Math 3 Name _____

Solving Quadratics Date _____ Per ____

Solve the quadratic by completing the square. Classify the solution as Rational, Irrational, or Complex.

1. $2x^2 + 3x = 6$

2. $3x^2 + 8x + 5 = -2x^2$

3. $2x^2 + 17x = 14 + 5x$

4. $2x^2 - 6x - 3 = 0$

Solve the quadratic using the quadratic formula. Classify the solution as Rational, Irrational, or Complex.

5. $6x^2 - 10x - 16 = 3$

6. $9x^2 + 18x - 13 = 0$

7. $4x^2 - 22 = -10x$

8. $x^2 + 6x + 12 = 0$

Solve the Quadratic by Factoring.

9. $8x^2 - 6x + 1 = 0$

10. $3x^2 - 2x = 8$

11. $4x^2 - 17x + 10 = -5$

Solve the Quadratic by any method. Classify the solution as Rational, Irrational, or Complex. You must use the completing the square method at least 3 times.

12. $2x^2 + 7x - 15 = 0$

13. $x^2 - 8x + 11 = 0$

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

15. $5x^2 - 5x + 2 = 3x^2 - 3x$

16. $x^2 - 3x + 10 = 0$

17. $5 = -2x + x^2$

18. $16x^2 + 24x + 10 = 1$

19. $2x^2 + 3x + 2 = 0$

20. $3x^2 = -12x - 9$