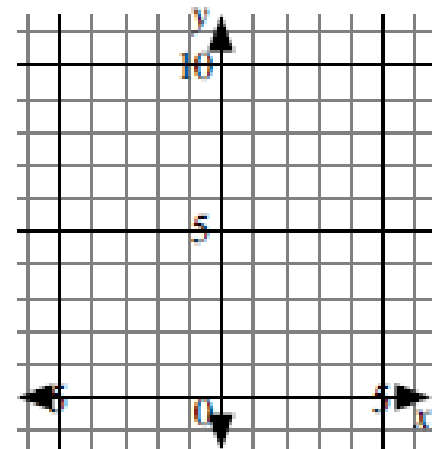


7.2 – Analysing Quadratic Functions

- Graph the function with equation $y = x^2$ by completing the table of values. Join the points with a smooth curve. The graph of this function is called a parabola.

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



- The axis of symmetry is the “mirror” line which splits the parabola in half. State the equation of the axis of symmetry for this parabola.
- The vertex of a parabola is where the axis of symmetry intersects the parabola. The vertex can represent a minimum point or maximum point depending on whether the parabola opens up or down.

Label the vertex (V) on the graph and state its coordinates.

- The maximum or minimum **value** of a quadratic function occurs at the vertex and is represented by the y -coordinate of the vertex. Complete the following:

The _____ value of the function with equation $y = x^2$ is _____ .

- State the domain and range of the function with equation $y = x^2$, $x \in R$.

Domain: _____ Range: _____

