VOLUME OF SOLIDS

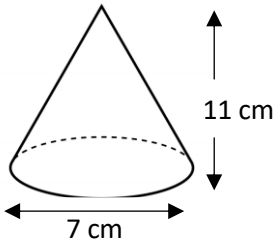
1st thing – choose and use the correct formula from the formula sheet

Remember the volume of a cylinder is $V = \pi r^2 h$

2nd thing – make sure that you are using the radius and not the diameter

3rd thing – make sure that the formula on your calculator is the same as the formula in your working before your press enter!

Always write your full calculator answer, then round and add units (cm^3 for volume)

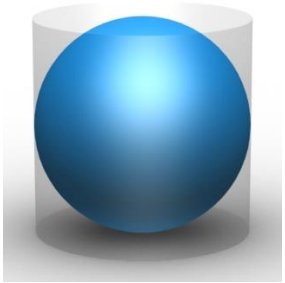


Volume = $\frac{1}{3} \times \pi \times (3.5)^2 \times 11$

= 141.10987…

= 141 cm^3

Now try these – round all your answers to 3 significant figures

 Radius = 5m, height = 8m	 Diameter = 12 cm	 D = 12 cm, h = 13 cm
Di  Diameter = 11 cm	 Sphere and cylinder. Radius of 8 cm, height of 15 cm	Volume of the water inside the cylinder after the ball is put in.  Sphere D = 8 cm Cylinder D = 8 cm, h = 11cm

SOLUTIONS

$V = \pi \times 5^2 \times 8 = 628m^3$	$V = \frac{4\pi}{3} \times 6^3 = 905cm^3$	$V = \frac{\pi}{3} \times 6^2 \times 13 = 490cm^3$
$V = \frac{2\pi}{3} \times 5.5^3 = 348cm^3$	$V = \pi \times 8^2 \times 15 + \frac{4\pi}{3} \times 8^3$ $= 5160cm^3$	$V = \pi \times 4^2 \times 11 - \frac{4\pi}{3} \times 4^3$ $= 285cm^3$