Solving Quadratic Equations – 4 methods

Name _____

Hour _____ Date _____

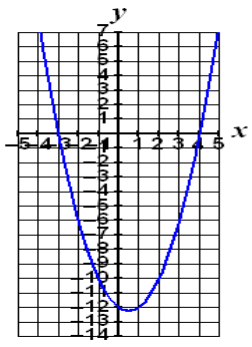
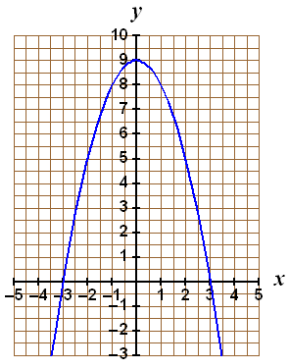
Solve by factoring. Show work.

1) $x^2 - 10x + 16 = 0$	2) $x^2 + 4x - 12 = 0$	3) $x^2 - 11x + 10 = 0$
4) $x^2 + 6x + 9 = 0$	5) $x^2 - x - 6 = 0$	6) $x^2 + 16x + 64 = 0$

Solve by square roots. Show work.

7) $x^2 = 25$	8) $2x^2 + 4 = 86$	9) $3x^2 + 25 = 4$

Identify the Solutions

10)  x = _____ or _____	11)  x = _____ or _____

Solve using the quadratic formula: $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

12) $2x^2 + 7x + 5 = 0$	13) $x^2 + 6x + 9 = 0$	14) $x^2 - 10x + 16 = 0$
15) $2x^2 + 3x - 20 = 0$	16) $x^2 + 5x + 2 = 0$	17) $x^2 - 6x + 3 = 0$

18) Which method can you use to solve any quadratic equations?

19) Why can't you use to factoring to solve the problem $x^2 - 5 = 0$?

20) Why can't you use to Square Roots to solve the problem $x^2 + 7x = 0$?