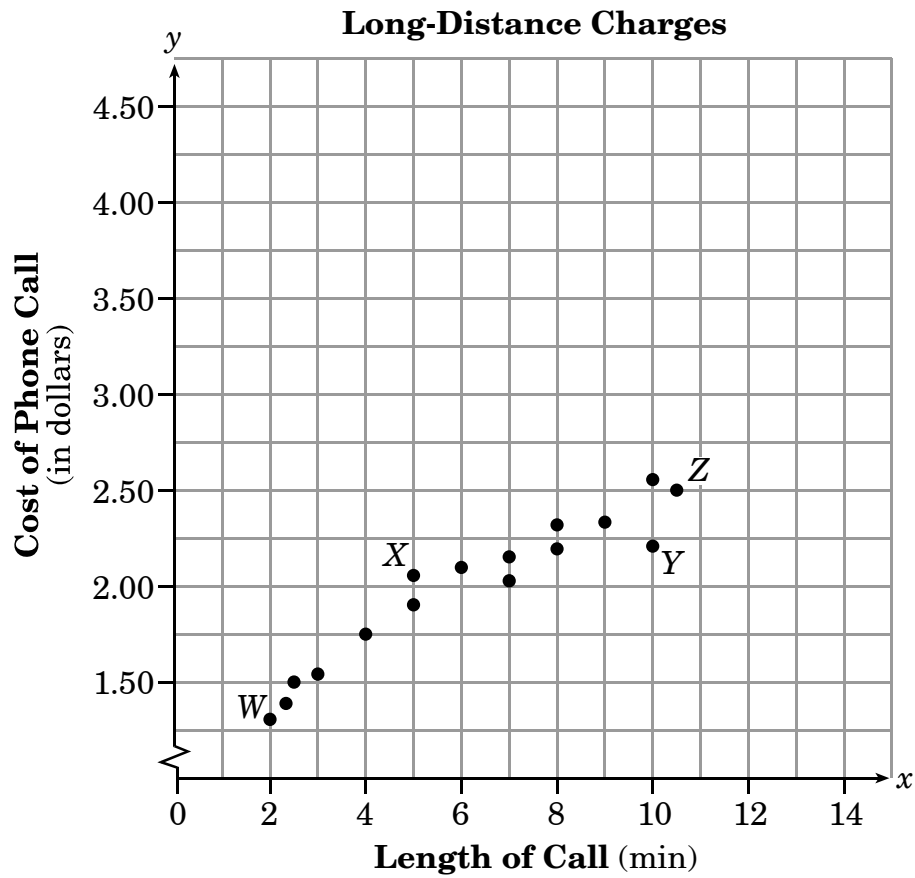


1. Charlie collected data on the cost of his long-distance phone calls. He displayed his data in a scatterplot.



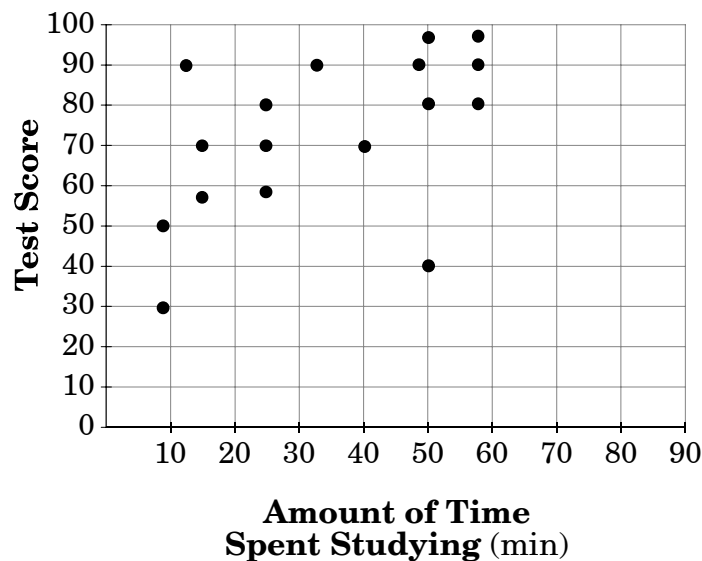
Which point shows the least expensive cost per minute for a long-distance call?

