Volume and Surface Area Revision

(a)

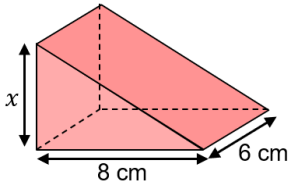
The volume of a cuboid is $320\ cm^3$. Its height is $16\ cm$ and the length is $5\ cm$. Find the width of the cuboid.

(b)

Find the surface area of a cube with side length $8.5\ cm$.

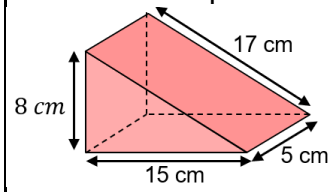
(c)

The volume of the prism is $264\ cm^3$. Find x.



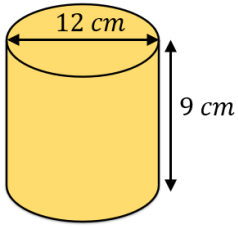
(d)

Find the surface area of this prism.



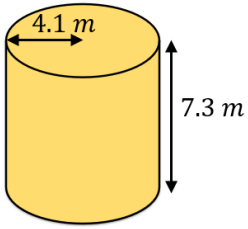
(e)

Find the volume of the cylinder, giving your answer to 3 significant figures.



(f)

Find the total surface area of the cylinder, leaving your answer in terms of π.

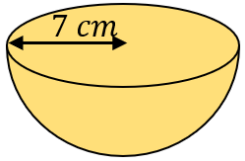


(g)

The volume of a sphere is $288\pi\ cm^3$. Find the radius of the sphere.

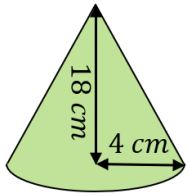
(h)

Find the total surface area of the hemisphere, giving your answer to 3 significant figures.



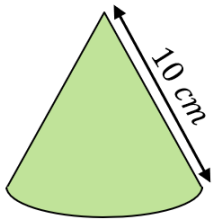
(i)

Find the volume of the cone, leaving your answer in terms of π.



(j)

A cone has a slanted height of $10\ cm$ and a curved surface area of $60\pi\ cm^2$. Find the volume of the cone, giving your answer to 3 significant figures.



(k)

A cylinder has a height of $16\ cm$ and a radius of $x\ cm$. A sphere has a radius of $2x\ cm$. The volume of the cylinder and the sphere are equal. Find the value of x.