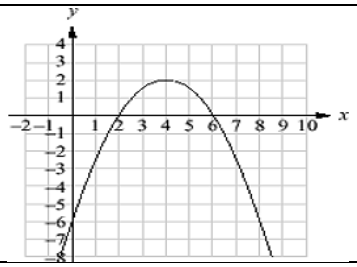
Name: _____ Date: _____

5 Methods to Solving Quadratics

Solve each quadratic equation using the method in the left column.

Method	Problem	When to Use:
Graphing		
Factoring 1. Get in standard form. 2. Factor. 3. Set each factor equal to zero and solve.	$x^2 - 7x + 10 = 0$	
Complete the Square 1. Put terms with an x on the left. 2. Make sure a = 1. 3. Find the number that completes the square. 4. Add it to both sides. 5. Factor the left. Simplify the right. 6. Take the square root of each side. 7. Solve for x.	$x^2 - 10x + 18 = 0$	
Quadratic Formula 1. Put it in standard form. 2. Identify a, b, and c. 3. Use the formula. $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$	$2x^2 - 5x + 3 = 0$	
Square Roots 1. Isolate the square. 2. Take the square root of both sides. 3. Don't forget the $\pm$. 4. Get the variable by itself.	$(x-2)^2 = 5$	

Determine the best way to solve (factoring, square root, completing the square or quadratic formula). Then solve the following equations.

1. $x^2 - 12x + 20 = 0$
   Method:

2. $5x^2 + 25x = 0$
   Method:

3. $x^2 + 10x - 3 = 0$
   Method:

4. $3x^2 + 81 = 96$
   Method:

5. $2x^2 + 11x + 5 = 0$
   Method:

6. $x^2 - 20x - 105 = -9$
   Method:

7. $3x^2 + 5x = -11$
   Method:

8. $(x - 2)^2 - 7 = 3$
   Method:

9. $3x^2 = -2x + 3$
   Method: