Math 3 Name _____

Solving Quadratics Date _____

Solve the following equation by any method. Identify your solution as rational, irrational, or complex. Must use each method, factoring, completing the square, or quadratic formula, at least 3 times.

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

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

3. $2x^2 + 7x - 15 = 0$

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

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

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

7. $x^2 + 8x + 11 = 0$

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

9. $9x^2 + 18x - 8 = 5$

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

11. $4x^2 - 22 = -10x$

12. $4x^2 - 17x + 10 = -5$

13. $5x^2 - 5x + 2 = 3x^2 - 3x$

14. $x^2 - 14x - 19 = 0$

15. $3x^2 + 8x + 5 = -2x^2$

16. $5x^2 + 19x = 3x + 92 - 3x^2$

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

18. $3x^2 = -12x - 9$

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

20. $2x^2 - 6x - 3 = 0$