

## Chapter 1 Ratios and Proportional Reasoning

### Lesson 1-7 Constant Rate of Change

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**1** Find the constant rate of change for the table.

Time (s)	Distance (m)
1	6
2	12
3	18
4	24

Find the unit rate to find the constant rate of change.

$$\frac{\text{change in meters}}{\text{change in seconds}} = \frac{6 \text{ m}}{1 \text{ s}}$$

So, the constant rate of change is 6 meters per second.

**3** The graph shows the cost of purchasing T-shirts. Find the constant rate of change for the graph. Then explain what points (0, 0) and (1, 9) represent.

Find the constant rate of change from the graph.

$$\frac{\text{change in cost}}{\text{change in number of T-shirts}} = \frac{9-0}{1-0} = \frac{9}{1}$$

So, the constant rate of change is \$9 per T-shirt;

The point (0, 0) represents 0 T-shirts purchased and 0 dollars spent. The point (1, 9) represents 9 dollars spent for 1 T-shirt.

