HW #51

$$\frac{x^2}{a} + \frac{y^2}{b} = 1$$

$$b^2 = a^2 - c^2$$

(6,0) (-6,0)

$c = 6$ ← semi-focal radius

$2a = 18$

$a = 9$

$b^2 = a^2 - c^2$

$b^2 = 9^2 - 6^2$

$b^2 = 45$

$b = \sqrt{45}$

Equation: $\frac{x^2}{81} + \frac{y^2}{45} = 1$

Vertices: $y=0 \Rightarrow \frac{x^2}{81} = 1$ $x = 9$

Co Vertices: $x=0 \Rightarrow \frac{y^2}{45} = 1$

$y = \sqrt{45} \approx 6.70$