

ALGEBRA 1 REVIEW WS
Solving Quadratic Equations using Quadratic Formula

Name _____
Date _____

One method to solve a quadratic equation $ax^2 + bx + c = 0$ is to use the quadratic formula:

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

1. $4x^2 + 11x - 20 = 0$

2. $x^2 - 5x - 24 = 0$

3. $x^2 = 3x + 3$

4. $4x^2 - 1 = -8x$

$$5. x^2 = x + 3$$

$$6. 2x^2 + 18x = -39$$

$$7. 5x^2 + 3x = -1$$

$$8. 5x^2 + 50x + 125 = 0$$

SOLUTIONS:

$$1. x = \frac{5}{4}, x = 4$$

$$5. x = \frac{1 \pm \sqrt{13}}{2}$$

$$2. x = 8, x = -3$$

$$6. x = \frac{-9 \pm \sqrt{3}}{2}$$

$$3. x = \frac{3 \pm \sqrt{21}}{2}$$

$$7. x = \text{not a real number}$$

$$4. x = \frac{-2 \pm \sqrt{5}}{2}$$

$$8. x = 5$$