Math 1 1.4 Solving Quadratics Unit 1

*EQ: What methods can we use to solve quadratic equations and verbal expressions?*

**Greatest Common Factor**

ax + bx = x(a + b)

**Factoring Trinomials**

(X-Factor)

ax2 + bx + c

Solve by Factoring!

Set all equations equal to zero before beginning!

**Difference of Squares**

x2 – y2 = (x + y)(x – y)

**Grouping**

Four-term polynomials

**Directions**: Solve each of the following by factoring. Check your solutions by graphing.

1. (2x + 1)(3x – 4) = 0
2. x(3x + 9) = 0
3. 
4. 3x2 + 8x + 5 = 0
5. The product of two consecutive negative integers is 1122. What are the numbers?
6. The width of a rectangle is (x+1) and the length is (x-6). What is the length and width of the rectangle if the area is 30 square feet?
7. The area of a triangular lot is 225 square feet. The base of the lot is 7 more than its height. Find the length of the base and the height.

**The Quadratic Formula**

**Using the Quadratic Formula**

What are the roots of the equation ? Use the quadratic formula to solve.

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