Accelerated Math 7 Chapter 6 Practice Test

1. What number is 34% of 50?

↑ PART   ↑ WHOLE

$\dfrac{x}{50} = \dfrac{34}{100}$

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2. 88 is 110% of what number?

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

$88(100) = 110(x)$
$8800 = 110x$
$\dfrac{8800}{110} = \dfrac{110x}{110}$
$80 = x$

CHECK
$1.10(80) = 88$

80

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

$\dfrac{15}{40} = \dfrac{3}{8} = 0.375 =$

37.5%

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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?

FINDING PART

$15,000(0.65) = 9,750$

9,750 CAT OWNERS

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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. $6(72) = p$

$\dfrac{x}{1} \cdot \dfrac{6}{72} = p \cdot 72$

$6 = 72p$

$\dfrac{10}{40} = 0.25 = 25\%$

C

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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?

$60 INTEREST IN 2YRS
MEANS $30 INTEREST PER YEAR

$\dfrac{30}{900} = 0.0\overline{3} = 3\tfrac{1}{3}\%$

CHECK $900(0.0333)(2) \overset{?}{=} 60$

$3\tfrac{1}{3}\%$

$0.0\overline{3}$

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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?

$25 - 18 = 7$ $\dfrac{7}{18} = 0.3\overline{8} \approx 38.888\% \approx 38.89\%$

38.89%

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

$800(0.065) = 52.00$

$852(0.065) = 55.38$

$107.38 INT

$907.38

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

$12 = 60\%$ MARKUP

$12 is 60% of X

$\dfrac{12}{X} = \dfrac{60}{100} = \dfrac{3}{5}$

$\dfrac{12}{X} = \dfrac{3}{5}$

20

$$20 = X$$

$20 = $ STORES COST
$12 = $ PROFIT
_____
$32

$\dfrac{1200}{60} = \dfrac{60X}{60}$

$20 = X$

$32

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?

$80 \rightarrow $60

$20 CHANGE

$\dfrac{20}{80} = 0.25$

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.** $s = 89.99(1.20)$

SAVE 20%
YOU PAY 80%

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?

$180 = 15\%$

$\dfrac{180}{X} = \dfrac{15}{100}$

$\dfrac{18000}{15} = \dfrac{15X}{15}$

$1200 = X$

$1,200

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?

$4.5 - 3.0 = 1.5$

$\dfrac{1.5}{3.0} = 50\%$

50%

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

A. $\dfrac{1}{5}$ = 20%   **B.** $\dfrac{1}{4}$ **C.** $\dfrac{1}{3}$ **D.** $\dfrac{1}{2}$

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(0.025) = $6.88
$275 + 6.88(10)$
$275 + 68.80$
$343.80

JUSTINA
$225(0.06) = $13.50
$225 + 13.5(10)$
$225 + 135$
$360

$13.50 - $6.88 = $6.62

$275
-225
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50

$\dfrac{50}{6.62} = 7.55$

Manny (10 yrs)
$343.75

Justina (10 yrs)
$360

Years till Justina has more total money than Manny.
JUSTINA'S TOTAL WILL PASS MANNY'S TOTAL DURING THE 7TH YEAR.