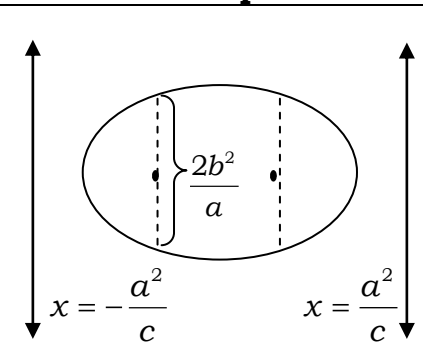
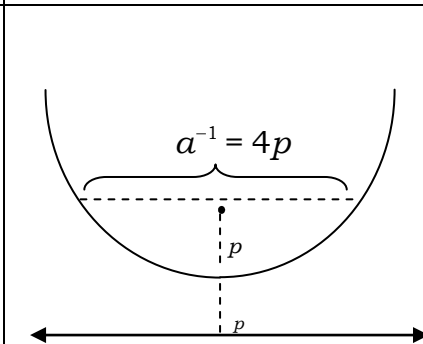
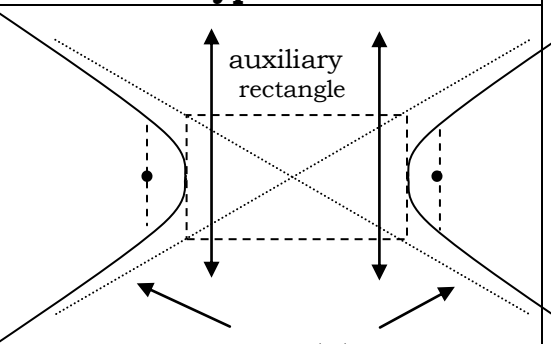


Conics Illustrated

a is distance from “center” to farthest point (ellipse) or closest point (hyperbola). c is distance from center to focus points.

	Ellipse	Parabola	Hyperbola
illustration			
latus rectum	<i>Latus rectum</i> is the name of each vertical segment above. The length = $\frac{2b^2}{a}$ of each latus rectum is <i>focal width</i> .	<i>Latus rectum</i> is the name of the horizontal segment above. The length = a of the latus rectum is the <i>focal width</i> .	<i>Latus rectum</i> is the name of each vertical segment above. The length = $\frac{2b^2}{a}$ of each latus rectum is the <i>focal width</i> .
directrix	<i>Directrix</i> is the name of each line parallel to the lateri recti and outside the ellipse. The parent equations of these are $x = \pm \frac{a^2}{c}$	<i>Directrix</i> is the name of the line parallel to the latus rectum the parabola. Its parent equation is $y = p = \frac{1}{4a}$	<i>Directrix</i> is the name of each line parallel to the lateri recti and outside the hyperbola. The parent equations of these are $x = \pm \frac{a^2}{c}$
vertices	<i>Vertices</i> are found at the end points of the major axis.		<i>Vertices</i> are where each branch meets the auxiliary rectangle.

All circles and parabolas are similar figures. All ellipses with the same eccentricity are similar. All hyperbolas with the same eccentricity are similar.