

Write each of the following phrases as an algebraic expression

1. The sum of a number and three. 1. _____
2. Eight times the difference of a number and seven. 2. _____
3. Five less than twice a number. 3. _____

SIMPLIFY the Following Expressions

- 4) $x - 4 + 3x + 5$
- 5) $5(x - 2)$
- 6) $(4x - 1) - (7x + 6)$
- 7) $-2(3x - 4) + 7x - 6$

SOLVE the Following Equations

- 8) $x - 4 = 5$
- 9) $x + 7 = 2$
- 10) $\frac{x}{4} = 8$
- 11) $2x = 16$
- 12) $2x + 1 = 7$
- 13) $8 - x = 3$
- 14) $\frac{x}{7} + 4 = -1$
- 15) $5x - 3 = 3x + 7$

SOLVE the Following Equations

16) $5x - 7 = 6x - 10$

17) $\frac{2}{3}x = 16$

18) $3x + 1 = 3(x + 1) - 2$

19) $0.02x + 0.08(20 - x) = 1.3$

20) $\frac{1}{2}x + \frac{5}{6} = \frac{2}{3}x - \frac{1}{4}$

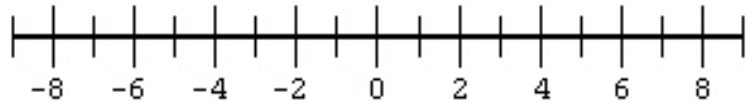
21) $2(3x - 3) + 4 = 6x - 5$

22) $3(x + 1) = -2(x - 2)$

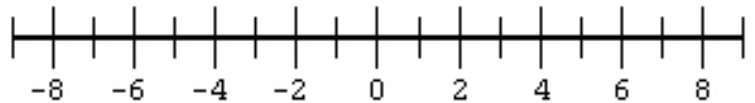
23) $3x + 1 < 7$



24) $1 - 2x \leq -7$



25) $2x + 1 \geq 5x - 8$



26) Use the formula: $C = \frac{5}{9}(F - 32)$ to find the corresponding Celsius temperature of a room at 77° F.

27) Solve $4x + 2y = 7$ for y

28) A store sells walnuts for \$3 per pound and pecans for \$6 per pound. How many pounds of walnuts and how many pounds of pecans do you use to get 20 pounds of mixture worth \$5 per pound?