

Homework

Scatter Plots

Identify the correlation you would expect to see between each pair of data sets. Explain.

1. the temperature and the amount you sweat

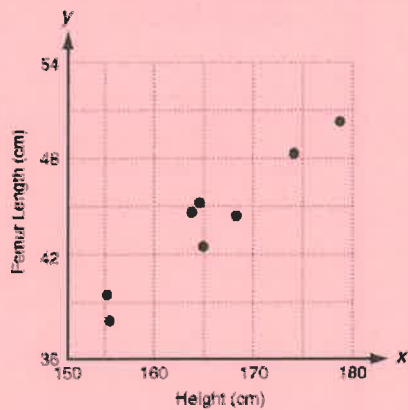
Positive. The higher the temp. the more you sweat.

2. the miles driven and amount of gas left in tank

Negative. The more miles you drive the less gas in the tank

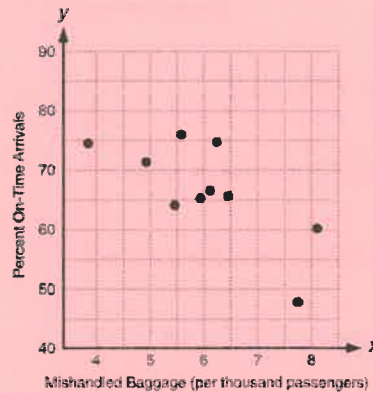
Describe the correlation illustrated by each scatter plot.

3.



positive

4.



negative

Frequency Tables

*Are used to graph histograms.

The following table represents the free throw percentage for the Washberry Silver Snakes team.

Free Throw %	Frequency
0-19	1
20-39	2
40-59	4
60-79	8
80-100	2

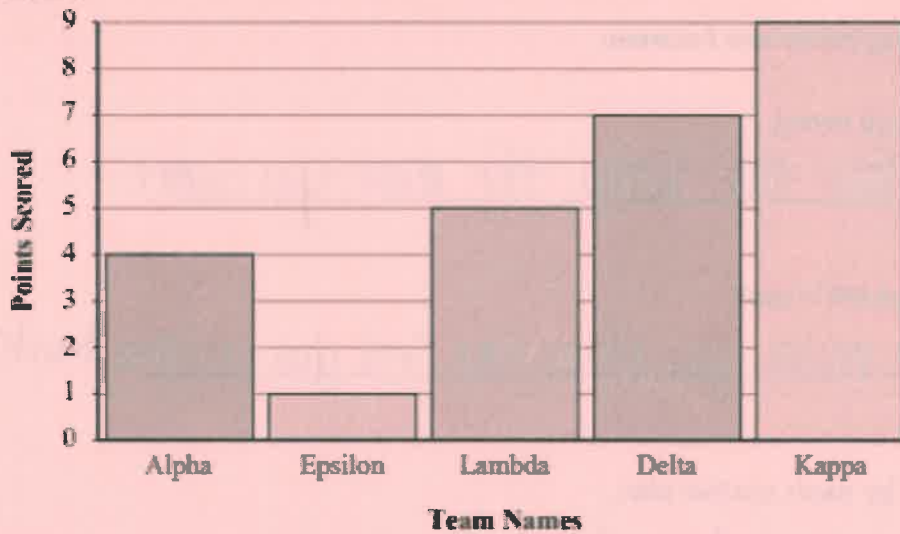
How many basketball players had a percentage of at least 80%? 2

What range has the most amount of players? 60-79

How many total players are there? 17

Bar Graphs

At the 'Brain Drain' championships teams earned points for answering trivia questions. Their final scores are shown below. Use the graph to answer the questions.



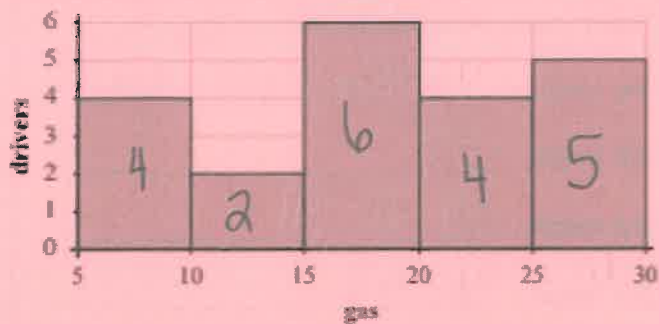
- 1) How many points did team Alpha score?
- 2) Did team Delta or team Epsilon score more points?
- 3) Did team Lambda or team Kappa score fewer points?
- 4) Which team scored 7 points?
- 5) What is the difference in the number of points Alpha scored and the number Lambda scored?
- 6) What is the combined points scored by Lambda and Kappa?
- 7) Which team scored the most points?
- 8) Which team scored the fewest points?
- 9) How many more points did team Lambda score than team Alpha?
- 10) How many fewer points did team Alpha score than team Kappa?

