

Algebra 2  
Chapter 5 / Quadratics Unit Review

1. What are the two forms for quadratic equations that we studied?

Standard form, which looks like  $y = f(x) = ax^2 + bx + c$

Vertex form, which looks like  $y = f(x) = a(x-h)^2 + k$

We saw a 3<sup>rd</sup> form in homework this week. It looked like  $y = (2x + 1)(x - 10)$ .

What is this form called? factored form

2. What is the name of the maximum or minimum point on a parabola? Vertex

3. How do you know if it is a max or min without actually graphing it? look at a  
if  $a+$ , vertex is a min; if  $a-$ , vertex is a max

4. How do you find the equation of the line of symmetry (LOS) (or AOS) for each form of eqn?

standard: Find LOS by plugging into  $x = -b/2a$

Vertex: Find LOS w/  $h$   $x = h$

5. How do you find the vertex for each form of the equation?

Standard: After finding the LOS, plug that back into original eqn to get  $y$ .

Vertex: The vertex is  $(h, k)$  from the eqn

6. How do you find the  $y$ -intercept for each form of the equation?

Standard: It's  $(0, c)$  ( $c$  from  $ax^2 + bx + c$ )

Vertex: Set  $x = 0$  and solve for  $y$ .  
it'll be  $(0, \#)$

7. We learned 5 methods for solving quadratic equations. List them below.

1) Factoring

2)  $\sqrt{\phantom{x}}$ 's

3) Quadratic Formula

4) Completing the Square

5) Graphing