Name:_____   Class period:_____

Chapter 10.3 - 10.5 Review Solving Quadratics

1. List the 4 ways we have learned how to solve quadratic equations:

    1.   3.

    2.   4.

2. From those 4, which methods always work?

Given the following equations determine which method you use to solve the quadratic equation. Use S (square roots), F (factor), and Q(quadratic formula).

3. $x^2 = 16$

4. $4x^2 - 8 = 32$

5. $s^2 - 3s - 10 = 0$

6. $2n^2 - 5n = 12$

7. $x^2 + 5x + 6 = 0$

8. $3x^2 = 300$

Solve each equation by finding square roots. If the equation has no real solution, write *no solution*. If necessary, round to the nearest tenth. Check your answers when possible.

9. $x^2 = 9$

10. $x^2 - 400 = 0$

11. $5x^2 - 18 = -23$

Solve by factoring. Check your answers when possible.

12. $x^2 + 8x - 20 = 0$

13. $2t^2 + 8t - 64 = 0$

Solve by using the quadratic formula. Round 2 decimal places.

14. $4r^2 = r + 3$

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

Solve each equation by completing the square. If necessary, round to the nearest hundredth. Check your answers when possible.

16. $x^2 - 8x - 4 = 0$

17. $2x^2 + 8x - 10 = 0$

18. During the construction of a skyscraper, a bolt fell from 400 ft. What was the speed of the bolt when it hit the ground? Use $V^2 = 64s$.