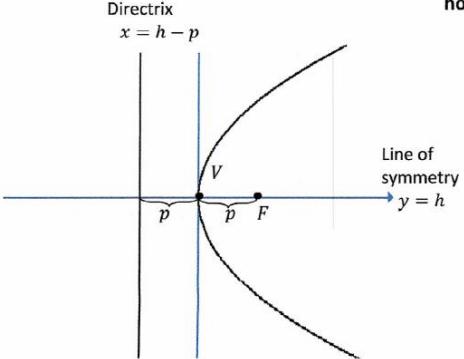
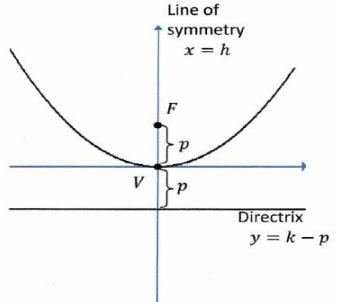
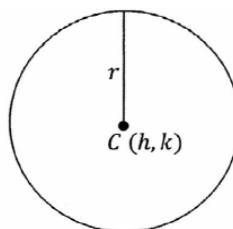
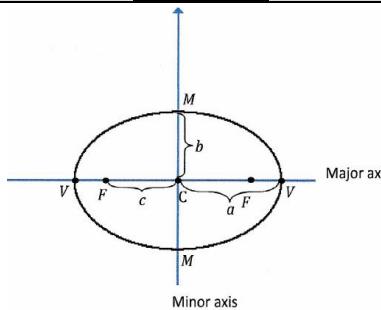
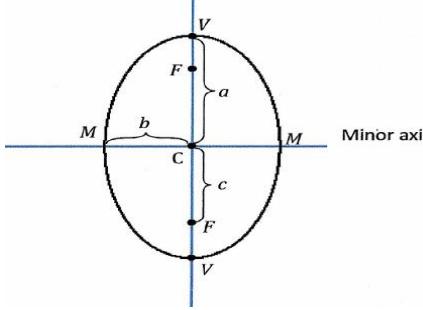
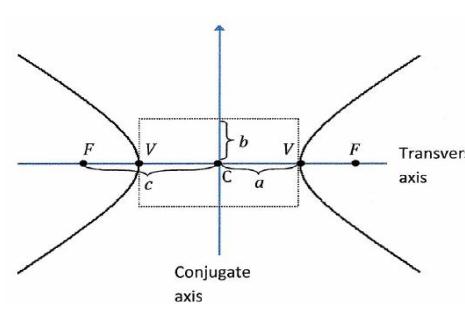
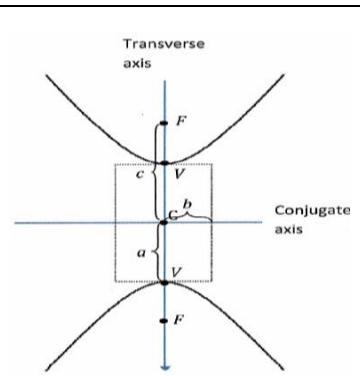


<u>PARABOLA</u>	Equation	Vertex	Focus	Directrix	p and a
 <p>Diagram showing a parabola opening to the right with vertex $V(h, k)$. The focus is $F(h+p, k)$ and the directrix is the vertical line $x = h - p$. The line of symmetry is $y = k$.</p>	$(y-k)^2 = 4p(x-h)$	(h, k)	$(h+p, k)$	$x = h - p$	$p = \frac{1}{4a}$
 <p>Diagram showing a parabola opening upwards with vertex $V(h, k)$. The focus is $F(h, k+p)$ and the directrix is the horizontal line $y = k - p$. The line of symmetry is $x = h$.</p>	$(x-h)^2 = 4p(y-k)$	(h, k)	$(h, k+p)$	$y = k - p$	$p = \frac{1}{4a}$

<u>CIRCLE</u>	Equation	Center	Radius
 <p>Diagram showing a circle with center $C(h, k)$ and radius r.</p>	$(x-h)^2 + (y-k)^2 = r^2$	(h, k)	r

<u>Ellipse</u>	Equation	Center	Foci	Vertices
	$\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} = 1$ <p>$a^2 > b^2$ and $c^2 = a^2 - b^2$</p>	(h, k)	$(h-c, k)$ $(h+c, k)$	$(h-a, k)$ $(h+a, k)$
	$\frac{(x-h)^2}{b^2} + \frac{(y-k)^2}{a^2} = 1$ <p>$a^2 > b^2$ and $c^2 = a^2 - b^2$</p>	(h, k)	$(h, k-c)$ $(h, k+c)$	$(h, k-a)$ $(h, k+a)$
<u>Hyperbola</u>	Equation	Center	Foci	Vertices
	$\frac{(x-h)^2}{a^2} - \frac{(y-k)^2}{b^2} = 1$ <p>$c^2 = a^2 + b^2$</p>	(h, k)	$(h-c, k)$ $(h+c, k)$	$(h-a, k)$ $(h+a, k)$
	$\frac{(y-k)^2}{a^2} - \frac{(x-h)^2}{b^2} = 1$ <p>$c^2 = a^2 + b^2$</p>	(h, k)	$(h, k-c)$ $(h, k+c)$	$(h, k-a)$ $(h, k+a)$