Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes/Examples

SOLVING QUADRATICS By Factoring

In many cases, we can find the solutions (or roots, zeros, x-intercepts) of a quadratic equation by factoring, rather than graphing. Follow the steps below to find the solutions of the given equation by factoring.

❶	Set the quadratic equation equal to 0.
❷	Factor the left side.
❸	Set each factor equal to 0 and solve each factor for x.
❹	Write your answer using curly braces.

Given: $y = x^2 + 3x - 10$

YOU TRY!

Directions: Solve the following quadratic equations by factoring.

1. $x^2 + 4x + 3 = 0$

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

3. $x^2 - 10x + 21 = 0$

4. $x^2 - x - 20 = 0$

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

6. $6x^2 - 12x = 0$

7. $8x^2 - 6x = 0$

8. $x^2 - 64 = 0$

9. $x^2 - 25 = 0$

10. $4x^2 - 81 = 0$

11. $9x^2 - 49 = 0$

EQUATIONS NOT IN Standard Form

MOVE ⊖ FACTOR ⊖ SOLVE!

12. $x^2 + 4x = 21$

13. $x^2 - 45 = 4x$

14. $x^2 - 5x - 64 = 7x$

15. $x^2 - 10x + 49 = 4x + 1$

16. $11x^2 = x^2 + 8x$

17. $16x^2 = 9$