

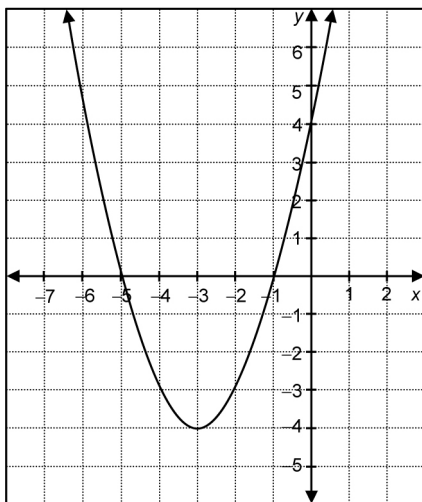
Name: \_\_\_\_\_

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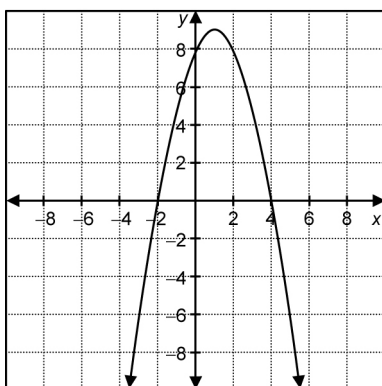
**BLM 6.3.1**

## Practice: Key Features of Quadratic Relations

1. For the graph, identify
  - a) the coordinates of the vertex
  - b) the equation of the axis of symmetry
  - c) the  $y$ -intercept
  - d) the maximum or minimum value
  - e) the  $x$ -intercepts



2. For the graph, identify
  - a) the coordinates of the vertex
  - b) the equation of the axis of symmetry
  - c) the  $y$ -intercept
  - d) the maximum or minimum value
  - e) the  $x$ -intercepts



3. The shape of the small wooden bridge over Lake Walker can be modelled by the quadratic relation  $y = 25 - x^2$ .
  - a) Complete the table of values.

$x$	$y$
-3	
-2	
-1	
0	
1	
2	
3	

- b) Graph the data and join the points with a smooth curve.
  - c) Identify the  $x$ - and  $y$ -intercepts, the coordinates of the vertex, and the equation of symmetry.
4. The shape of a large bell at a local church can be modelled by the quadratic relation  $y = 36 - x^2$ .
  - a) Complete the table of values.

$x$	$y$
-3	
-2	
-1	
0	
1	
2	
3	

- b) Graph the data and join the points with a smooth curve.
  - c) Identify the  $x$ - and  $y$ -intercepts, the coordinates of the vertex, and the equation of symmetry.