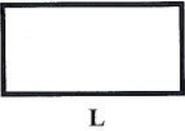
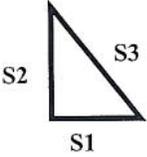
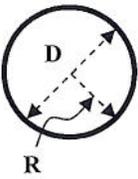
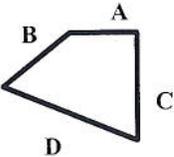


Linear Formulas

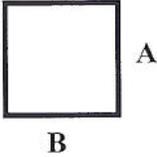
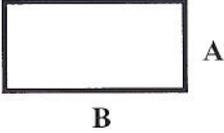
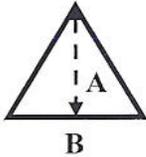
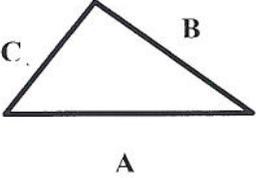
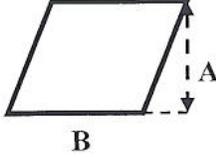
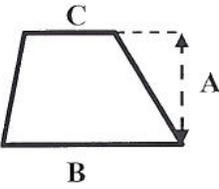
<u>Shape</u>	<u>Procedure</u>	<u>Formula</u>	
	Square	Multiply the side by 4	Perimeter = $4 \times S$
	Rectangle	Add the length and width and multiply by 2	$P = 2(L + W)$
	Triangle	Add the three sides	$P = S1 + S2 + S3$
	Circle	Multiply the diameter by 3.14 3.14159 is pi (π)	$C = \pi \times D$ or $C = \pi \times 2 \times R$
	Polygon	The perimeter of any shape is the sum of the sides	$P = A + B + C + D$

The perimeter of a circle is called it's circumference

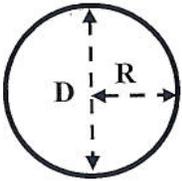
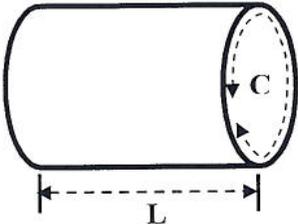
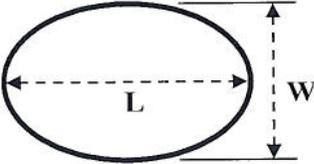
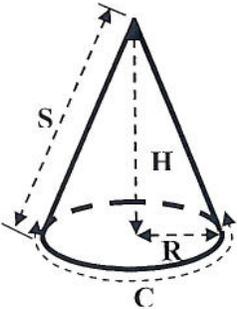
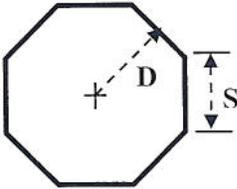
The diameter of a circle is the width of the circle

The radius of a circle is half the diameter

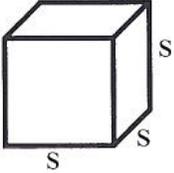
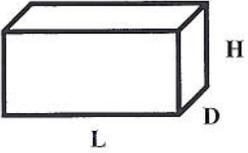
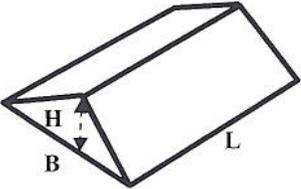
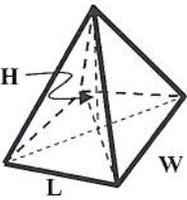
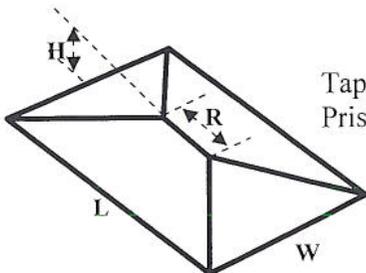
Area Formulas

