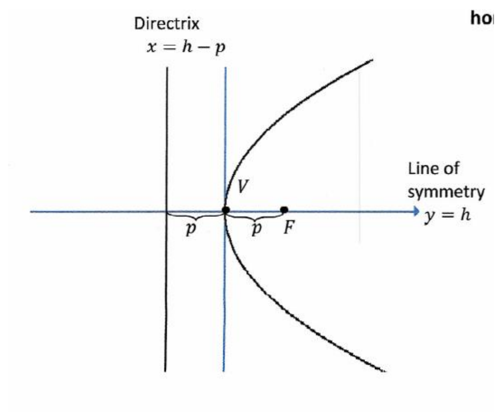
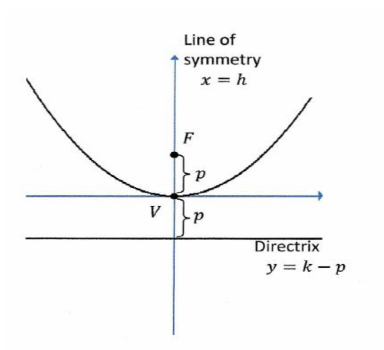
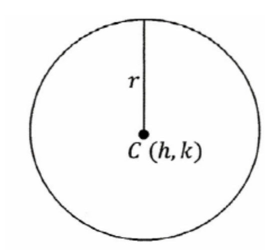
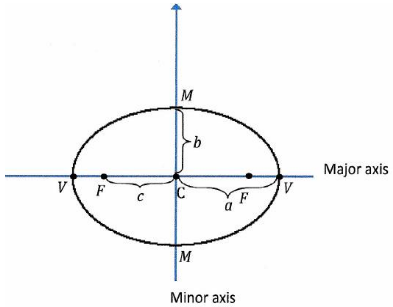
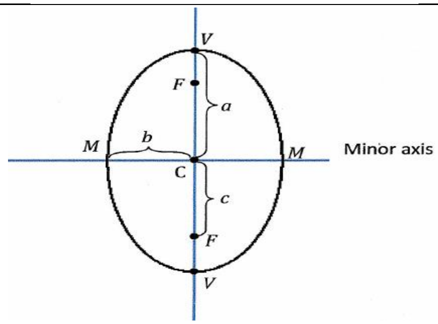
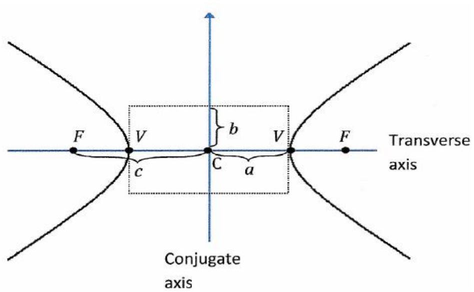
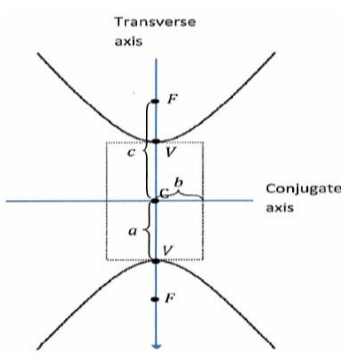
PARABOLA	**Equation**	**Vertex**	**Focus**	**Directrix**	**p and a**
	$(y-k)^2 = 4p(x-h)$	(h,k)	$(h+p,k)$	$x = h - p$	$p = \dfrac{1}{4a}$
	$(x-h)^2 = 4p(y-k)$	(h,k)	$(h,k+p)$	$y = k - p$	$p = \dfrac{1}{4a}$

CIRCLE	**Equation**	**Center**	**Radius**
	$(x-h)^2 + (y-k)^2 = r^2$	(h,k)	r

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

Hyperbola	**Equation**	**Center**	**Foci**	**Vertices**
	$\frac{(x-h)^2}{a^2}-\frac{(y-k)^2}{b^2}=1$ $c^2=a^2+b^2$	(h,k)	$(h-c,k)$ $(h+c,k)$	$(h-a,k)$ $(h+a,k)$ **Asymptote:** $y=\pm\frac{b}{a}(x-h)+k$
	$\frac{(y-k)^2}{a^2}-\frac{(x-h)^2}{b^2}=1$ $c^2=a^2+b^2$	(h,k)	$(h,k-c)$ $(h,k+c)$	$(h,k-a)$ $(h,k+a)$ **Asymptote:** $y=\pm\frac{a}{b}(x-h)+k$