

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.	
	① Set the quadratic equation equal to 0.	Given: $y = x^2 + 3x - 10$
	② Factor the left side.	
	③ Set each factor equal to 0 and solve each factor for x .	
	④ Write your answer using curly braces.	
YOU TRY!	Directions: Solve the following quadratic equations by factoring.	
	1. $x^2 + 4x + 3 = 0$	2. $x^2 + 11x + 24 = 0$
	3. $x^2 + x - 2 = 0$	4. $x^2 + 6x - 27 = 0$
	5. $x^2 - 10x + 21 = 0$	6. $x^2 - x - 20 = 0$
	7. $x^2 + 10x + 25 = 0$	8. $x^2 - 8x + 16 = 0$

	9. $x^2 - 8x = 0$	10. $3x^2 + 15x = 0$
	11. $6x^2 - 12x = 0$	12. $8x^2 - 6x = 0$
	13. $x^2 - 64 = 0$	14. $x^2 - 25 = 0$
	15. $4x^2 - 81 = 0$	16. $9x^2 - 49 = 0$
<p>EQUATIONS NOT IN Standard Form</p> <p>MOVE ⊖ FACTOR ⊖ SOLVE!</p>	17. $x^2 + 4x = 21$	18. $x^2 - 45 = 4x$
	19. $x^2 - 5x - 64 = 7x$	20. $x^2 - 10x + 49 = 4x + 1$
	21. $11x^2 = x^2 + 8x$	22. $16x^2 = 9$

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<p>SOLVING QUADRATICS By Factoring (DAY 2!)</p>	<p>Example 1: $3x^2 + 9x - 12 = 0$</p>	<p>Example 2: $5x^2 - 20x - 60 = 0$</p>
	<p>Example 3: $2x^2 + 3x - 5 = 0$</p>	<p>Example 4: $8x^2 - 22x + 5 = 0$</p>
	<p>Directions: Solve the following quadratic equations by factoring.</p>	
	<p>1. $2x^2 + 10x + 8 = 0$</p>	<p>2. $4x^2 - 24x - 28 = 0$</p>
<p>3. $3x^2 + 13x - 10 = 0$</p>	<p>4. $5x^2 - 8x + 3 = 0$</p>	

5. $2x^2 + 13x - 7 = 0$

6. $6x^2 + 5x + 1 = 0$

7. $4x^2 - 8x - 5 = 0$

8. $4x^2 + 12x + 9 = 0$

9. $3x^2 + 7x = -2$

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

11. $12x^2 + 32x = -5$

12. $5x^2 + 7x = x^2 + 2$