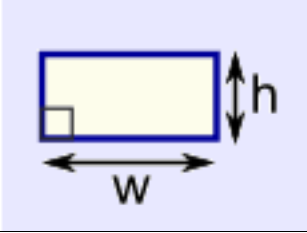1) How to compute the area of basic 2D shapes?

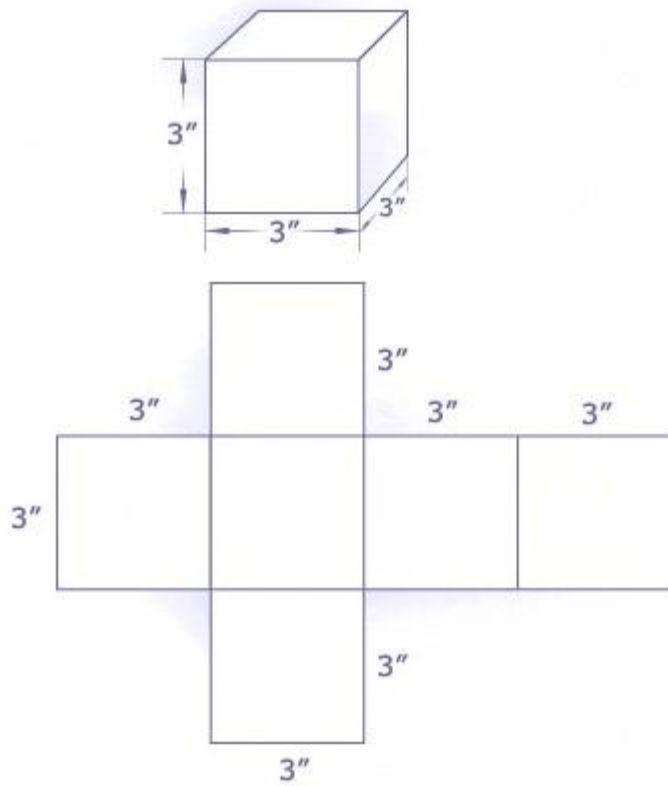|	
Area of Square	$A = a^2$
Area of Rectangle	$A = h \times w$
Area of Triangle	$A = \frac{1}{2}(b \times h)$
Area of Trapezoid	$A = \frac{1}{2}(a + b)(h)$

Area of Parallelogram	$A = b \times h$
Area of Circle	$A = \pi r^2$
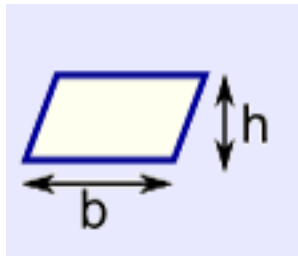
2) How to compute the Surface Area (SA) of basic 3D shapes?

