

1) $\sqrt{10,000x^{42}} =$

8.EE.2

2) Compare using $>$, $<$, or $=$.
 $5\sqrt{79}$ _____ $7\sqrt{60}$

8.NS.2

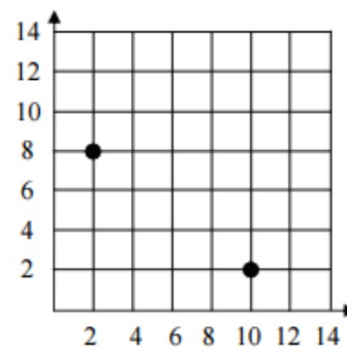
3) Solve the linear equation.
 $4x + x - 6 = -3x + 8x - 5 - 1$

8.EE.7a

4) Reggie had \$820.00 saved for a family trip. Five weeks later he had saved \$1,220.00. At what rate of change did Reggie's savings grow?

8.F.4

5) Apply the Pythagorean Theorem to find the distance between the two points.



1) $\sqrt{10,000x^{42}} =$
 $\frac{\sqrt{10000} \cdot \sqrt{x^{42}}}{100x^{21}}$
 8.EE.2

2) Compare using $>$, $<$, or $=$.
 $5\sqrt{79} < 7\sqrt{60}$
 $\frac{5\sqrt{81}}{5(9)} = \frac{45}{45}$ $\frac{7\sqrt{64}}{7(8)} = \frac{56}{56}$
 $45 < 56$
 8.NS.2

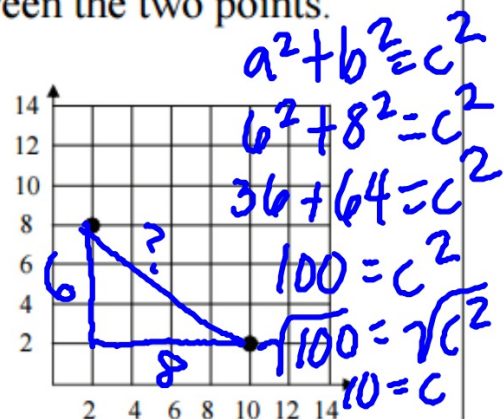
3) Solve the linear equation.
 $4x + x - 6 = -3x + 8x - 5 - 1$
 $5x - 6 = 5x - 6$
 infinitely many solutions (the same)
 8.EE.7a

4) Reggie had \$820.00 saved for a family trip. Five weeks later he had saved \$1,220.00.

At what slope rate of change did Reggie's savings grow? $80/\text{wk}$

$(0, 820)$ $m = \frac{y_2 - y_1}{x_2 - x_1}$
 $(5, 1220)$ $m = \frac{1220 - 820}{5 - 0} = \frac{400}{5} = 80$

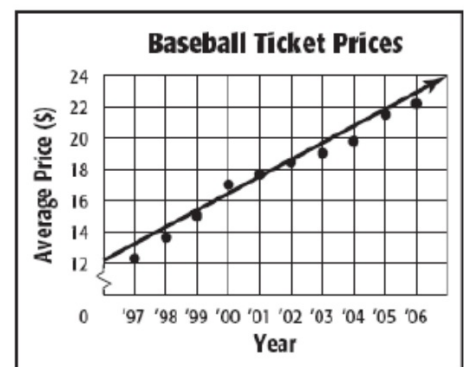
5) Apply the Pythagorean Theorem to find the distance between the two points.



5. **BASEBALL** The scatter plot shows the average price of a major-league baseball ticket from 1997 to 2006.

a. Use the points (2001, 17.60) and (2002, 18.75) to write the slope-intercept form of equation for the line of fit shown in the scatter plot.

b. Use your equation to tell the price of a ticket in 2009. Is this extrapolation or interpolation?



Source: Team Marketing Report, Chicago

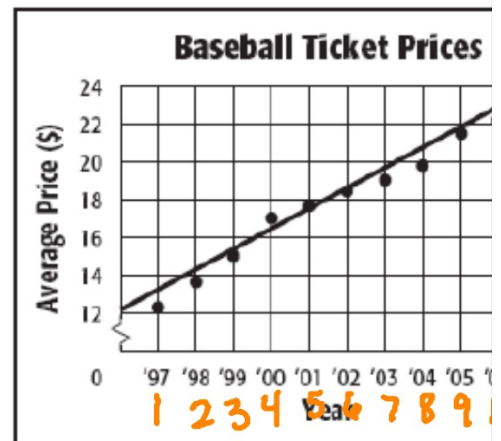
ALL The scatter plot shows the average price of a major-league baseball ticket from 1995.

the points $(5, 17.60)$ and $(6, 18.75)$ to write slope-intercept form of equation for the line of fit in the scatter plot.

$$y = 1.15x + 11.85$$

your equation to tell the price of a ticket in 2009. Is extrapolation or interpolation?