Answers

1. 4
2. Delta
3. Lambda
4. Delta
5. 1
6. 14
7. Kappa
8. Epsilon
9. 1
10. 5

Histograms

The histogram below show the gallons of gas drivers purchased each week.



- 1) Most drivers purchased between ___ and ___ gallons.
- 2) How many drivers purchased between 10 and 15 gallons?
- 3) How many drivers are represented in this histogram?
- 4) If a driver purchased 15 gallons which bar would they be added to?

Answers

1. 15-20
2. 2
3. 21
4. 15-20
5. 90-99
6. 5
7. 20
8. 80-89

The histogram below show the students scores for a quiz.



- 5) Most students scored between a ___ and ___.
- 6) How many students scored between a 60 and 69?
- 7) How many students are represented in this histogram?
- 8) If a student scored a 89 which bar would they be added to?

Stem and Leaf Plots

Use the stem-and-leaf plot to answer the questions.

Tree Circumferences	
Stem	Leaf
1	8
2	1 2 6 7
3	0
4	2 5 9
5	6 7 7 7 9

Key: 1 | 8 = 18 inches

- How many trees were measured? 14
- Find the median. $42 + 45 = 87 \div 2 = 43.5$
- Find the mode. 57
- Find the range. $59 - 18 = 41$
- Find the mean. 40.43

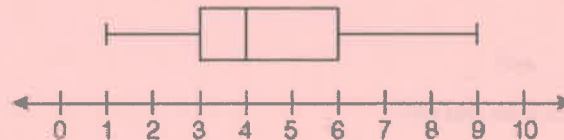
Ages of Parents	
Stem	Leaf
3	1 4 4 9
4	0 0 0 1 2 3 5 7
5	2 3

Key: 3 | 1 = 31 years old

- Find the mean. 41.5
- Find the median. $40 + 41 = 81 \div 2 = 40.5$
- Find the mode. 40
- Find the range. $53 - 31 = 22 \div 2 = 11$
- Why are some ceilings taller than others?
How old is the youngest parent?
31 years

Box and Whisker Plots

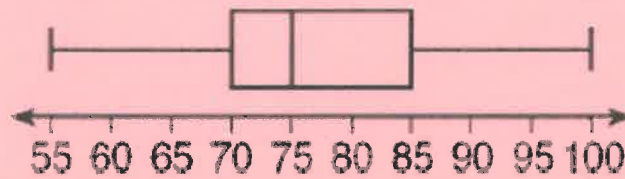
6) A movie theater recorded the number of tickets sold daily for a popular movie during the month of June. The box-and-whisker plot shown below represents the data for the number of tickets sold, in hundreds.



Which conclusion can be made using this plot?

- The ~~second~~ ^{3rd} quartile is 600.
- The ~~mean~~ ^{Median} of the attendance is 400.
- The range of the attendance is 300 to 600. no 100-900
- Twenty-five percent of the attendance is between 300 and 400.

3) The accompanying box-and-whisker plot represents the scores earned on a math test.



a) What is the median score?

- (1) 75 (2) 70 (3) 85 (4) 77

b) What score represents the first quartile?

- (1) 55 (2) 70 (3) 100 (4) 75

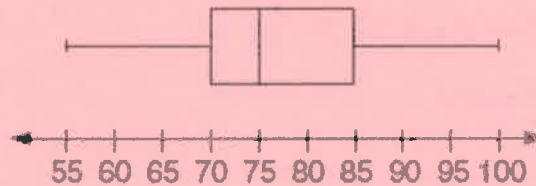
c) What statement is *not* true about the box and whisker plot shown?

