

### Classwork #4 Complement on Quadratics

Factor each if possible:

1)  $x^2 - 4x - 5$

2)  $2x^2 - 15x + 7$

3)  $x^2 - 49$

4)  $x^2 + 9$

5)  $-2x^2 - 6x$

6)  $x^2 - 6x + 7$

Solve by any means

7)  $x^2 = 6x$

8)  $x^2 - 4x - 12 = 0$

9)  $x^2 - 8x - 5 = 0$

10)  $x^2 = 25$

11)  $x^2 - 4x + 5 = 0$

12)  $x(x - 3) = 4$

13. Without solving, determine the number and type of solutions for  $x^2 + 2x + 5 = 0$  (I will look for the value of the determinant):

For the following find the vertex using 3 different methods:  $f(x) = x^2 - 8x + 7$

14) Method 1:

15) Method 2:

15) Method 3:

Graph each. Use the method of graphing appropriate for the given form of the quadratic.

16)  $y = -x^2 - 4x + 2$

17)  $y = 2(x + 2)^2 - 5$

18)  $y = 2(x + 3)(x - 1)$

