The scatterplot below shows the cost of 9 large countertop microwave ovens and their capacity in cubic feet.

Which best describes the trend shown in the scatterplot?

A  Positive trend  
B  Negative trend  
C  Mean trend  
D  No trend
Question 15

As the age of a car increases, its value decreases. Which scatterplot best represents this relationship?
A trucking company keeps track of the number of miles each of its drivers logs each week. The scatterplot below shows the relationship between a driver’s age and the number of miles the driver drove last week.

Describe the correlation between the number of miles a driver logs and the driver’s age.

In a survey of property values, \( p \), the price of an acre of land, was compared to \( d \), the distance of the land from the center of town. The data were graphed in a scatterplot. Describe the correlation between the cost of an acre of land and the land’s distance from the center of town.
Question 15

A math class was given 1 hour to complete a test. The scatterplot below shows the relationship between the speed at which the students completed the test and the number of careless mistakes they made.

![Scatterplot](image)

Which of the following describes the correlation between the number of minutes spent on the test and the number of careless mistakes made?

A  No correlation  
B  Positive correlation  
C  Negative correlation  
D  Constant correlation

The following scatterplot shows the relationship between the average number of hours spent studying per week and the grade for the last semester for 20 students.

What trend do these data show?

![Scatterplot](image)
The graph below shows the relationship between the distance in miles a delivery truck traveled and the number of hours each delivery took.

Which best describes the relationship shown on the graph?

A  Negative trend
B  Positive trend
C  Constant trend
D  No trend
The scatterplot shows the weight of a vehicle compared with the average gas mileage the vehicle gets.

What conclusion can you draw about the relationship between vehicle weight and gas mileage?

As the vehicle weight increases, the gas mileage ________________.
The gas mileage for a vehicle has a ________________ correlation with _________________________________.

Raúl is a sport fisherman. He weighs each fish he catches, and he measures its length. He graphed his data in a scatterplot.

![Fish Length vs. Fish Weight Scatterplot]

Describe the correlation between the lengths and weights of the fish Raúl caught.
As the lengths of the fish ________________, their weights generally ________________.
This is a ________________ correlation.

Ten employees at a shirt factory decorate shirts with hand-painted designs. The scatterplot below shows the relationship between the number of shirts each employee decorated last week and the number of hours each employee worked.

![Shirt Factory Scatterplot]

Describe the correlation between the number of shirts painted and the number of hours worked.
A survey of ninth-grade students was conducted to see whether there was a correlation between their ages and the number of dollars they earned per week in after-school jobs. The data are presented in the scatterplot below.

![Scatterplot of After-School Jobs](image)

Describe the correlation between students’ ages and their weekly earnings.

The scatterplot below shows the number of households with cable television service during certain years.

![Scatterplot of Cable Service](image)

Which statement best describes the relationship on the scatterplot?

- F The number of households with cable service increased over time.
- G The number of households with cable service decreased over time.
- H The number of households with cable service remained the same over time.
- J The number of households with cable service could not be determined over time.
The scatterplot below shows the amount of time a piano student spends practicing a song and the number of incorrect notes he plays while performing that song.

Which statement best describes the relationship shown in the scatterplot?

- **F** As the time spent practicing increases, the number of incorrect notes played remains constant.
- **G** The greater the time spent practicing, the fewer the number of incorrect notes played.
- **H** There is no relationship between the time spent practicing and the number of incorrect notes played.
- **J** The greater the time spent practicing, the greater the number of incorrect notes played.
14 The graph below shows the amount of time Dennis spent studying over a 2-week period in October.

Study Time

Which of the following statements would be an invalid conclusion for these data?

F  Dennis spent a total of 660 minutes studying.
G  Dennis studied for an average of about 47 minutes per day.
H  Dennis studied for an average of 330 minutes per week.
J  Dennis earned good grades during this 2-week period.

51 Look at the graph below.

Which is the best interpretation of this graph?

A  Jorge earns $20 for each hour worked.
B  For every 10 pieces of candy Stacey buys, she pays $1.
C  For every 10 students at a dance, 2 teachers are needed as chaperones.
D  A runner runs at a constant rate of 2 miles every 30 minutes.
The coaches of a group of debate teams answered a survey about hours of debate team practice and number of team wins. The graph shows the results of this survey.

Based on these results, if a team practices 4 hours per week next season, which is the best estimate of the number of debates the team can expect to win?

F 1
G 12
H 16
J 20

Question 49
A car dealer put a sticker in the window of each used car in his lot to show the sale price of the vehicle and the year in which it was built. The scatterplot below shows the data.

Which description best represents the relationship in the recorded data?

A No trend
B Positive trend
C Negative trend
D Not here
Question 17

A nurse checked the blood pressure of 14 people at a health clinic. The table and graph below show the relationship between the systolic and diastolic blood-pressure readings.

<table>
<thead>
<tr>
<th>Systolic</th>
<th>Diastolic</th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>85</td>
</tr>
<tr>
<td>94</td>
<td>62</td>
</tr>
<tr>
<td>105</td>
<td>68</td>
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<td>145</td>
<td>60</td>
</tr>
<tr>
<td>160</td>
<td>64</td>
</tr>
</tbody>
</table>

Which of the following is not a true statement about the systolic and diastolic blood-pressure readings for this set of data?

A  Systolic pressure is always higher than diastolic pressure.
B  There appears to be no trend between systolic and diastolic blood pressures.
C  Systolic blood pressure ranges from 92 to 160.
D  There appears to be a negative trend between systolic and diastolic pressures.