

**Translate the following (There is nothing to solve in this section)**

**Use “n” to represent the number unless otherwise stated**

16. A number increased by three is the same as five times the number decreased by eleven.

16. \_\_\_\_\_

17. Four times the sum of twice a number and three.

17. \_\_\_\_\_

18. Nine less than five times a number .

18. \_\_\_\_\_

19. The sum of a number squared and three.

19. \_\_\_\_\_

20. Eight more than five times a number squared.

20. \_\_\_\_\_

21. Two times the sum of six times the cube of a number and one is four less than nine times the number.

21. \_\_\_\_\_

22. The square of the difference of seven times a number and two is three more than five times the sum of the number and five.

22. \_\_\_\_\_

**Order of Operation**

1.  $5 \left[ \frac{1}{2} + \left( \frac{3}{5} \cdot \frac{5}{6} \right) \div \frac{5}{8} \right]$

2.  $\left( \frac{1}{3} \right)^2 - \left[ \frac{1}{3} - \frac{1}{4} \div \frac{5}{6} + \frac{1}{2} \right]$

**Use the Distributive Property to simplify each expression.**

3.  $\frac{2}{5}(10k + 25) - \frac{3}{4}(12k - 8) + 2k$  3. \_\_\_\_\_

4.  $-7 + 4(3g + 2) + 7(2g - 1) - 9g$  4. \_\_\_\_\_

5.  $9(2t + 4) - 5(3t - 5)$  5. \_\_\_\_\_

6.  $-(5r - 7) + 8(11r + 1)$  6. \_\_\_\_\_

7.  $3(8x - 1) - 5(2x + 3)$  7. \_\_\_\_\_

**Write the Solution Set to each of the following.**

8.  $5x + 7 < 2x$   
 $r = \{-7, -1, 3, 4, 11\}$  8. \_\_\_\_\_

9.  $2x + 5 > x^2$   
 $r = \{-1, 1, 2, 3, 4, 5, 7\}$  9. \_\_\_\_\_

10.  $x^2 - 14 \geq x$   
 $r = \{-5, -1, 3, 4, 11\}$  10. \_\_\_\_\_

Perform the Indicated Unit Conversion

(Use two decimal places unless the answer is exceptionally small e.g. .000027 mi / cup)

11. Convert 65 miles per hour to feet per sec.

11. \_\_\_\_\_

12. Convert 72 km per week to meters per hour.

12. \_\_\_\_\_

13. Convert 210 miles per gallon to inches per cup.

13. \_\_\_\_\_

14. Convert 4,500 yards per pint to miles per gallon.

14. \_\_\_\_\_

15. Convert 55,000 km per week to meters per minute.

15. \_\_\_\_\_