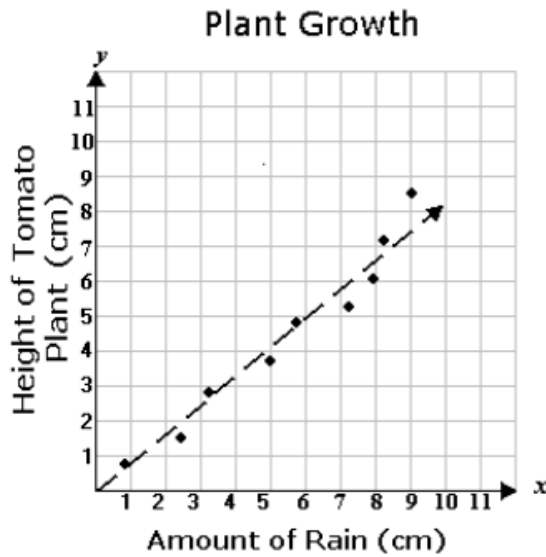1. Petunia has a vegetable garden and has collected data about the amount of rain received and how high her tomato plant is growing. She displayed the information as graphed below.

Plant Growth

Based on the trend line, how tall should her tomato plant grow if there is 11 cm of rain?

- A. 9 cm
- B. 10 cm
- C. 11 cm
- D. 8 cm

2. The graph below shows a line of best fit for data collected on the number of medium pizzas sold at local pizza shops and the amount of money earned in sales.

Daily Pizza Sales
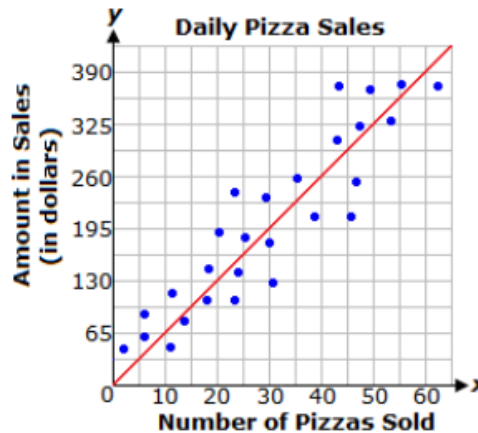
Based on the line of best fit, how many pizzas were sold if $130.00 was earned in sales?

- A. 40
- B. 80
- C. 60
- D. 20

3.

Fat vs. Number of Calories
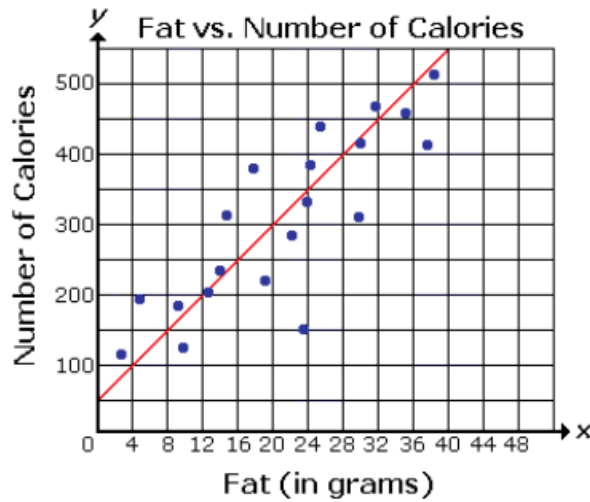
The graph above shows a line of best fit for data collected on the number of calories in relation to the grams of fat of different types of food. What is the equation of the line of best fit?

- **A.** $y = \frac{25}{2}x + 50$

- **B.** $y = x + 75$

- **C.** $y = x + 50$

- **D.** $y = \frac{25}{2}x + 75$

4.

Miranda conducted a survey on how many hours per day students spend surfing the internet versus how many pets they have. She surveyed ten of her classmates and recorded the data in the scatter plot below.
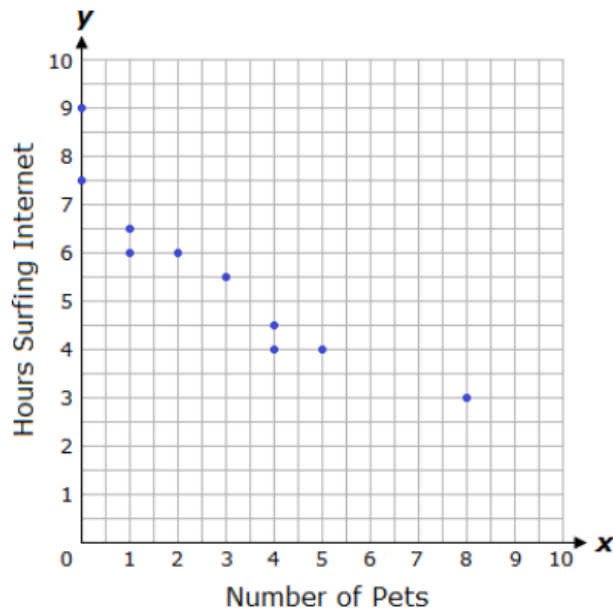
Use technology to determine which equation best models the data in the scatter plot.

