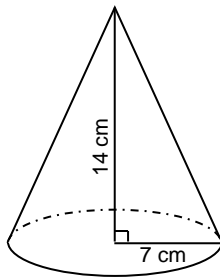


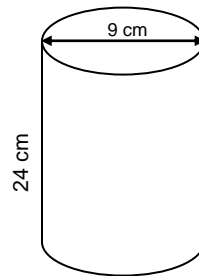
**For each of the problems in this exercise, round your answers to 2 decimal places.**

1. Calculate the volume and surface area of each object.

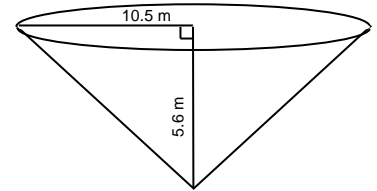
a)



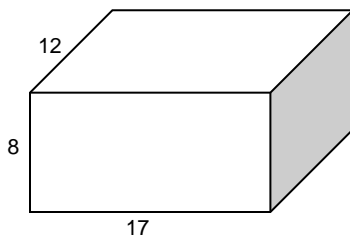
b)



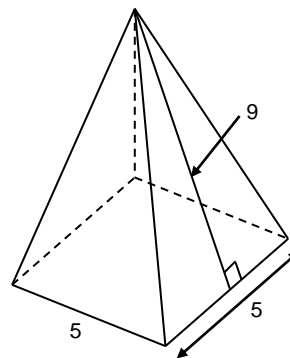
c)



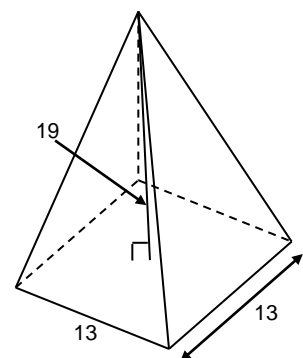
d)



e)



f)



2. Calculate the volume and surface area of each cone.

a) diameter 25 mm, height 30 mm

b) radius 6.8 m, height 7.4 m

3. If a cylinder has a radius of 3.4 m, calculate the volume and surface area for each of the given heights.

a) 3.4 m

b) 10.0 m

c) 6.3 m

d) 1.3 m

4. A cylinder has a volume of 500 and a height of 25. Determine its diameter.

5. A cylinder has a volume of 350 and a height of 7. Determine its surface area.

**Answers:**

1. a)  $718.38 \text{ cm}^3$  ;  $498.15 \text{ cm}^2$       b)  $1526.81 \text{ cm}^3$  ;  $805.82 \text{ cm}^2$       c)  $646.54 \text{ m}^3$  ;  $738.90 \text{ m}^2$   
     d) 1632 ; 872      e) 72.05 ; 115.00      f) 1070.33 ; 691.11
2. a)  $4908.74 \text{ mm}^3$  ;  $1767.15 \text{ mm}^2$       b)  $358.33 \text{ m}^3$  ;  $359.96 \text{ m}^2$
3. a)  $123.48 \text{ m}^3$  ;  $145.27 \text{ m}^2$       b)  $363.17 \text{ m}^3$  ;  $286.26 \text{ m}^2$   
     c)  $228.80 \text{ m}^3$  ;  $207.22 \text{ m}^2$       d)  $47.21 \text{ m}^3$  ;  $100.41 \text{ m}^2$
4. 5.05      5. 275.46
5. a) 52.36%      b) 52.36%