**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_**

**CC Algebra**

**Vertex Form of a Quadratic Equation**

1. Which quadratic function has the same shape as y = 2x2 with a vertex at (4, -8)?
   1. y = 2(x + 4)2 + 8
   2. y = 2(x – 4)2 + 8
   3. y = 2(x + 4)2 – 8
   4. y = 2(x – 4)2 – 8
2. What is the vertex of the function f(x) = –(x + 2)2 – 25?
   1. (2, 25)
   2. (2, –25)
   3. (–2, –25)
   4. (–2, 25)

***State the axis of symmetry and the vertex of each quadratic function***

1. y = –(x + 1)2 – 8
2. y = (x – 3)2 – 1
3. y = 

***Find the vertex of each function by completing the square.***

1. f(x) = x2 – 10x – 13
2. f(x) = x2 + 4x + 8
3. f(x) = x2 + 12x – 10

***Write the equation of the quadratic function that satisfies the given condition:***

1. Write a quadratic function whose graph has vertices at (4, -8).
2. Write a quadratic function whose graph has vertices at (-2, -6)