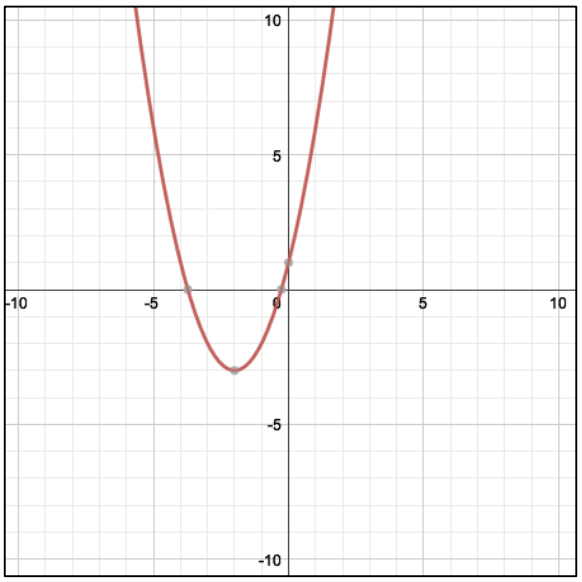
Name:_____Answer Key_____ Date: _____ Period: _____

ALGEBRA 2 **QUADRATIC FUNCTIONS AND EQUATIONS** **Quiz**

1. Use the function $f(x) = (x+2)^2 - 3$ to complete the following:



   a. Graph the function.

   b. Identify the vertex.

      (-2, -3)

   c. Identify the axis of symmetry.

      x = -2

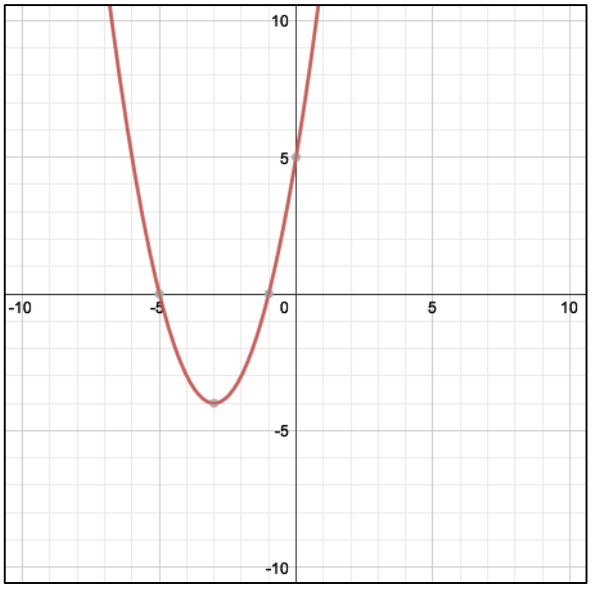
   d. Identify the maximum or minimum.

      -3

   e. Describe each transformation from the parent function $y = x^2$.

      The graph shifted to the left 2 units and down 3 units

2. Use the function $f(x) = x^2 + 6x + 5$ to complete the following:



   a. Graph the function.

   b. Identify the vertex.

      (-3, -4)

   c. Identify the axis of symmetry.

      x = -3

   d. Identify the maximum or minimum.

      -4

   e. Rewrite the equation in vertex form.

      $y = (x + 3)^2 - 4$