MATHEMATICS · GRADES 7-9

Scatter Plots

Difficulty level: Intermediate

Mathematics: Grades 7-9

This document was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

Overview of the concept

This is how you check whether more study hours really go with higher test scores, or whether taller players really score more, by plotting the two things against each other. A coach plotting practice hours against goals can see whether extra practice actually pays off. A teacher plotting attendance against grades can spot whether missing class lines up with lower marks. Knowing scatter plots tells you how to see a relationship between two things at a glance, and how to tell a real pattern from a random scatter.

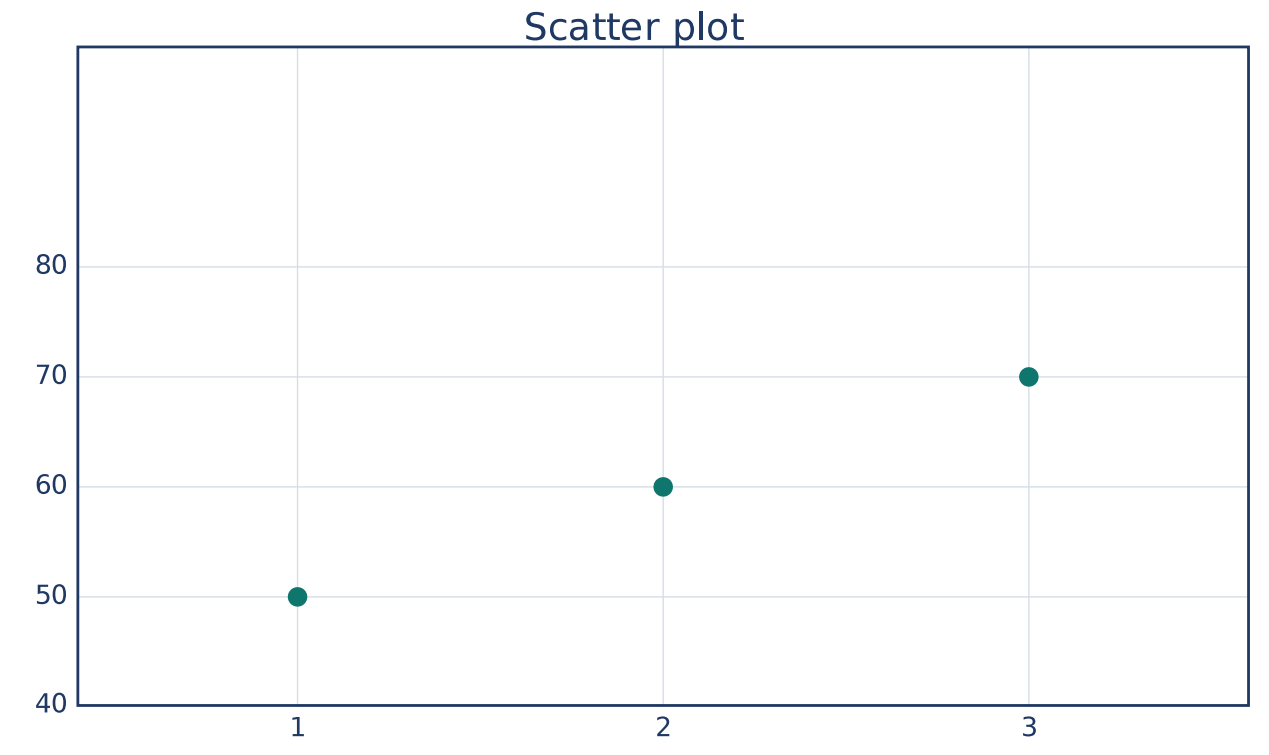


© 2026 Brett Robbins. All Rights Reserved.

Worked examples

EXAMPLE 1

Q Plot study hours and scores: (1, 50), (2, 60), (3, 70). What trend do you see?



SOLUTION

Plot each pair as a point: (1, 50), (2, 60), (3, 70).

