$$\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} = 1$$

$$\frac{(x+1)^2}{9} + \frac{(y-2)^2}{25} = 1$$

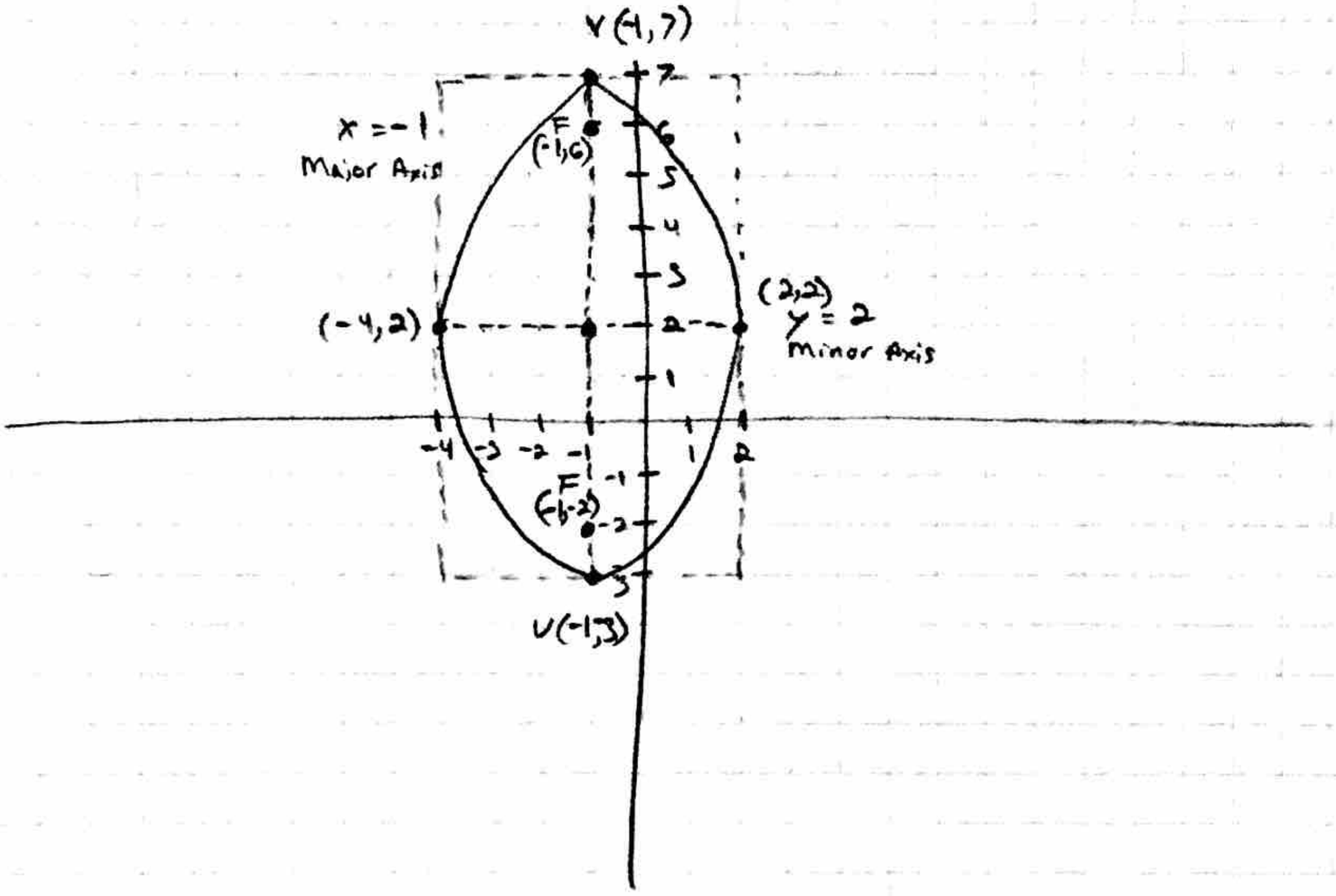
$h = -1$

$k = 2$

$a = 3$ — 3 units left/right

$b = 5$ — 5 units up/down

$C: (h,k) \rightarrow (-1, 2)$



$a = 3$ Move left 3 units
Move right 3 units

$b = 5$ Move up 5 units
Move down 5 units

Foci: $\sqrt{25-9} = \sqrt{16} = 4$ $\quad c^2 = a^2 - b^2$

Move 4 units up
Move 4 units down
} If major axis is vertical

Move 4 units left
Move 4 units right
} If major axis is horizontal

Alternative

$e^2 = a^2 - b^2$

$c^2 = 9 - 25$

Useful for finding eccentricity