



What you need to know & be able to do	Things to remember	Examples	
1. Factor	1. Look for GCF 2. x 	a. Factor: $3x^2 - 6x$	b. Factor: $3x^2 - 11x + 8$
2. Factor Completely	1. Look for GCF 2. x 	a. Factor: $3x^2 - 27$	b. Factor: $4x^2 - 4x - 48$
3. Solve equations in factored form.	Zero Product Property	a. Solve $(x - 7)(x + 3) = 0$	b. Solve: $(x - 4)(5x - 7) = 0$
4. Solve equations by factoring when $a = 1$ .		a. Solve $x^2 - 9x + 20 = 0$	b. Solve $x^2 - 6x - 16 = 0$
		c. $x^2 - 13x + 47 = 7$	d. $x^2 - 100 = 0$

5. Solve equations by factoring when $a$ is not 1		a. Solve $5x^2 - 16x + 12 = 0$	b. Solve $3x^2 - 18x + 15 = 0$
		c. Solve $3x^2 + 2x - 8 = 0$	d. $6x^2 - 5x - 11 = -5$
6. Solve equations by factoring GCF	Use factoring by GCF when you have two terms (a & b) and both contain an $x$ .  One of the solutions will always be 0.	a. $x^2 - 4x = 0$	b. $12x^2 = -36x$
7. Solve equations by finding square roots.	Use solving by square roots when your equations have parenthesis or two terms (a & c).  PEMDAS (backwards)	a. $x^2 = 12$	b. $8x^2 = 392$
		c. $7x^2 - 3 = 445$	d. $(x - 4)^2 = 9$
		e. $2(x + 2)^2 = 72$	f. $3(x - 3)^2 + 2 = 26$

<p>8. Solve equations by completing the square</p>	<p>Move the c term to the right side</p> <p>Use <math>\left(\frac{b}{2}\right)^2</math> to complete the square and then apply square root method</p>	<p>a. Solve <math>x^2 + 4x + 11 = 10</math></p>	<p>b. Solve <math>x^2 - 16x + 52 = 0</math></p>
<p>9. Solve equations by using Quadratic Formula</p>	<p>Use Q.F. when the equation is in standard form and number diamonds does not work.</p> $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$	<p>a. <math>x^2 + 10x + 15 = 0</math></p>	<p>b. <math>2x^2 + 10x = 1</math></p>
		<p>c. <math>3x^2 + 6x + 3 = 0</math></p>	<p>d. <math>8x^2 - 4x + 7 = 2</math></p>

<p>10. Determine the best method for solving quadratic equations.</p>	<p>Use graphic organizer to determine the best method for solving each equation.</p>	<p>a. <math>x^2 - 9 = 5</math></p>	<p>b. <math>5x^2 - 7x = 0</math></p>
		<p>c. <math>4(x + 5)^2 = 64</math></p>	<p>d. <math>x^2 + 12x + 30 = -5</math></p>
		<p>e. <math>6x^2 + 8x + 1 = 0</math></p>	<p>f. <math>3x^2 + 13x + 12 = 0</math></p>
		<p>g. <math>5(x - 2)^2 = 125</math></p>	<p>h. <math>x^2 - 16 = 0</math></p>
		<p>i. <math>5x^2 - 3x - 1 = 7</math></p>	<p>j. <math>x^2 - 15x + 56 = 0</math></p>

