

To find y-intercept: Plug in 0 for x

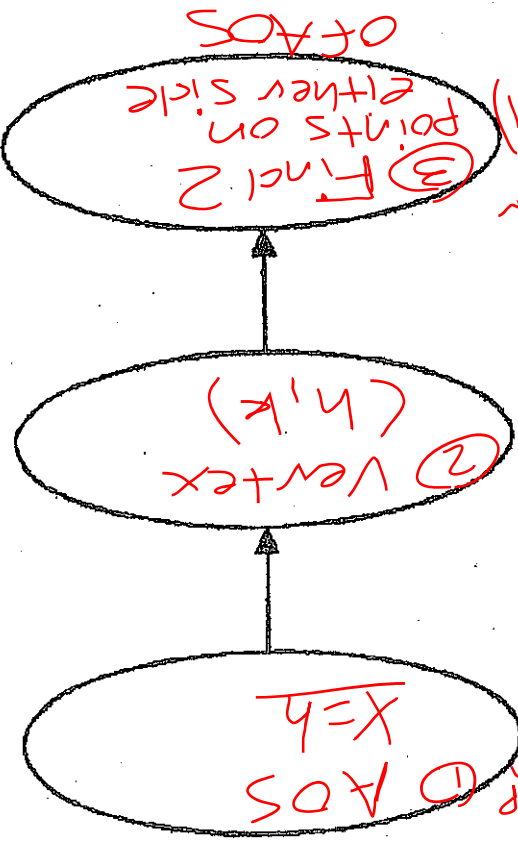
a determines the width and direction of parabola
 $|a| < 1$ narrow
 $|a| > 1$ wide

(h, k) is the vertex

$$f(x) = a(x - h)^2 + k$$

II. Vertex Form

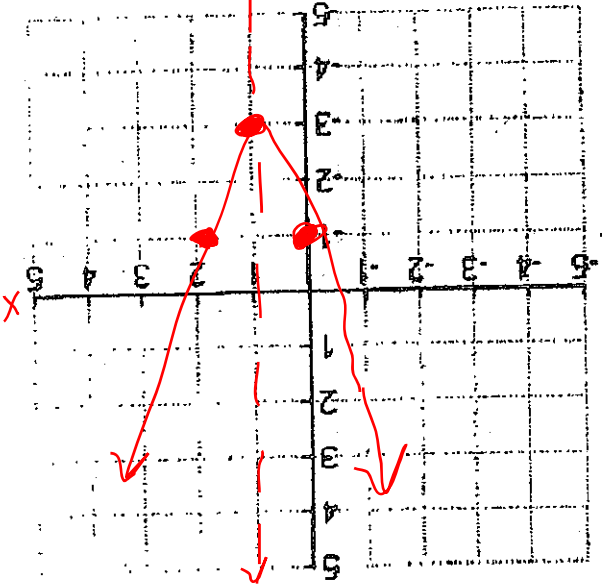
keep sign
 switch sign



$$f(2) = 2(2-1)^2 - 3 = -1$$

$$f(0) = 2(0-1)^2 - 3 = -1$$

① AOS: $x = 1$
 ② Vertex $(1, -3)$
 ③ $f(0) = 2(0-1)^2 - 3 = -1$



Graph $f(x) = 2(x - 1)^2 - 3$