

Solving Quadratic Equations Worksheet

Name _____

Objective: Review factoring in order to be able to solve factorable quadratic equations.

Write the standard form of the quadratic equation that is given by the teacher. Send in the factored form of the equation. If you have factored correctly, your graph will match the teacher's graph.

	Standard Form of the Quadratic	Factored Form of the Quadratic
1.	$X^2 + 7x + 12$	
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

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The solutions of a quadratic equation are called the **roots** of the equation. The roots of the equation are the values of x that will make $f(x) = 0$. If you can factor $f(x)$, then the equation can be solved using the zero product property. If the product of two expressions is zero, then one or both of the expressions equal zero.

Example: Solve $x^2 - 5x - 36 = 0$
 $(x-9)(x+4) = 0$
 $x-9=0$ or $x+4 = 0$
 $x = 9$ or $x = -4$

Show all steps needed to solve each of the following quadratic equations by factoring.

1. $x^2 + 2x - 35 = 0$

2. $x^2 - 6x + 9 = 0$

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

4. $-3x + 28 = x^2$

5. $2x^2 - 4x - 8 = -x^2 + x$