**A selection of "test-like" problems**

**Quadratic Functions**

**Breakout Session #2**

**Multiple Choice Questions**

1. Factor the expression 

(a) 

(b) 

(c) 

(d) 

2. Find all solution(s) to 

(a) 

(b) 

(c) 

(d) 

3. Find all solution(s) to 

(a) 

(b) 

(c) 

(d) 

4. Write the equation  in vertex form.

(a) 

(b) 

(c) 

(d) 

5. Consider the parabola whose equation is . Which of the following statements best describes the graph of this parabola?

(a) the vertex is at 

(b) the vertex is at 

(c) the vertex is at 

(d) the vertex is at 

6. Which of the following statements best describes the parabola in #5 above?

(a) the maximum y value on the graph of the parabola is 

(b) the minimum y value on the graph of the parabola is 

(c) the maximum y value on the graph of the parabola is 

(d) the minimum y value on the graph of the parabola is 

7. Consider the equation . What are the of this equation?

(a) 

(b) 

(c) 

(d) 

8. Consider the equation . Which point is an x intercept of this equation?

(a) 

(b) 

(c) 

(d) 

9. Which of the following statements best describes the parabola ?

(a) The maximum y value occurs at 

(b) The maximum y value occurs at 

(c) The minimum y value occurs at 

(d) the minimum y value occurs at 

**FREE RESPONSE QUESTIONS**

10. Put the equation  into vertex form by completing the square.

11. Consider the parabola given by the equation , or equivalently, .

(a) What is the y intercept of this parabola?

(b) What are the x intercepts of this parabola?

(c) What is the vertex of this parabola?

(d) Sketch the graph of this parabola. Label your intercepts and vertex.