7. Focus: $(5,-2)$ Dir: $y=-7$

$h=5$ $k+p=-2$ $\quad k-p=-7$

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

$k+p=-2$
$k-p=-7$
$2k=-9$
$\frac{2k}{2}=-\frac{9}{2}$
$k=-\frac{9}{2}$

$k+p=-2$
$-\frac{9}{2}+p=-2$
$p=-2+\frac{9}{2}$
$p=\frac{5}{2}$

$(x-5)^2=4\left(\frac{5}{2}\right)\left(y-\left(-\frac{9}{2}\right)\right)$

$(x-5)^2=10\left(y+\frac{9}{2}\right)$

8. $(x+2)^2=8(y+2)$

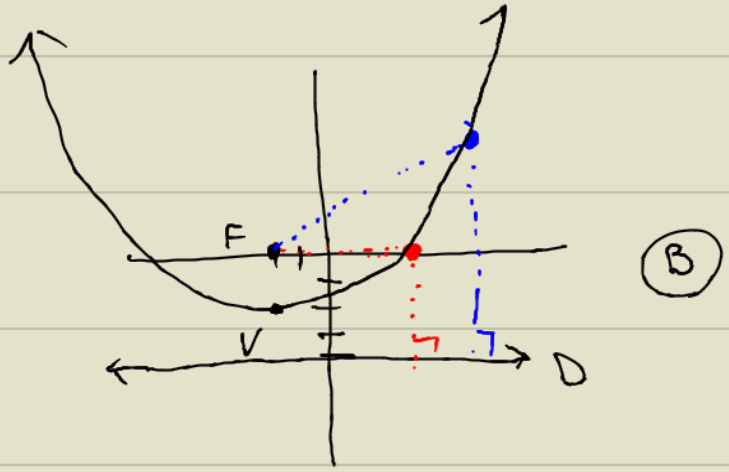
$(x+2)^2=4(2)(y+2)$

$h=-2$ $\quad p=2$ $\quad k=-2$

Vertex: $(h,k)=(-2,-2)$

Focus: $(h,k+p)=(-2,-2+2)$
$(-2,0)$

Dir: $y=k-p$
$y=-2-2$
$y=-4$



B

9. $(y+2)^2=-12(x-3)$

$(y+2)^2=4(-3)(x-3)$

$k=-2$ $\quad p=-3$ $\quad h=3$

Vertex: $(h,k)=(3,-2)$

Focus: $(h+p,k)=(3-3,-2)$
$(0,-2)$

Dir: $x=h-p$
$x=3-(-3)$
$x=6$