Shape	Procedure	Formula	
	Square	Multiply side by side	Area = A x B
	Rectangle	Multiply length by width	Area = A x B
	Triangle	Multiply 1/2 base by height	Area = 1/2 A x B
	Triangle (3 sides known)	$\text{Area} = \sqrt{S \times (S-A) \times (S-B) \times (S-C)}$ $S = \frac{1}{2} \times (A+B+C)$	
	Parallelogram	Multiply base by height	Area = A x B
	Trapezoid	Multiply 1/2 the sum of the bases by height	Area = 1/2(B + C) x A

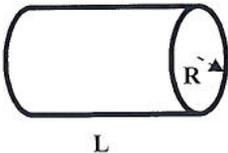
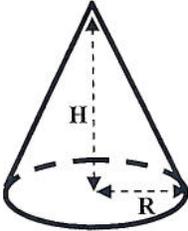
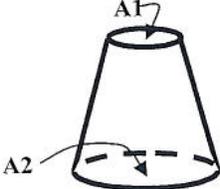
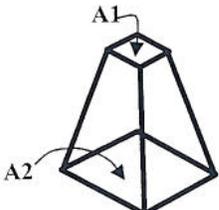
Area Formulas

Shape	Procedure	Formula
	<p>Multiply the radius by itself and by 3.14159</p> <p>The circumference of a circle divided by the diameter of the circle is always 3.14159 or pi (π)</p> <p style="text-align: center;">Diameter x 3.14 = Circumference</p>	<p>Area = 3.14159 x R²</p> <p>Area = π x R²</p>
	Multiply length by circumference	<p>Area = C x L</p> <p>or</p> <p>Area = π x D x L</p> <p>or</p> <p>A = π x 2 x R x L</p>
	Multiply length by width by .7854 L = major axis W = minor axis	A = L x W x .7854
	Multiply radius by side by pi	<p>Area = π x R x S</p> <p>or</p> <p>A = π x $\frac{1}{2}$ D x S</p> <p>or</p> <p>A = $\frac{1}{2}$ C x S</p>
	Multiply side by the perpendicular distance to center by the total number of sides and divide by 2	Area = S x D x # sides \div 2

Volume Formulas

Shape	Procedure	Formula	
	Cube	Multiply side by side by side	Volume = S^3
	Rectangular Prism	Multiply length by depth by height	Volume = $L \times D \times H$
	Triangular Prism	Multiply $\frac{1}{2}$ base by height by length	$V = \frac{1}{2} \times B \times H \times L$
	Pyramid	Multiply the area of the base by $\frac{1}{3}$ the height	$V = L \times W \times \frac{1}{3}H$
	Tapered Triangular Prism	Volume of pyramid plus the volume of the triangular prism	$V = \frac{1}{2}W \times H \times R + \{(L - R) \times W \times \frac{1}{3}H\}$

Volume Formulas

Shape	Procedure	Formula
 <p>A 3D diagram of a cylinder. The circular end face is shown with a radius line labeled 'R'. The length of the cylinder is labeled 'L' below it.</p>	<p>Cylinder</p> <p>Multiply the area of circle by the length</p>	$\text{Volume} = \pi \times r^2 \times L$
 <p>A 3D diagram of a cone. A dashed vertical line from the apex to the center of the base is labeled 'H'. A dashed horizontal line from the center of the base to the edge is labeled 'R'.</p>	<p>Cone</p> <p>Multiply the area of the base by $\frac{1}{3}$ the height</p>	$V = \pi \times R^2 \times \frac{1}{3}H$
 <p>A 3D diagram of a conical frustum. The top circular face is labeled 'A1' and the bottom circular face is labeled 'A2'.</p>	<p>Conical Frustum</p> <p>Add the areas of the top and the bottom plus the square root of: the top area times the bottom area, then multiply by $\frac{1}{3}$ the height</p>	$V = \frac{1}{3}H (A1 + A2 + \sqrt{A1 \times A2})$
 <p>A 3D diagram of a pyramidal frustum. The top square face is labeled 'A1' and the bottom square face is labeled 'A2'.</p>	<p>Pyramidal Frustum</p>	

