Algebra: Factoring Quadratic Equations (a = 1)

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DIRECTIONS *Factor the trinomial completely, then solve using the zero-product property.*

1 Factor and solve:

$$x^2 - 11x + 30 = 0$$

Answer: _____

2 Factor and solve:

$$x^2 + 6x + 5 = 0$$

Answer: _____

3 Factor and solve:

$$x^2 + 4x + 4 = 0$$

Answer: _____

4 Factor and solve:

$$x^2 - x - 2 = 0$$

Answer: _____

5 Factor and solve:

$$x^2 + 5x + 6 = 0$$

Answer: _____

6 Factor and solve:

$$x^2 - 7x + 6 = 0$$

Answer: _____

7 Factor and solve:

$$x^2 + 10x + 25 = 0$$

Answer: _____

8 Factor and solve:

$$x^2 - 16 = 0$$

Answer: _____

9 Factor and solve:

$$x^2 - 7x + 6 = 0$$

Answer: _____

10 Factor and solve:

$$x^2 - 2x + 1 = 0$$

Answer: _____

Answer Key & Solutions

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TEACHER NOTES *Find two numbers that multiply to c and add to b. Then set each factor equal to zero.*

1 Factor and solve:

$x^2 - 11x + 30 = 0$

= $x = 5,\ x = 6$

2 Factor and solve:

$x^2 + 6x + 5 = 0$

= $x = -5,\ x = -1$

3 Factor and solve:

$x^2 + 4x + 4 = 0$

= $x = -2$

4 Factor and solve:

$x^2 - x - 2 = 0$

= $x = -1,\ x = 2$

5 Factor and solve:

$x^2 + 5x + 6 = 0$

= $x = -3,\ x = -2$

6 Factor and solve:

$x^2 - 7x + 6 = 0$

= $x = 1,\ x = 6$

7 Factor and solve:

$x^2 + 10x + 25 = 0$

= $x = -5$

8 Factor and solve:

$x^2 - 16 = 0$

= $x = -4,\ x = 4$

9 Factor and solve:

$x^2 - 7x + 6 = 0$

= $x = 1,\ x = 6$

10 Factor and solve:

$x^2 - 2x + 1 = 0$

= $x = 1$