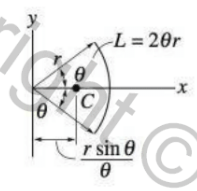
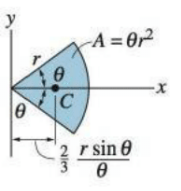
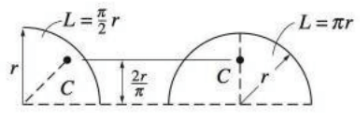
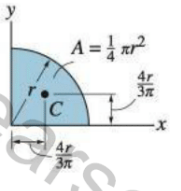
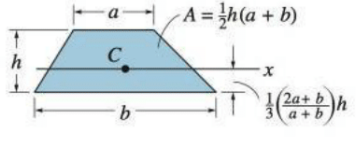
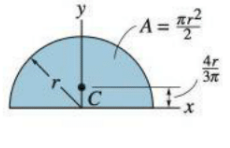
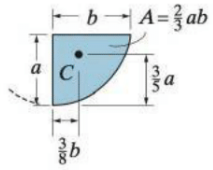
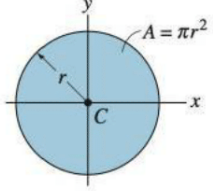
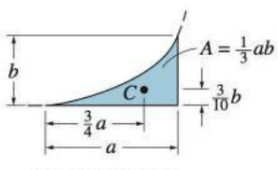
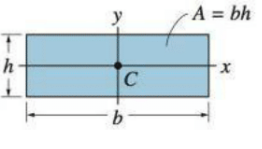
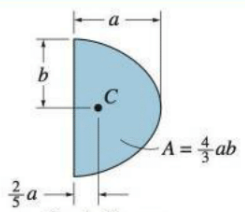
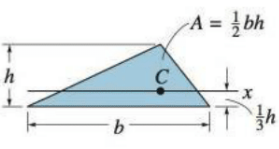


Geometric Properties of Line and Area Elements

Centroid Location	Centroid Location	Area Moment of Inertia
 <p>Circular arc segment</p>	 <p>Circular sector area</p>	$I_x = \frac{1}{4} r^4 \left(\theta - \frac{1}{2} \sin 2\theta \right)$ $I_y = \frac{1}{4} r^4 \left(\theta + \frac{1}{2} \sin 2\theta \right)$
 <p>Quarter and semicircle arcs</p>	 <p>Quarter circle area</p>	$I_x = \frac{1}{16} \pi r^4$ $I_y = \frac{1}{16} \pi r^4$
 <p>Trapezoidal area</p>	 <p>Semicircular area</p>	$I_x = \frac{1}{8} \pi r^4$ $I_y = \frac{1}{8} \pi r^4$
 <p>Semiparabolic area</p>	 <p>Circular area</p>	$I_x = \frac{1}{4} \pi r^4$ $I_y = \frac{1}{4} \pi r^4$
 <p>Exparabolic area</p>	 <p>Rectangular area</p>	$I_x = \frac{1}{12} b h^3$ $I_y = \frac{1}{12} h b^3$
 <p>Parabolic area</p>	 <p>Triangular area</p>	$I_x = \frac{1}{36} b h^3$