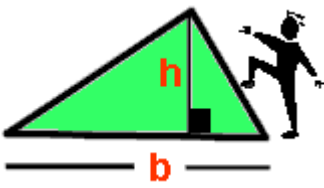
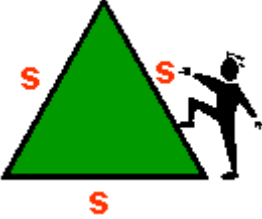
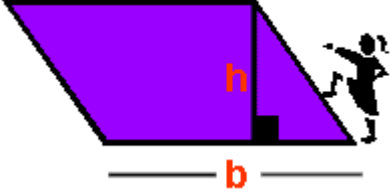
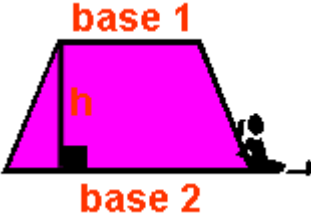
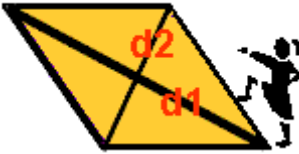

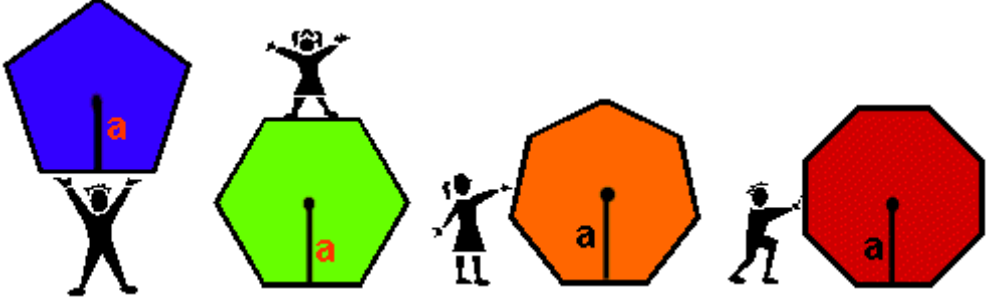

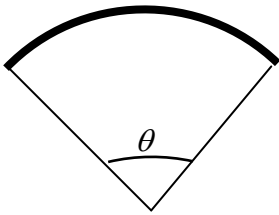
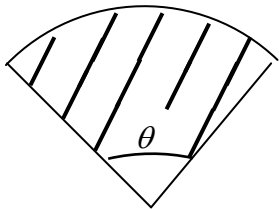


## Mensuration - Useful Formula Sheet

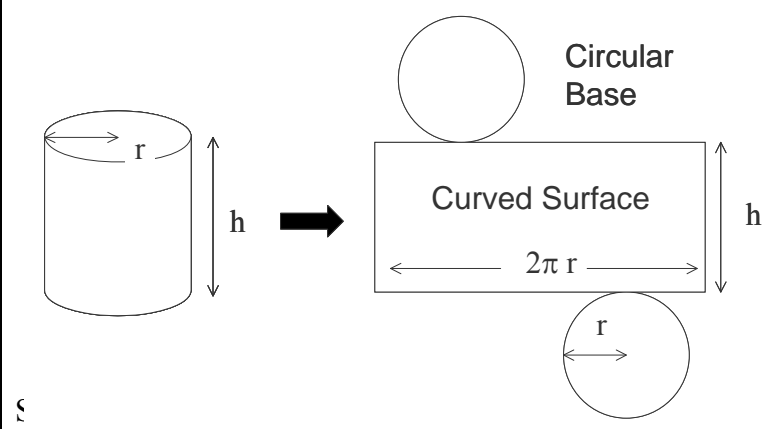
### (I) Area and Perimeter

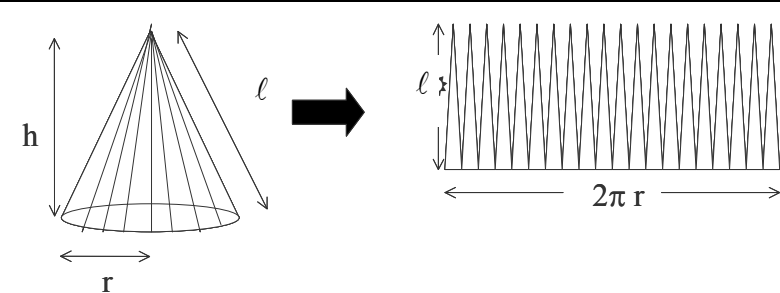
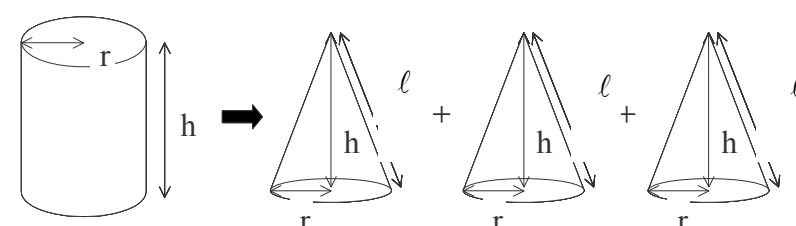
		
$A = \frac{1}{2}bh$	$A = \frac{s^2\sqrt{3}}{4}$	$A = bh$
		
$A = \frac{1}{2}h(b_1 + b_2)$	$A = \frac{1}{2}d_1 \cdot d_2$	$A = \pi r^2$
		
$A = \frac{1}{2}ap$	<p style="text-align: center;">Regular polygons have all sides of equal length.</p> <p style="text-align: center;">a = apothem p = perimeter</p>	 $C = 2\pi r = \pi d$

