

## Proportional Relationships

NAME: \_\_\_\_\_

- Directions: 1) Write a ratio in terms of the UNITS in the problem.  
2) Set up an proportion with "x" for the missing number.  
3) Solve the problem. You **MUST SHOW YOUR WORK**.  
4) Write your final answer in the blank next to the problem number.

1. \_\_\_\_\_ DVD's cost \$12 for 4. How much would 16 DVD's cost?

$$\frac{\text{money}}{\text{DVD's}} \frac{12}{4} = \frac{x}{16}$$

2. \_\_\_\_\_ You need 4 pounds of ground beef to make 14 tacos. How many tacos can you make with 9 pounds of ground beef?

$$\frac{\text{lbs.beef}}{\text{tacos}} \frac{4}{28} = \frac{9}{x}$$

3. \_\_\_\_\_ It takes you 4 hours to drive 300 miles. How far can you drive in 10 hours?

4. \_\_\_\_\_ Makyla sent 120 text messages in the last 12 days. At that rate, how many texts would she send in a month (30 days)?

5. \_\_\_\_\_ A football player makes \$26 million over 4 years. If his contract continued, how much would he make over a total of 6 years?

6. \_\_\_\_\_ A recipe for M&M's cookies requires 2 cups of M&M's to make a dozen cookies. How many cookies can be made with 7 cups of M&M's?

7. \_\_\_\_\_ If Donald drives 250 km in 4 hours, how far could he drive in 2 full days?



8. \_\_\_\_\_ The Chick-fil-A cow hugs 60 kids every 2.5 hours. How many kids would he hug in  $\frac{1}{2}$  hour?

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1. 48 DVD's cost \$12 for 4. How much would 16 DVD's cost?

$$\frac{\text{money } 12}{\text{DVD's } 4} = \frac{x}{16}$$

↗ x4

2. 63 You need 4 pounds of ground beef to make 14 tacos. How many tacos can you make with 9 pounds of ground beef?

$$\frac{\text{lbs.beef } 4}{\text{tacos } 14} = \frac{9}{x}$$

↗ x7

3. 750 It takes you 4 hours to drive 300 miles. How far can you drive in 10 hours?

$$\frac{\text{hrs } 4}{\text{mi } 300} = \frac{10}{x}$$

4x = 3000  
x = 750

4. 300 Makyla sent 120 text messages in the last 12 days. At that rate, how many texts would she send in a month (30 days)?

$$\frac{\text{texts } 120}{\text{days } 12} = \frac{300}{30}$$

↗ x10

5. 39 million A football player makes \$26 million over 4 years. If his contract continued, how much would he make over a total of 6 years?

$$\frac{\$ 26,000,000}{\text{years } 4} = \frac{x}{6}$$

The unit rate is  $\frac{6,500,000}{\text{year}}$   
 $6,500,000 \times 6 = 39,000,000$

6. 42 A recipe for M&M's cookies requires 2 cups of M&M's to make a dozen cookies. How many cookies can be made with 7 cups of M&M's?

$$\frac{\text{cups } 2}{\text{cookies } 12} = \frac{7}{x}$$

↗ x6

7. 3,000 If Donald drives 250 km in 4 hours, how far could he drive in 2 full days?

$$\frac{\text{km } 250}{\text{hr } 4} = \frac{x}{48}$$

↗ x12

8. 12 The Chick-fil-A cow hugs 60 kids every 2.5 hours. How many kids would he hug in  $\frac{1}{2}$  hour?

$$\frac{\text{hugs } 60}{\text{hr } 2.5} = \frac{x}{0.5}$$

↗ x5

