

Start Tasks — Answers



1. Which variable is explanatory (independent) and which is response (dependent) here?

Solution

Practice (hours) is explanatory; Quiz score is response



2. Describe the association (positive/negative) and the trend (linear/non-linear) shown.

Solution

Positive association; linear trend



3. Using the line of best fit, estimate the quiz score for 6 hours of practice.

Solution

$$\text{Score} = 5(6) + 40 = 70$$



4. Is a prediction at 6 hours interpolation or extrapolation? Explain why.

Solution

Interpolation – 6 hrs is inside the data range (1-9)



Start Tasks — Answers



5. Which variable is explanatory and which is response in this graph?



Solution

Screen time is explanatory; Sleep score is response

6. Describe the association and the trend shown.



Solution

Negative association; linear trend

7. Using the line of best fit, estimate the sleep score for 6 hours of screen time.



Solution

Score = $95 - 7.5(6) = 50$

8. A prediction is made for 11 hours. Is this interpolation or extrapolation? Explain.



Solution

Extrapolation – 11 hrs is outside the data range (2-10)