1) Find volume of cylinder with radius 13 cm height 15 cm
2) Find volume of sphere with radius 22 cm
3) Find volume of cone with radius 6 cm height 17 cm
4) Find radius of sphere with volume $350 \mathrm{~cm}^{3}$
5) Find height of cylinder with volume $800 \mathrm{~cm}^{3}$ and radius 7 cm

Give all answers to 3 sig fig.
All formulae can be found in lesson notes from Monday 30 Sep . Hand in on Thursday.
1)

$$
\begin{aligned}
V=\pi r^{2} h=\pi \times 13^{2} \times 15 & =7963.9 \\
& =7960 \mathrm{~cm}^{3}
\end{aligned}
$$

2) 

$$
\begin{aligned}
V=\frac{4}{3} \pi r^{3}=\frac{4}{3} \pi \times 22^{3} & =44602 \\
& =44600 \mathrm{~cm}^{3}
\end{aligned}
$$

3) 

$$
\begin{aligned}
V=\frac{1}{3} \pi r^{2} h=\frac{1}{3} \pi \times 6^{2} \times 17 & =640.88 \\
& =641 \mathrm{~cm}^{3}
\end{aligned}
$$

4) $r=\sqrt[3]{\frac{3 V}{4 \pi}}=\sqrt[3]{\frac{3 \times 350}{4 \pi}}$

$$
=4.37 \mathrm{~cm}
$$

5) 

$$
\begin{aligned}
h=\frac{V}{\pi r^{2}}=\frac{800}{\pi \times 7^{2}} & =5.197 \\
& =5.20 \mathrm{~cm}
\end{aligned}
$$

