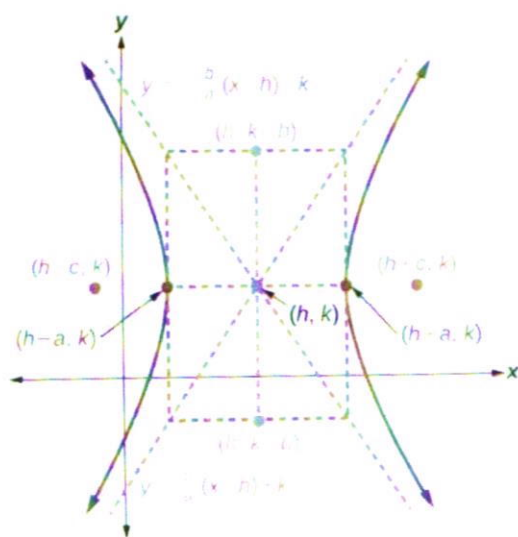
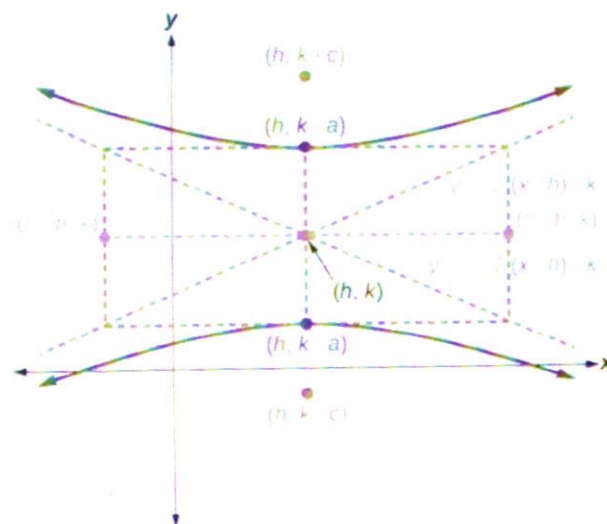


Hyperbolas

Equation	$\frac{(x-h)^2}{a^2} - \frac{(y-k)^2}{b^2} = 1$	$\frac{(y-k)^2}{a^2} - \frac{(x-h)^2}{b^2} = 1$
Center	(h, k)	(h, k)
Focal Length Equation	$a^2 + b^2 = c^2$	$a^2 + b^2 = c^2$
Foci	$(h \pm c, k)$	$(h, k \pm c)$
Vertices	$(h \pm a, k)$	$(h, k \pm a)$
Slopes of the Asymptotes	$\pm \frac{b}{a}$	$\pm \frac{a}{b}$
Direction of Opening	Left and Right	Up and Down
Eccentricity	$\frac{c}{a}$	$\frac{c}{a}$
Transverse Axis	$y = k$	$x = h$
Conjugate Axis	$x = h$	$y = k$



(a)



(b)