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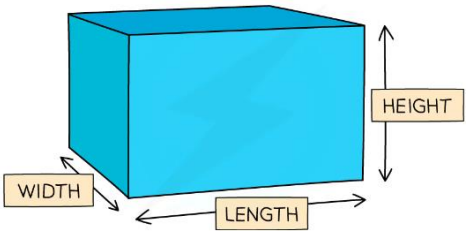
Notes

Surface Area and Volume of Regular Shapes

1.Cuboid

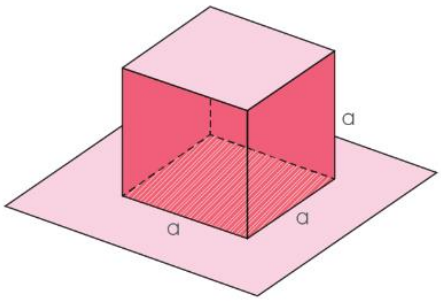


Lateral Surface Area – 2(l + b) ×height

Total Surface Area – 2(lb + bh + lh)

Volume - l ×b×h

2. Cube

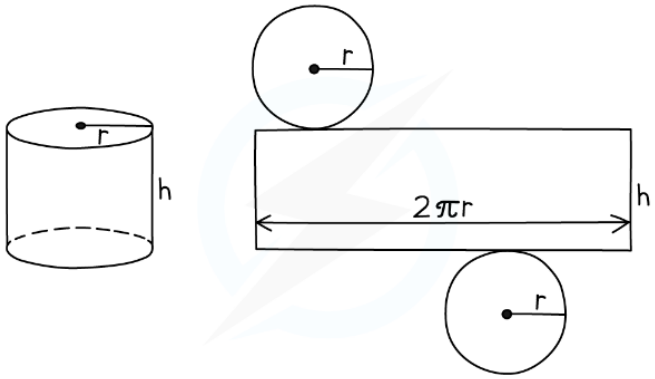


Lateral Surface Area - $4a^2$

Total surface Area – $6a^2$

Volume - a^3

3. Cylinder



r – Radius of cylinder
h – Height of the cylinder

Lateral Surface Area - $2\pi rh$

Total Surface Area - $2\pi r^2 + 2\pi rh$

Volume - $\pi r^2 h$

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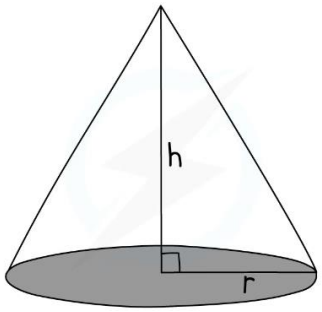
Cone



To find the slant height 'l' use Pythagoras theorem

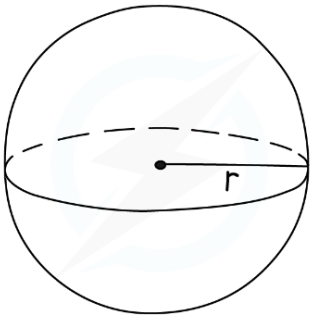
$$l = \sqrt{r^2 + h^2}$$

Lateral Surface Area - πrl

Total Surface Area - $\pi r(r + l)$

Volume - $\frac{1}{3}\pi r^2 h$

Sphere



There is no lateral surface Area for Sphere – Please ask your teacher in the class as to why there is no formula for LSA

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

Volume - $\frac{4}{3}\pi r^3$

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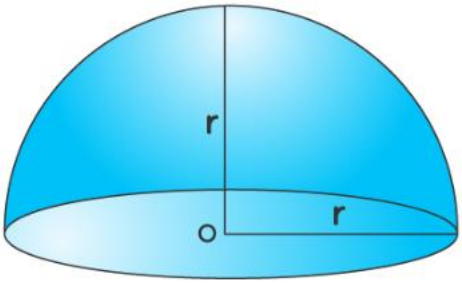
Hemisphere



Lateral Surface Area - $2\pi r^2$

Total Surface Area - $3\pi r^2$

Volume - $\frac{2}{3}\pi r^3$