

Unit: Ratios and Proportions

Name: _____

Key

Lesson 1: Ratios and Unit Rates

Hour: _____

Assignment 1

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

1. type 800 words in 12 minutes

66.67 words per minute

2. 192 students in 4 buses

48 in each bus

3. 8 ducks for \$23.60

\$ 2.95 per duck

4. 3 pizzas for \$19.99

\$ 6.66 each

5. 3500 calories for 6 servings of pie

583.33 calories per serving

6. 357 miles in 5 hours

71.4 miles per hour

7. $\frac{351 \text{ chairs}}{27 \text{ rows}} = \frac{? \text{ chairs}}{\text{row}}$

13 chairs

8. $\frac{408 \text{ jelly beans}}{12 \text{ boxes}} = \frac{? \text{ jelly beans}}{\text{box}}$

34 jelly beans

Which is the better buy?

9. A 12.5 ounce bag of Doritos for \$3.79 or a 3 ounce bag for \$1.00?

$\frac{\$3.79}{12.5 \text{ oz}} = \frac{.3032}{1 \text{ oz}}$

OR

$\frac{\$1.00}{3 \text{ oz}} = \frac{.33}{1 \text{ oz}}$

Better Buy!

10. 12 bars of soap for \$10.00 or 5 bars of soap for \$4.00?

$\frac{\$10.00}{12 \text{ bars}} = \frac{.83}{1 \text{ bar}}$

OR

$\frac{\$4.00}{5 \text{ bars}} = \frac{.80}{1 \text{ bar}}$

Better Buy

11. 48oz Big Gulp for \$1.39 or 32oz Coca-Cola for \$0.89

$\frac{\$1.39}{48 \text{ oz}} = \frac{.028}{1 \text{ oz}}$

OR

$\frac{.89}{32 \text{ oz}} = \frac{.027}{1 \text{ oz}}$

Better Buy

12. A box of 84 penguins for \$13,597 or a bag of 5 penguins for \$795.95?

$\frac{\$13,597}{84 \text{ penguins}} = \frac{\$161.87}{1 \text{ penguin}}$

OR

$\frac{795.95}{5 \text{ penguins}} = \frac{\$159.19}{1 \text{ penguin}}$

Better Buy

Simplify the complex fraction and find the unit rate. Round to the nearest thousandth, if necessary.

$$13. \frac{\frac{3}{2}}{\frac{1}{6}} = \frac{3}{2} \times \frac{6}{1} = \frac{18}{2} = 9 = \frac{9.000}{1}$$

$$14. \frac{\frac{9}{12}}{\frac{1}{7}} = \frac{9}{12} \times \frac{7}{1} = \frac{63}{12} = \frac{21}{4} = \frac{5.250}{1}$$

$$15. \frac{\frac{1}{4}}{\frac{1}{10}} = \frac{1}{4} \times \frac{10}{1} = \frac{10}{4} = \frac{5}{2} = \frac{2.500}{1}$$

$$16. \frac{\frac{6}{1}}{\frac{1}{6}} = \frac{6}{1} \times \frac{6}{1} = \frac{36}{1} = 36.000$$

$$17. \frac{\frac{3}{5}}{\frac{1}{7}} = \frac{3}{5} \times \frac{7}{1} = \frac{21}{5} = \frac{4.200}{1}$$

$$18. \frac{\frac{1}{8}}{\frac{1}{10}} = \frac{1}{8} \times \frac{10}{1} = \frac{10}{8} = \frac{5}{4} = \frac{1.250}{1}$$

$$19. \frac{\frac{3}{4}}{\frac{1}{5}} = \frac{3}{4} \times \frac{5}{1} = \frac{15}{4} = \frac{3.750}{1}$$

$$20. \frac{\frac{1}{3}}{\frac{1}{2}} = \frac{1}{3} \times \frac{2}{1} = \frac{2}{3} = \frac{0.667}{1}$$