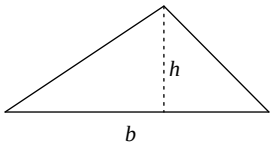
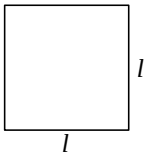
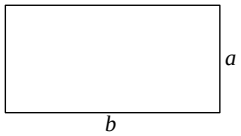
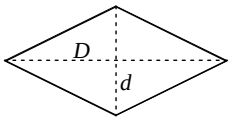
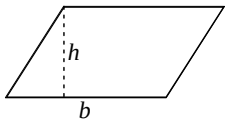
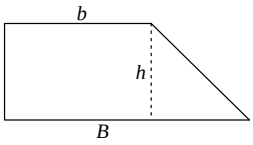
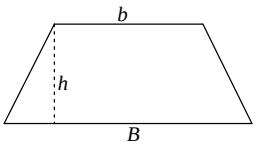
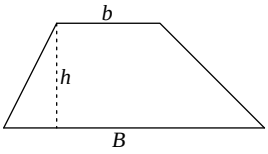
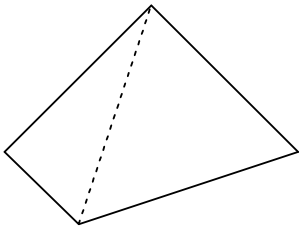
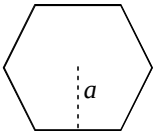
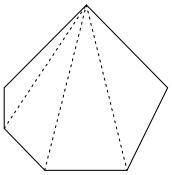
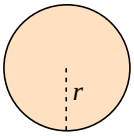
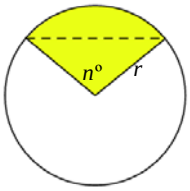
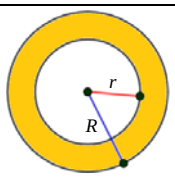
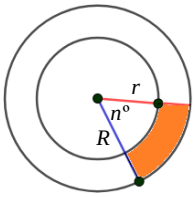
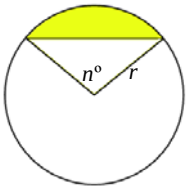
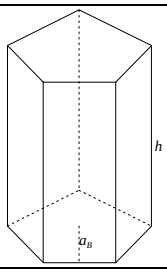
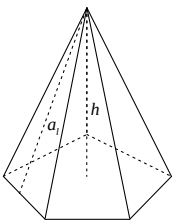
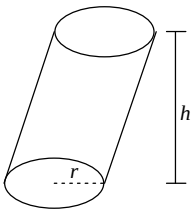
AREAS AND VOLUMES

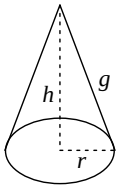
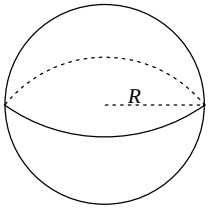
			NAME	FORM	AREA
AREAS OF PLANE FIGURES	**TRIANGLES** (3-sided polygons)		Triangle		$A = \frac{b \cdot h}{2}$
	QUADRILATERALS (4-sided polygons)	**QUADRILATERALS** (With two in two parallel sides)	Square		$A = l \cdot l$
			Rectangle		$A = b \cdot a$
			Rhombus		$A = \frac{D \cdot d}{2}$
			Rhomboid or parallelogram		$A = b \cdot h$
		TRAPEZOIDS (With two parallel sides)	Right trapezoid		$A = \frac{(B + b) \cdot h}{2}$
			Isoceles trapezoid		
			Scalene trapezoid		
		TRAPEZOIDS	Trapezoid		It is divided into two triangles and their areas added
	N – SIDED POLYGON		Regular polygon		$A = \frac{p \cdot a}{2}$ p = perimeter
			Irregular polygon		It decomposes into triangles and their areas are added

