3. Focus: $(0,5)$ Vertex: $(0,0)$

"TOP"

$h=0$ $k+p=5$ $h=0$ $k=0$

$0+p=5$

$h=0$ $p=5$ $k=0$

$(x-h)^2 = 4p(y-k)$

$(x-0)^2 = 4(5)(y-0)$

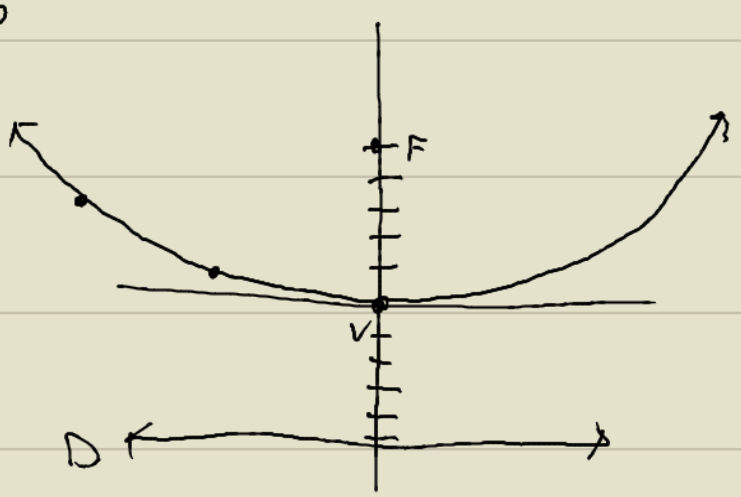
$\boxed{x^2 = 20y}$

DIR.

$y=k-p$

$y=0-5$

$y=-5$



4. Vertex: $(5,-1)$ Focus: $(8,-1)$

BOTTOM

$h=5$ $k=-1$ $k=-1$

$h+p=8$

$5+p=8$

$p=8-5$

$p=3$

$h=5$ $k=-1$ $p=3$

$(y-k)^2 = 4p(x-h)$

$(y-(-1))^2 = 4(3)(x-5)$

$\boxed{(y+1)^2 = 12(x-5)}$

DIR

$x=h-p$

$x=5-3$

$x=2$