

Simplify

1. $(-6 + 4) + [3 + (-9)] + (-5)$

2. $15 - |12 - 4(8 - 2)|$

3. $\frac{-6 \cdot 2^3 - 8 \cdot 3^2}{-5(9)}$

4. $5(3a + 6) - (a + 8)$

5. Evaluate the expression $x^2 + 2xy + y^2$ when $x = 4$ and $y = -3$.

6. Translate into symbols. The product of x and 5 is equal to the difference of -3 and x .**Solve each equation.**

7. $-\frac{4}{7} = y - \frac{3}{5}$

8. $-5(4y - 3) = -25$

9. $0.2x + 0.6(12 - x) = 3.2$

10. $4 - (6x + 3) = -(-2x + 3)$

11. $\frac{4}{7}(14x - 7) + 5 = \frac{2}{3}(9x + 15) - 11$

12. Solve the formula $-2x + 3y = 9$ for y .

13. Solve the inequality and graph the solution. $2(x - 3) < 4x + 10$

Solve each application problem. Show all parts of the solution.

14. One number is five less than three times a second number. Their sum is 43. Find the numbers.

15. Harry invested \$500 more money in a 7% account than he invested in a 5% account. If the total interest at the end of the year is \$950, how much did he invest in each account?

16. The length of a rectangle is three less than twice the width. The perimeter is 90 yards. Find the length and the width of the rectangle.

17. Juanita has \$9.75 in quarters and dimes. There are 10 more dimes than quarters. How many of each coin does she have?

18. Earl is 4 years older than Pearl. Four years ago, the sum of their ages was 58. How old are they now?