

Vertex of a Parabola

General Form

$$y = ax^2 + bx + c$$

Vertex Form

$$y - \left(c + \frac{-b^2}{4a} \right) = a \left(x - \left(-\frac{b}{2a} \right) \right)^2$$

$$h = -\frac{b}{2a}$$

$$k = c + \frac{-b^2}{4a}$$

$$\text{vertex} = (h, k)$$

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