

**Quiz 36.1**

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**Solve each equation by factoring.**

1)  $(r + 2)(r - 8) = 0$

- A)  $\{-2, 8\}$       B)  $\{-\frac{7}{3}, 1\}$   
C)  $\{2, -1\}$       D)  $\{6, 4\}$

2)  $x^2 + 5x - 24 = 0$

- A)  $\{-1, -8\}$       B)  $\{-2, -3\}$   
C)  $\{3, -8\}$       D)  $\{-3, -5\}$

3)  $n^2 = 8n$

- A)  $\{-8, 0\}$       B)  $\{8, 0\}$   
C)  $\{-8\}$       D)  $\{7\}$

**Find the value of c that completes the square.**

4)  $a^2 + 42a + c$

- A) 441      B) 25  
C) 324      D) 361

5)  $x^2 + 38x + c$

- A) 361      B) -361  
C) 256      D) -16

**Solve each equation by completing the square.**

6)  $x^2 - 2x - 14 = 5$

- A) No solution.  
B)  $\{-3 + \sqrt{31}, -3 - \sqrt{31}\}$   
C)  $\{9, -1\}$   
D)  $\{1 + 2\sqrt{5}, 1 - 2\sqrt{5}\}$

**Solve each equation with the quadratic formula.**

7)  $3n^2 - 114 = n$

A)  $\{3, -9\}$

B)  $\left\{\frac{1 + \sqrt{457}}{2}, \frac{1 - \sqrt{457}}{2}\right\}$

C)  $\left\{\frac{1 + 7\sqrt{7}}{6}, \frac{1 - 7\sqrt{7}}{6}\right\}$

D)  $\left\{\frac{19}{3}, -6\right\}$

**Solve each equation by taking square roots.**

8)  $16a^2 - 6 = 10$

A)  $\{1\}$

B)  $\{1, -1\}$

C)  $\left\{\frac{1}{4}, -\frac{1}{4}\right\}$

D)  $\left\{\frac{1}{2}, -\frac{1}{2}\right\}$

**Solve each equation by factoring.**

9)  $5k^2 + 18k + 9 = 0$

A)  $\left\{\frac{3}{5}, -4\right\}$

B)  $\left\{\frac{2}{3}, 4\right\}$

C)  $\left\{-\frac{3}{5}, -4\right\}$

D)  $\left\{-\frac{3}{5}, -3\right\}$

**Solve each equation.**

10)  $-34 - 8p = -3(8 + 6p)$

A)  $\{8\}$

B) No solution.

C)  $\{1\}$

D)  $\{-3\}$