

Lesson 8 Reteach

Slope

Slope is the rate of change between any two points on a line.

$$\text{slope} = \frac{\text{change in } y}{\text{change in } x} = \frac{\text{vertical change}}{\text{horizontal change}} \text{ or } \frac{\text{rise}}{\text{run}}$$

Example

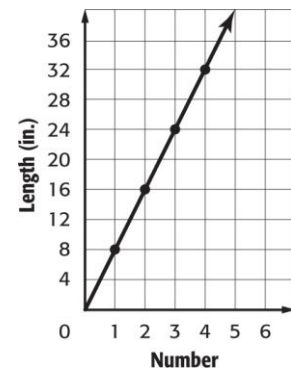
The table shows the length of a patio as blocks are added.

Number of Patio Blocks	0	1	2	3	4
Length (in.)	0	8	16	24	32

Graph the data. Then find the slope of the line.

Explain what the slope represents.

$$\begin{aligned} \text{slope} &= \frac{\text{change in } y}{\text{change in } x} && \text{Definition of slope} \\ &= \frac{24 - 8}{3 - 1} && \text{Use } (1, 8) \text{ and } (3, 24). \\ &= \frac{16}{2} && \frac{\text{length}}{\text{number}} \\ &= \frac{8}{1} && \text{Simplify.} \end{aligned}$$



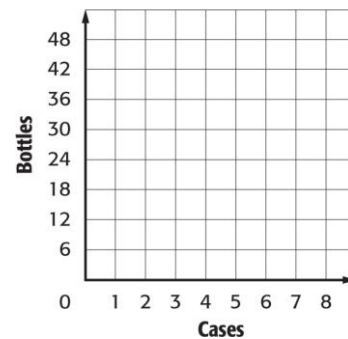
So, for every 8 inches, there is 1 patio block.

Exercises

Graph the data. Then find the slope of the line. Explain what the slope represents.

- The table shows the number of juice bottles per case.

Cases	1	2	3	4
Juice Bottles	12	24	36	48



- At 6 A.M., the retention pond had 28 inches of water in it. The water receded so that at 10 A.M. there were 16 inches of water left.

