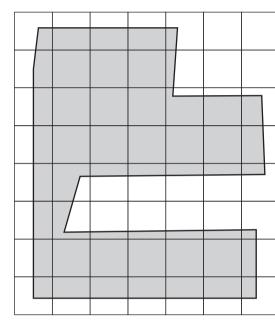
Working like a physicist (cont.)

Mike wants to build two irregular-shaped flowerbeds. Mike first drew his designs on graph paper. Help Mike to estimate the area of each flowerbed in m².

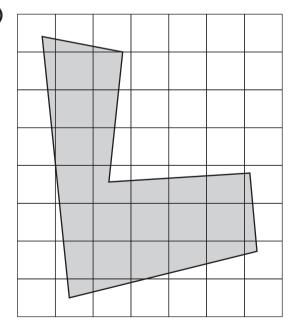
Each 1 cm by 1 cm square on the graph represents 1 m² on the ground.

a)



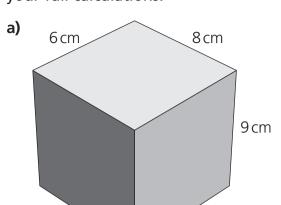
(3 marks)

b)



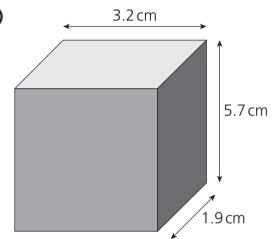
(3 marks)

6 Calculate the volume of the shapes drawn below. Include the formula and show your full calculations.



(3 marks)

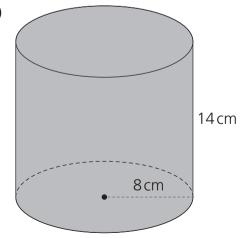
b)



(3 marks)

Use $\pi = 22/7$

c)

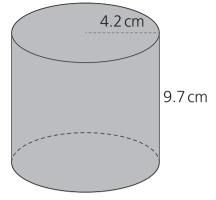


(4 marks)

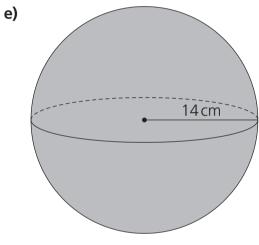
Working like a physicist (cont.)

Use $\pi = 22/7$

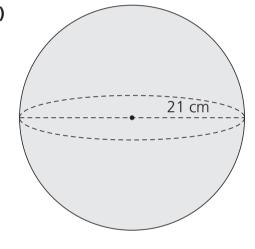
d)



(4 marks)



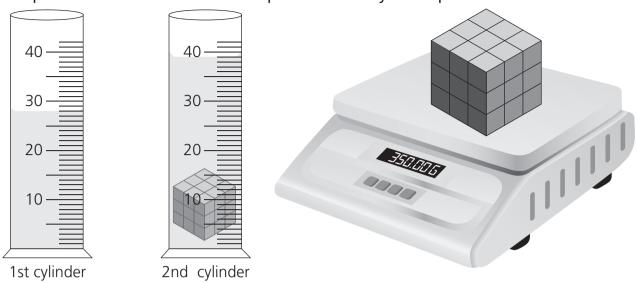
f)



(4 marks)

(4 marks)

Sean measured the volume of some water before and after his friend's toy was put into the water. How much space did the toy take up?



- a) What is the initial volume of water?
- b) What is the new volume after the toy was put in?

(2 marks)

c) Showing all your calculations, find the volume of the toy.

(3 marks)

d) From the right-hand diagram above, state the mass of the toy.

Mass = _____ g

(1 mark)

e) Using the formula below, calculate the density of the toy.

Density =
$$\frac{\text{mass}}{\text{volume}}$$
 Density of toy = $\frac{\text{g}}{\text{cm}^3}$

Density of toy = _____ g/cm³

(2 marks)