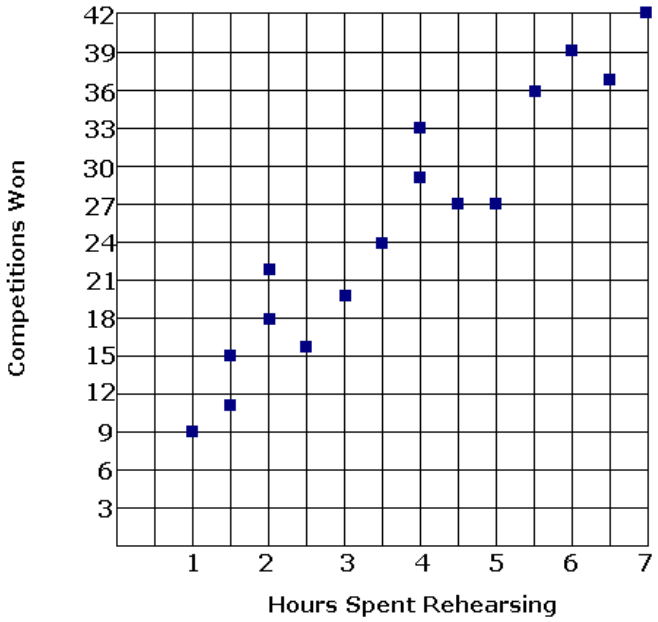
1.) The chart below shows the relationship between a sports team's salary and the team's winning percentage.



a.) Draw a line of best fit and determine what the winning percentage will be if the team salary would be $22 million. Explain how you got your answer.

b.) Write an equation for the line of best fit to model the league data.

2.) The scatterplot below shows the number of hours a cheerleading squad spent rehearsing and the number of competitions won.

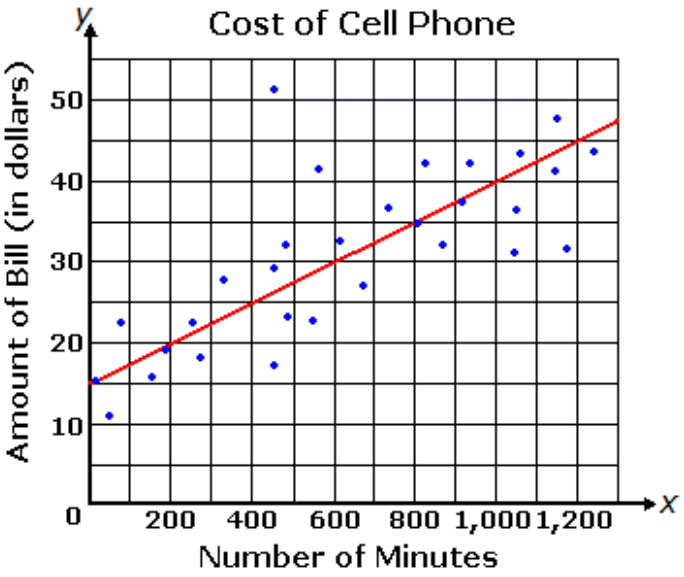


a) Draw a line of best fit and determine how many competitions will be won if they spend 10 hours rehearsing. Explain how you got your answer.

b.) Write an equation for the line of best fit.

3.) A scatterplot relates the weight (in pounds) to the cost (in dollars) to ship an order. The equation $y = 0.25x + 6$ describes the line of best fit. What would be the expected cost to ship a 50-pound order?

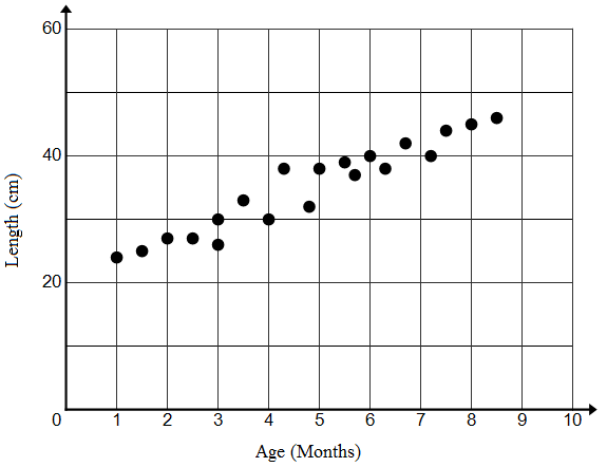
4.) The scatterplot below shows the cost of cell phones based on the number of minutes spent on the phones.



a.) Write the equation for the line of best fit

b.) Using your equation in from part a, predict how much the bill will be if the cell phone is used for 1,500 minutes.

5.) A scientist related the age and length of 20 baby sharks on this scatter plot.



Based on the data, what would be the expected length of a 12-month old shark?

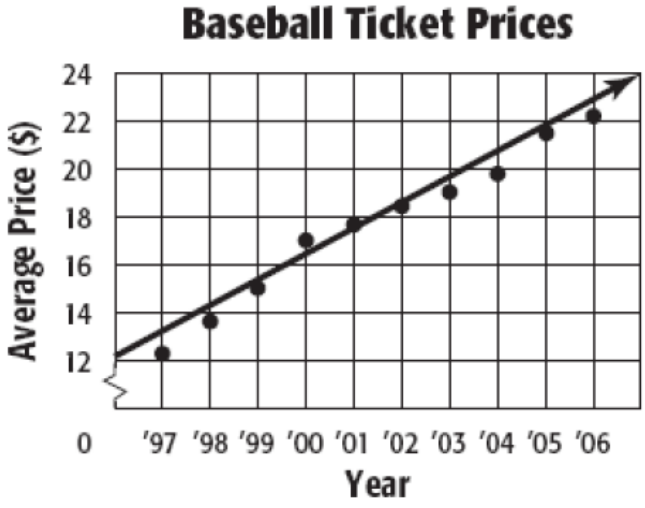
A.) 48 cm B.) 50 cm C.) 53 cm D.) 56 cm

6.) The scatterplot shows the relationship between items sold and the price for a company.

a.) Write the equation for the line of best fit.

b.) Using your equation from part *a* to predict the price if 1,800 units are sold.

7.) The scatterplot below shows the average baseball ticket price over the past few years.



Which equation best represents the line of best fit for this data?

a) $y = \frac{9}{10}x + 12$ b) $y = \frac{5}{9}x + 12$ c) $y = \frac{10}{9}x + 12$ d) $y = \frac{9}{5}x + 12$