

DIRECTIONS: Solve by completing the square.

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

2. $2x^2 - 20x - 2 = 0$

3. $x^2 - 6x = 7$

DIRECTIONS: Solve by using the Quadratic Formula.

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

5. $7m^2 - 6m = -10$

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

DIRECTIONS: Write the quadratic function in vertex form and identify the vertex.

7. $y = x^2 - 8x + 17$

8. $y = 4x^2 + 16x + 23$

9. $y = -x^2 - 2x - 6$

DIRECTIONS: Find the discriminant and describe the roots.

10. $x^2 - 8x + 16 = 0$

11. $5x^2 + 3x + 10 = 0$

12. $x^2 + 7x + 12 = 0$

DIRECTIONS: Solve by any method.

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

14. $2x^2 - 4x + 7 = 0$

15. $2(x + 1)^2 = 10$

16. $x^2 - 10x = 1$

17. $6x^2 = -216$

18. $3x^2 + 2x = 5 - 4x$