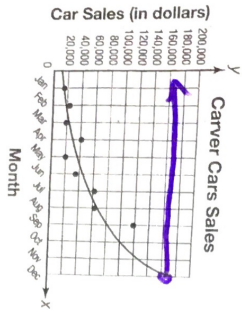


Unit 4 Assessment • Describing Data

1. The graph below shows the past 9 months of sales for the Carver Cars company.



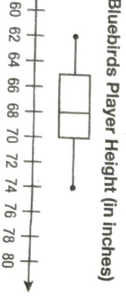
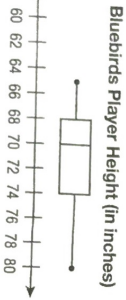
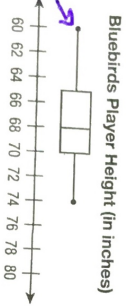
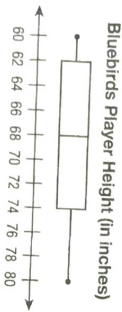
Using the exponential curve of best fit, what is the best prediction of Carver Cars sales in December?

- A. \$40,000
- B. \$120,000
- C. \$170,000
- D. \$800,000

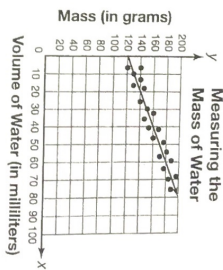
3. The heights, in inches, of the players on the Bluebirds baseball team are:

62, 64, 64, 65, 67, 67, 68, 68, 69, 70, 70, 70, 71, 73, 74

The manager determined that the team's lower quartile height is 65 inches, the median height is 68 inches, and the upper quartile height is 70 inches. Which box plot represents the heights of the Bluebirds players?



4. A science class did an experiment in which groups of students weighed various volumes of water. Each group filled one plastic beaker with a certain volume of water. Each group placed its beaker of water on a scale and plotted the reading on the scatter plot below.

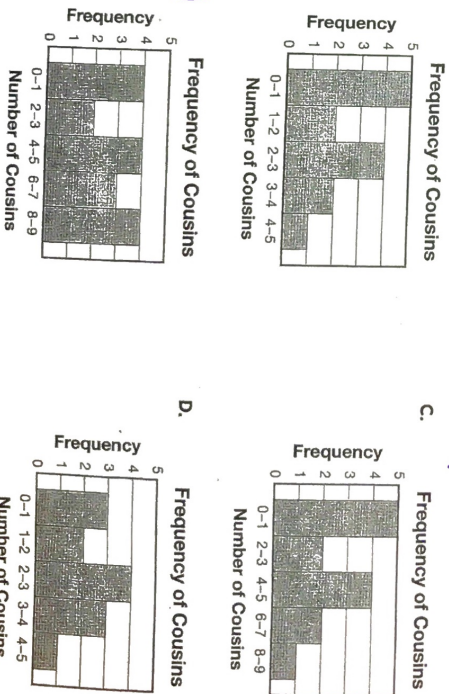


The equation of the line of best fit is $y = x + 120$. What does the y-intercept of this equation represent?

- A. 120 mL was the minimum volume of water measured.
- B. 120 g was the mass of the beaker.
- C. 120 g was the mass of the scale.
- D. student error

5. A class survey asked students how many first cousins they have. The responses are listed below. Which histogram best represents the results of the survey?

0-1: 4 2-3: 2
4-5: 4 6-7: 3
8-9: 4

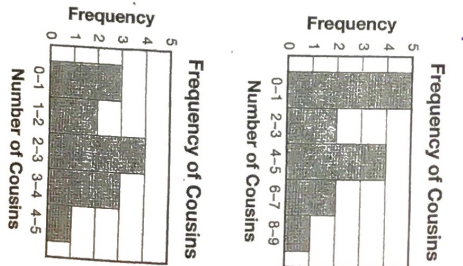


2. The fourth-grade class at Wilsfire Elementary School held a competition to raise money for a class field trip. In the competition, the class was split into two teams, and each student tried to collect as many pennies as possible. At the end of the competition, the team with the greater average number of pennies per student wins. The eight students on Team 1 had collected 195, 87, 62, 271, 103, 149, 51, and 70 pennies. The nine students on Team 2 had collected 46, 429, 101, 72, 33, 100, 64, 58, and 125 pennies. Which team won the competition?

- A. Team 1
- B. Team 2
- C. The teams were tied.
- D. There is not enough information.

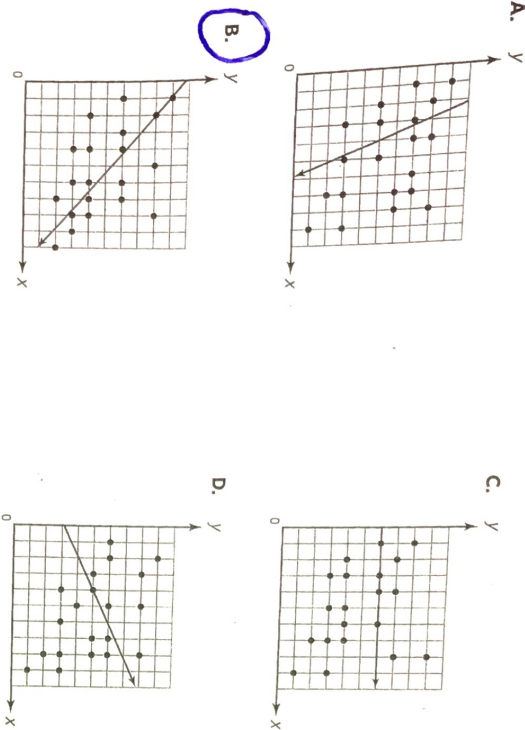
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6. Which of the following best represents a scatter plot and its line of best fit?

