NAME _____ DATE _____ PERIOD _____

3 Chapter 3 Test, Form 2B

SCORE _____

Write the letter for the correct answer in the blank at the right of each question.

1. Solve $4 = n - (-3)$.

A. 1 **B.** 7 **C.** -1 **D.** -7 **1.** _____

2. Solve $x - 12 = 5$.

A. -17 **B.** -7 **C.** 17 **D.** 7 **2.** _____

3. Solve $6z = -84$.

A. -90 **B.** -78 **C.** -14 **D.** -504 **3.** _____

4. Solve $-15 = -\frac{w}{3}$.

A. 5 **B.** 45 **C.** -18 **D.** -12 **4.** _____

5. Solve $-\frac{4}{7}s = -28$.

A. 49 **B.** -49 **C.** 16 **D.** -16 **5.** _____

6. Solve $2 + 7y = 44$.

A. $6\frac{4}{7}$ **B.** 35 **C.** 49 **D.** 6 **6.** _____

7. Translate the following sentence into an equation.
The product of five and a number y is two less than the quotient of four and y.

A. $5 + y = \frac{4}{y} - 2$ **B.** $5y = \frac{4}{y} - 2$

C. $5y = 2 - \frac{4}{y}$ **D.** $5 + y = 2 - \frac{4}{y}$ **7.** _____

8. Translate the following equation into a verbal sentence.
$x(7 - 5y) = \frac{x}{2}$

A. x times seven minus five times y equals x divided by two.

B. The product of x and seven minus five times y equals the quotient of x and two.

C. x times the difference of seven and the product of five and y equals the quotient of x and two.

D. x times the sum of seven and five times y equals x divided by two. **8.** _____

9. A number is divided by four. The result is added to five. This result is multiplied by three to give 27. What is the number?

A. 16 **B.** 1 **C.** $21\frac{1}{2}$ **D.** $3\frac{1}{2}$ **9.** _____

10. What ratio forms a proportion with $\frac{8}{36}$?

A. $\frac{1}{4}$ **B.** $\frac{6}{27}$ **C.** $\frac{7}{30}$ **D.** $\frac{2}{7}$ **10.** _____

Assessment

NAME _____ DATE _____ PERIOD ____

3 **Chapter 3 Test, Form 2B** *(continued)*

11. Solve the proportion $\frac{1}{8} = \frac{7}{2h}$.

A. 4 **B.** 28 **C.** 56 **D.** 16 **11.** ____

12. Solve $9a + 28 = 4a + 3$.

A. -30 **B.** -20 **C.** $6\frac{1}{5}$ **D.** -5 **12.** ____

13. Solve $3x + 4(x - 8) - x = \frac{3}{5}(10x + 15)$.

A. 0 **B.** all numbers **C.** no solution **D.** 41 **13.** ____

14. Solve $4(3r - 2) = -3(r + 7)$.

A. $-\frac{13}{15}$ **B.** $-1\frac{4}{15}$ **C.** $1\frac{14}{15}$ **D.** $-1\frac{3}{10}$ **14.** ____

15. Solve $3b = 6v - 3b$, for v.

A. $6b - 6$ **B.** b **C.** $b - 6$ **D.** 0 **15.** ____

16. Find the percent of change. original: 45 new: 54

A. $33\frac{1}{3}\%$ **B.** 25% **C.** $16\frac{2}{3}\%$ **D.** 20% **16.** ____

17. Find the discounted price. radio: \$45.00 discount: 30%

A. \$15.00 **B.** \$31.50 **C.** \$36.00 **D.** \$42.00 **17.** ____

18. Nature Drinks wants to combine orange juice they sell for \$0.09 per ounce with guava juice they sell for \$0.14 per ounce to create an orange-guava drink. How many ounces of orange juice should they use to create a 16-ounce drink that would sell for \$1.74?

A. 10 **B.** 6 **C.** 16 **D.** 0 **18.** ____

19. Teri begins walking east at 2 miles per hour at 1 P.M. If Cindy leaves from the same point 30 minutes later walking east at 3 miles per hour, when will she catch Teri?

A. 2:30 P.M. **B.** 1:30 P.M. **C.** 2:00 P.M. **D.** 3:00 P.M. **19.** ____

20. GEOMETRY The formula for the volume of a cone is $V = \frac{1}{3}\pi r^2 h$, where V represents the volume, r represents the radius of the base, and h represents the height. What is the height of a cone with a volume of 110 cubic centimeters and a base with a radius of 5 centimeters?

A. 21 cm **B.** 0.47 cm **C.** 4.2 cm **D.** 41.49 cm **20.** ____

Bonus In a bag of blue, green, and red marbles, 50% are blue and 30% are green. There are 6 red marbles in the bag. If you increase the number of blue marbles by 40%, how many blue marbles will be in the bag? **B:** _____