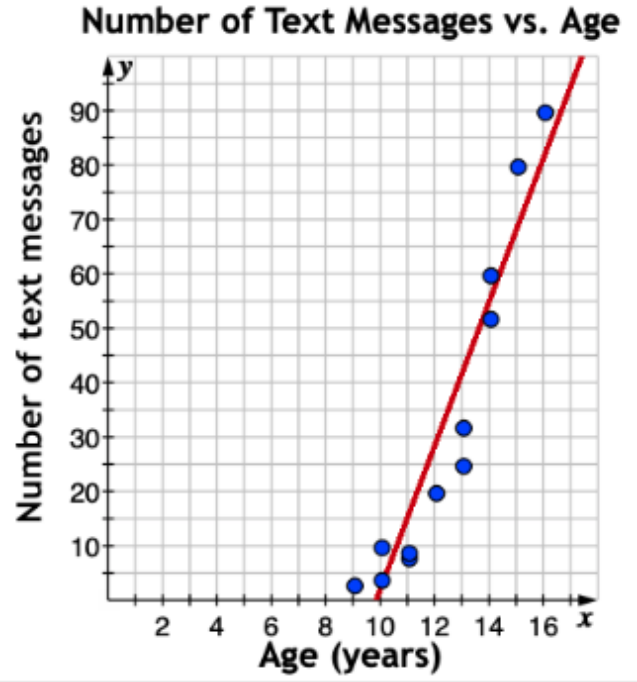
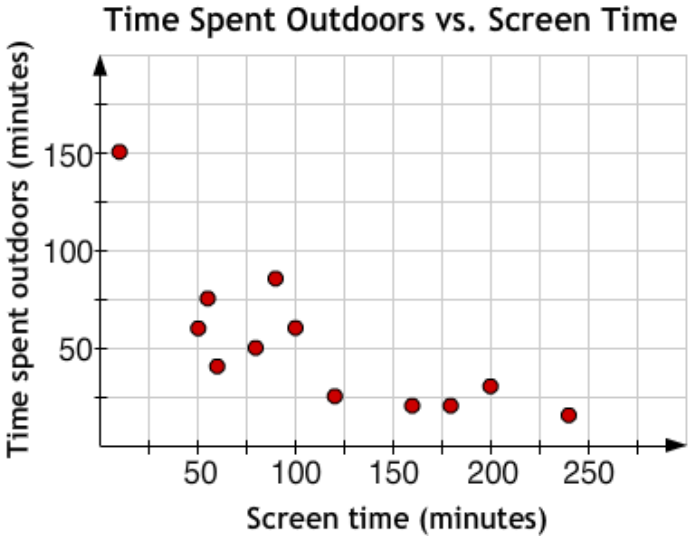
1. What is the relationship between age and number of text messages sent a day?

2. Use the graph to predict how many texts an 18-year-old would send in a day. Is this realistic?

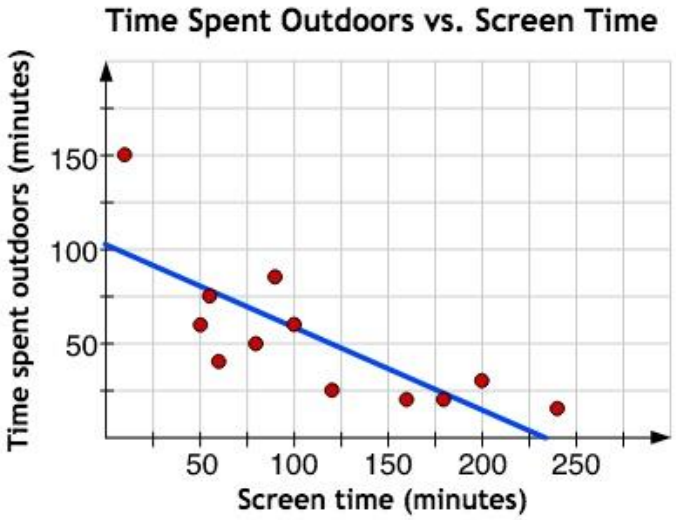


3. Consider the data displayed in this scatterplot. What is the relationship between screen time and time spent outdoors?



