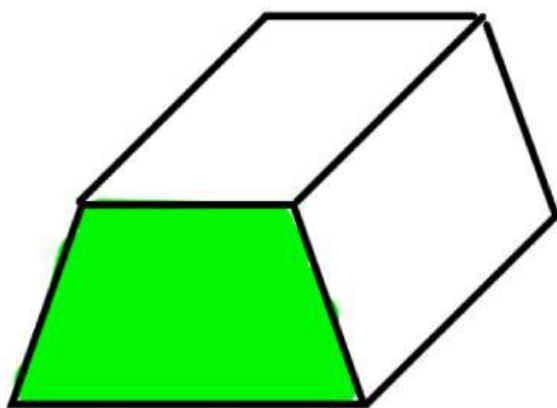


VOLUME OF 3-D SHAPES

[Prisms , Cylinders , Pyramids , Cones]

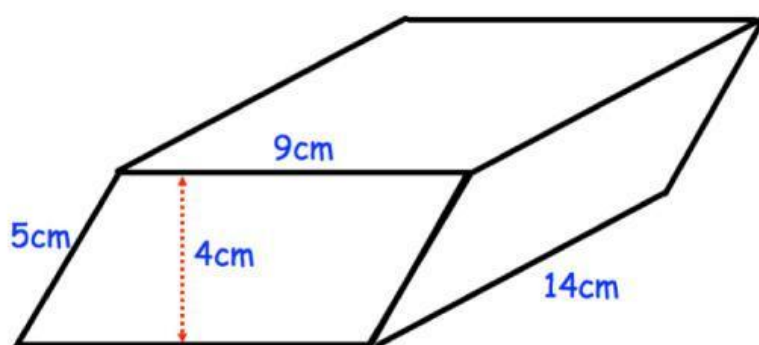
The diagram shows a trapezoid prism. The area of the cross-section is 55cm^2 . The volume of the prism is 330cm^3 .

Find the length of the prism.



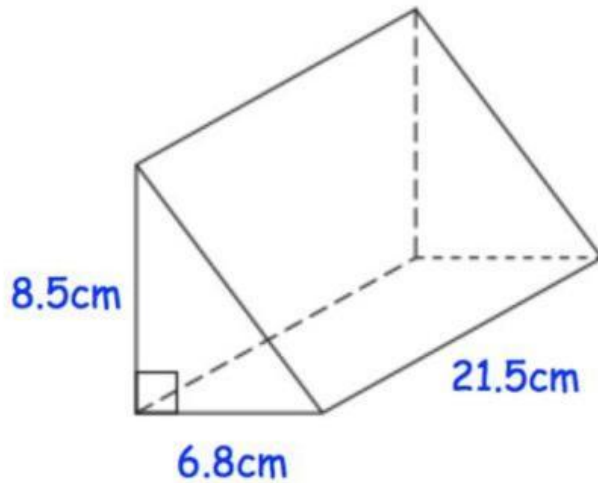
_____ cm

The diagram shows a prism. The cross-section is a parallelogram. Find the volume of the prism.



_____ cubic cm

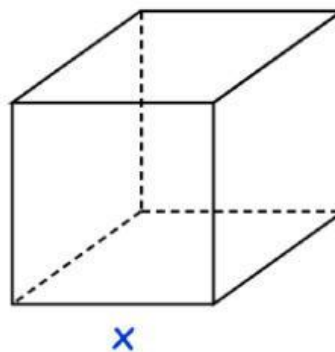
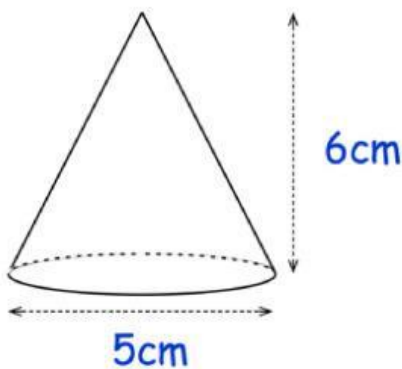
Shown below is a triangular prism. Find the volume of the triangular prism.



_____ cubic cm

Shown below is a cone and a cube

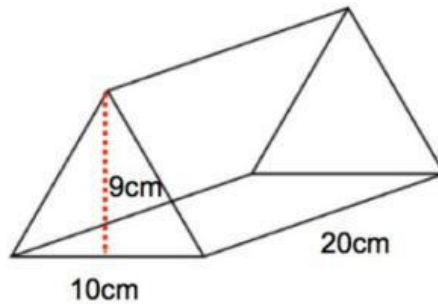
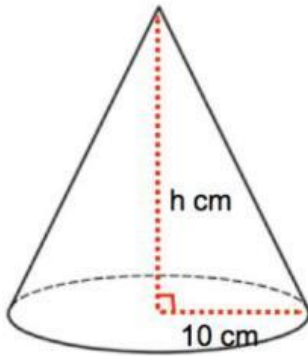
The volume of the cube is twice the volume of the cone. Find the side length of the cube, x . Give your answer to 1 decimal place.



_____ cm

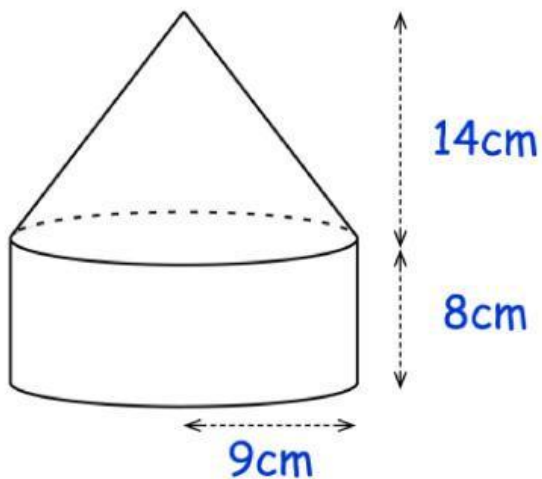
Shown is a cone and a triangular prism.