Use $x=13$
A ticket would cost \$26.80



Source: Team Marketing Report, Chicago

DISEASE The table shows the number of cases of Foodborne Botulism in the United States for the years 2001 to 2005.

- Draw a scatter plot and determine, what relationship, if any, exists in the data.
- Draw a line of fit for the scatter plot, and write the slope-intercept form of an equation for the line of fit.

Year	2001	2002	2003	2004	2005
Cases	39	28	20	16	12



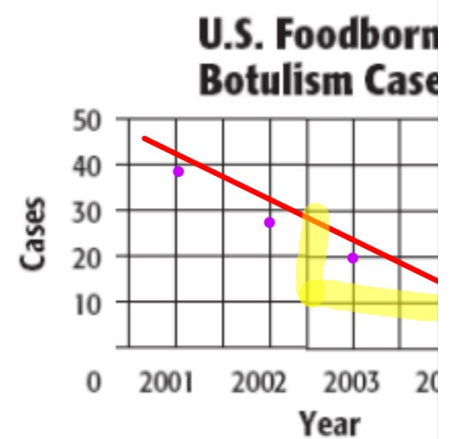
The table shows the number of cases of Foodborne botulism in the United States for the years 2001 to 2005. Write a scatter plot and determine, what relationship, if any, exists in the data.

Negative Correlation

Write a line of fit for the scatter plot, and write the slope-intercept form of an equation for the line of fit.

$$y = -5.4x + 40.4$$

Year	2001	2002	2003	2004
Cases	39	28	20	15



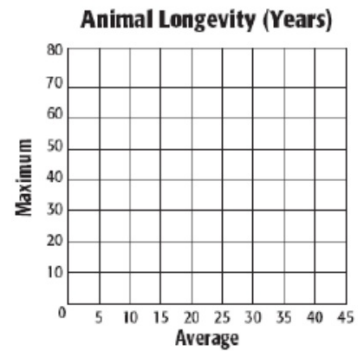
7. **ZOOS** The table shows the average and maximum longevity of various animals in captivity.

a. Draw a scatter plot and determine, what relationship, if any, exists in the data.

b. Draw a line of fit for the scatter plot, and write the slope-intercept form of an equation for the line of fit.

c. Predict the maximum longevity for an animal with an average longevity of 33 years. Is this an example of Extrapolation or Interpolation?

		Longevity (years)							
Avg.	12	25	15	8	35	40	41	20	
Max.	47	50	40	20	70	77	61	54	



The table shows the average and maximum longevity of animals in captivity.

Draw a scatter plot and determine, what relationship, if any, exists in the data.

Positive correlation

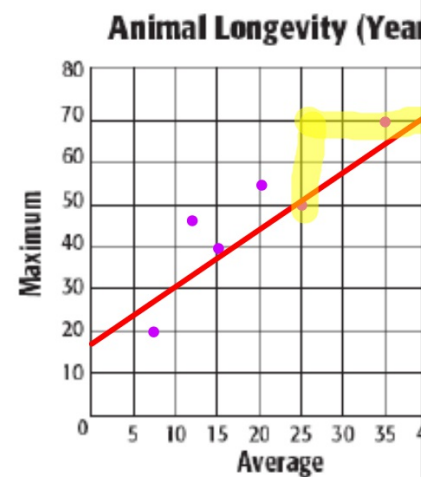
Write a line of fit for the scatter plot, and write the slope-intercept form of an equation for the line of fit.