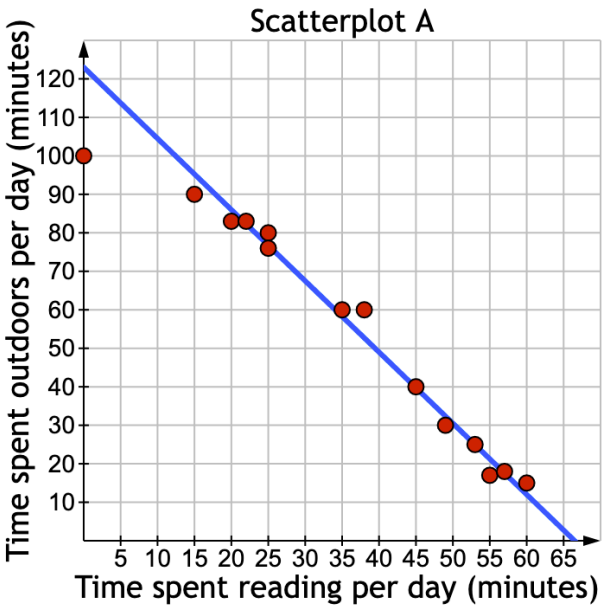
4. What is negative association?

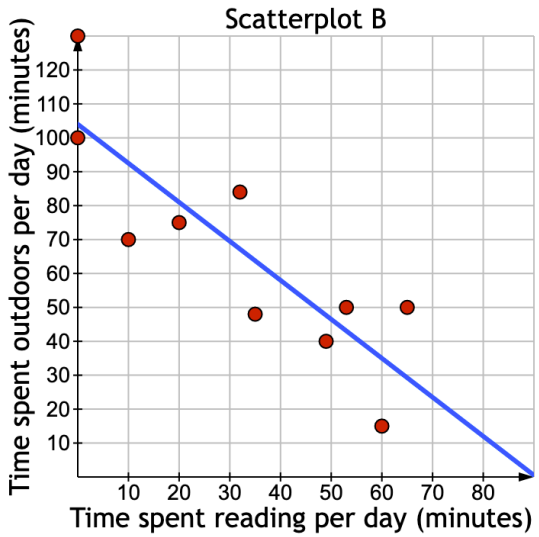
5. Use the *x*- and *y*-intercepts to write an equation that approximates the trend line for this data.



6. What do the slope and *y*-intercept mean in the situation?

7. Compare scatterplot A and scatterplot B. Which data set is better modeled by a trend line? Which scatterplot shows a stronger negative correlation?





8. **REINFORCE** Do you think each relationship will have a positive, negative, or no association?

   a. The more you drink caffeine, the less sleep you get. _____

   b. The more years of education you have, the greater your salary will be. _____

   c. The more TV you watch, the less time you spend outdoors. _____

   d. The higher the elevation above sea level, the lower the atmospheric pressure. _____

   e. The closer someone lives to a basketball court, the more basketball they play. _____

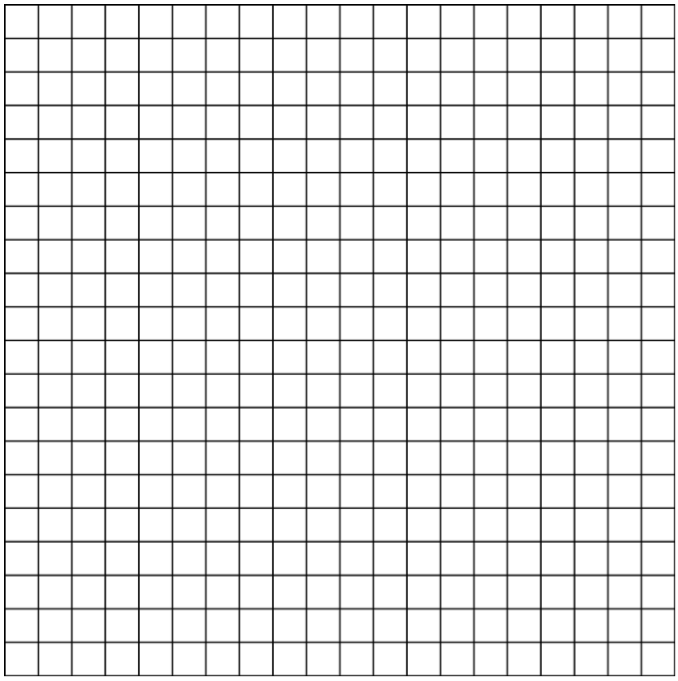
   f. The taller someone is, the more hours they sleep at night. _____