- A W
- B X
- C Y
- D Z

2. Felipe is collecting data comparing air conditioning costs to the daily outdoor temperature during the summer of 2004. When Felipe draws his scatterplot, which variable should be used as the dependent variable?

- A date
- B indoor temperature
- C outdoor temperature
- D air conditioning costs

3. Which relationship is suggested by the scatterplot below?



- A The amount of time spent studying does not affect a test score.
- B the longer amount of time spent studying, the higher the test score
- C the longer amount of time spent studying, the lower the test score
- D the shorter amount of time spent studying, the higher the test score

4. Jeremy collected data on the elevation and highest temperature of eight cities. He organized his data in a table.

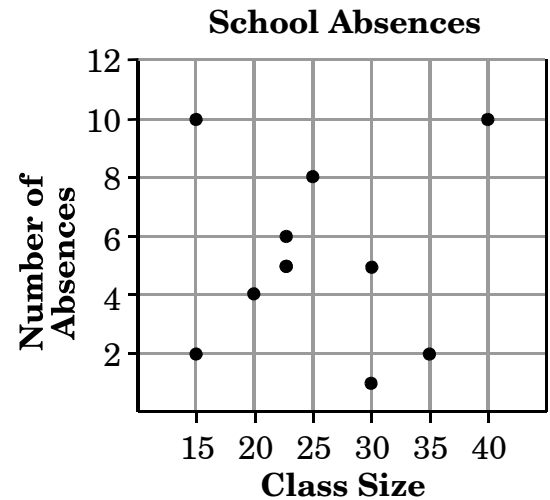
| Place | Elevation (ft) | Highest Temp (°F) |
|--------------|-----------------------|--------------------------|
| City A | 367 | 136 |
| City B | -178 | 134 |
| City C | -722 | 129 |
| City D | 622 | 128 |
| City E | 676 | 120 |
| City F | 26 | 122 |
| City G | 72 | 108 |
| City H | 49 | 59 |

What relationship between elevation and highest temperature does Jeremy's data suggest?

- A the higher the elevation, the higher the record temperature
- B the lower the elevation, the higher the record temperature
- C the lower the elevation, the lower the record temperature
- D There is no relationship between elevation and record temperature.

5. Patrice and Jason needed to report the results of a survey regarding the favorite snack food of the students at Milton Middle School. How could the report be done to produce a representative sample of 100 students?
- A Ask the students as they get off the school buses.
- B Ask the opinion of all the teachers at the school.
- C Ask all the students who are in the school cafeteria during one day.
- D Ask students randomly chosen from the school's enrollment list.

6. The scatterplot shows the number of absences in a week for classes of different sizes. Trevor concluded that there is a positive correlation between class size and the number of absences.



Which statement **best** describes why Trevor's conclusion was incorrect?

- A The largest class does not have the most absences.
- B The smallest class does not have the least number of absences.
- C The data show no relationship between class size and number of absences.
- D The data show a negative relationship between class size and number of absences.

End of Goal 4 Sample Items

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Answers to EOG Grade 8 Math Sample Items

Goal 4

1. Objective 4.01

Collect, organize, analyze, and display data (including scatterplots) to solve problems.

Thinking Skill: Analyzing

Correct Answer: C

2. Objective 4.01

Collect, organize, analyze, and display data (including scatterplots) to solve problems.

Thinking Skill: Organizing

Correct Answer: D

3. Objective 4.02

Approximate a line of best fit for a given scatterplot; explain the meaning of the line as it relates to the problem and make predictions.

Thinking Skill: Analyzing

Correct Answer: B

4. Objective 4.02

Approximate a line of best fit for a given scatterplot; explain the meaning of the line as it relates to the problem and make predictions.

Thinking Skill: Analyzing

Correct Answer: D

5. Objective 4.03

Identify misuses of statistical and numerical data.

Thinking Skill: Analyzing

Correct Answer: D

6. Objective 4.03

Identify misuses of statistical and numerical data.

Thinking Skill: Evaluating

Correct Answer: C