$$y = 1.22x + 22.45$$

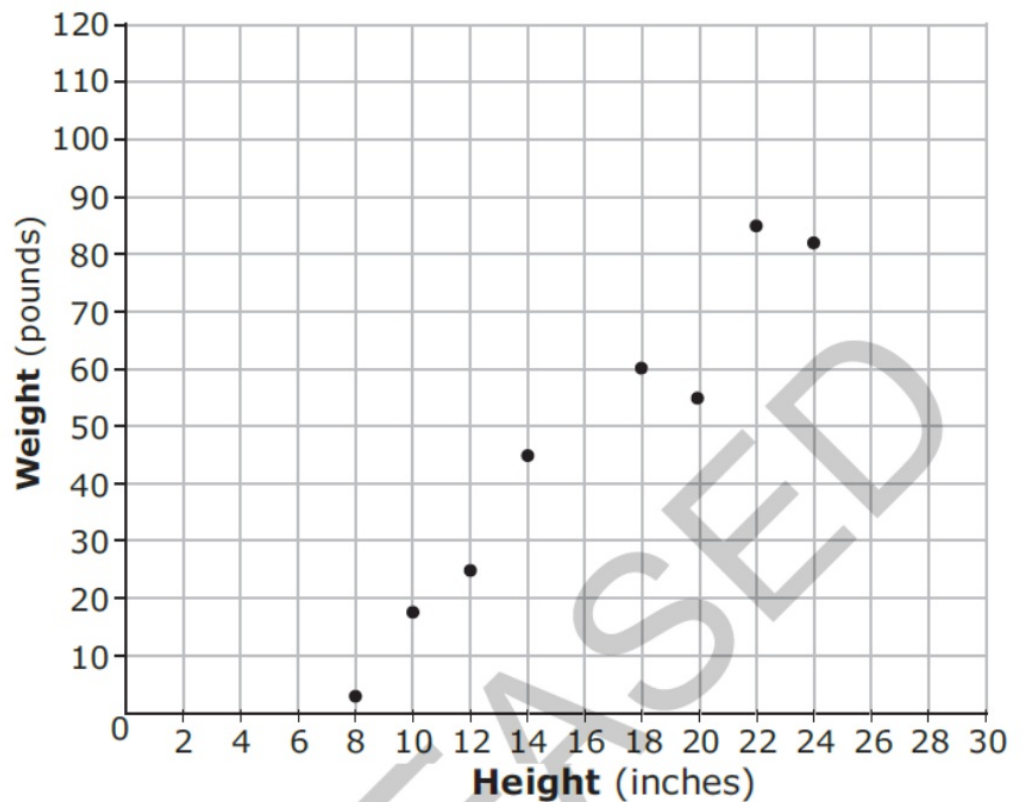
Estimate the maximum longevity for an animal with an average longevity of 33 years. Is this an example of Extrapolation or Interpolation?

About 63 years

		Longevity (years)					
Avg.	12	25	15	8	35	40	
Max.	47	50	40	20	70	77	



Sharon made a scatterplot comparing the shoulder heights of dogs weights.



Sharon's dog has a shoulder height of 28 inches. Using a linear the **best** prediction of her dog's weight?

- A 85 pounds
- B 90 pounds
- C 105 pounds
- D 120 pounds

The table below displays the number of DVDs sold and rented at a store for 5 weeks.

Week	DVDs Sold	DVDs Rented
1	25	50
2	45	79
3	40	70
4	22	48
5	5	28

Which describes the association between the number of DVDs sold and the number of DVDs rented?

- A no association
- B weak association
- C negative association
- D positive association

The table shows the air temperatures at different elevations.

Elevation (feet)	Temperature (°F)
0	75°
100	70°
200	67°
300	64°
400	59°
500	55°
600	50°

Which line **best** fits this set of data?

A $y = -\frac{1}{25}x + 75$

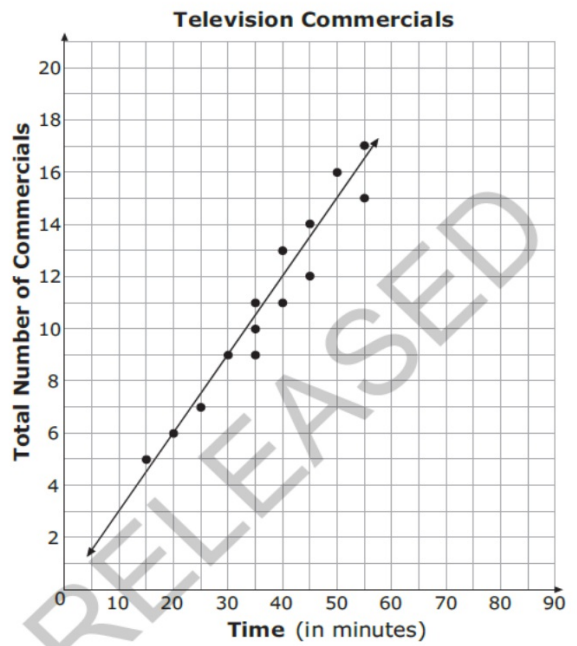
B $y = \frac{1}{25}x - 75$

C $y = \frac{1}{25}x + 75$

D $y = -\frac{1}{25}x - 75$

According to the trend line shown in the scatterplot, **about** how many commercials will Mary see if she watches TV for $1\frac{1}{2}$ hours?

