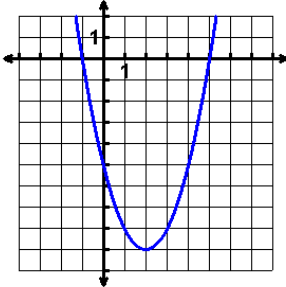
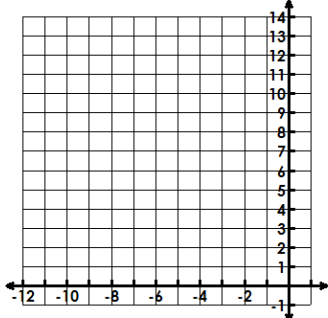
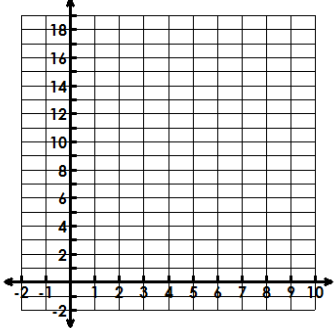
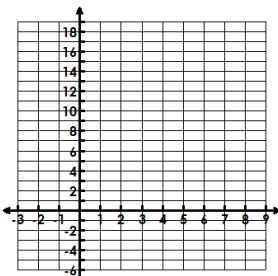
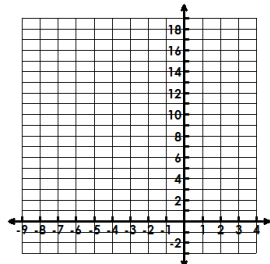


Name: \_\_\_\_\_

Date: \_\_\_\_\_

Use the following to review for you test. **Work the Practice Problems on a separate sheet of paper.**

Topic	Things to remember	Examples	
Characteristics of Quadratics	Domain, Range, Vertex, Axis of Symmetry, Extrema, Increasing, Decreasing, Rates of Change	1. Analyze the graph using the vocabulary under things to remember 	2. The graph of $f(x)$ has a range $y \geq -4$ and increase from $(2, \infty)$ . Write the equation of $f(x)$ . Find the domain, vertex, axis of symmetry, extrema, interval of decrease.
Write Quadratic Equations using Transformations	Negative in front reflects across x-axis Number in front stretches or shrinks Number inside parenthesis moves left or right Number alone moves up or down	3. Write the equation of a quadratic that has been reflected and shifted right 7.	4. Write the equation of a quadratic that has a vertex at $(-5, -3)$ , opens up, and is stretched by a factor of 2.
Graph Quadratics in Vertex Form	Vertex $(h, k)$ AOS = $h$ Table, Edit Function, Start = AOS Scroll up and down to get other ordered pairs	5. Graph the following function. $f(x) = (x + 7)^2 + 4$ 	6. Graph the following function. $f(x) = -2(x - 4)^2 + 8$ 

<p>Graph Quadratics in Standard Form</p>	<p>AOS: <math>x = \frac{-b}{2a}</math>                      Vertex <math>\left(\frac{-b}{2a}, f\left(\frac{-b}{2a}\right)\right)</math>                      Table, Edit Function, Start = AOS                      Scroll up and down to get other ordered pairs</p>	<p>7. Graph the following function.  <math>f(x) = x^2 - 6x + 5</math></p> 	<p>8. Graph the following function. <math>f(x) = -x^2 - 6x + 8</math></p> 												
<p>Change form Vertex to Standard Form</p>	<p>Expand the binomial.                      Distribute any number in front of the parenthesis.                      Combine like terms.</p>	<p>9. <math>f(x) = (x+2)^2 - 8</math></p>	<p>10. <math>f(x) = -3(x-5)^2 + 1</math></p>												
<p>Change from Standard Form to Vertex Form</p>	<p>Find a                      Find the h-value by using <math>x = -b/2a</math>                      Plug in the x to find the h-value                      Write in vertex form.</p>	<p>11. <math>f(x) = x^2 - 2x - 8</math></p>	<p>12. <math>h(x) = x^2 + 6x + 9</math></p>												
<p>Compare Quadratic Functions in Different Forms</p>	<p>Find the axis of symmetry, vertex, slope, and y-intercepts based on the equation or table given.</p>	<p>13. <math>f(x) = 2x^2 - 12x + 25</math>                      Axis of Symmetry: ____                      Vertex: ____                      Slope from <math>0 &lt; x &lt; 2</math>: ____                      y-intercept: ____</p>	<p>14.</p> <table border="1" data-bbox="1096 1186 1502 1270"> <tr> <td><b>x</b></td> <td><b>-4</b></td> <td><b>-3</b></td> <td><b>-2</b></td> <td><b>0</b></td> <td><b>2</b></td> </tr> <tr> <td><b>g(x)</b></td> <td><b>7</b></td> <td><b>8</b></td> <td><b>7</b></td> <td><b>-1</b></td> <td><b>-17</b></td> </tr> </table> <p>Axis of Symmetry: ____                      Vertex: ____                      Slope from <math>0 &lt; x &lt; 2</math>: ____                      y-intercept: ____</p>	<b>x</b>	<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>0</b>	<b>2</b>	<b>g(x)</b>	<b>7</b>	<b>8</b>	<b>7</b>	<b>-1</b>	<b>-17</b>
<b>x</b>	<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>0</b>	<b>2</b>										
<b>g(x)</b>	<b>7</b>	<b>8</b>	<b>7</b>	<b>-1</b>	<b>-17</b>										