- (1) 75 represents the ~~mean~~ ^{median} score (3) 85 represents the 3rd quartile ^{True}
(2) 100 represents the maximum score ^{True} (4) 55 represents the minimum score ^{True}

d) A score of an 85 on the box-and-whisker plot shown refers to:

- (1) the third quartile (3) the maximum score
(2) the median (4) the mean

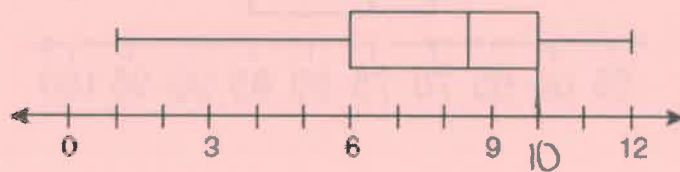
4) What is the median price for a snowboard at Middletown Snowboards?



What is the median score?

- (1) 70 (3) 77
(2) 75 (4) 85

5) What is the value of the third quartile shown on the box-and-whisker plot below?



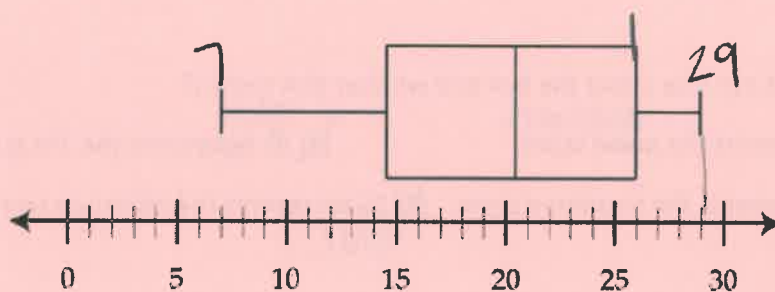
(1) 6

(3) 10

(2) 8.5

(4) 12

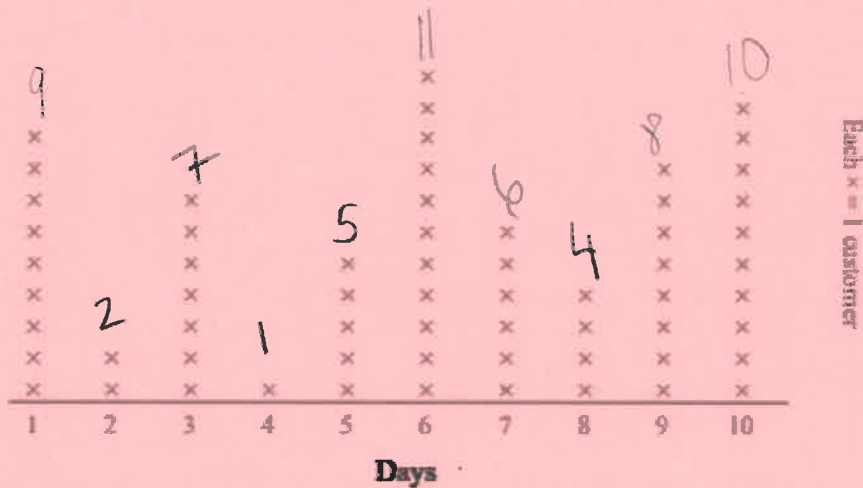
2) The accompanying box-and-whisker plot represents the cost, in dollars, of twelve CD's.



- a) Which cost is the upper quartile? 25
- b) What is the range of the costs of the CD's? $29 - 7 = 22$
- c) What is the median? 20.5
- d) Which cost represents the 100th percentile? 29
- e) How many CD's cost between \$14.50 and \$26.00? 6
- f) How many CD's cost less than \$14.50? 3

Dot Plot

The line plot below shows the number of customers a store had each day. Use the line plot to answer the questions.



- 1) How many customers did they have on day 8?
- 2) Did they have more customers on day 5 or on day 4?
- 3) Did they have fewer customers on day 9 or on day 10?
- 4) How many days did they have more than 9 customers?
- 5) How many days did they have fewer than 5 customers?
- 6) What is the combined number of customers they had on day 3 and on day 7?
- 7) Which day had the most customers?
- 8) Which day had the fewest customers?
- 9) Which days (if any) had more than 7 customers?
- 10) What is the difference in the number of customers on day 4 and the number on day 7?
- 11) Which day had exactly 6 customers?

Answers

1. 4
2. 5
3. 9
4. 3
5. 3
6. 13
7. 6
8. 4
9. 5
10. 5
11. 7

