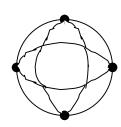
<u>Surface Area</u> & <u>Volume</u> of the Six Basic 3D Images of Plane Euclidean Geometry. All <u>answers</u> for Surface Area & Volume <u>must have</u> the correct labels.



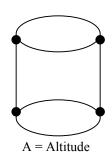
 $C = 2 \pi r = \pi d$

Sphere: $TSA = 4\pi \times (radius)^2$

Total Surface Area = $4 \pi r^2$

Sphere: $V = (4/3)\pi \times (radius)^3$

Volume = $4/3 \pi r^3$



<u>Cylinder</u>: $TSA = 2\pi \times (radius)^2 + CxA$

Total Surface Area = $2 \pi r^2 + 2 \pi r A$

Cylinder: $V = base area \times height$

Volume = $(\pi r^2) \times A$



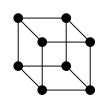
 $C = 2 \pi r$ S = Side A = Altitude

Cone: $TSA = \pi (radius)^2 + \frac{1}{2} CxS$

Total Surface Area = πr^2 + $\frac{1}{2}(2\pi r)(S)$

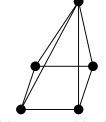
Cone: $V = (1/3) \times \text{base area} \times \text{Altitude}$

Volume = $1/3 (\pi r^2) (A)$



S = side dimenstion

Length, Width, Height



S = Side A = Altitude B = Base

<u>**Cube**</u>: TSA = 6 (side dimension)²

Total Surface Area = $6 S^2$

Cube: $V = (side dimension)^3$

Volume = S^3

<u>Prisim</u>: TSA = 2(lw) + 2(wh) + 2(lh)

Total Surface Area = 2LW + 2WH + 2LH

Prism: $V = base area \times height$

Volume = (1) x (w) x (h)

 $\underline{Pyramid}$:TSA = base area + 4(TriangleAreas)

Total Surface Area = $B^2 \times 4(1/2xBxS)$

<u>Pyramid</u>: $V = (1/3) \times \text{base area} \times \text{altitude}$

Volume = $1/3 (B^2) x (A)$

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