

Name : _____

Score : _____ Date : _____

Solve by Completing the Square

Solve the given quadratics by completing the square.

1

$$3x^2 + 24x + 12 = 0$$

2

$$(y - 5)^2 = 29$$

3

$$a^2 - 6a - 16 = 0$$

4

$$g^2 + 4g - 7 = 0$$

5

$$d^2 + 14d + 13 = 0$$

6

$$e^2 + 14e - 15 = 0$$

7

$$4x^2 - 8x + 1 = 0$$

8

$$b^2 + 4b - 6 = 0$$

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Solve by Completing the Square

Answers

1)

$$3x^2 + 24x + 12 = 0$$

$$(-4 \pm 2\sqrt{3})$$

2)

$$(y - 5)^2 = 29$$

$$(-5 \pm \sqrt{29})$$

3)

$$a^2 - 6a - 16 = 0$$

$$(8, -2)$$

4)

$$g^2 + 4g - 7 = 0$$

$$(-2 \pm \sqrt{11})$$

5)

$$d^2 + 14d + 13 = 0$$

$$(-1, -13)$$

6)

$$e^2 + 14e - 15 = 0$$

$$(1, -15)$$

7)

$$4x^2 - 8x + 1 = 0$$

$$\left(1 \pm \frac{\sqrt{3}}{2}\right)$$

8)

$$b^2 + 4b - 6 = 0$$

$$(-2 \pm \sqrt{10})$$