

Standard Equation of a Parabola with vertex at (h, k)

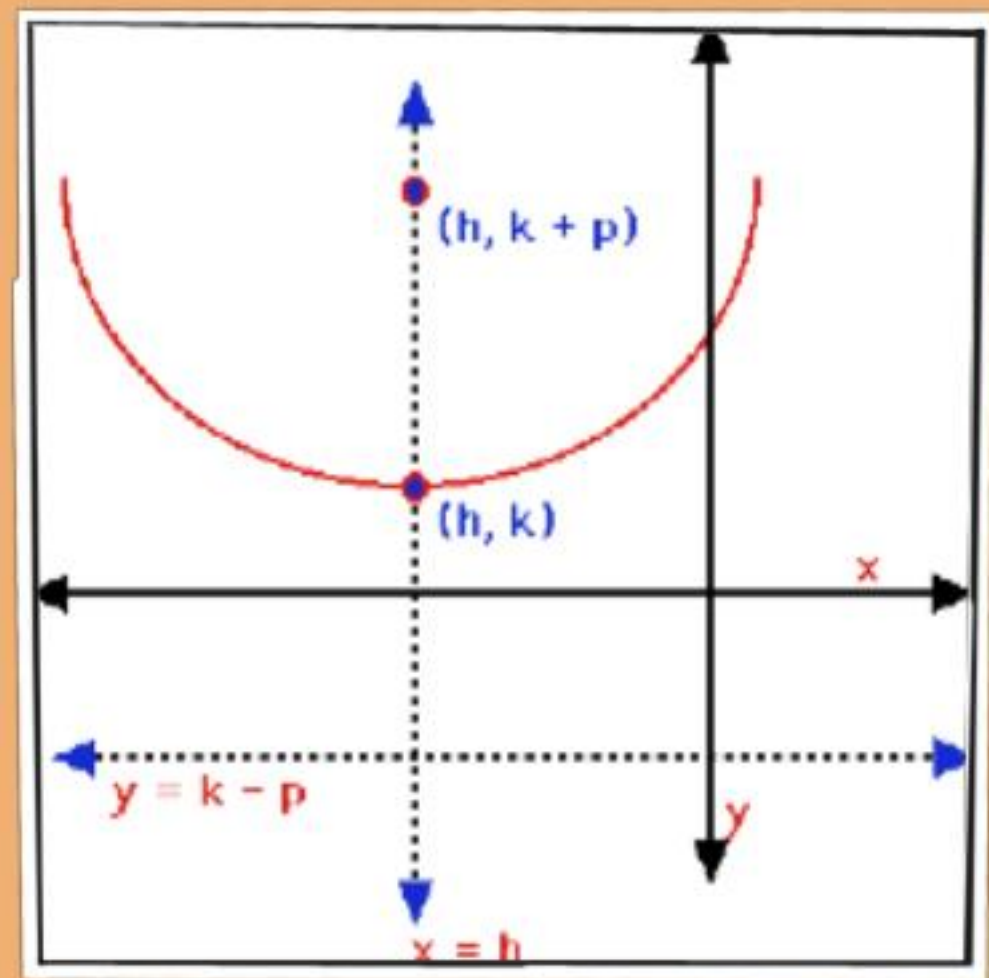
$$(x-h)^2 = 4p(y-k), p \neq 0$$

Vertical Axis, directrix: $y = k - p$

- The equation of the axis of symmetry is $x = h$.

- The coordinates of the focus are $(h, k + p)$.

- The equation of the directrix is $y = k - p$.



The general form of the parabola is $Ax^2 + Cy^2 + Dx + Ey + F = 0$ where $A = 0$ or $C = 0$.