

# Parabola

A *parabola* is a type of [conic section](#). It can be described algebraically by an equation of the form  $y = ax^2 + bx + c$  ( $a, b, c$  constants,  $a$  nonzero).

The path of a thrown object is a parabola.

A parabola has an *axis* (the line of symmetry of the curve) and a [focus](#) on the axis. For the parabola with equation  $y = x^2/4a$ , its axis is  $x = 0$  and its focus is at  $(0, a)$ .

Light travelling towards a parabolic mirror parallel to its axis will be reflected to pass through the focus.