- A 19
- B 27
- C 39
- D 90

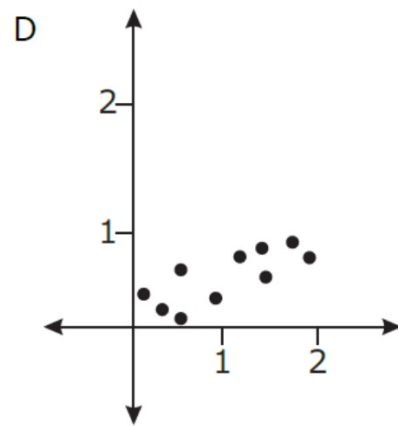
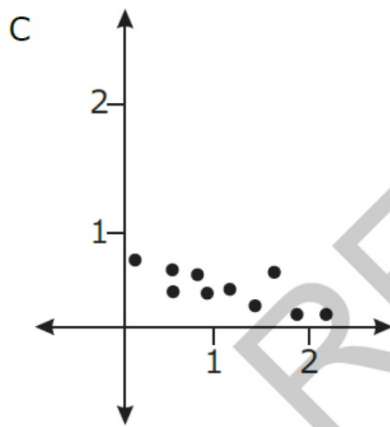
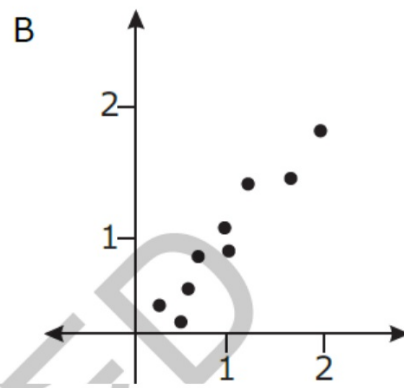
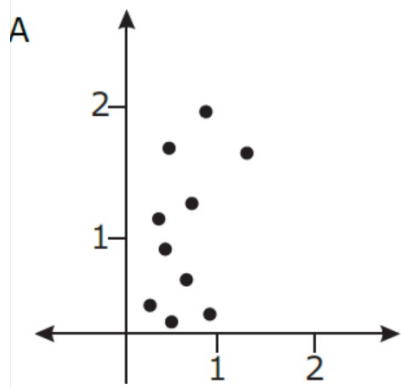


Mary collected data each day on how many commercials she saw and how long she watched TV. She displayed her data in a scatterplot.

Which scenario would **most likely** show a negative association between the variables?

- A the height of a tree, x , and the amount of time it takes to climb to the top of the tree, y
- B the number of people in the mall, x , and the number of cars in the parking lot, y
- C miles traveled in a car, x , and the amount of gasoline used, y
- D time spent reading a book, x , and the number of pages left to read, y

James is fitting the linear equation $y = \frac{1}{2}x$ to a data set. Which scatterplot shows the data set that the linear equation would fit **best**?



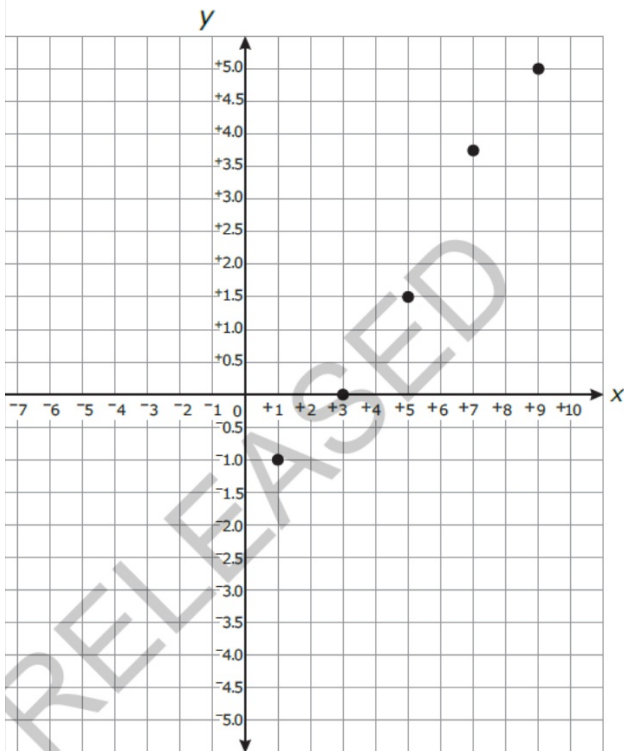
Students were surveyed about book bags. The results are shown below.

	Male	Female
Carry a Book Bag	47	57
Do Not Carry a Book Bag	63	48

A student concluded that, for those in the survey, females are more likely to carry a book bag than males. Which explanation **best** supports the student's conclusion?

- A For females, 54% carry a book bag, while for males, 43% carry a book bag.
- B For females, 27% carry a book bag, while for males, 22% carry a book bag.
- C For females, 57 carry a book bag, while for males, 47 carry a book bag.
- D For females, 48 do not carry a book bag, while for males, 63 do not.

fits the data shown in the scatterplot below?



A $y = \frac{1}{4}x - 1$

B $y = \frac{1}{2}x - \frac{1}{2}$

C $y = \frac{3}{4}x - 2$

D $y = x - 3$

Practice with trendlines.
tinyurl.com/trendlinepractice

