

Name Answer Key

Date _____

Lesson #54 – Proportion Word Problems

Do Now: Set up a proportion and solve algebraically to figure out how tall the tree is in Keona's garden. $\frac{\text{height}}{\text{shadow}}$

$$\frac{4}{12} = \frac{x}{72}$$

$$\frac{12x}{12} = \frac{288}{12}$$

$$x = 24$$

The tree is 24 feet.

Directions: Solve each question algebraically. Be sure to set it up the correct way and show all work.

- 1) If you can buy one can of pineapple chunks for \$2, how many can you buy with \$10?

 $\frac{P}{\$}$

$$\frac{1}{2} = \frac{x}{10}$$

$$\frac{2x}{2} = \frac{10}{2}$$

$$x = 5 \text{ cans}$$

- 2) One jar of crushed ginger costs \$2. How many jars can you buy for \$4?

 $\frac{J}{\$}$

$$\frac{1}{2} = \frac{x}{4}$$

$$\frac{2x}{2} = \frac{4}{2}$$

$$x = 2 \text{ jars}$$

- 3) One cantaloupe costs \$2. How many cantaloupes can you buy for \$6?

 $\frac{C}{\$}$

$$\frac{1}{2} = \frac{x}{6}$$

$$\frac{2x}{2} = \frac{6}{2}$$

$$x = 3 \text{ cantaloupes}$$

- 4) One package of blueberries cost \$3. How many packages of blueberries can you buy for \$9?

 $\frac{B}{\$}$

$$\frac{1}{3} = \frac{x}{9}$$

$$\frac{3x}{3} = \frac{9}{3}$$

$$x = 3 \text{ packages}$$

- 5) Adrian reduced the size of a rectangle to a height of 2 in. What is the new width if it was originally 24 in. wide and 12 in. tall?

 $\frac{\text{height}}{\text{width}}$

$$\frac{2}{x} = \frac{12}{24}$$

$$\frac{12x}{12} = \frac{48}{12}$$

$$x = 4 \text{ in}$$

- 6) Kevin was planning a trip to Western Samoa. Before going, he did some research and learned that the exchange rate is 6 Tala for \$2. How many Talas would he get if he exchanged \$6?

 $\frac{\text{Tala}}{\$}$

$$\frac{6}{2} = \frac{x}{6}$$

$$\frac{2x}{2} = \frac{36}{2}$$

$$x = 18 \text{ Talas}$$

7) Molly bought 32 kiwi fruit for \$16. How many kiwis can Lisa buy if she has \$4?

$$\frac{\$}{\text{K}} \quad \frac{32}{16} = \frac{x}{4}$$

$$\frac{16x}{16} = \frac{128}{16}$$

$$x = 8 \text{ Kiwis}$$

8) If you can buy four bulbs of elephant garlic for \$8 then how many can you buy with \$32?

$$\frac{\$}{\text{B}} \quad \frac{4}{8} = \frac{x}{32}$$

$$\frac{8x}{8} = \frac{128}{8}$$

$$x = 16 \text{ bulbs}$$

9) One bunch of seedless black grapes costs \$2. How many bunches can you buy for \$20?

$$\frac{\$}{\text{B}} \quad \frac{1}{2} = \frac{x}{20}$$

$$\frac{2x}{2} = \frac{20}{2}$$

$$x = 10 \text{ bunches}$$

10) The money used in Jordan is called Dinar. The exchange rate is \$2 to 2,338 Dinars. Find how many Dinars you would receive if you exchanged \$7.

$$\frac{\$}{\text{D}} \quad \frac{2}{2338} = \frac{7}{x}$$

$$\frac{2x}{2} = \frac{16366}{2}$$

$$x = 8183 \text{ Dinars}$$

11) Gabe bought three cantaloupes for \$7. How many cantaloupes can Toni buy if she has \$21?

$$\frac{\$}{\text{C}} \quad \frac{3}{7} = \frac{x}{21}$$

$$\frac{7x}{7} = \frac{63}{7}$$

$$x = 9 \text{ cantaloupes}$$

12) Jenny was planning a trip to Brazil. Before going, she did some research and learned that the exchange rate is 3.26 Brazilian Real for every \$1. How many Brazilian Reals would she get if she exchanged \$5?

$$\frac{\text{BR}}{\$} \quad \frac{3.26}{1} = \frac{x}{5}$$

$$x = 16.3 \text{ Brazilian Real}$$

13) Nick bought four bunches of fennel for \$9. How many bunches of fennel can Frank buy if he has \$18?

$$\frac{\$}{\text{F}} \quad \frac{4}{9} = \frac{x}{18}$$

$$\frac{9x}{9} = \frac{72}{9}$$

$$x = 8 \text{ bunches}$$

14) If you can buy one fruit basket for \$30 then how many can you buy with \$60?

$$\frac{\$}{\text{B}} \quad \frac{1}{30} = \frac{x}{60}$$

$$\frac{30x}{30} = \frac{60}{30}$$

$$x = 2 \text{ fruit baskets}$$