

Chapter 19

Exercise 19A

- 1 a (i) 7696.9 gm
(ii) 741.02 gm
(iii) 4674.17 gm
b Gold object
- 2 a 8 cm
b 302 cm^3
c 2.83 cm
- 3 a 140 m^3
b 24
- 4 a 7285 ml
b 102 ml
c (i) 71
(ii) 43 ml
- 5 167 litres
- 6 a 242.5 cm^3
b 5.57%
c 162.48 gm
- 7 a 1231.5 cm^3
b $\frac{27}{125}$
- 8 a 628.32 cm^3
b 5.31 cm
- 9 $\frac{1}{3}$
- 10 4.33 m
- 11 147

- 12 a 62444.65 mm^3
b 33.33%
- 13 5 cm
- 14 a 0.633 cm^3
b 13.826 gm
- 15 a 8
b 452.39 cm^3
c 2895.21 gm
d 4017.22 gm
- 16 8 cm
- 17 a 300 cm^3
b 2.65 cm
- 18 884
- 19 761

Activity

- a total height = H
main radius = R
volume of large cone = $\frac{1}{3}\pi r^2 H$
volume of small cone = $\frac{1}{3}\pi\left(\frac{r}{2}\right)^2 \frac{H}{2}$
frustum = $\frac{1}{3}\pi r^2 H - \frac{1}{3}\pi\left(\frac{r}{2}\right)^2 \frac{H}{2} = \frac{7\pi r^2 H}{24}$
$$\frac{\text{small cone}}{\text{frustum}} = \frac{\frac{1}{3}\pi\left(\frac{r}{2}\right)^2 \frac{H}{2}}{\frac{7\pi r^2 H}{24}} = \frac{1}{7}$$
- b 171.5 cm^3