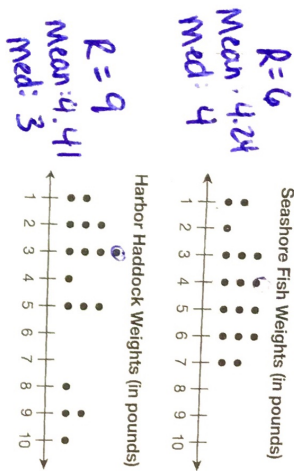


not a great representation but the best answer of these 4

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7. Two fish markets, Seashore Fish and Harbor Haddock, compiled dot plots of the weights of fish they had for sale in their market on one day. The dot plots are shown below.

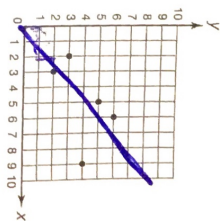


Which is true about the two sets of weights?

- A. The range of weights at Seashore Fish is greater than the range of weights at Harbor Haddock.
- B. The median weight at Harbor Haddock is greater than the mean weight at Seashore Fish.
- C. The maximum weight at Seashore Fish is greater than the maximum weight at Harbor Haddock.
- D. The mean weight at Harbor Haddock is greater than the median weight at Seashore Fish.

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8. The scatter plot below was graphed from a data set containing five data points.



Which is closest to the correlation coefficient of the relationship shown in the graph?

- A. -0.12
- B. 0.03
- C. 0.35
- D. 0.52

[In calculator]

1st: Press data and fill in table with ordered pairs
 2nd: Press 2nd data and choose "2-Var Stats"
 3rd: Scroll down to the "r". This is the correlation coefficient.

Go On ▶

9. While playing a board game that uses a spinner to determine the number of spaces that a game piece advances, Herman and Maddy kept count of the number of times that the spinner landed on each number. They made the following chart during the game.

Spinner Space	Number of Times
1	5
2	1
3	3
4	2
5	7
6	3
7	5
8	2

Which dot plot best represents the distribution of spin results during the game?

- A. ~~X~~ Spinner Frequency
-
- B. Spinner Frequency
-
- C. ~~X~~ Spinner Frequency
-
- D. Spinner Frequency
-

10. A small university held elections to determine a new student body president. A total of 525 students voted. Liska won the election with 212 votes. In the junior class, 72 out of 158 students voted for Eunice. Mustafa received the most votes from voters in the senior class. Which table represents the data described?

A.

	Mustafa	Liska	Eunice	Total
Freshmen	10	121	6	137
Sophomores	50	39	28	117
Juniors	46	40	72	158
Seniors	90	12	11	113
Total	196	212	117	525

B. ~~X~~

	Mustafa	Liska	Eunice	Total
Freshmen	10	121	6	137
Sophomores	50	39	28	117
Juniors	46	40	72	158
Seniors	117	12	90	113
Total	117	212	196	525

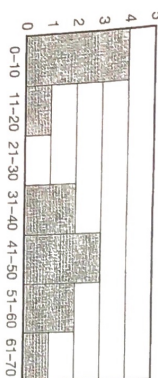
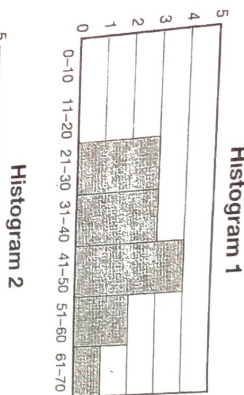
C. ~~X~~

	Mustafa	Liska	Eunice	Total
Freshmen	10	6	121	137
Sophomores	50	28	39	117
Juniors	46	72	40	158
Seniors	90	11	12	113
Total	196	117	212	525

D.

	Mustafa	Liska	Eunice	Total
Freshmen	10	121	6	137
Sophomores	50	39	72	161
Juniors	46	40	28	114
Seniors	90	12	11	113
Total	196	212	117	525

11. Two histograms are shown below.



- Which is most likely true about the data?
- A. The ranges of the data sets are the same.
 - B. The mean absolute deviation of the data sets is the same.
 - C. The outliers in Histogram 2 affect the median more than the mean.
 - D. The mean in Histogram 2 is smaller than the mean in Histogram 1.

12.

Kasim and Dana both play basketball. The league has been keeping track of the points that individuals score during each game. In the first eight games of the season, Kasim has scored 12, 5, 8, 7, 14, 2, 3, and 5 points. Dana has scored 10, 12, 8, 10, 14, 13, 8, and 13 points. Box plots to represent their point totals are shown below.



