



PRACTICE



TUTORIAL

Name: _____

2-4 Additional Practice

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- A recipe calls for 3 ounces of flour for every 2 ounces of sugar. Find the constant of proportionality.
- Percy rides his bike 11.2 miles in 1.4 hours at a constant rate. Write an equation to represent the proportional relationship between the number of hours Percy rides, x , and the distance in miles, y , that he travels.

- Water is dripping from a faucet into a bowl at a constant rate. The number of milliliters of water in the bowl, y , and the time in seconds, x , are shown in the table.

a. What is the constant of proportionality for the relationship between the number of milliliters of water in the bowl and the time in seconds?

b. **Model with Math** Write an equation to represent this relationship. © MP.4

Water from Dripping Faucet

Time in Seconds (x)	Milliliters in Bowl (y)
20	320
35	560
45	720
60	960

- The relationship between x and y is proportional. When x is 29, y is 275.5.
 - Find the constant of proportionality of y to x .
 - Write an equation that relates y and x .
 - Use the equation to find x when y is 408.5.
- The width of a row of identical townhouses, y , and the number of townhouses, x , have a proportional relationship. The width of 5 townhouses is 105 ft.
 - What is the constant of proportionality?
 - Write an equation that relates the width of a row of townhouses and the number of townhouses.
 - What would be the width of 9 townhouses in feet?

- Some friends in college took a road trip to Florida. Use the table to determine whether an equation in the form $y = kx$ can be written for the situation. Explain your answer.

Florida Trip

Hours Driven (x)	Miles Traveled (y)
1.5	82.5
2.5	137.5
4	232
7	350



7. An engineer makes different-size samples of a new material. The table shows volumes and their related masses.

- a. What would be the mass of 100 cubic centimeters of the material?
- b. What would be the mass of 500 cubic centimeters of the material?

Masses of Samples

Volume in Cubic Centimeters (x)	Mass in Grams (y)
9	90
14	140
25	250

8. **Higher Order Thinking** The number of pizzas, y , and the weight of the shredded cheese topping, x , on the pizzas have a proportional relationship. When shredded, a 50-lb block of cheese is enough to make 150 large pizzas.

- a. Find the constant of proportionality.
- b. How can you use the constant of proportionality to find how much cheese is on one slice of pizza, if there are 8 slices per pizza? Explain.

© Assessment Practice

9. For every 3 lemons Chrissy buys at a farm stand, the total cost increases by \$1.80.

The constant of proportionality is .

An equation that relates the total cost, y , and the number of lemons, x , is $y =$ x .

Use the equation you wrote to complete the table.

Cost of Lemons

Number of Lemons (x)	Total Cost (y)
4	<input type="text"/>
<input type="text"/>	\$4.20
<input type="text"/>	\$9.00
18	<input type="text"/>

10. For every dozen bagels you buy, the cost increases \$15. Which equation represents the cost, y , and the number of bagels, x ?

- Ⓐ $y = 1.25 + x$
- Ⓑ $y = 15x$
- Ⓒ $x = 15y$
- Ⓓ $y = 1.25x$