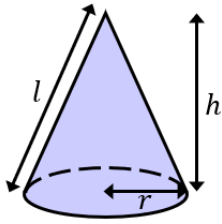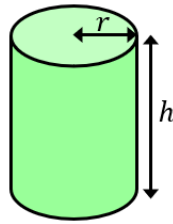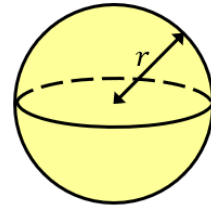# Surface Areas of Cylinders, Cones and Spheres

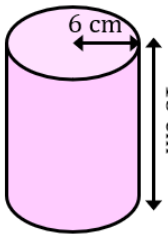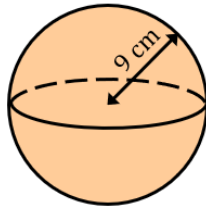| Curved Surface Area of Cone $= \pi r l$	Curved Surface Area of Cylinder $= 2\pi r h$	Surface Area of Sphere $= 4\pi r^2$

(a)

Find the curved surface area, giving your answer in terms of π

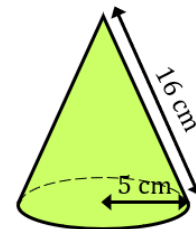6 cm, 15 cm

180π cm^2

(b)

Find the surface area, giving your answer to 3 significant figures
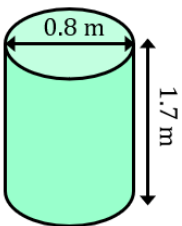
9 cm

9160 cm^2

(c)

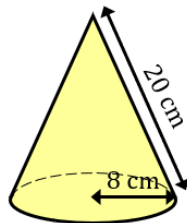Find the curved surface area giving your answer to the nearest cm^2

16 cm, 5 cm

251 cm^2

(d)

Find the **total** surface area, giving your answer to 2 decimal places
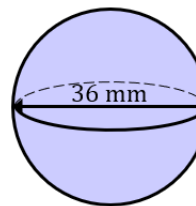
0.8 m, 1.7 m

5.28 m^2

(e)

Find the **total** surface area, giving your answer to the nearest cm^2
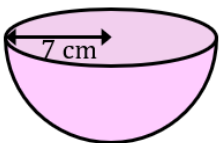
20 cm, 8 cm

704 cm^2

(f)

Find the surface area, leaving your answer in terms of π
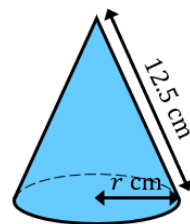
36 mm

1296π mm^2

(g)

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

7 cm

147π cm^2

(h)

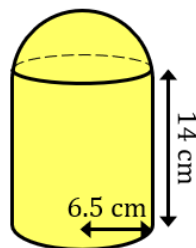The cone has a curved surface area of 177 cm^2. Find the radius r to 1 decimal place.

12.5 cm, r cm

4.5 cm

(i)

The total surface area is 744π mm^2. Find the height of the cylinder.
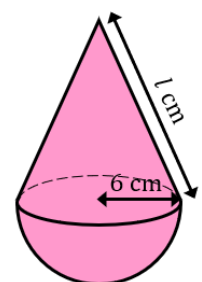
12 mm, h mm
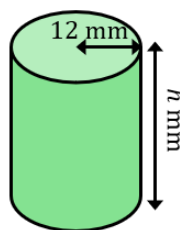
19 mm

(j)

A shape is made by joining a hemisphere to a cylinder. Both have a radius of 6.5 cm. Find the surface area of the compound shape to the nearest cm^2.

14 cm, 6.5 cm

970 cm^2

(k)

A shape is made by joining a cone to a hemisphere, where both shapes have the same radius. The total surface area is 246π cm^2. Find the slanted height l of the cone.

l cm, 6 cm

29 cm