Name: _____ **Unit 4:** Solving Quadratic Equations

Date: _____ **Bell:** _____ **Homework 2:** Solving Quadratics by Factoring

**** This is a 2-page document! ****

Directions: Find the solutions of each quadratic equation factoring.

1. $x^2 - 4x = 0$	**2.** $10x^2 = 6x$
3. $x^2 - 36 = 0$	**4.** $16x^2 = 81$
5. $x^2 + 12x + 27 = 0$	**6.** $x^2 - 4x = 77$
7. $x^2 = x + 30$	**8.** $x^2 + 8x - 65 = x - 5$
9. $2x^2 + 6x - 80 = 0$	**10.** $5x^2 + 11x + 2 = 0$

11. $8x^2 - 2x = 15$

12. $12x^2 - 26x - 7 = 3x + 1$

Directions: Identify the roots of each quadratic equation below.

13. $7x^2 + 8x = x^2$

14. $3x^2 = 81 - x^2$

15. $f(x) = x^2 -$

16. $4x^2 + 41x + 98 = 2 - 3x$

17. $4x^2 - 11x = x - 9$

18. ~~$f(x) = -(x-2)^2 + 4$~~

19. ~~Give the vertex form and factored form of $f(x) = x^2 - 12x + 35$. What specific information does each form provide?~~