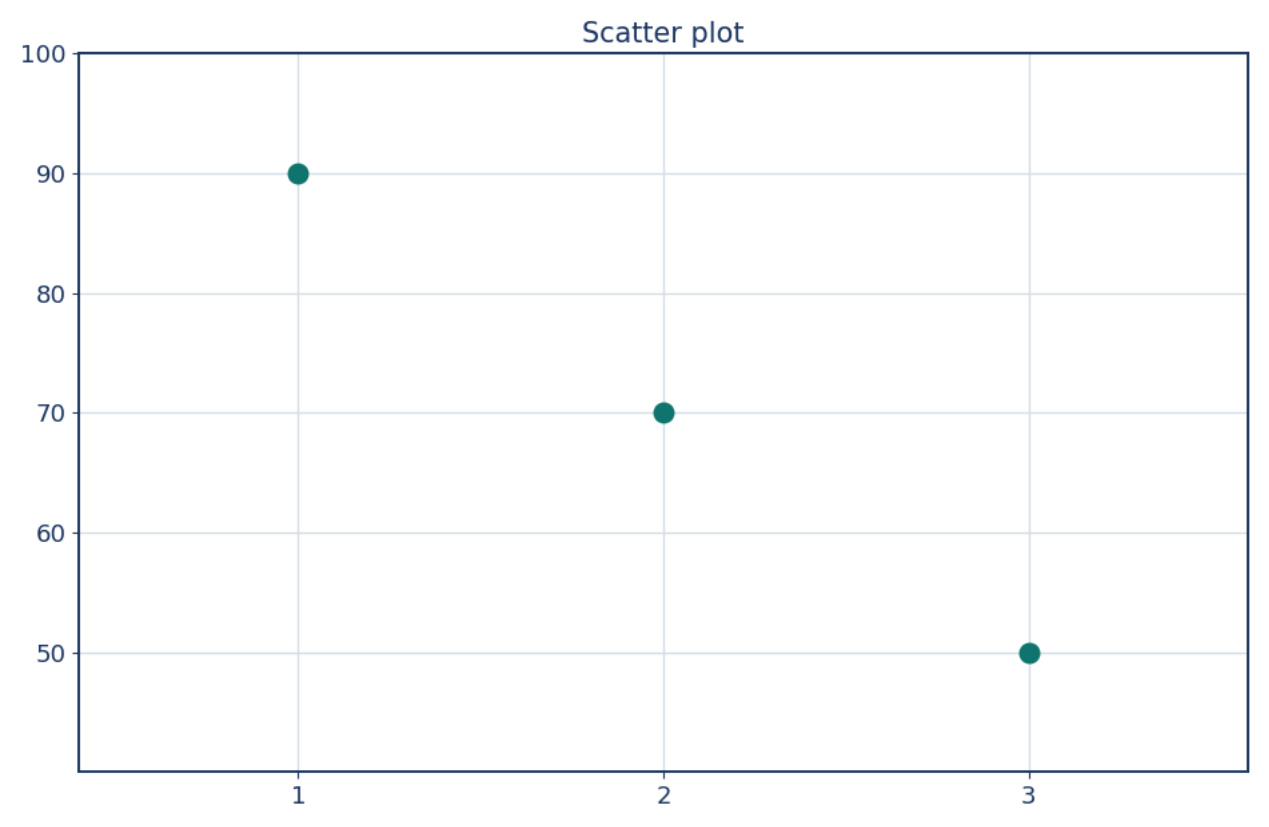
As hours rise, scores rise too.

There is a rising, positive trend.

© 2026 Brett Robbins. All Rights Reserved.

EXAMPLE 2

Q Points (1, 90), (2, 70), (3, 50) show what trend?



SOLUTION

Plot the points.

As the first value rises, the second value falls.

There is a falling, negative trend.

© 2026 Brett Robbins. All Rights Reserved.

Practice questions

1 A teacher plots study time against test scores and the points climb. What trend do you see?

- **A** Positive
- **B** Negative
- **C** No trend

Understand It with Pulse | Flag a mistake

2 A teacher plots television time against test scores and the points fall. What trend do you see?

- **A** Positive
- **B** Negative
- **C** No trend

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

3 A scatter plot of study hours against test scores shows the points (1, 50), (2, 60), (3, 70). If the pattern keeps going, about what score goes with 4 hours of study?

- **A** About 80
- **B** About 60
- **C** About 40

Understand It with Pulse | Flag a mistake

4 A scatter plot shows the points (1, 90), (2, 70), (3, 50). If the pattern keeps going, about what value goes with 4?

- **A** About 70
- **B** About 30
- **C** About 90

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

5 On a study time and test scores scatter plot, a circled point sits at 2 hours and 80. What does the circled point mean?

- **A** 2 hours of study, a score of 80
- **B** 80 hours of study, a score of 2
- **C** 2 hours of study, a score of 8
- **D** 20 hours of study, a score of 80

Understand It with Pulse | Flag a mistake

6 A scatter plot of ice cream sales against sunburns climbs through the summer. Does this prove that eating ice cream causes sunburns?

- **A** No, both climb because summer is hot
- **B** Yes, the climbing points prove one causes the other
- **C** No, the points show no pattern at all

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

7 **Which of these pairs would you expect to show a falling trend, where one goes down as the other goes up?**

- **A** Temperature and hot chocolate sales
- **B** Study hours and test scores
- **C** Age and height

Understand It with Pulse | Flag a mistake

8 **A scatter plot shows the number of siblings and height, with points scattered everywhere. What trend do you see?**

- **A** Positive
- **B** Negative
- **C** No trend

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

9 A coach wants to check whether taller players score more points. Which two things should she plot against each other?

- **A** Height and points scored
- **B** Age and points scored
- **C** Height and age

Understand It with Pulse | Flag a mistake

10 On a scatter plot, what does each point stand for?

- **A** One value only
- **B** One pair of values, one from each thing being compared
- **C** The average of all the values

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

ANSWER KEY

1. Positive

2. Negative

3. About 80

4. About 30

5. 2 hours of study, a score of 80

6. No, both climb because summer is hot

7. Temperature and hot chocolate sales

8. No trend

9. Height and points scored

10. One pair of values, one from each thing being compared

© 2026 Brett Robbins. All Rights Reserved.