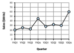
Build Tasks — Answers

1. Describe the trend and seasonality. How many quarters make one cycle?

Solution

Increasing trend; Q4 peaks each year. Cycle $= 4$ quarters

2. Calculate the percentage increase in Q4 sales from Year 1 to Year 2.

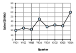


Solution

$45 \to 60$:

$15/45 \times 100 \approx 33.3\%$

3. Calculate the percentage increase in Q1 sales from Year 1 to Year 2.

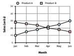


Solution

$20 \to 28$:

$8/20 \times 100 = 40\%$

4. Describe the trend of Product A and the trend of Product B separately.



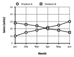
Solution

A: steadily increasing.

B: steadily decreasing

Build Tasks — Answers

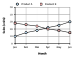
5. In which month are Product A and Product B's sales closest together, and what is the difference in that month?



Solution

April: $|20 - 22| = 2$

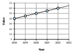
6. By how much did Product A's sales increase from January to June?



Solution

$30 - 10 = 20$ units

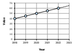
7. The dashed line shows the trend continuing. Using it, what value is predicted for 2023?



Solution

Pattern is $+5$/yr: $2023 = 65$

8. Explain one reason why a trend-based prediction like the one in Q7 might turn out to be wrong.



Solution

An unexpected future event could break it