

Algebra I Worksheet #1 Unit 12 Selected Homework Solutions

Use the factoring method to solve each equation.

$$\begin{aligned} 3. \quad x^2 - x - 20 &= 0 \\ (x - 5)(x + 4) &= 0 \\ x - 5 = 0 \text{ or } x + 4 &= 0 \\ x = 5 \text{ or } x &= -4 \end{aligned}$$

$$\begin{aligned} 5. \quad 2x^2 - 7x + 3 &= 0 \\ (2x - 1)(x - 3) &= 0 \\ 2x - 1 = 0 \text{ or } x - 3 &= 0 \\ 2x &= 1 \\ x = 1/2 \text{ or } x &= 3 \end{aligned}$$

$$\begin{aligned} 13. \quad 3x^2 - 7x &= 0 \\ x(3x - 7) &= 0 \\ x = 0 \text{ or } 3x - 7 &= 0 \\ 3x &= 7 \\ x = 0 \text{ or } x &= 7/3 \end{aligned}$$

$$\begin{aligned} 16. \quad 9x^2 - 16 &= 0 \\ (3x - 4)(3x + 4) &= 0 \\ 3x - 4 = 0 \text{ or } 3x + 4 &= 0 \\ 3x = 4 \quad 3x &= -4 \\ x = 4/3 \text{ or } x &= -4/3 \\ x &= \pm 4/3 \end{aligned}$$

$$\begin{aligned} 17. \quad x^2 - 6x + 9 &= 0 \\ (x - 3)^2 &= 0 \\ x - 3 &= 0 \\ x &= 3 \end{aligned}$$

$$\begin{aligned} 20. \quad 25x^2 + 40x + 16 &= 0 \\ (5x + 4)^2 &= 0 \\ 5x + 4 &= 0 \\ 5x &= -4 \\ x &= -4/5 \end{aligned}$$