

Grade 8 - Scatter Plots and Association - Test Answer Key

Common Core 8.SP.A.1, 8.SP.A.2 · maths-pdf.fr/en/

Use this answer key to score the scatter plots and association test out of 20 points. Each solution shows the full work and a scoring guide, so partial credit can be given fairly when a student shows correct steps but makes an arithmetic slip.

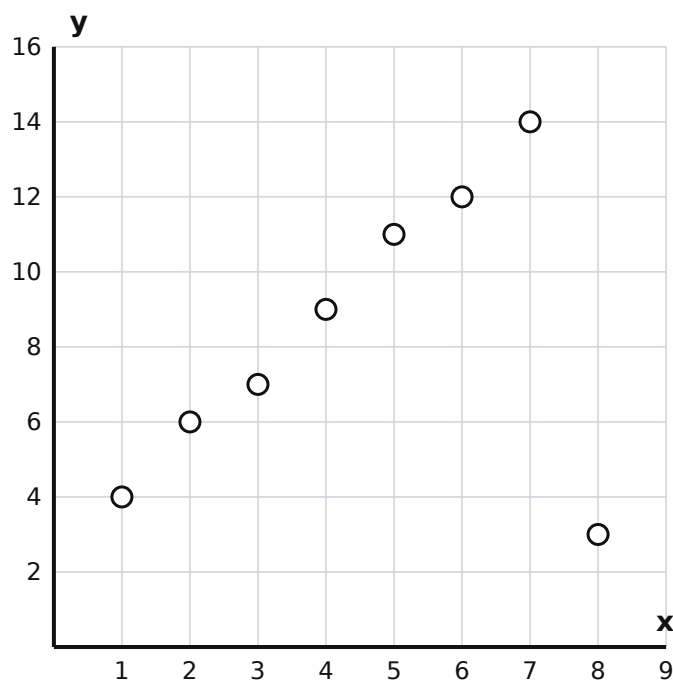
Grade 8 · Common Core State Standards: **8.SP.A.1, 8.SP.A.2**

Question 1 - Describe the pattern [3 pts]

Positive, linear, strong: the points rise and lie near a line.

Scoring: 1 point for each description.

Question 2 - Identify an outlier [2 pts]



The outlier is (8, 3).

The outlier is (8, 3). The other seven points rise steadily, but this point is far below.

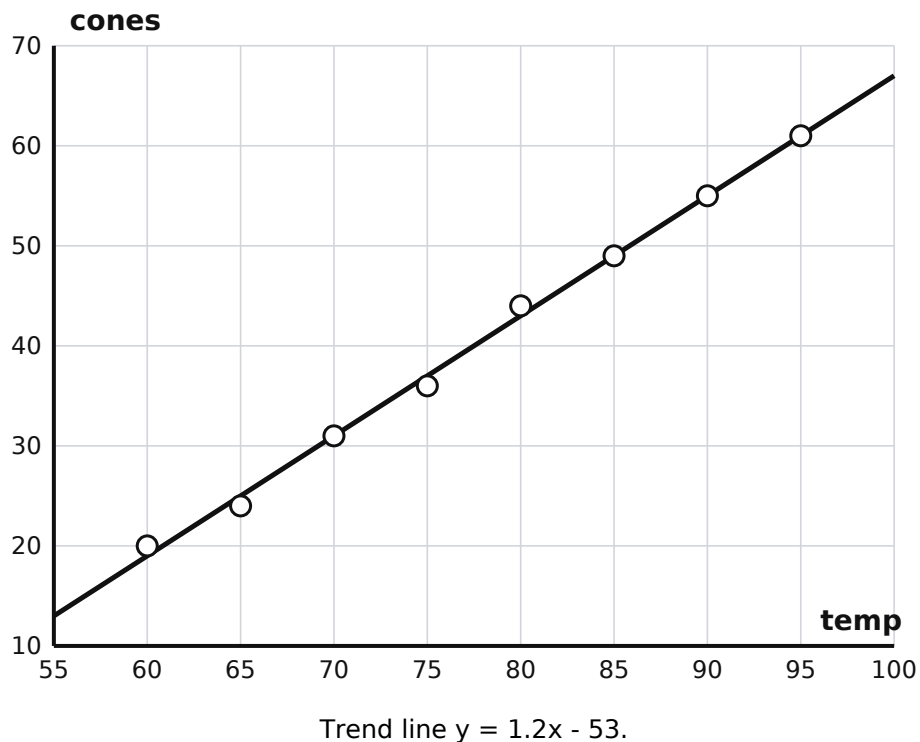
Scoring: 1 point for the point, 1 point for the explanation.

Question 3 - Predict the association [2 pts]

- a. Negative (faster speed, less time).
- b. No association.

Scoring: 1 point each.

Question 4 - Slope of a trend line [3 pts]



$$\frac{61-25}{95-65} = \frac{36}{30} = 1.2.$$

For each 1°F increase, about 1.2 more cones are sold.

Scoring: 1 point for the setup, 1 point for 1.2, 1 point for the meaning.

Question 5 - Use a trend line [3 pts]

$$5.3 \cdot 5 + 47 = 73.5.$$

For 20 hours the line gives 153, which is more than the maximum score of 100, so the line should not be used that far outside the data.

Scoring: 1 point for the setup, 1 point for 73.5, 1 point for the explanation.

Question 6 - Compare lines [3 pts]

At $x=8$: first line $-14.4+23.7=9.3$ near 9.5; second line $-24+30=6$, far from 9.5.

Scoring: 1 point for each prediction, 1 point for the conclusion.

Question 7 - Cause [2 pts]

No. Hot weather increases both, so a hidden factor explains the association.

Scoring: 1 point for no. 1 point for a valid hidden factor.

Question 8 - Draw a conclusion [2 pts]

The data fall into two separate groups, so there are two types of cases (for example, two different grade levels).

Scoring: 1 point for the two groups, 1 point for a reasonable interpretation.

Total
20 points