

Name : \_\_\_\_\_ Date : \_\_\_\_\_

## Solve the Quadratic Equations

For the quadratic equation  $ax^2 + bx + c = 0$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Solve each equation using the quadratic formula.

1.  $4x^2 - 12x + 9 = 0$

2.  $6x^2 + 5x - 25 = 0$

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3.  $2x^2 + 39 + 18x = 0$

4.  $2x^2 + 15x + 28 = 0$

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5.  $9x^2 + 4x - 16 = 0$

6.  $15x^2 + 4x - 4 = 0$

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For the quadratic equation  $ax^2 + bx + c = 0$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

### Answers

1.  $4x^2 - 12x + 9 = 0$

$$\left\{ \frac{3}{2} \right\}$$

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2.  $6x^2 + 5x - 25 = 0$

$$\left\{ -\frac{5}{2}, \frac{5}{3} \right\}$$

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3.  $2x^2 + 39 + 18x = 0$

$$\left\{ \frac{-9 + \sqrt{3}}{2}, \frac{-9 - \sqrt{3}}{2} \right\}$$

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4.  $2x^2 + 15x + 28 = 0$

$$\left\{ -\frac{7}{2}, -4 \right\}$$

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5.  $9x^2 + 4x - 16 = 0$

$$\left\{ \frac{-2 + 2\sqrt{37}}{9}, \frac{-2 - 2\sqrt{37}}{9} \right\}$$

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6.  $15x^2 + 4x - 4 = 0$

$$\left\{ -\frac{2}{3}, \frac{2}{5} \right\}$$

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