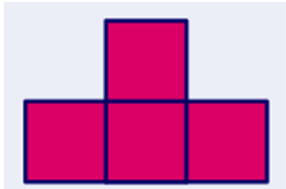
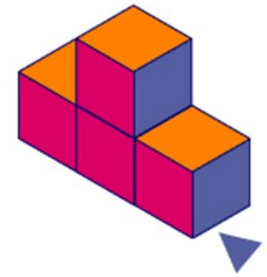
Year 8 Summer 1

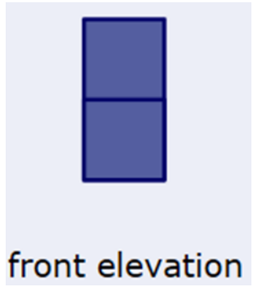
KEYWORDS:

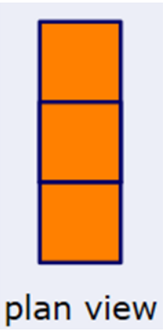
Plans and Elevations	These are 2D drawings of 3D shapes. The plan view is looked at from above, and elevation view looked at from the side or from the front.	**Net**	A 2D representation of a 3D shape that can be folded to form the 3D shape.
Prism	A solid figure whose ends (cross-section) are the same size and shape.	**Volume**	Measures the amount of space that a 3D-shape takes up.
Cone	A 3D shape with a flat circular base, and curved surface converging to a point.	**Pyramid**	The outer sides are triangles which meet at the top and the base is a polygon (i.e. a square or triangle etc.).
Cuboid	A prism whose cross-section is a rectangle.	**Sphere**	A 3D object that is the shape of a ball.

Plans and Elevations:





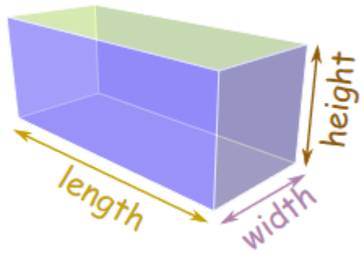


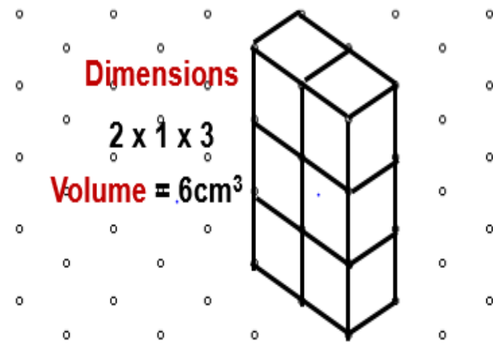


Clip 51

Volume of Cuboid:

$V = l \times w \times h$

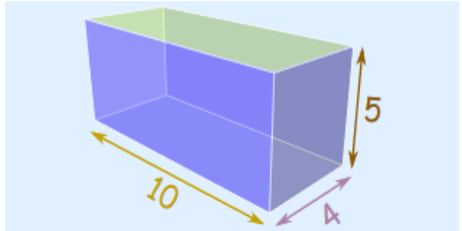




Clip 115, G21a

Surface Area of Cuboid:

$A = 2wl + 2lh + 2hw$

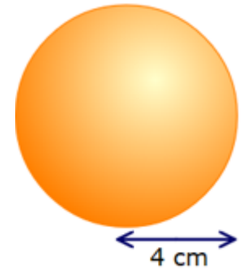


A = 2wl + 2lh + 2hw
= 2×4×10 + 2×10×5 + 2×5×4
= 80 + 100 + 40
= 220

Clip 114a, G21b

Volume of Sphere

$V = \frac{4}{3}\pi r^3$



This means the volume of this sphere is

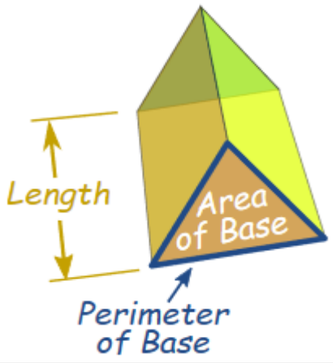
$V = \frac{4}{3}\pi \times 4^3$

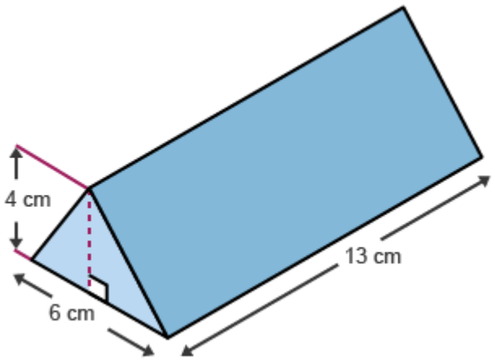
$V = \frac{4}{3}\pi \times 64$

$V = \frac{256}{3}\pi$

Clip G33

Volume of Prism:





Area of the triangle:

$= \frac{1}{2} \times 6 \times 4$

$= 12cm^2$

$= 12 \times 13$

$= 156cm^3$

Clip G25a