

Name: \_\_\_\_\_

PROPORTIONS

**State if each pair of ratios forms a proportion.**

1)  $\frac{4}{2}$  and  $\frac{20}{6}$

2)  $\frac{3}{2}$  and  $\frac{18}{8}$

3)  $\frac{4}{3}$  and  $\frac{16}{12}$

4)  $\frac{4}{3}$  and  $\frac{8}{6}$

5)  $\frac{12}{24}$  and  $\frac{3}{4}$

6)  $\frac{6}{9}$  and  $\frac{2}{3}$

**Solve each proportion.**

7)  $\frac{10}{k} = \frac{8}{4}$

8)  $\frac{m}{10} = \frac{10}{3}$

9)  $\frac{2}{x} = \frac{7}{9}$

10)  $\frac{3}{x} = \frac{7}{10}$

$$11) \frac{4}{9} = \frac{2}{x}$$

$$12) \frac{6}{a} = \frac{3}{8}$$

$$13) \frac{8n}{8} = \frac{8}{3}$$

$$14) \frac{7}{9} = \frac{a}{5}$$

$$15) \frac{p}{8} = \frac{13}{2}$$

$$16) \frac{3}{13} = \frac{v}{3}$$

**Solve each proportion.**

$$1) \frac{10}{8} = \frac{n}{10}$$

$$2) \frac{7}{5} = \frac{x}{3}$$

$$3) \frac{9}{6} = \frac{x}{10}$$

$$4) \frac{7}{n} = \frac{8}{7}$$

**Answer each question and round your answer to the nearest whole number.**

- 1) If you can buy one can of pineapple chunks for \$2 then how many can you buy with \$10?
- 2) One jar of crushed ginger costs \$2. How many jars can you buy for \$4?
- 3) One cantaloupe costs \$2. How many cantaloupes can you buy for \$6?
- 4) One package of blueberries costs \$3. How many packages of blueberries can you buy for \$9?
- 9) One bunch of seedless black grapes costs \$2. How many bunches can you buy for \$20?
- 10) The money used in Jordan is called the Dinar. The exchange rate is \$3 to 2 Dinars. Find how many dollars you would receive if you exchanged 22 Dinars.

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

12) Jenny was planning a trip to the United Arab Emirates. Before going, she did some research and learned that the exchange rate is 4 Dirhams for every \$1. How many Dirhams would she get if she exchanged \$5?

15) Asanji took a trip to Mexico. Upon leaving he decided to convert all of his Pesos back into dollars. How many dollars did he receive if he exchanged 42.7 Pesos at a rate of  $\$5.30 = 11.1$  Pesos?

16) The currency in Argentina is the Peso. The exchange rate is approximately  $\$3 = 1$  Peso. At this rate, how many Pesos would you get if you exchanged \$121.10?

**Set up a proportion to solve each problem, show all work, and label all answers.**

1. The ratio of boys to girls is 3 to 2. If there are 12 boys, how many girls are there?
2. At a recent party, it cost \$9.50 for refreshments for 10 guests. At this rate, how much would it cost to have refreshments for 80 guests?
3. Mary has saved \$17.50 in the past 3 weeks. At this rate, how much will she save in 15 weeks?
4. Mr. Johnson was paid \$190 for a job that required 40 hours of work. At this rate, how much should he be paid for a job requiring 60 hours of work?
5. The park ranger stocks the children's fishing pond keeping a ratio of 4 sunfish to 3 perch. If he puts 300 sunfish into the pond, how many perch should be put into the pond?
6. If two pounds of meat will serve 5 people, how many pounds will be needed to serve 13 people?

## Finding unit Rates

When the denominator of a rate is 1, we call the rate a **unit rate**. We usually use the key word **per** or the division symbol / to indicate a unit rate. For example:

If a student earns \$8.50 per hour, it is the same as \$8.50/hour, and means \$8.50 for every 1 hour of work.

**Find each unit rate. Round your answer to the nearest hundredth.**

1. type 800 words in 12 minutes _____ words per minute	2. 192 students in 4 buses _____ in each bus
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3. 357 miles in 5 hours _____ miles per hour	4. 8 ducks for \$23.60 \$_____ per duck
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5. a 10-lb bag of cherries for \$33.49 _____ per lb	6. 12 chickens lay 30 eggs _____ eggs per chicken
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Find the Unit Rate for the following

Show your work in the space provided!

7. Earn \$134 in 8 hours _____ per hour	8. 3 pizzas for \$19.99 _____ each
9. 3500 calories for 6 servings of pie _____ calories per serving	10. 351 chairs in 27 rows _____ chairs in each row
11. \$37.29 for 2 pairs of jeans. _____ each	12. \$37.29 for 2 pairs of ducks _____ per duck

WORK SPACE!

### Which is the better buy?

15. A 12.5 oz bag of Doritos for \$3.79 or a 3 oz bag for \$1.00.

Which is the better buy?

16. 12 bars of soap for \$10.00 or 5 bars of soap for \$4.00.

18. 5 gallon bucket of paint for \$97.45 or a 1 gallon bucket of paint for 21.95.