- **A.** $y = -6.3x + 0.4$

- **B.** $y = -7.4x + 0.7$

- **C.** $y = -0.7x + 7.4$

- **D.** $y = -0.4x + 6.3$

5. A food truck that travels all over the country sells hot chocolate during the winter. The owner of the food truck recorded this data for fifteen days when hot chocolate was served in the scatter plot below.
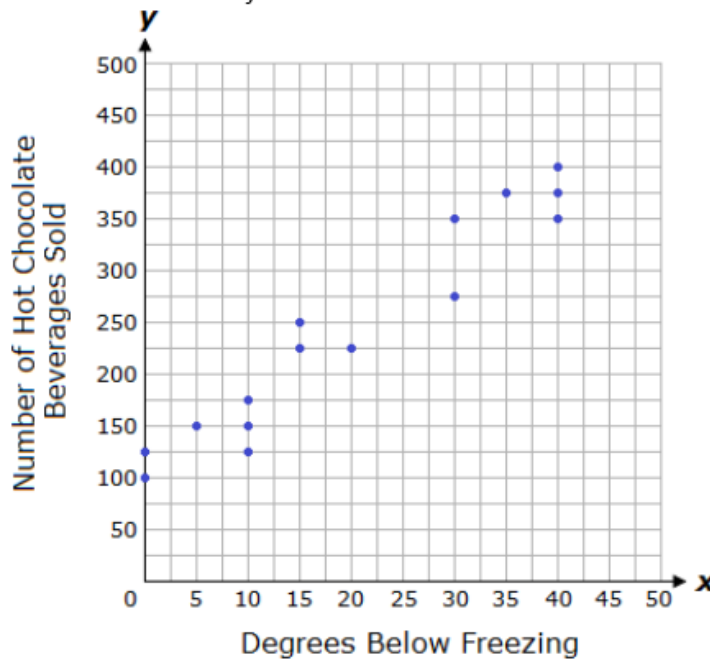
Based on the graph, which of the following is a valid conclusion?

   A. As the degrees below freezing increases, the number of hot chocolate beverages sold decreases.
   B. As the degrees below freezing increases, the number of hot chocolate beverages sold increases.
   C. As the degrees below freezing increases, the number of hot chocolate beverages sold stays the same.
   D. As the degrees below freezing decreases, the number of hot chocolate beverages sold decreases.

6. The scores on Ms. Glowson's math tests are listed below.
68, 57, 83, 91, 86, 70, 74, 79, 62, 53, 66

What is the interquartile range of the scores?

   A. 38

   B. 62

   C. 21

   D. 83

7. What is the lower quartile, Q_1, of the following data set?
51, 47, 35, 64, 67, 79, 30, 75, 38, 72, 55, 23, 43, 59, 27

   A. 71

   B. 74

   C. 35

   D. 70

8. The points scored by Melissa in eleven basketball games are listed below.
19, 14, 25, 30, 28, 21, 23, 24, 15, 13, 17

Which statement about the data is correct?

   A. The interquartile range of the data is 10
   B. The range of the data is 16
   C. The first quartile of the data is 17
   D. The third quartile of the data is 24

9. The following stem-and-leaf plot shows the height in inches of Mrs. Smith's first period Algebra class.
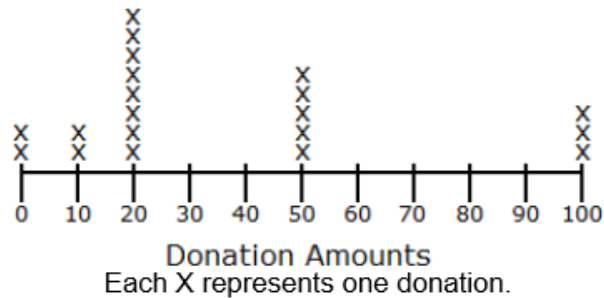
```
 7 | 4 6 6 8 9
 8 | 5 7 8
 9 | 6 8 9
10 | 4 4 5 7 8
```

What is the median height?

- A. 97 inches
- B. 92 inches
- C. 96 inches
- D. 88 inches

10. The following line plot shows the number of donations received during a charity drive. What is the mean of the data in the graph?

Donation Amounts
Each X represents one donation.

