

Lesson 9-2 • Apply Day

Reinforce Understanding

Analyzing a Graph

I can use a table and a graph to determine and analyze the relationship between two variable quantities.

Worked model

A taxi graph passes through (1, 15), (2, 30), and (3, 45). Describe it, then find the cost of a 12-mile ride.

1. Each point is (miles, dollars). The first point says one mile costs \$15.
2. Rate of change: from (1, 15) to (2, 30) the cost climbs \$15 for each extra mile.
3. Unit rate: \$15 per mile. Multiply any number of miles by that rate.
4. A 12-mile ride: $12 \times 15 \rightarrow \180 . The path keeps the same steepness.

Answer: The cost climbs \$15 per mile, so a 12-mile ride costs \$180.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. A table shows the relationship: $x = 1 \rightarrow y = 2$, $x = 2 \rightarrow y = 4$, $x = 3 \rightarrow y = 6$. How does y change as x grows, and what is y when $x = 5$?

Complete each step, then write the final answer.

1. Each time x goes up by 1, y goes up by ____.
2. So y is always $x \times$ ____.
3. When $x = 5$, $y = 5 \times 2 =$ ____.

Answer: _____

2. A table shows the relationship: $x = 1 \rightarrow y = 9$, $x = 2 \rightarrow y = 18$, $x = 3 \rightarrow y = 27$. How does y change as x grows, and what is y when $x = 5$?

Complete each step, then write the final answer.

1. Each time x goes up by 1, y goes up by ____.
2. So y is always $x \times$ ____.
3. When $x = 5$, $y = 5 \times 9 =$ ____.

Answer: _____

3. A table shows the relationship: $x = 1 \rightarrow y = 4$, $x = 2 \rightarrow y = 8$, $x = 3 \rightarrow y = 12$. How does y change as x grows, and what is y when $x = 5$?

Complete each step, then write the final answer.

1. Each time x goes up by 1, y goes up by ____.
2. So y is always $x \times$ ____.
3. When $x = 5$, $y = 5 \times 4 =$ ____.

Answer: _____