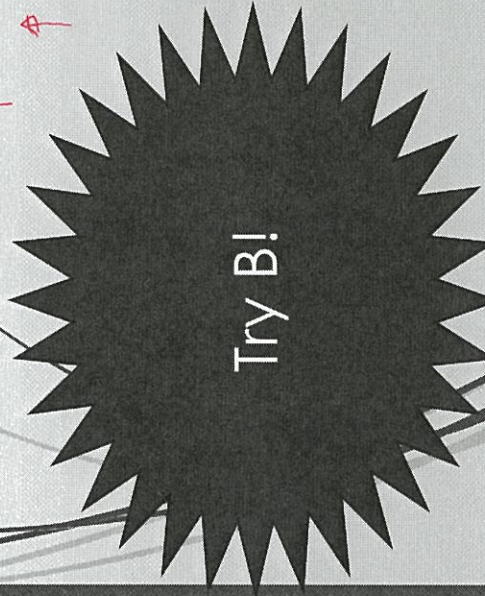


Example 1a: identify the vertex, focus, axis of symmetry, and directrix. Then graph the parabola.

$(y-3)^2 = -8(x+1)$
 $(y-k)^2 = 4p(x-h)$

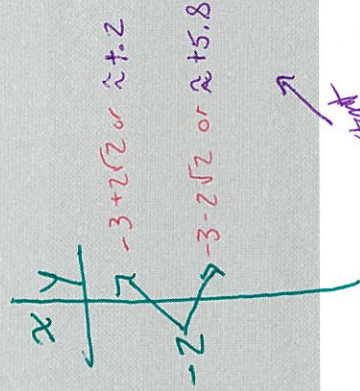
$k=3$
 $h=-1$
 $p=-2$

$4p = -8$
 $p = -2$
 Left!

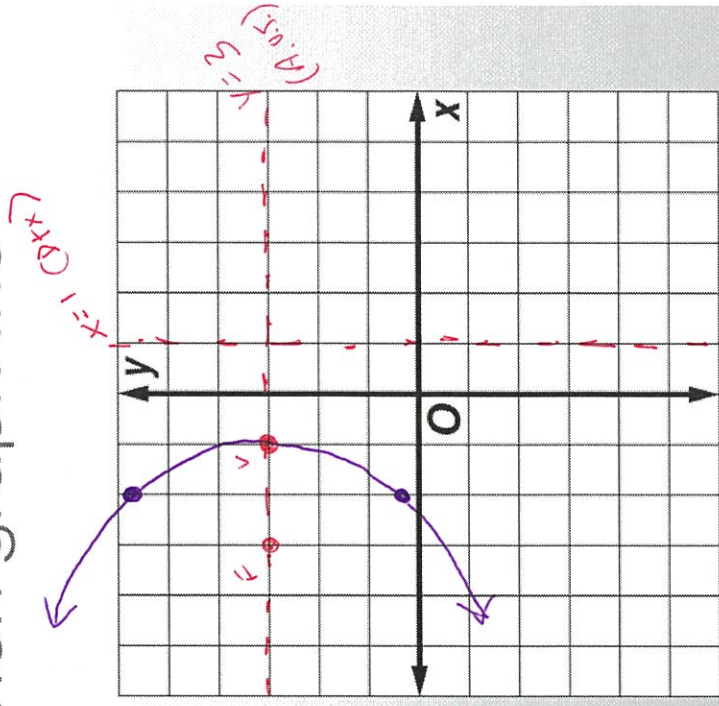


$V: (h, k) \quad (-1, 3)$
 $F: (h+p, k) \quad (-3, 3)$
 $A.O.S.: y = k \quad y = 3$
 $D.t.x: x = h-p \quad x = 1$

To find 2 more (for a total of 3 points) pick left of vertex (x-value).



11
 vertex from origin



$(y-3)^2 = -8(-2+1)$
 $\sqrt{(y-3)^2} = \sqrt{8}$

$y-3 = \pm 2\sqrt{2}$
 $+3 \quad +3$

$y = +3 \pm 2\sqrt{2}$