9. **REINFORCE** A realtor collected data on the prices and sizes of homes. These data are shown in the table.

Size of home, in sq ft	Price of home, in thousands of dollars
2483	300
2076	370
1374	191
1448	195
2514	373
1731	315
1767	206
1890	240
2336	285
2634	300
3375	405
1899	212
2312	265
2000	240
1774	285

   a. What does the point (2483,300) mean in the context of these data?

   b. Create a scatterplot of the home data.

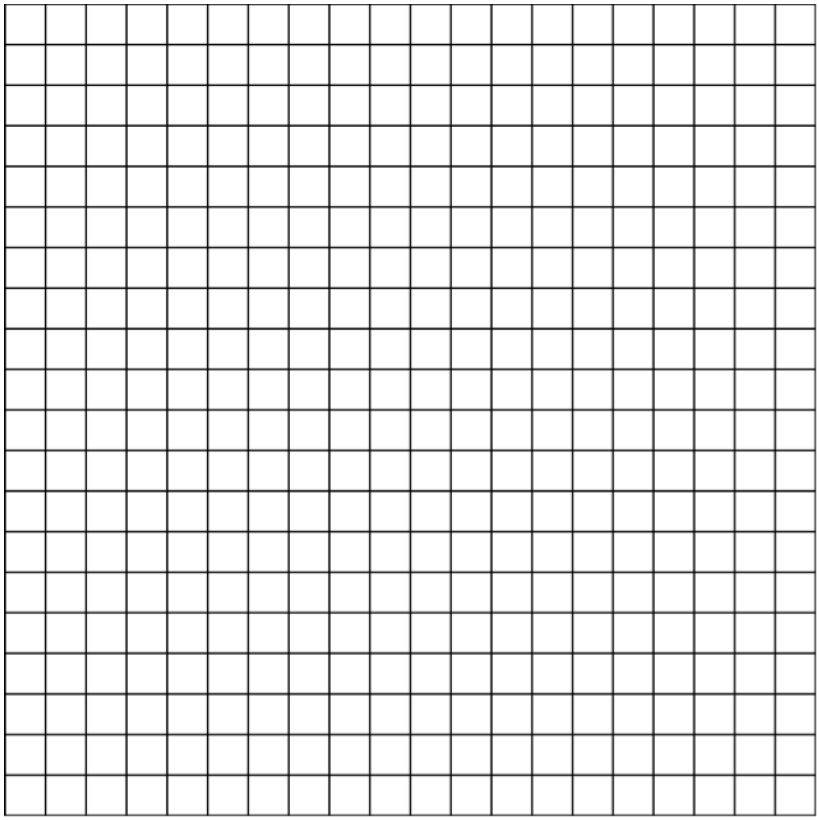


   c. Describe the relationship between home size and price. Does there appear to be an association? If so, describe the association.

10. **REINFORCE** The table shows the relationship between the minutes a cell phone has been on and the percent of battery life left.

Hours on	0	1	3.5	5	6.5	7	8	9.5
Percent battery left	100	97	85	73	58	55	40	23

a. Create a scatterplot of the data. What trends do you see?



b. Sketch in a trend line for the data and write an equation for the trend line.

c. What do the slope and *y*-intercept of your equation mean in the situation?

d. Use the graph or trend line to predict when the cell phone will run out of battery.