Honors Algebra 2 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Solving Quadratic Equations by Factoring Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour \_\_\_

Solve each equation below. Check your solutions!

**Part 1** – If the equation is already in factored form, just use the Zero Product Property to

 solve.

Example: (3x + 1)(x – 4) = 0

 Set each quantity equal to 0. (3x + 1) = 0 x – 4 = 0

 Solve for x in 1 or 2 steps. 3x = -1 x = 4

 x = -1/3

 Solutions are: -1/3 and 4





**Part 2** – If the equation is in standard form, factor first, then solve.

 Remember: 1) Make sure the equation is set equal to 0. 2) Check for a GCF

Example 2x² + 2x – 60 = 0

 GCF: Divide by 2 2(x² + x – 30) = 0

 Factor (x + 6)(x - 5) = 0

 Solve for x x + 6 = 0 x – 5 = 0

 x = -6 x = 5

Solutions are: -6 and 5

 













 

