

Proportion word problems 9/22

Method 1: Set up a proportion & Cross Multiply (Keep Common units together)

ex) Six containers cost \$7.68. If the cost is proportional, how much would 10 containers cost?

Containers
\$

$$\frac{6}{7.68} = \frac{10}{x}$$

$$6 \cdot x = 76.8$$

$$76.8 \div 6 = 12.8$$

$$\boxed{\$12.80}$$

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Method 2: Find the unit Rate

Six containers cost \$7.68. If the cost is proportional, how much would 10 containers cost? Cost per Container

$$\frac{\$7.68}{6 \text{ Containers}} = \$1.28 \times 10 = \boxed{\$12.80}$$

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If you earn \$28.50 in 3 hours, how much is earned in 2 hours if the earnings per hour are proportional?

Method 1

$$\begin{array}{l} \text{hours} \\ \$ \end{array} \quad \frac{3}{28.50} = \frac{2}{m}$$

$$\frac{3 \cdot m}{3} = \frac{57}{3}$$

$$m = \$19$$

Method 2

Cost per hour

$$\frac{\$28.50}{3 \text{ hr.}} = \$9.50$$

$$\times 2$$

$$\boxed{\$19}$$

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On Own:

1. What is the cost of 2 Kg of flour if 3 Kg cost \$4.86 and the unit price for each package is the same?

$$\begin{array}{l} \text{Kg} \\ \$ \end{array} \quad \frac{3}{4.86} = \frac{2}{x}$$

$$\frac{3x}{3} = \frac{9.72}{3}$$

$$\boxed{x = \$3.24}$$

2. Three gallons of paint covers about 1,350 square feet. How many square feet will 2.5 gallons of paint cover?

$$\frac{\text{gal}}{\text{ft}^2} \quad \frac{3}{1350} = \frac{2.5}{x}$$

$$\frac{3x}{3} = \frac{3375}{3}$$

$$\boxed{x = 1125 \text{ ft}^2}$$

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