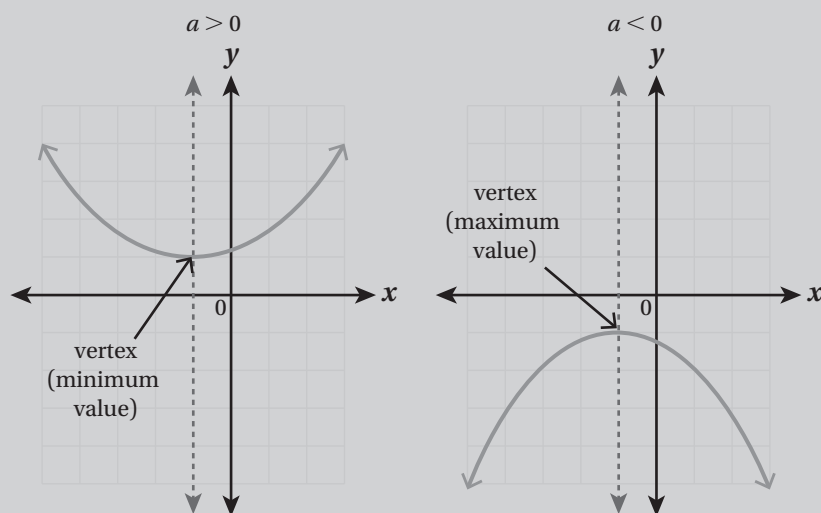


Worksheet

EXAMPLE 3

The graphs below show a situation where there are no x -intercepts and $a > 0$ with a minimum value and where $a < 0$ with a maximum value.



Exercise 2

1. Given: $y = x^2 - 3x + 2$.
 - 1.1 Determine the axis of symmetry.
 - 1.2 Determine the vertex.
 - 1.3 Determine the x -intercepts.
 - 1.4 Determine the y -intercepts.
 - 1.5 Explain the shape of the graph.
2. Given: $y = x^2 - 6x - 7$.
 - 2.1 Determine the axis of symmetry.
 - 2.2 Determine vertex.
 - 2.3 Determine the x -intercepts.
 - 2.4 Determine the y -intercepts.
 - 2.5 Explain the shape of the graph.
3. Given: $y = x^2 - 8x + 7$.
 - 3.1 Determine the axis of symmetry.
 - 3.2 Determine vertex.
 - 3.3 Determine the x -intercepts.
 - 3.4 Determine the y -intercepts.
 - 3.5 Explain the shape of the graph.
4. Given: $y = -2x^2 - x + 1$.
 - 4.1 Determine the axis of symmetry.
 - 4.2 Determine vertex.
 - 4.3 Determine the x -intercepts.
 - 4.4 Determine the y -intercepts.
 - 4.5 Explain the shape of the graph.
5. Given: $y = -3x^2 - x + 2$.
 - 5.1 Determine the axis of symmetry.
 - 5.2 Determine vertex.
 - 5.3 Determine the x -intercepts.
 - 5.4 Determine the y -intercepts.
 - 5.5 Explain the shape of the graph.