Surface Area of Cube	
	$$SA = 6\,a^2$$
Surface Area of Cuboids	
	$$SA = 2ab \; + \; 2bc \; + \; 2ac$$
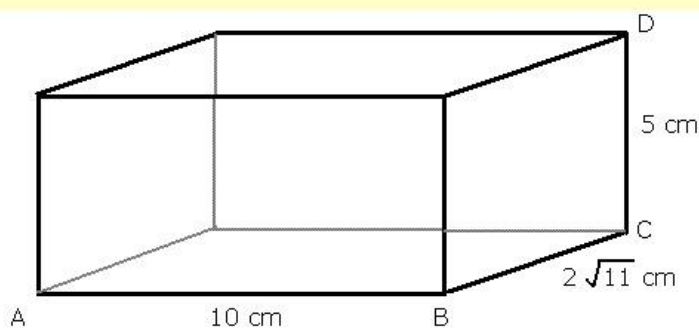
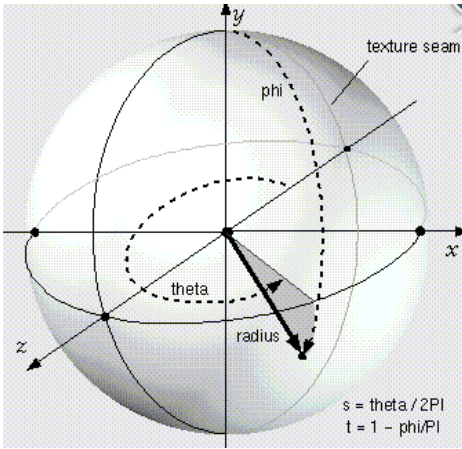| Surface Area of Cylinder	
	$$SA = (2\pi r^2) + (2\pi rh)$$
Surface Area of a square Pyramid	$$SA = [Base\ Area] + 4(Area\ of\ Triangular\ face)$$ $$SA = (a\ x\ b) + 4\left(\frac{1}{2}b\ x\ h\right)$$
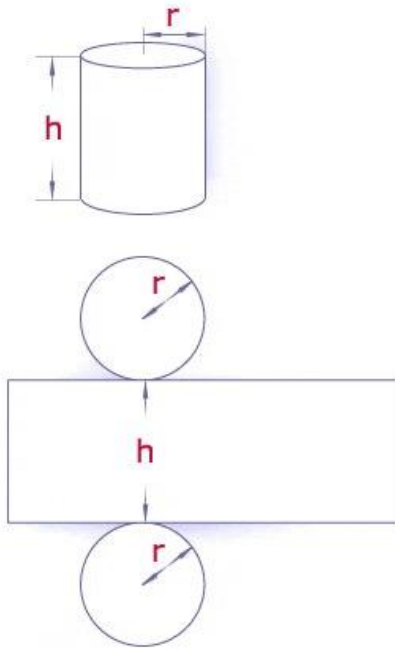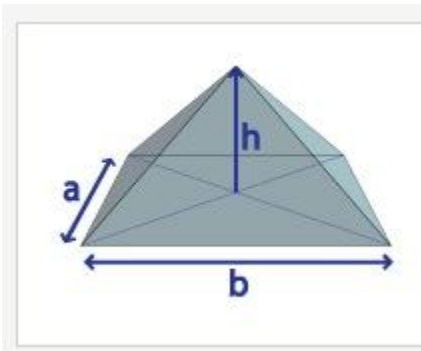
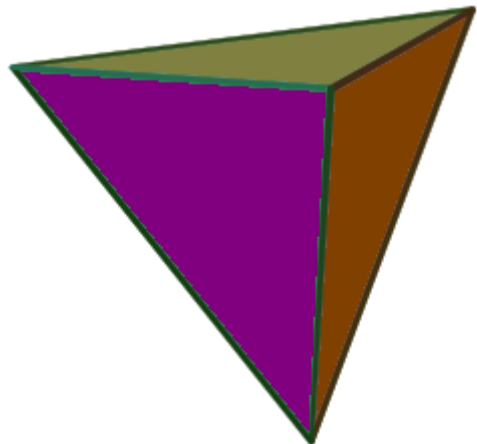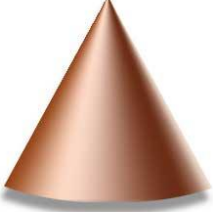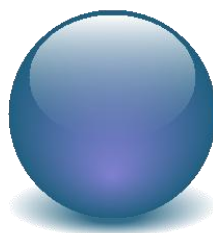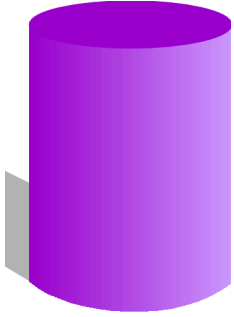|	
Surface Area of Sphere 	$A = 4\pi r^2$
Surface Area of Cone 	$A = \pi r s + \pi r^2$
Surface Area of Tetrahedron	
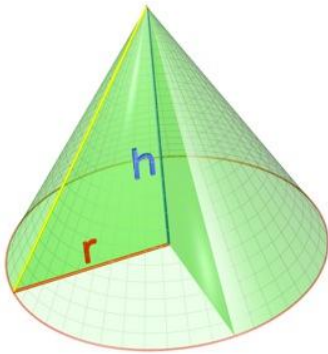
Tetrahedron

$$SA = a^2\sqrt{3}$$

3) How to compute the volume of basic 3D shapes?

Shape And Diagram	Formula of Volume	Example
Cone	Volume= 1/3 X Base X Height Base= Pi X Radius^2	Radius= 4cm Height= 12cm =1/3X (piX4^2)X12 = 201.1cm^3
Sphere	Volume= 4/3 X pi X radius^2	Radius= 4cm =4/3 X pi X 4^2 =67.0cm^3

Cylinder	Volume= pi X radius^2 X height	Radius= 4cm Height= 12cm =pi X 4^2 X 12 = 603.2cm^3
Pyramid	Volume= 1/3 X Base X Height Area of Base= Length X height	Length= 2cm Height (of base)= 3cm Height= 12cm = 1/3 X (2 X 3)X12 = 24cm^3