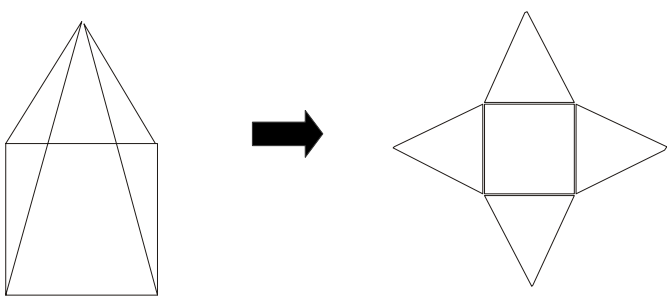
### (II) Arcs and Sectors

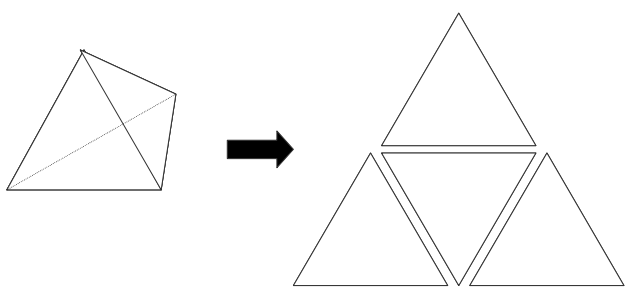
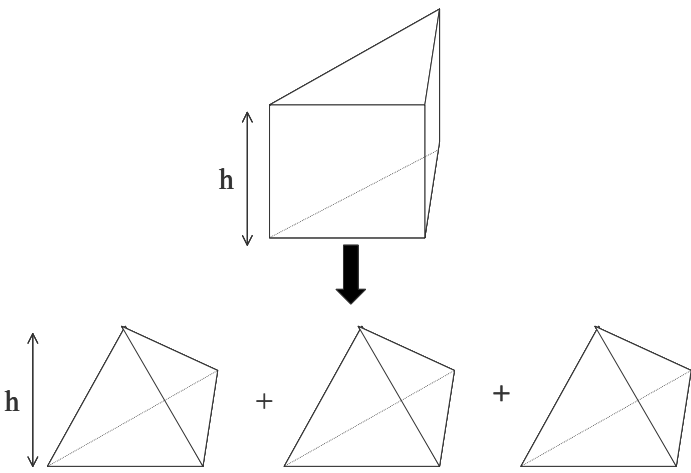
	
Length of ARC	$\frac{\theta^\circ}{360^\circ} \times 2\pi r$
Area of SECTOR	$\frac{\theta^\circ}{360^\circ} \times \pi r^2$

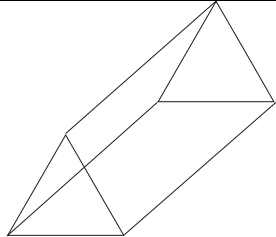
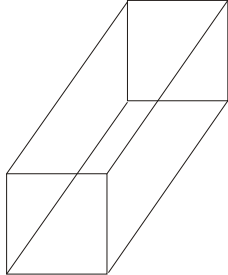
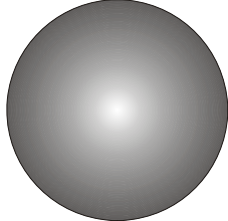
### (III) Volume and Surface Area

<b>CYLINDER</b>	
Surface Area	 <p style="text-align: center;"> <math>= 2\pi r^2 + 2\pi r h</math> </p>
Volume	<p style="text-align: center;">Volume of Cylinder = Area of Circular Base <math>\times</math> Height = <math>\pi r^2 h</math></p>

<b>CONE</b>	
Curved Surface Area	 <p style="text-align: center;">           Curved Surface Area of Cone = Sum of Area of Triangles  <math>= \frac{1}{2} \times \text{Base} \times \text{Height}</math>  <math>= \frac{1}{2} \times 2\pi r \times l</math>  <math>= \pi r l \quad (\ell = \text{slant height})</math> </p>
Volume	 <p style="text-align: center;">           Volume of Cone = <math>\frac{1}{3} \times</math> Volume of Cylinder = <math>\frac{1}{3} \times \pi r^2 h</math> </p>

<b>PYRAMID (Square – Based)</b>	
Surface Area	 <p style="text-align: center;">Surface Area of Pyramid = Area of base (Square) + Area of <b>4</b> Triangles</p>
<b>PYRAMID (Square – Based)</b>	
Volume	$\text{Volume of Pyramid} = \frac{1}{3} \times \text{Volume of Cuboid}$ $= \frac{1}{3} \times \text{Base Area} \times \text{Height}$

<b>PYRAMID (Triangle – Based) also known as Tetrahedron</b>	
Surface Area	 <p style="text-align: center;">Surface Area of Tetrahedron = Area of <b>4</b> Triangles</p>
Volume	 <p style="text-align: center;">Volume of Tetrahedron = <math>\frac{1}{3} \times \text{Volume of Triangular Prism}</math></p> $= \frac{1}{3} \times \text{Base Area} \times \text{Height}$

	Surface Area	Area of 2 triangles + Area of 3 rectangles
<b>(Triangular) PRISM</b>	Volume	Area of Triangular base × Height
	Surface Area	Area of 2 squares + Area of 4 rectangles
<b>(Rectangular) PRISM also known as CUBOID</b>	Volume	Area of Square base × Height
	Surface Area	$4\pi r^2$
<b>SPHERE</b>	Volume	$\frac{4}{3}\pi r^3$