

Name: Key

Period: _____

CCM6+ Unit 9 Study Guide

1. If you get 75 questions right out of 200, write your score as a fraction in simplest form, a decimal, and a percent.

- a. Fraction – $\frac{75}{200} = \frac{15}{40} = \frac{3}{8}$
 b. Decimal – 0.375
 c. Percent – 37.5%

2. How many centimeters are in 18 feet, given that 1 inch \approx 2.54 cm?

$18 \text{ ft} = 216 \text{ in}$

$$\frac{216 \text{ in}}{x \text{ cm}} = \frac{1 \text{ in}}{2.54 \text{ cm}}$$

 $x = 548.64 \text{ cm}$

3. Hunter wants to buy a new tennis racquet. The sports store is having a sale on tennis racquets. The racquet she likes costs \$56.95. The store is offering a 10% off of the original price. How much will she save on the cost of the racquet? Round your answer to the nearest cent

$$\frac{x}{56.95} = \frac{10}{100}$$
 \$5.70

4. Marcy's Music sells compact discs for \$21.99. Best Deal sells compact discs for \$23.99. Best Deal's store is having a 20% off sale. Which store is selling discs at the cheaper price and give the price.

MM \$21.99
~~21.99~~
 BD $\frac{23.99}{100} = \frac{20}{100}$
 $23.99 - 4.80 = 19.19$
 $x = 4.80$
\$19.19

5. After eating at a restaurant, Mr. Jackson's bill before tax is \$78.90. The sales tax rate is 6%. Mr. Jackson decides to leave a 15% tip for the waiter based on the pre-tax amount. How much will the total bill be, including tax and tip?

\$95.47 total
 $\frac{x}{78.90} = \frac{6}{100}$ $x = 4.73$ Tax
 $\frac{x}{78.90} = \frac{15}{100}$ $x = 11.84$ Tip
 $78.90 + 4.73 + 11.84 = 95.47$

6. A shirt is on sale for 30% off. The sale price is \$20. What was the original price?

\$28.57 $\frac{20}{.70}$

7. A salesperson set a goal to earn \$1,800 in June. He receives a base salary of \$600 per month as well as a 10% commission for all sales in that month. How much merchandise will he have to sell to meet his goal?

$$\frac{1200}{x} = \frac{10}{100}$$
 x = 12,000

8. A student estimated a mass to be 425g, but upon carefully measuring it, found the actual mass to be 452g. What is the percent error? Round your answer to the nearest hundredth percent.

$$\frac{|429 - 452|}{452} = 0.05\%$$

9. How many years will it take for \$5,000 to double at a simple interest rate of 7%? Use the formula $I = prt$.

$5000 = 5000 \times .07 \times t$
 $14.29 = t$

10. The regular price of a sweater is \$27.99. It is on sale for \$20.49. Find the percent of change to find what percent you will save on the sweater. Round to the nearest percent

$$\frac{7.50}{27.99} = \frac{x}{100}$$

 $x = 27\%$