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Unit 2, Lesson 5: Two Equations for Each Relationship

1. The table represents the relationship between a length measured in meters and the same length measured in kilometers.

   a. Complete the table.

   b. Write an equation for converting the number of meters to kilometers. Use x for number of meters and y for number of kilometers.

meters	kilometers
1,000	1
3,500	
500	
75	
1	
x	

2. Concrete building blocks weigh 28 pounds each. Using b for the number of concrete blocks and w for the weight, write two equations that relate the two variables. One equation should begin with $w =$ and the other should begin with $b =$.

3. A store sells rope by the meter. The equation $p = 0.8L$ represents the price p (in dollars) of a piece of nylon rope that is L meters long.

   a. How much does the nylon rope cost per meter?

   b. How long is a piece of nylon rope that costs $1.00?

4. The table represents a proportional relationship. Find the constant of proportionality and write an equation to represent the relationship.

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a	y
2	$\frac{2}{3}$
3	1
10	$\frac{10}{3}$
12	4

Constant of proportionality: _____

Equation: $y =$

(from Unit 2, Lesson 4)

5. On a map of Chicago, 1 cm represents 100 m. Select **all** statements that express the same scale.

   A. 5 cm on the map represents 50 m in Chicago.

   B. 1 mm on the map represents 10 m in Chicago.

   C. 1 km in Chicago is represented by 10 cm the map.

   D. 100 cm in Chicago is represented by 1 m on the map.

   (from Unit 1, Lesson 8)