

EXTRA PRACTICE 28
Using The Quadratic Formula
Use after Section 10.3

Name _____

Example: Solve $3x^2 - 5x + 1 = 0$ using the quadratic formula.

$$3x^2 - 5x + 1 = 0$$

$$a = 3 \quad b = -5 \quad c = 1$$

$$x = \frac{-(-5) \pm \sqrt{(-5)^2 - 4(3)(1)}}{2(3)}$$

$$= \frac{5 \pm \sqrt{25 - 12}}{6} = \frac{5 \pm \sqrt{13}}{6}$$

$$\left[\begin{array}{l} \text{Quadratic formula:} \\ x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \end{array} \right]$$

Solve.

1. $x^2 - 3x = 4$ _____

2. $y^2 - 6y = -8$ _____

3. $x^2 = 10x - 25$ _____

4. $2y^2 - 7y - 15 = 0$ _____

5. $x^2 - 36 = 0$ _____

6. $y^2 - 49 = 0$ _____

7. $x^2 - 3x - 3 = 0$ _____

8. $x^2 - 5x - 7 = 0$ _____

9. $y^2 - 8y + 11 = 0$ _____

10. $y^2 + 7y - 1 = 0$ _____

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11. $x^2 + 6x + 8 = 4$ _____

12. $x^2 - 3x + 1 = 6$ _____

13. $4x^2 + 7x + 2 = 0$ _____

14. $5x^2 - 3x - 1 = 0$ _____

15. $2x^2 - 3x = 3$ _____

16. $6x^2 + 6x = 8$ _____

17. $4y^2 - 6y - 1 = 0$ _____

18. $2y^2 - 5y = -3$ _____

19. $8x^2 = 200$ _____

20. $9x^2 = 144$ _____