

Name _____

Solving Quadratic Equations - The Quadratic Formula

Use the quadratic formula to solve each equation.

1. $x^2 + 11x + 30 = 0$

2. $x^2 + 8x - 36 = 0$

3. $3x^2 - 5x - 45 = 0$

4. $7x^2 - 13x - 121 = 0$

5. $x^2 - 225 = 0$

6. $x^2 + 17x + 134 = 0$

7. $2x^2 - 14x = 54$

8. $x^2 - 3 = 16x$

9. $x^2 + 9x = 66$

10. $5x^2 = -10x + 2$

11. $4x^2 - 77x + 22 = 0$

12. $9x^2 - 30x = -6$

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Solving Quadratic Equations - The Quadratic Formula

Use the quadratic formula to solve each equation.

1. $x^2 + 11x + 30 = 0$

$$x = -5, -6$$

2. $x^2 + 8x - 36 = 0$

$$-4 \pm 2\sqrt{13} \approx 3.211, -11.211$$

3. $3x^2 - 5x - 45 = 0$

$$\frac{5 \pm \sqrt{565}}{6} \approx 4.795, -3.128$$

4. $7x^2 - 13x - 121 = 0$

$$\frac{13 \pm \sqrt{3557}}{14} \approx 5.189, -3.331$$

5. $x^2 - 225 = 0$

$$15, -15$$

6. $x^2 + 17x + 134 = 0$

No Solution

7. $2x^2 - 14x = 54$

$$\frac{7 \pm \sqrt{157}}{2} \approx 9.765, -2.764$$

8. $x^2 - 3 = 16x$

$$8 \pm \sqrt{67} \approx 16.185, -0.185$$

9. $x^2 + 9x = 66$

$$\frac{-9 \pm \sqrt{345}}{2} \approx 4.787, -13.787$$

10. $5x^2 = -10x + 2$

$$\frac{-5 \pm \sqrt{35}}{5} \approx 0.183, -2.183$$

11. $4x^2 - 77x + 22 = 0$

$$\frac{77 \pm 13\sqrt{33}}{8} \approx 18.960, 0.29$$

12. $9x^2 - 30x = -6$

$$\frac{5 \pm \sqrt{19}}{3} \approx 3.120, 0.214$$