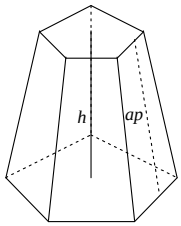
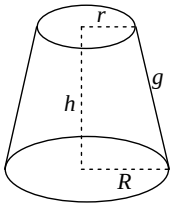
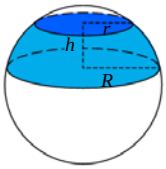
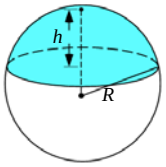
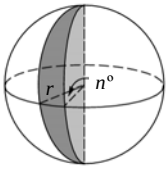
AREAS AND VOLUMES

AREAS	**CIRCULAR FIGURES**	Circumference		$L = 2 \cdot \pi \cdot r$
		Circle		$A = \pi \cdot r^2$
		Circular sector		$A = \frac{\pi \cdot r^2 \cdot nº}{360º}$ n^o = number of degrees
		Circular crown		$A = \pi R^2 - \pi r^2$
		Circular trapezoid		$A = \frac{\pi(R^2 - r^2)nº}{360º}$
		Circular segment		$A = A_{sector} - A_{isosceles\ triangle}$

		NAME	FORM	AREAS	VOLUMES
AREAS AND VOLUMES OF GEOMETRIC SOLID	**POLYHEDRA** (Geometric solids limited by polygons)	PRISM		$A_L = p_B \cdot h$ p_B= perimeter base $A_B = \frac{p_B \cdot a_B}{2}$ a_B = base apothem $A_T = A_L + 2A_B$	$V = A_B \cdot h$
		PYRAMID		$A_{TRIANG.} = \frac{l_B \cdot a_l}{2}$ a_l = lateral apothem $A_B = \frac{p_B \cdot a_B}{2}$ $A_T = A_L + 2A_B$	$V = \frac{A_B \cdot h}{3}$
	SOLID OF REVOLUTION (Solids which are obtained by turning a plane figure)	CILINDER		$A_L = 2\pi r \cdot h$ h = height $A_B = \pi \cdot r^2$ $A_T = A_L + 2A_B$	$V = A_B \cdot h$

AREAS AND VOLUMES

		CONE		$A_L = \pi \cdot r \cdot g$ g = generatrix or slant height $A_B = \pi \cdot r^2$ $A_T = A_L + A_B$	$V = \frac{A_B \cdot h}{3}$
		SPHERE		$A_T = 4\pi R^2$	$V = \frac{4}{3}\pi R^3$

AREAS AND VOLUMES OF GEOMETRIC SOLID		NAME	FORM	AREAS	VOLUMES
	FRUSTRUMS (Solids that are obtained from others, when cut by a plane parallel to the base)	FRUSTUM PYRAMID or TRUNCATED PYRAMID		$A_L = \frac{(P+p)ap}{2}$ P = perimeter of the largest base p = perimeter of the smaller base ap = frustum apothem $A_T = A_L + A_B + A_b$ A_B = larger base area A_b = smaller base area	$V = \frac{\left(A_B + A_b + \sqrt{A_B A_b}\right) \cdot h}{3}$
		FRUSTRUM CONE or TRUNCATED CONE		$A_L = \pi(R+r)g$ $A_T = \pi g(R+r) + \pi R^2 + \pi r^2$	$V = \frac{\pi h\left(R^2 + r^2 + Rr\right)}{3}$
	SPHERICAL SOLIDS (Solid obtained from a solid and cut into one or more planes)	SPHERICAL SEGMENT		$A = 2\pi r \cdot h$	$V = \frac{\pi h\left(h^2 + 3R^2 + 3r^2\right)}{6}$
		SPHERICAL CAP		$A = 2\pi R \cdot h$	$V = \frac{\pi h^2(3R-h)}{3}$
		SPHERICAL WEDGE or UNGULA or SPHERICAL LUNE		$A = 4\pi r^2 \cdot \frac{n^\circ}{360^\circ}$	$V = \frac{4}{3}\pi r^3 \cdot \frac{n^\circ}{360^\circ}$

If we don't want to memorize the formulas for finding the volume of frustums, we use similar triangles and the Thales' Theorem.

To find the area and volume of a spherical wedge we can use a rule of three.