NAME _____ DATE _____ PERIOD _____ NUMBER _____

Accelerated Math 7 Chapter 6 Practice Test

1. What number is 34% of 50?

WHOLE (PERCENT) / 100 = PART

$\frac{x}{50} = \frac{34}{100}$ (÷2 / ÷2)

$\frac{1700}{100} = \frac{100x}{100}$

$17 = x$

17

2. 88 is 110% of what number?

$\frac{\text{PART}}{\text{PERCENT}} = \text{WHOLE}$

$\frac{88}{x} = \frac{110}{100}$

80

3. Fifteen of 40 marbles are striped. What percent of the marbles are striped?

$\frac{\text{PART}}{\text{WHOLE}} \rightarrow \frac{15}{40} = 0.375$

$\frac{15}{40} = \frac{x}{100}$

$\frac{1500}{40} = \frac{40x}{40}$

$37.5 = x$

37.5%

4. A survey shows that that 65% of cat owners say their cat always come when they call it. If 15,000 cat owners were surveyed, how many people made this claim?

PERCENT AS A DECIMAL (WHOLE)

$0.65(15000)$

$\frac{x}{15000} = \frac{65}{100}$

$65(15000) = 100x$

$975000 = 100x$

$9750 = x$

9,750

5. Which equation can be used to find what percent 6 is of 72?

A. $72 = 6p$ **B.** $(72 - 6) = 100p$

C. $6 = 72p$ **D.** $6(72) = p$

$\frac{6}{72} = 0.08\overline{3}$

$\frac{6}{72} = p$

6. Fiona deposited $900 in the bank over 2 years. She earned $60.00 in simple interest at the end of the 2 years. What was the annual interest rate?

$30 INTEREST FOR ONE YEAR

$\frac{30}{x} = \frac{900}{100}$

$\frac{900x}{900} = \frac{3000}{900}$

$x = 3.\overline{3}$

$\frac{30}{900} = \frac{R}{100}$

$3.\overline{3}\%$

$3\frac{1}{3}\%$

7. Megan's dog weighed 18lbs. when it was one year old. Now the dog weighs 25lbs. What is the percent of change in her dog's weight to the nearest hundredth?

$\frac{25-18}{18} = \frac{7}{18} = 0.3\overline{8} = 38.\overline{8}\%$

38.89% INCREASE

8. An investment of $800 is **compounded** annually at 6.5%. What is the total amount of money after 2 years?

$800(0.065)(1) = 52$

$852(0.065) = 55.38$

$852.00 + 55.38 = \$907.38$

$907.38

$60 = 900(r)(2)$

$\frac{60}{1800} = \frac{1800r}{1800}$

$r = 0.0\overline{3}$

9. A store makes a profit of \$12 on a hoodie after a markup of 60%. What is the selling price of the hoodie?

$\frac{12}{x} = \frac{60}{100}$ $\frac{1200}{60} = \frac{60x}{60}$ $20 = x$

ORIGINAL PRICE ↑

$20 + 12 = 32$

\$32 SELLING PRICE

10. During peak season, boat rentals cost \$80 per day. During the off-season, they cost \$60 per day. What is the percent of change from peak season to off-season?

$\frac{80-60}{80} = \frac{20}{80} = \frac{1}{4} = 25\%$

25% DECREASE

11. Collin buys a pair of shoes marked \$89.99. He receives a 20% discount. Which equation can be used to determine the sale price of the ~~suit~~ SHOES?

A. $s = 89.99(0.20)$ **B.** $s = 89.99(1.80)$

C. $s = 89.99(0.80)$ **D.** $s = 89.99(1.20)$

↑ 80% IS WHAT YOU PAY WHEN YOU SAVE 20%

C

12. A used laptop computer sells for \$180, which is an 85% reduction from the original price. What was the original price of the computer?

$\frac{180}{x} = \frac{15}{100}$ $\frac{18000}{15} = \frac{15x}{15}$ $1200 = x$

\$1200

13. A local meteorologist estimated 4.5 inches of snow for the month of December. The actual snowfall was 3.0 inches. What was the percent error of the estimate to the nearest percent?

$\frac{4.5-3.0}{3.0} = \frac{1.5}{3} = 0.5$

50% ERROR

14. Which fraction would be best to use to find 20% of 48 mentally?

A. $\frac{1}{5} = 20\%$ **B.** $\frac{1}{4} = 25\%$ **C.** $\frac{1}{3} = 33\frac{1}{3}\%$ **D.** $\frac{1}{2} = 50\%$

A

15. Manny deposits \$275 into an account that earns 2.5% **simple** interest. Justina deposits \$225 into an account that earns 6% **simple** interest. How much money is in each account after 10 years? At those interest rates, how many years would it be before Justina has more money than Manny?

MANNY

$275 + (275 \cdot 0.025)x$

$275 + 6.88x$

$-6.88x$

275

-225

50

6.62

7.55

JUSTINA

$225 + (225 \cdot 0.06)x$

$225 + 13.5x$

$-6.88x$

$225 + 6.62x$

-225

$6.62x$

6.62

x

MANNY

$275(0.025)(10)$

$6.875(10)$

68.75

$275 + 68.75 = 343.75$

JUSTINA

$225(0.06)(10)$

$13.5(10)$

135

$225 + 135 = 360$

Manny (10 yrs)

\$343.75

Justina (10 yrs)

\$360.00

Years till Justina has more total money than Manny.

7.56 YEARS