Chapter 1 Test

Short Answer

1. Write the algebraic expression $p - 10$ in words.

2. Write the expression $\frac{8}{a}$ in words.

3. Juan scored 26 points in the first half of the basketball game, and he scored n points in the second half of the game. Write an expression to determine the number of points he scored in all. Then, find the number of points he scored in all if he scored 18 points in the second half of the game.

4. Add.
   $34 + (-21)$

5. Subtract.
   $-5 - (-8)$

6. The temperature on the ground during a plane's takeoff was 4°F. At 38,000 feet in the air, the temperature outside the plane was −38°F. Find the difference between these two temperatures.

7. Multiply.
   $-8 \cdot 9$

8. Divide.
   $-48 \div 8$

9. Find the square root.
   $\sqrt{196}$

10. Find the root.
    $\sqrt[3]{125}$

11. Find $\sqrt{\frac{16}{100}}$.

12. A plastic storage box is shaped like a cube and has a volume of 27,000 cm^3. What is the height of the box?

13. Simplify $8 + 3[3 - (1)^6]$.

14. Simplify $3^4 + 12 \div 3 - (1 - 9)$.

15. Evaluate $2 + x - 2 \bullet 8$ for $x = 9$.

16. Evaluate $1 + x^2 \bullet 6$ for $x = 4$.

17. Simplify the expression $\dfrac{2 + 4^2}{2} + |1 - 6|$.

18. Use the numbers 2, 3, 5, and 8 to write an expression that has a value of -3 You may use any operations, and you must use each of the numbers at least once.

19. Simplify the expression $3\frac{4}{5} + 3\frac{7}{9} + 4\frac{1}{5}$.

20. Simplify by combining like terms.
    $3x^3 + 9z + 2x^3 + 5z + 6x^2$

21. Simplify. $3m - 8n + 4(2m - 7n)$