

M7A Chapter 6 Practice Test

- Which proportion can be used to find what number is 44% of 50? WHOLE
 - $\frac{44}{100} = \frac{x}{50}$
 - $\frac{64}{100} = \frac{x}{50}$
 - $\frac{44}{100} = \frac{50}{x}$
 - $\frac{44}{x} = \frac{x}{50}$

1. A
- 75 is 125% of what number?

$$\underline{75} = \frac{125}{100}$$

$$\frac{7500}{125} = 60$$

2. 60
- Thirty-six of 80 marbles are blue. What percent of the marbles are blue?

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

$$\frac{36}{80} = 0.45$$

3. 45%
- Of 80 fathers surveyed, 33 of them said they'd like their lawns mowed for Father's Day. What percent is 33 of 80?

$$\frac{33}{80} = 0.4125$$

4. 41.25%
- Results from a survey show that that 36% of dog owners say their dog sleeps in a family member's bed. If 12,500 pet owners were polled, how many people made this claim?

$$\frac{x}{12500} = \frac{36}{100}$$

$$\text{WHOLE (PERCENT)} = \text{PART}$$

$$12,500(0.36) = 4500$$

5. 4500 PEOPLE
- Which equation can be used to find what percent 18 is of 125?
 - $125 = 18p$
 - $18 = 125p$
 - $(125 - 18) = 360p$
 - $18(125) = p$
$$18 = 125(\text{PERCENT})$$

6. G
- Which is the best estimate for $\frac{1}{2}\%$ of 385? ≈ 400
 - 2
 - 19
 - 20
 - 39
$$10\% \text{ of } 400 = 40$$

$$1\% \text{ of } 400 = 4$$

$$\frac{1}{2}\% \text{ of } 400 = 2$$

7. A
- Which is the best estimate of a 15% tip on a restaurant bill of \$88.90? $\approx \$90$
 - \$9.00
 - \$13.50
 - \$18.00
 - \$26.67
$$10\% \text{ of } \$90 = \$9$$

$$5\% \text{ of } \$90 = \$4.50$$

$$\$13.50$$

8. G
- Of the 125 country songs on Howard's MP3 player, 14 are recorded by a female. Fourteen is what percent of 125?

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

$$\frac{14}{125} = 0.112$$

9. 11.2%
- 28.5 is what percent of 20?

$$\frac{28.5}{20} = 1.425$$

10. 142.5%

$$\frac{57.6}{x=72} = \frac{80}{100}$$

$$\frac{57.6(100)}{80} = \frac{5760}{80} = 72$$

$$72(0.15) = 10.8$$

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(continued) $57.6(100) = 5760$

11. If 80% of a number is $57\frac{3}{5}$, what is 15% of the number?

$$57\frac{3}{5} = 57\frac{6}{10} = 57.6$$

11. 10.8

12. During peak season, a hotel room costs \$135 per night. During the off-season, it costs \$90 per night. Which describes the percent of change from peak season to off-season?

$$\frac{90-135}{135} = \frac{45}{135} = 0.\bar{3}$$

F. $33\frac{1}{3}\%$ decrease

H. 50% increase

G. $33\frac{1}{3}\%$ increase

J. 50% decrease

12. F

13. A coin dealer buys a coin for \$850 and sells it for \$1190. Find the percent of change.

$$\frac{1190-850}{850} = \frac{340}{850} = 0.4$$

13. 40% INCREASE

14. In two years, the value of a car changed from \$14,000 to \$11,200. What is the percent of change?

$$\frac{11,200-14,000}{14,000} = \frac{-2,800}{14,000} = -0.2$$

14. 20% DECREASE

15. Evan buys a suit marked \$64.99. He receives a 20% discount. Which equation can be used to determine the sale price of the suit?

A. $s = 64.99(0.20)$

C. $s = 64.99(1.80)$

B. $s = 64.99(0.80)$

D. $s = 64.99(1.20)$

IF YOU SAVE 20%
THEN YOU PAY 80%

15. B

16. Mona invested \$2840 in a savings account for 6 years. She earned \$894.60 in simple interest. What was the annual interest rate?

16. 5.25%

17. Juliana plans to borrow \$3180 at 6.5% for 3.5 years. What amount of simple interest should she expect to pay? Round to the nearest dollar.

$$I = 3180(0.065)(3.5) = 723.45$$

17. \$723

18. What is the total amount in an account after 3 years if the interest is compounded annually on an amount of \$3200 at 4.8%?

$$3200(0.048)(3) = 460.80 \quad \text{INT}$$

$$\$3200 + \$460.80 \quad \text{PRIN. INT}$$

18. \$3660.80

19. A store makes a profit of \$15 on a wallet after a markup of 60%. What is the selling price of the wallet? Show two methods for determining your answer.

$$\frac{15}{C} = \frac{60}{100} \quad \frac{15(100)}{60} = \frac{1500}{60} = 25$$

$$\text{COST} + \text{MARKUP} = \$25 + \$15 = \$40$$

19. \$40

20. A bicycle originally priced at \$225 was marked down 30%. After a week, the bicycle was marked down another 15% off the sale price. What is the percent of change from the original price to the final sale price?

$$\$225(0.70) = \$157.50$$

$$\frac{133.88-225}{225} = \frac{-91.12}{225} = -0.4049$$

20. _____

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$$\$157.50(0.85) = \$133.88$$

143
40% DECREASE

16. Mona invested \$2840 in a savings account for 6 years. She earned \$894.60 in simple interest. What was the annual interest rate?

$$I = PRT$$

$$\frac{I}{PT} = R$$

$$894.60 = 2840(R)(6)$$

$$\frac{894.60}{17040} = \frac{17040R}{17040}$$

$$0.0525 = R$$

$$5.25\%$$