- Which data set has a greater mean absolute deviation?
- A. Dana's Point Totals
 - B. Kasim's Point Totals
 - C. The mean absolute deviations are equal.
 - D. There is not enough information.
- more spread*

13.

In a state government, senators and representatives voted on a bill that was proposed. Out of 50 senators, 35 voted for and 15 voted against the bill. Among 100 representatives, 40 voted for and 60 voted against the same bill. Which two-way relative frequency table best represents the distribution of votes?

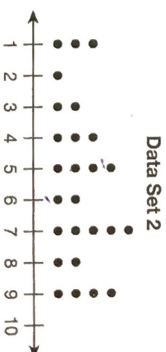
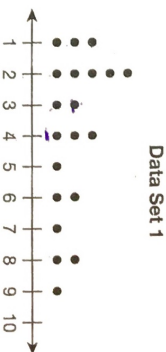
	For	Against	Total
Senators	0.70	0.30	1.00
Representatives	0.40	0.60	1.00
Total	1.10	0.90	2.00

	For	Against	Total
Senators	0.23	0.10	0.33
Representatives	0.27	0.40	0.67
Total	0.50	0.50	1.00

	For	Against	Total
Senators	0.27	0.40	0.67
Representatives	0.23	0.10	0.33
Total	0.50	0.50	1.00

	For	Against	Total
Senators	0.10	0.23	0.33
Representatives	0.40	0.27	0.67
Total	0.50	0.50	1.00

14. Two dot plots are graphed below.



- Which of the following is most likely true about the data sets they represent?
- A. The median of Data Set 2 is less than the median of Data Set 1.
 - B. The range of Data Set 2 is greater than the range of Data Set 1.
 - C. The modes of Data Sets 1 and 2 are equal.
 - D. The mean of Data Set 2 is greater than the mean of Data Set 1.
- 2-8 med-5.5*
- 1-10 med-5.5*

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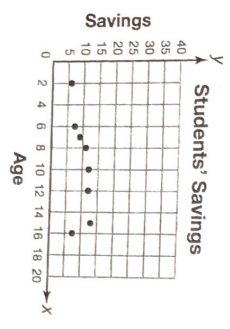
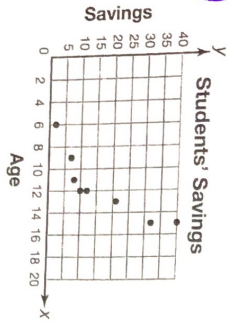
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A survey was done to study the amount of money that students have saved. Students were each asked their age and the amount of money they have saved. The chart below shows the responses from the survey.

Age	Savings(\$)
9	7
13	21
15	40
6	2
12	12
11	8
15	32
12	10

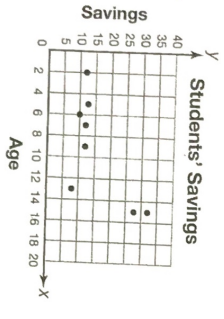
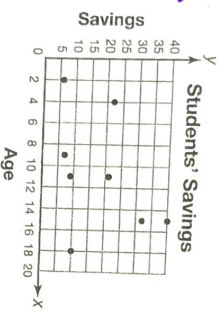
Which scatter plot best represents the data?

A.



~~C.~~

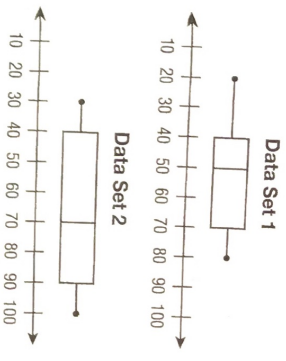
~~D.~~



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16. Box plots representing Data Set 1 and Data Set 2 are shown below.



Which is true about the data sets?

~~A.~~

The interquartile ranges of Data Sets 1 and 2 are 30 and 50 respectively, therefore, Data Set 1 exhibits a greater spread.

B.

The interquartile ranges of Data Sets 1 and 2 are 30 and 50 respectively, therefore, Data Set 2 exhibits a greater spread.

~~C.~~

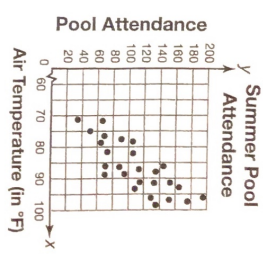
The interquartile ranges of Data Sets 1 and 2 are 60 and 70 respectively, therefore, Data Set 1 exhibits a greater spread.

~~D.~~

The interquartile ranges of Data Sets 1 and 2 are 60 and 70 respectively, therefore, Data Set 2 exhibits a greater spread.

17.

A community pool manager tracked air temperature and pool attendance throughout the summer. The results are plotted on the scatter plot below.



Based on the scatterplot, which best describes the relationship between pool attendance and air temperature?

A.

Increase in pool attendance is directly caused by increased air temperature.

~~B.~~

Increase in air temperature is directly caused by pool attendance.

~~C.~~

There is a positive correlation between pool attendance and air temperature.

~~D.~~

There is no correlation between pool attendance and air temperature.

high correlation = causation

Go On ▶