**Chapter 5 Practice Test: Ratios, Proportions, Rates, and Slope**

NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Solve each proportion using cross products. Show all work. Round decimals to nearest hundredth.**

1.  2. 3.

**Write a proportion with units for each situation. Solve using Cross Products.**

4. If there are 300 calories in a 6 oz. bagel, how many calories are in a 4 oz. bagel?

5. Jordan can enter 25 letters on a text message in 10 seconds. How long will it take him to enter a message that is 20 letters long?

**Proportionality:**

1. Show if table is in proportion. If it is, find the constant of proportionality. Show your work!

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **X (min)** | 7.5 | 10 | 17.5 | 20 |
| **Y (apples eaten)** | 4.5 | 6 | 10.5 | 12 |

Proportional? Why? If so, what is k with units?

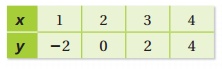
1. Show if table is in proportion. If it is, find the constant of proportionality. Show your work!

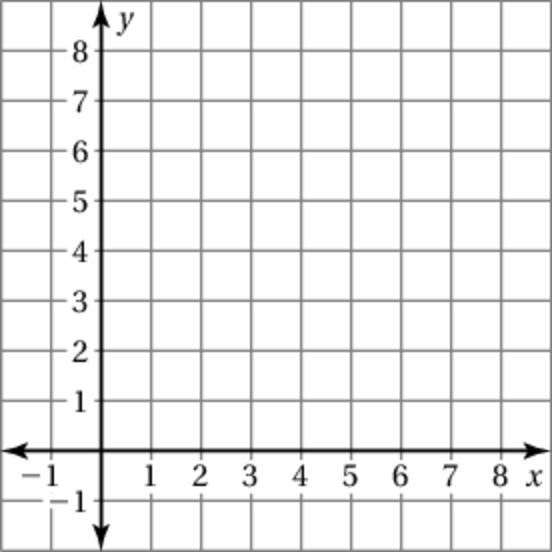
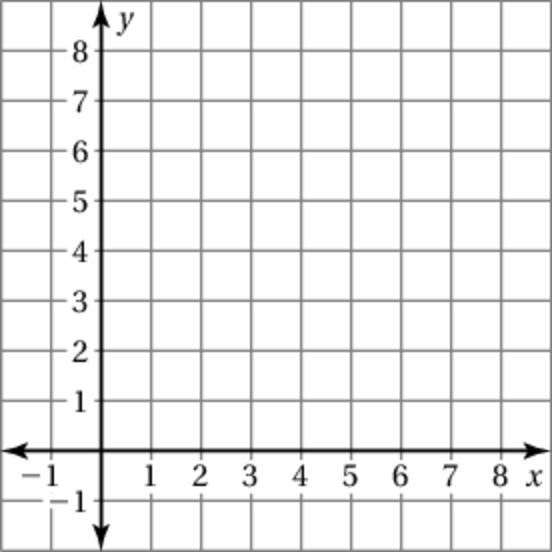
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **X (sec)** | 1.5 | 2 | 3.5 | 5 |
| **Y (breaths taken)** | 10.5 | 14 | 24.5 | 35 |

Proportional? Why? If so, what is k with units?

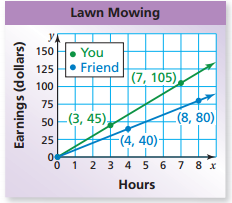
Use a graph to tell whether x and y are in a proportional relationship.

3) 4)





Slope: \_\_\_\_\_\_\_\_\_\_ Slope: \_\_\_\_\_\_\_

5. The graph shows how much you and a friend earn mowing lawns.

a) Which line is steeper? What does this mean in the context?

b) Slope of You (UNITS): \_\_\_\_\_\_\_\_\_

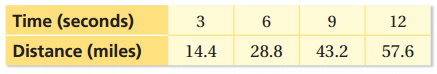
Slope of Friend (UNITS): \_\_\_\_\_\_\_\_\_

c) How much more money do you earn per hour than your friend?

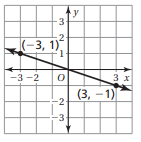
d) Explain the meaning of the point (4,40) in the context of this situation IN A COMPLETE SENTENCE.

6. Proportional or not? Show evidence!

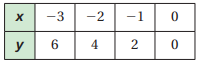
7. Find the Unit Rates:

a) b) Find Miles per Second

8) What are the four types of slope? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9) Find the slope.

a) b) Show formula work. (-3, -8) and (-1, -2)

10) The points in the table lie on a line. Find the slope.