

QUADRATIC EQUATIONS

Name _____

SOLVE THE FOLLOWING BY FACTORING:

1. $x^2 - 6x + 8 = 0$
 $(x - 4)(x - 2) = 0$
 $x = 4$ or 2

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

3. $x^2 - 7x - 18 = 0$

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

5. $x^2 + 5x = 24$

6. $x^2 + 25 = 10x$

7. $x^2 - x = 20$

8. $x^2 = 20x - 36$

9. $x^2 - 169 = 0$

10. $x^2 - 4 = 0$

11. $49x^2 = 1$

12. $50x^2 = 2$

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

14. $x^2 = 13x$

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

16. $2x^2 - 7x - 4 = 0$

17. $4x^2 - 17x + 15 = 0$

18. $6x^2 - 5x - 6 = 0$

SOLVE THE FOLLOWING USING THE **QUADRATIC FORMULA**:

$$\text{If } ax^2 + bx + c = 0 \text{ with } a \neq 0, \text{ then } x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

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

20. $x^2 + 5x + 2 = 0$

21. $x^2 + 2x = 1$

22. $x^2 = -5x - 3$

23. $3x^2 - 4x - 2 = 0$

24. $3x^2 + 3x - 4 = 0$

25. $5x^2 + 8x - 11 = 0$

26. $4x^2 + 4x = 22$