- A. $37.37
- B. $36.50
- C. $25.29
- D. $40.50

11. When helping her little sister with her homework, Monique picked some products randomly from the multiplication chart. The products are represented by the box plot below.
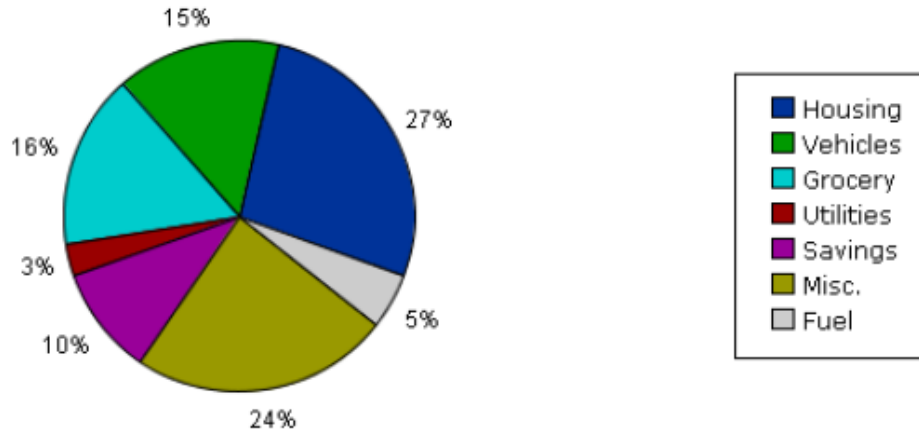
Multiplication Tables
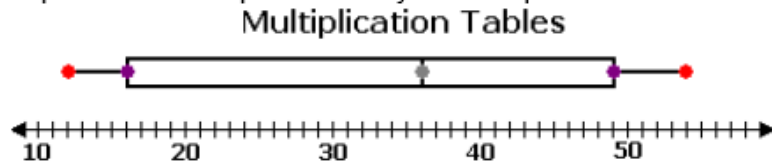
What percent of the data is below 16?

- A. 50%
- B. 25%
- C. 75%
- D. 48%

12.

Annual Home Budget

Bob tracked his spending for the previous year. The given circle graph shows his spending divided up into 7 categories. If Bob makes $80,000 per year, use the graph to predict the amount of money that he will spend on miscellaneous costs this year.

- **A.** $19,200.00
- **B.** $1,920.00
- **C.** $20,000.00
- **D.** $2,000.00

13. Mr. Snowdon posted the final exam grades for Algebra II in the hallway as soon as the tests were graded. The data is represented on the box plot below.

Final Exam Grades
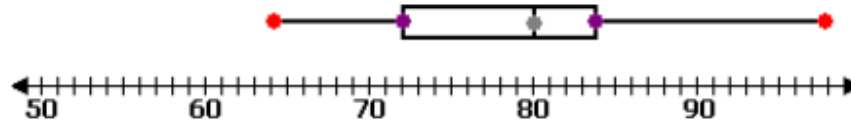
Based on the box-and-whisker plot, which statement about grades is **most likely** true?

A. Between 64% and 80% is one-fourth of the data.
B. Between 72% and 84% is three-fourths of the data.
C. Between 72% and 84% is one-half of the data.
D. Between 80% and 98% is one-fourth of the data.

14. Harold has one bag of different-colored, same-size chips and one bag of different-colored, same-size marbles. In the first bag there are 4 blue chips, 5 red chips, and 3 black chips. In the second bag there are 5 green marbles, 4 blue marbles, and 3 red marbles. What is the probability that he will pull a blue chip and a blue marble from the bags?

A. $\frac{1}{9}$

B. $\frac{1}{3}$

C. $\frac{1}{6}$

D. $\frac{1}{4}$

15. The following balls are placed in an urn: 5 red, 2 yellow, 6 blue, and 4 green. One ball is randomly drawn from the urn. What is the probability that the ball is either yellow or green?

A. $\frac{6}{11}$

B. $\frac{1}{17}$

C. $\frac{6}{17}$

D. $\frac{2}{17}$

16. A spinner with five equal-sized sections numbered 1 through 5 is shown.

The spinner is spun twice and the product of the number in the sections where the arrow lands is calculated. What is the probability that the product of the numbers is odd?

A. $\frac{9}{25}$

B. $\frac{16}{25}$

C. $\frac{1}{2}$

D. $\frac{4}{25}$

17. Cordelia used a random number generator to choose a name for her new puppy. Her results are in the table below.

Name	Number Assigned	Frequency
Sparky	1 - 5	1
Solomon	6 - 10	12
Lemon	11 - 15	2
Linus	16 - 20	9
Lassie	21 - 25	26

Based on her results, what is the experimental probability that the puppy will be named Sparky or Solomon?

A. $\frac{7}{25}$

B. $\frac{11}{50}$

C. $\frac{13}{50}$

D. $\frac{21}{50}$