Solids:
Area and Volume Formulas

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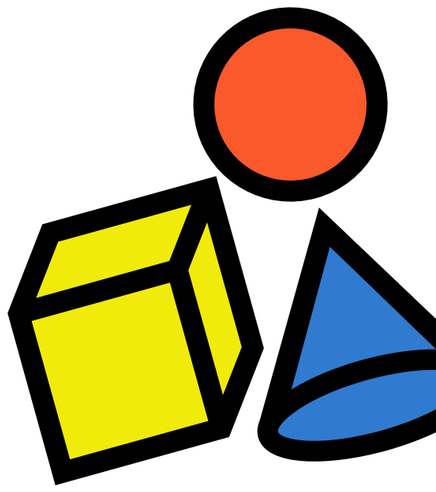
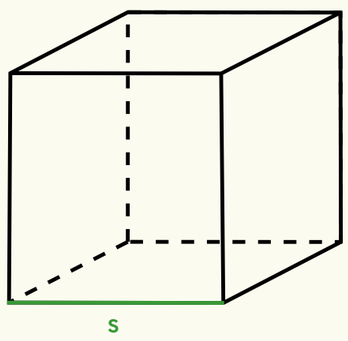
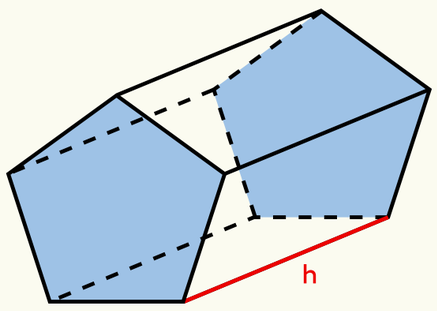
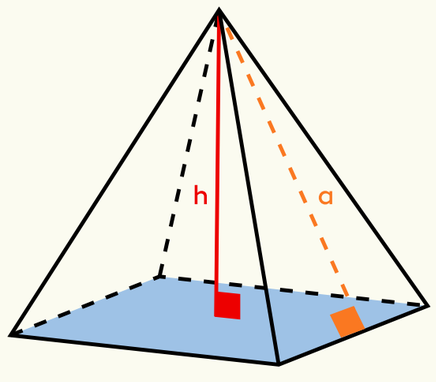
The **area of the base**, generally denoted A_b, is the surface occupied by the figure or figures that serve as a base for the solids.

The **lateral area**, generally denoted A_L, is the surface occupied by the figures that do not serve as the base for the solids.

The **total area**, generally denoted A_T, is the total surface covered by all the figures that make up the solid.

The **volume**, generally denoted V, is the measure of the three-dimensional space a solid occupies. Volume is calculated in cubic units (u^3).



	Solid	Area Formulas	Volume Formulas
Cube		$A_b = s^2$ $A_L = 4s^2$ $A_T = 6s^2$	$V = s^3$
Prism		A_b = formula associated with the figure $A_L = P_b \times h$ $A_T = A_L + 2A_b$	$V = A_b \times h$
Pyramid		A_b = formula associated with the figure $A_L = \frac{P_b \times a}{2}$ $A_T = A_L + A_b$	$V = \frac{A_b \times h}{3}$

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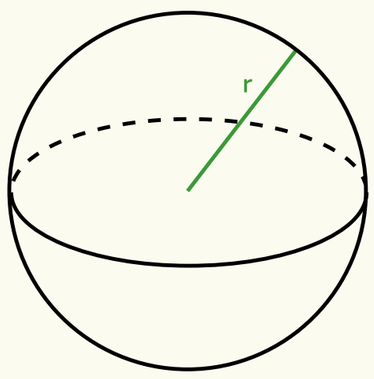
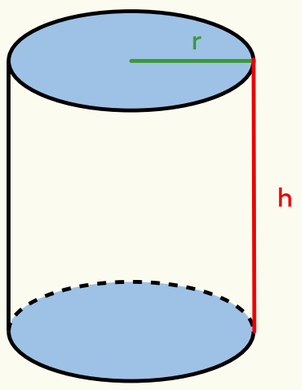
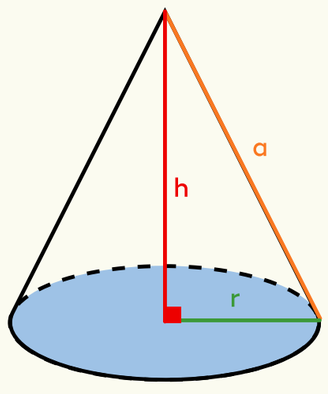
	Solid	Area Formulas	Volume Formulas
Sphere		$A_T = 4\pi r^2$	$V = \frac{4\pi r^3}{3}$
Cylinder		$A_b = \pi r^2$ $A_L = 2\pi rh$ $A_T = A_L + 2A_b$	$V = A_b \times h$
Cone		$A_b = \pi r^2$ $A_L = \pi ra$ $A_T = A_L + A_b$	$V = \frac{A_b \times h}{3}$