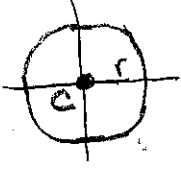
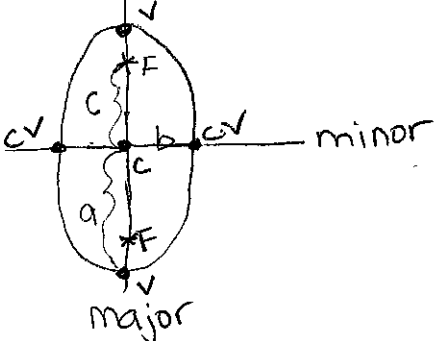
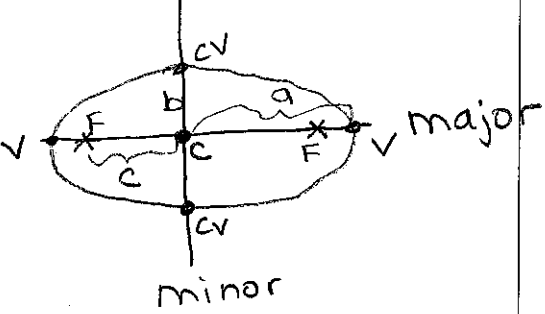
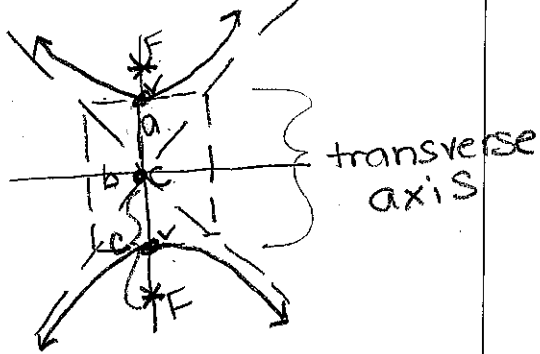
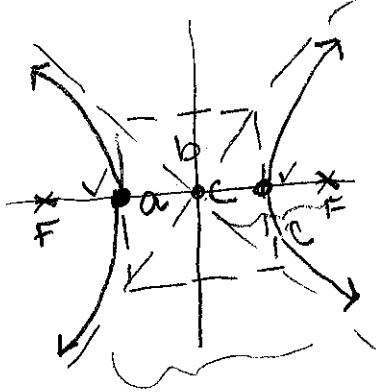
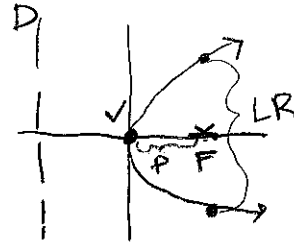
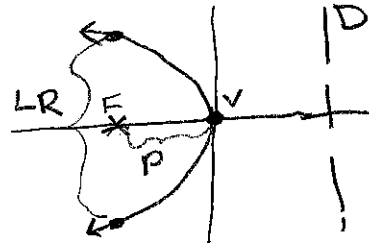
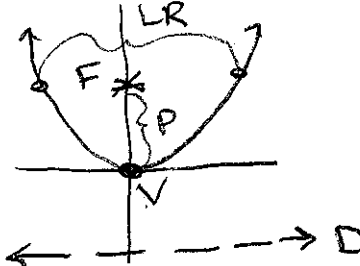


Formula Sheet for Conics – Complete using as much detail as possible.

<p>Midpoint:</p>	<p>Distance:</p>
<p>Point – $(x_1, y_1), (x_2, y_2)$ Formula – $\left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)$</p>	<p>Point – $(x_1, y_1), (x_2, y_2)$ Formula – $\sqrt{(x_2-x_1)^2 + (y_2-y_1)^2}$</p>
<p>Circle:</p>	<p>Graph at Origin and Label Center & Radius</p>
<p>Equation – $(x-h)^2 + (y-k)^2 = r^2$ Center – (h, k) Radius – r</p>	
<p>Vertical Ellipse:</p>	<p>Graph at Origin and Label a, b, c, Foci, Vertices, Co-Vertices, Major & Minor Axis</p>
<p>Equation – $\frac{(x-h)^2}{b^2} + \frac{(y-k)^2}{a^2} = 1$ Center – (h, k) a – Center to vertex on major axis (y) b – Center to covertex on minor axis (x) c – Center to focus on major axis (y) Pythagorean Rule: $a^2 - b^2 = c^2$</p>	
<p>Horizontal Ellipse:</p>	<p>Graph at Origin and Label a, b, c, Foci, Vertices, Co-Vertices, Major & Minor Axis</p>
<p>Equation – $\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} = 1$ Center – (h, k) a – Center to vertex on major axis (x) b – Center to covertex on minor axis (y) c – Center to focus on major axis (x) Pythagorean Rule: $a^2 - b^2 = c^2$</p>	
<p>Vertical Hyperbola:</p>	<p>Graph at Origin and Label a, b, c, Foci, Vertices, Asymptotes & Transverse Axis</p>
<p>Equation – $\frac{(y-k)^2}{a^2} - \frac{(x-h)^2}{b^2} = 1$ Center – (h, k) a – center to vertex on transverse axis (y) b – Center to edge of box (x) c – Center to focus on transverse axis (y) Equation to Asymptotes: $y - y_1 = \pm m(x - x_1)$ Pythagorean Rule: $a^2 + b^2 = c^2$</p>	

Horizontal Hyperbola:	Graph at Origin and Label a, b, c, Foci, Vertices, Asymptotes & Transverse Axis
<p>Equation - $\frac{(x-h)^2}{a^2} - \frac{(y-k)^2}{b^2} = 1$</p> <p>Center - (h, k)</p> <p>a - Center to vertex on transverse axis (x)</p> <p>b - center to edge of box (y)</p> <p>c - Center to focus on transverse axis (x)</p> <p>Equation to Asymptotes: $y - y_1 = \pm m(x - x_1)$</p> <p>Pythagorean Rule: $a^2 + b^2 = c^2$</p>	
Right Parabola:	Graph at Origin and Label, p, LR, Focus, Vertex & Directrix
<p>Equation - $(y-k)^2 = 4p(x-h)$</p> <p>Vertex - (h, k)</p> <p>p - Vertex to focus (positive)</p> <p>Latus Rectum - $4p$ width of parabola thru focus</p> <p>Directrix - $x = \#$ (vertical line)</p>	
Left Parabola:	Graph at Origin and Label, p, LR, Focus, Vertex & Directrix
<p>Equation - $(y-k)^2 = 4p(x-h)$</p> <p>Vertex - (h, k)</p> <p>p - Vertex to focus (negative)</p> <p>Latus Rectum - $4p$ width of parabola thru focus</p> <p>Directrix - $x = \#$ (vertical line)</p>	
Up Parabola:	Graph at Origin and Label, p, LR, Focus, Vertex & Directrix
<p>Equation - $(x-h)^2 = 4p(y-k)$</p> <p>Vertex - (h, k)</p> <p>p - Vertex to focus (positive)</p> <p>Latus Rectum - $4p$ width of parabola thru focus</p> <p>Directrix - $y = \#$ (horizontal line)</p>	
Down Parabola:	Graph at Origin and Label, p, LR, Focus, Vertex & Directrix
<p>Equation - $(x-h)^2 = 4p(y-k)$</p> <p>Vertex - (h, k)</p> <p>p - vertex to focus (negative)</p> <p>Latus Rectum - $4p$ width of parabola thru focus</p> <p>Directrix - $y = \#$ (horizontal line)</p>	