

Essential Skills: Algebra

Solve each equation.

1) $63 = 3(3 - 3x)$

2) $2(1 + 3k) = -2(-5k - 1)$

Solve each equation by factoring.

3) $x^2 + x - 30 = 0$

4) $2n^2 + 6n = 0$

Solve each equation with the quadratic formula.

5) $v^2 - 1 = v$

Solve each equation. Remember to check for extraneous solutions.

6) $\sqrt{\frac{x}{2}} + 3 = 7$

Solve each equation.

$$7) |n - 2| + 2 = 5$$

Solve each inequality.

$$8) -4(3x - 4) \leq 88$$

Solve each equation.

$$9) 5^{2x+3} = 25$$

Use substitution to find the x-coordinate of the solution to each system.

$$10) \begin{cases} 3x + 4y = -7 \\ y = 4x - 16 \end{cases}$$