Both solids have the same volume. Calculate the height of the cone.



_____ cm

Shown a shape is made by joining a cone and a cylinder. Work out the volume of the shape

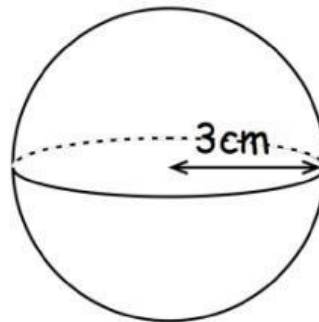
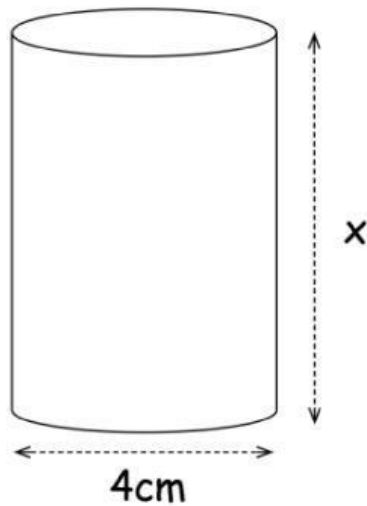


_____ cubic cm

Shown below is a cylinder and a sphere.

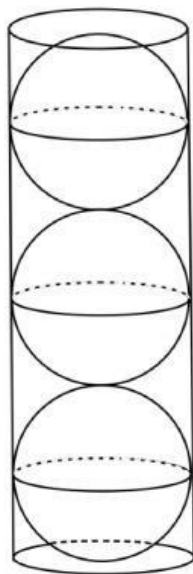
Volume of the cylinder : volume of the sphere = 5 : 3

Work out the height of the cylinder, x .



_____ cm

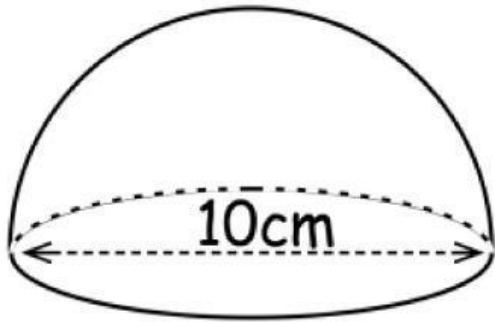
Three spheres of radius 4cm just fit inside a tube. Calculate the percentage of the tube that is not filled.



_____ %

Shown below is a solid glass paperweight.

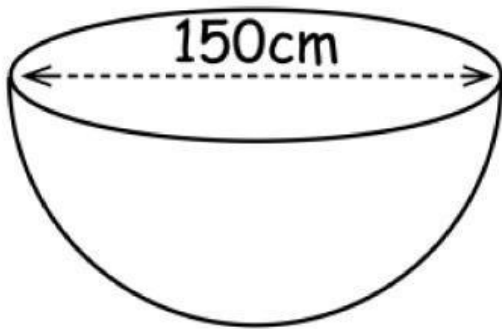
The paperweight is a hemisphere with diameter 10cm. The density of the glass is 2.5g/cm^3 . Calculate the mass of the paperweight.



_____ g

Evelyn has built a new garden pond. The pond is a hemisphere, diameter 150cm.

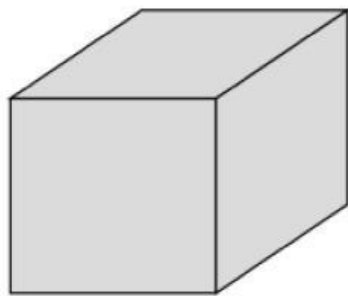
She fills the pond at a rate of 0.25 litres per second. Work out how long it takes Evelyn to fill the pond.



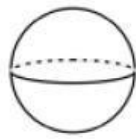
_____ sec

The solid metal cube, with side length 12cm

Kieran melts the metal cube and uses it to make as solid metal spheres, radius 2cm. Work out how many spheres Kieran can make.



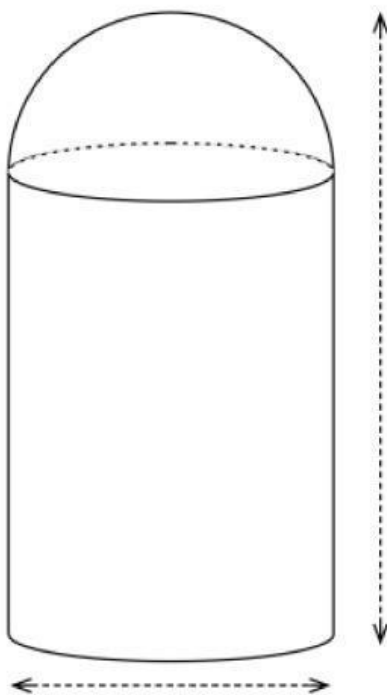
12cm



2cm

The container is created from a cylinder and a hemisphere.

The height of the container is 20cm. The diameter of the cylinder is 4cm. Calculate the volume of the container.



20cm

4cm

_____ cubic cm