## Lesson 2 Practice Problems

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 $p=0.8 L$ 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.

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

Constant of proportionality: $\qquad$
Equation: $y=$
(From Unit 5, Lesson 1.)
5. Jada walks at a speed of 3 miles per hour. Elena walks at a speed of 2.8 miles per hour. If they both begin walking along a walking trail at the same time, how much farther will Jada walk after 3 hours? Explain your reasoning.
(From Unit 2, Lesson 18.)

