

Name: _____

Ch 10 Review Worksheet

Solve each equation by finding square roots. If the equation has no solution, write *no solution*.

1. $k^2 = 49$ 2. $m^2 - 225 = 0$ 3. $c^2 + 25 = 25$ 4. $x^2 - 9 = -16$

Use the Zero-Product Property to solve each equation.

5. $(x + 4)(2x - 9) = 0$ 6. $t(t + 1) = 0$

Solve by factoring.

7. $b^2 + 3b - 4 = 0$ 8. $k^2 - 3k - 10 = 0$ 9. $x^2 + 8x = -15$

10. What is the quadratic formula?

Use the quadratic formula to solve each equation. If necessary, round answers to the nearest hundredth.

11. $5b^2 - 2b - 7 = 0$ 12. $3s^2 - 4s = 2$ 13. $9x^2 - 31x = 51$

Solve each equation by completing the square. If necessary, round to the nearest hundredth.

14. $x^2 - 10x + 16 = 0$ 15. $x^2 + 8x - 5 = 0$

16. **Construction** You are building a rectangular wading pool. You want the area of the bottom to be 90 ft^2 . You want the length of the pool to be 3 ft longer than twice its width. What will the dimensions of the pool be?

17. **Vertical Motion** Suppose you throw a ball in the air. The ball is 6 ft high when it leaves your hand. Use the equation $0 = -16t^2 + 20t + 6$ to find the number of seconds t that the ball is in the air.