Name: _____ Period: _____ Date: _____

Quadratic Functions Exit Quiz

Part A Instructions: Choose the option that completes the sentence or answers the question.

1. **The line that divides the graph of the quadratic function into two parts that are mirror images of each other is known as:**

   a. x-axis
   b. y-axis
   c. axis of symmetry
   d. rotational axis

2. **The point where the graph of the quadratic function intersects with axis of symmetry is known as:**

   a. Center
   b. Vertex
   c. Minimum
   d. Maximum

3. **If a parabola opens upwards, the vertex is the:**

   a. Maximum
   b. Minimum
   c. Center
   d. None of these

4. **The coordinates of the vertex of a quadratic function $f(x) = ax^2 + bx + c$ are:**

   a. $\left(-\frac{b}{2a}, f\left(-\frac{b}{2a}\right)\right)$
   b. $\left(\frac{b}{2a}, f\left(\frac{b}{2a}\right)\right)$
   c. $\left(0, f\left(-\frac{b}{2a}\right)\right)$
   d. $\left(-\frac{b}{2a}, f\left(\frac{b}{2a}\right)\right)$

Part B Instructions: Answer the question below.

5. **Identify the axis of symmetry and vertex of the graph of the quadratic function $f(x) = x^2 - 8x$.**

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5. **Identify the axis of symmetry and vertex of the graph of the quadratic function $f(x) = x^2 - 8x$.**

   Axis of symmetry:

   $$x = -\frac{b}{2a} \rightarrow -\frac{-8}{2(1)} = 4$$

   Vertex:

   $$f(4) = 4^2 - 8(4) = 16 - 32 = -16 = (4, -16)$$