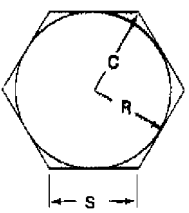
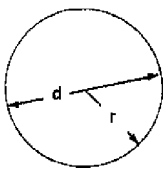
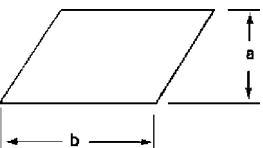
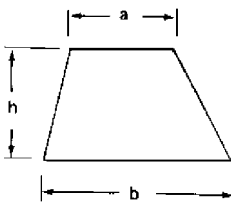
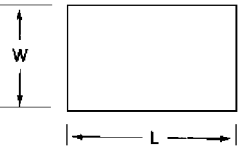
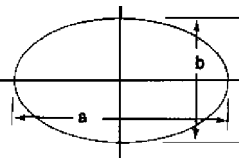
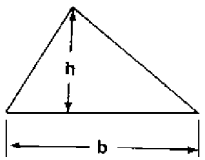


# FORMULAS FOR DETERMINING GEOMETRIC AREAS AND VOLUMES

	 <p><b>Hexagon</b></p> <p><math>C = S = 1.155R</math>            Area = <math>2.598S^2</math>            = <math>3.464R^2</math></p>	
	 <p><b>Circle</b></p> <p>A = area C = circumference.  <math>A = \pi r^2 = \frac{\pi d^2}{4}</math>  <math>C = 2\pi r = \pi D</math></p>	<p><b>Circular Sector</b></p> <p>A = area; <math>l</math> = length of arc;  <math>\alpha</math> = angle, in degrees.  <math>l = \frac{r \times \alpha \times 3.1416}{180}</math>  <math>A = \frac{1}{2}rl</math>  <math>\alpha = \frac{57.296l}{r}</math></p>
	 <p><b>Parallelogram</b></p> <p>A = area.  <math>A = ab</math></p> <p>Note that dimension a is measured at right angles to line b.</p>	<p><b>Regular Polygon</b></p> <p>A = area <math>n</math> = number of sides.  <math>\alpha = 360^\circ \div n</math> <math>\beta = 180^\circ - \alpha</math>  <math>A = \frac{nsr}{2} = \frac{ns}{2} \sqrt{\frac{R^2 - s^2}{4}}</math>  <math>R = \sqrt{r^2 + \frac{s^2}{4}}</math>; <math>r = \sqrt{R^2 - \frac{s^2}{4}}</math>  <math>s = 2\sqrt{R^2 - r^2}</math></p>
	 <p><b>Trapezoid</b></p> <p>A = area.  <math>A = \frac{(a + b)h}{2}</math></p>	<p><b>Circular Ring</b></p> <p>A = area  <math>A = \pi (R^2 - r^2)</math>            = <math>0.7854 (D^2 - d^2)</math></p>
	 <p><b>Rectangle or Square</b></p> <p>Area = <math>L \times W</math></p>	<p><b>Cylinder</b></p> <p>Area = <math>2\pi R (R + H)</math>            Volume = <math>\pi R^2 H</math></p>
	 <p><b>Ellipse</b></p> <p><math>a</math> = major axis; <math>b</math> = minor axis.  <math>A = \frac{\pi ab}{4}</math></p>	<p><b>Cone</b></p> <p>Area = <math>\pi R \sqrt{(R^2 + H^2)}</math>            Volume = <math>\frac{\pi R^2 H}{3}</math></p>
	 <p><b>Triangle</b></p> <p>A = area.  <math>A = \frac{bh}{2}</math></p>	<p><b>Square Prism</b></p> <p><math>V</math> = volume.  <math>A</math> = area of surface.  <math>V = abc</math>  <math>A = 2ab + 2ac + 2bc</math></p>