

**Algebra 2 – Solving Quadratic Equations**  
**Due Friday, December 7<sup>th</sup>**

**Solve these on a separate piece of paper. Simplify. Show your work!!**

**Solving: When b=0**

1.  $x^2 = 5$
2.  $2x^2 = 72$
3.  $3x^2 = 432$
4.  $1/5x^2 = 4$
5.  $2/3x^2 = 80$
6.  $6x^2 = 120$

**Solving: When c = 0**

7.  $0 = x^2 + 8x$
8.  $0 = 2.5x^2 - 5x$
9.  $0 = 8x^2 - 28x$
10.  $8x = 7x^2 + 35x$
11.  $x^2 = 4.5x$
12.  $x^2 - 24x = 8x$

**Review - Solving: Factoring**

13.  $0 = x^2 + 2x + 1$
14.  $0 = x^2 - 3x - 4$
15.  $0 = x^2 - x - 6$
16.  $0 = x^2 + 4x - 5$
17.  $0 = x^2 + 5x + 6$

**Review - Solving: Using the quadratic formula**

**For each problem, write out the quadratic formula with the correct numbers (a, b, c). Remember to find both + and -.**

18.  $x^2 - 6x = -7$
19.  $2x^2 + 5x - 3 = 0$
20.  $1.5x^2 + 3x - 12 = 0$
21.  $4x^2 - 6x + 2 = 0$
22.  $3x^2 + 10x + 5 = 0$

**Quadratic Equations**

23. Write in standard form:  $3x^2 - 18 = 4x + 2$
24. Write in standard form:  $2x^2 + x = 5x - 9$