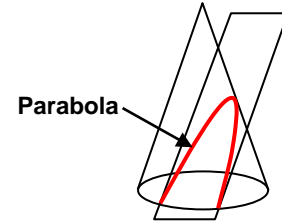


Vocabulary: Parabolas



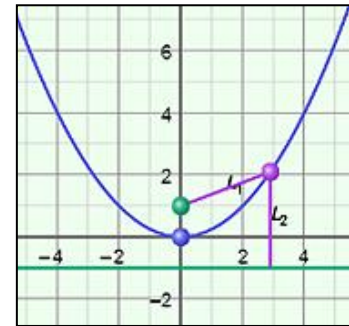
Vocabulary

- Axis of symmetry – a line that divides a shape into two parts that are mirror images of each other.
 - The axis of symmetry of a parabola goes through the vertex of the parabola.
- Conic section – a curve formed by the intersection of a plane and one or two right circular cones.
 - For example, the intersection of the plane and the cone shown to the right is a parabola.
 - Parabolas, hyperbolas, ellipses, and circles (which are special ellipses) are all conic sections.



- Directrix – the fixed line, located outside a parabola and perpendicular to the axis of symmetry, that is the same distance from any point on a parabola as the focus.

- Focus of a parabola – the fixed point, located inside a parabola on the axis of symmetry, that is the same distance from any point on a parabola as the directrix.



- Parabola – the set of all points in a plane that are the same distance from a fixed point, the focus, and a fixed line, the directrix.
 - In the graph of the parabola to the right, $L_1 = L_2$ for all (x, y) points on the parabola.
- Vertex of a parabola – the point on a parabola closest to the directrix.
 - When a parabola opens up or down, the vertex is the lowest or highest point.
 - When a parabola opens to the right or left, the vertex is the leftmost or rightmost point.