Name _____   Date _____   Answer Key

GRAPH PROPORTIONAL RELATIONSHIPS #1

In a proportional relationship, all of the ratios of the two variables are equivalent. You can find the **constant of proportionality**, or the **slope**, of a proportional relationship by finding the ratio of *y* to *x*.

Graph each proportional relationship. Plot at least 3 points that satisfy the relationship and connect them with a line. Then write the slope. Simplify any fractions. *Number of points graphed may vary.*

1. Chef Romero made a batch of his famous vegetable noodle soup. He used 30 cups of broth and 5 cups of noodles. The amount of broth, *y*, is proportional to the amount of noodles, *x*.

Amount of broth (c.) vs *Amount of noodles (c.)*
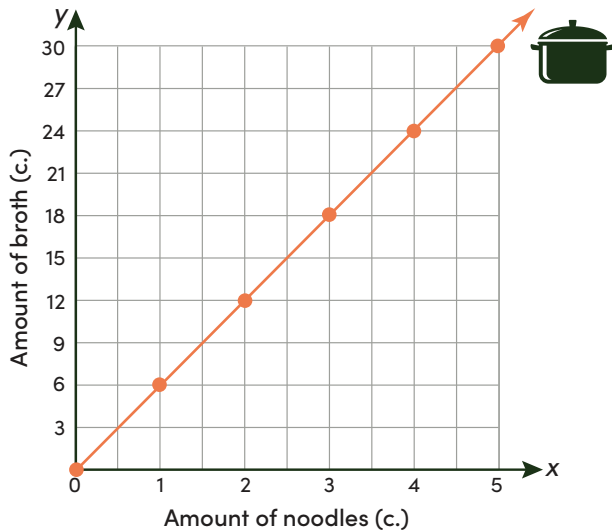
What is the slope?   6

2. Brie used 10 bags of mulch to cover her garden beds. Her garden beds are 120 square feet in all. The area covered, *y*, is proportional to the number of bags of mulch used, *x*.
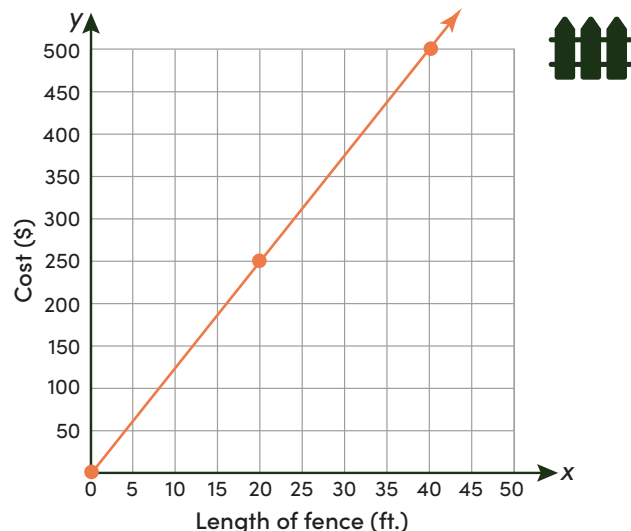
Area covered (sq. ft.) vs *Bags of mulch*
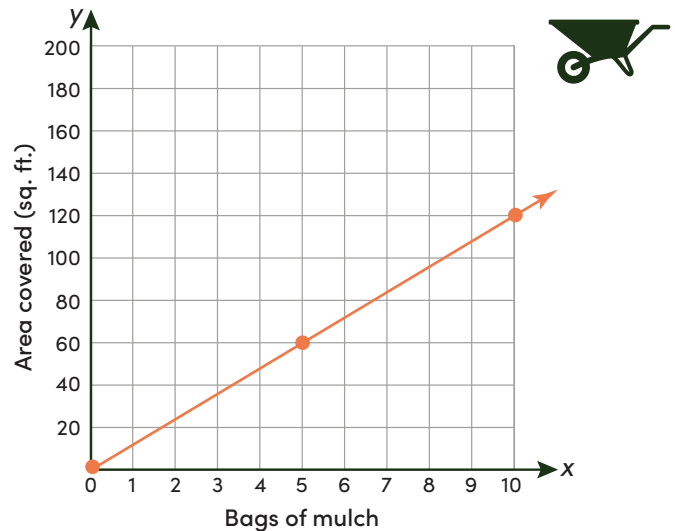
What is the slope?   12

3. Layla is training for a triathlon. She biked 20 kilometers in 50 minutes. The distance traveled, *y*, is proportional to the amount of time, *x*.

Distance (km) vs *Amount of time (min.)*
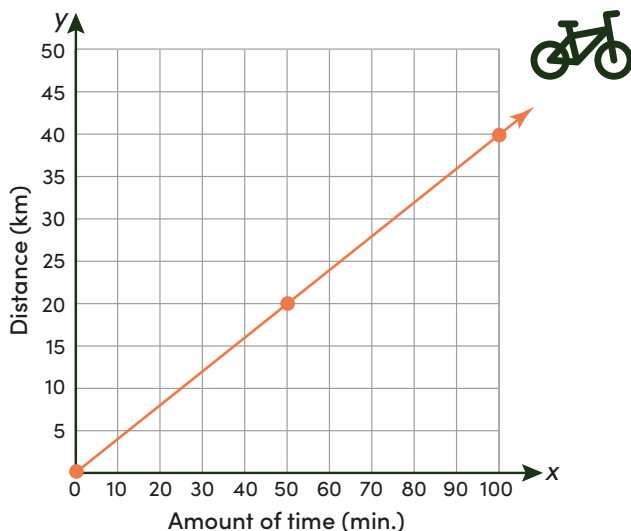
What is the slope? $\frac{2}{5}$ or 0.4

4. Kayden installed a fence along the edge of his patio. He paid $500 for a 40-foot fence. The cost, *y*, is proportional to the length of the fence, *x*.

Cost ($) vs *Length of fence (ft.)*

What is the slope? $\frac{25}{2}$ or 12.5

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