

Chapter 7 Review

Vocabulary and Concept Check

✓ Choose the letter of the term or number that best matches each phrase.

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|---|----------------------|
| 1. a comparison of two numbers by division _____ | a. rate |
| 2. two rates that have the same value _____ | b. base |
| 3. a ratio of two measurements with different units _____ | c. unit rate |
| 4. an equation that shows that two ratios are equivalent _____ | d. ratio |
| 5. the number that is compared to the whole quantity in a percent proportion _____ | e. part |
| 6. product of the numerator of one ratio in a proportion and the denominator of the other ratio _____ | f. proportion |
| 7. a rate that is simplified so that it has a denominator of 1 _____ | g. equivalent ratios |
| 8. the number that represents the whole quantity in a percent proportion _____ | h. cross products |

7.1 Ratios

✓ Write each ratio as a fraction in simplest form.

16:12

5 to 25

50 cm to 75 cm

6 ft : 12 inches

✓ Determine whether the ratios are equivalent. Write *yes* or *no*.

$$\frac{3}{5} \text{ and } \frac{21}{35}$$

$$27:15 \text{ and } 9:5$$

$$\frac{18}{24} \text{ and } \frac{5}{20}$$

7.2 Rates

✓ Find each unit rate. Round to the nearest hundredth if necessary.

\$23.75 for 5 pounds

810 miles in 9 days

14 laps in 4 minutes

✓ Which bottle of laundry detergent shown below costs the least per ounce?

<u>Bottle</u>	<u>Price</u>
12 oz	\$2.16
32 oz	\$5.60
64 oz	\$10.24

7.3 Algebra: Solving Proportions

- ✓ Solve each proportion

$$\frac{x}{10} = \frac{3}{5}$$

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

$$\frac{7}{18} = \frac{d}{6}$$

$$\frac{15}{w} = \frac{35}{21}$$

7.5 Fractions, Decimals, and Percents

- ✓ Write each percent as a fraction in simplest form.

27.5%

5.4%

$45\frac{1}{4}\%$

- ✓ Write each fraction as a percent. Round to the nearest **hundredth** if necessary.

$$\frac{1}{8}$$

$$\frac{5}{6}$$

$$\frac{7}{40}$$

7.6 Percents Greater than 100% and Percents Less than 1%

- ✓ Write each percent as a decimal **and** as a mixed number or fraction in simplest form.

125%

0.75%

563%

- ✓ Write each decimal as a percent.

0.002

4.75

7.5

0.0095

7.7 Percent of a Number

- ✓ Find each number. Round to the nearest **tenth** if necessary.

Find 78% of 50.

45.5% of 75 is what number?

What is 225% of 60?

0.75% of 80 is what number?

7.8 The Percent Proportion

- ✓ Find each number. Round to the nearest **tenth** if necessary.

6 is what percent of 120?

Find 0.8% of 35.

What percent of 375 is 40?

45% of 500 is what?

(OVER)