

Design and Technology
COMPONENT 1: Polymers

Diagram Booklet

In the boxes below, write your name, centre number and candidate number.

Surname					
Other names					
Centre Number					
Candidate Number					

INSTRUCTIONS

There may be spare copies of some diagrams in case you need them.

THIS DIAGRAM BOOKLET MUST BE RETURNED WITH THE QUESTION PAPER AT THE END OF THE EXAMINATION.

Contents

Page

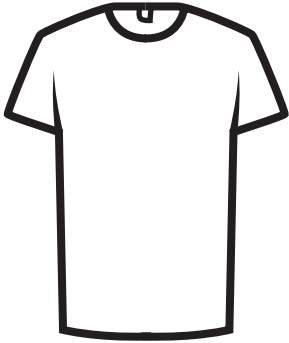
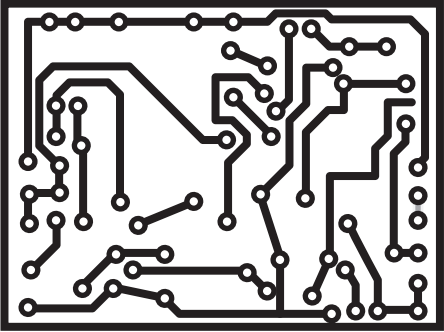

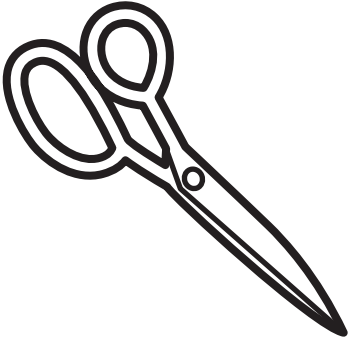
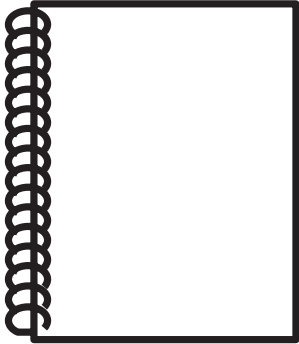
4	Question 1(a)
5	Question 2
6	Question 2(c)
7	Question 2(d)
8	Question 3
9	Question 3(d)
10	Question 4
11–12	Question 5(a)
13	Question 5(a) – Outline
14	Question 5(b)
15	Question 6(a)
16	Question 6(b)
17	Question 6(b) – Blank
18	Question 7(a)
19	Question 7(b)
20	Question 7(c) (NOT accurately drawn)
21	Question 7(c) – Isometric grid
22	Question 8
23	Question 8(d)

Spare Copies

24	Question 1(a)
25	Question 5(a) – Outline
26	Question 6(b) – Blank
27	Question 7(c) – Isometric grid

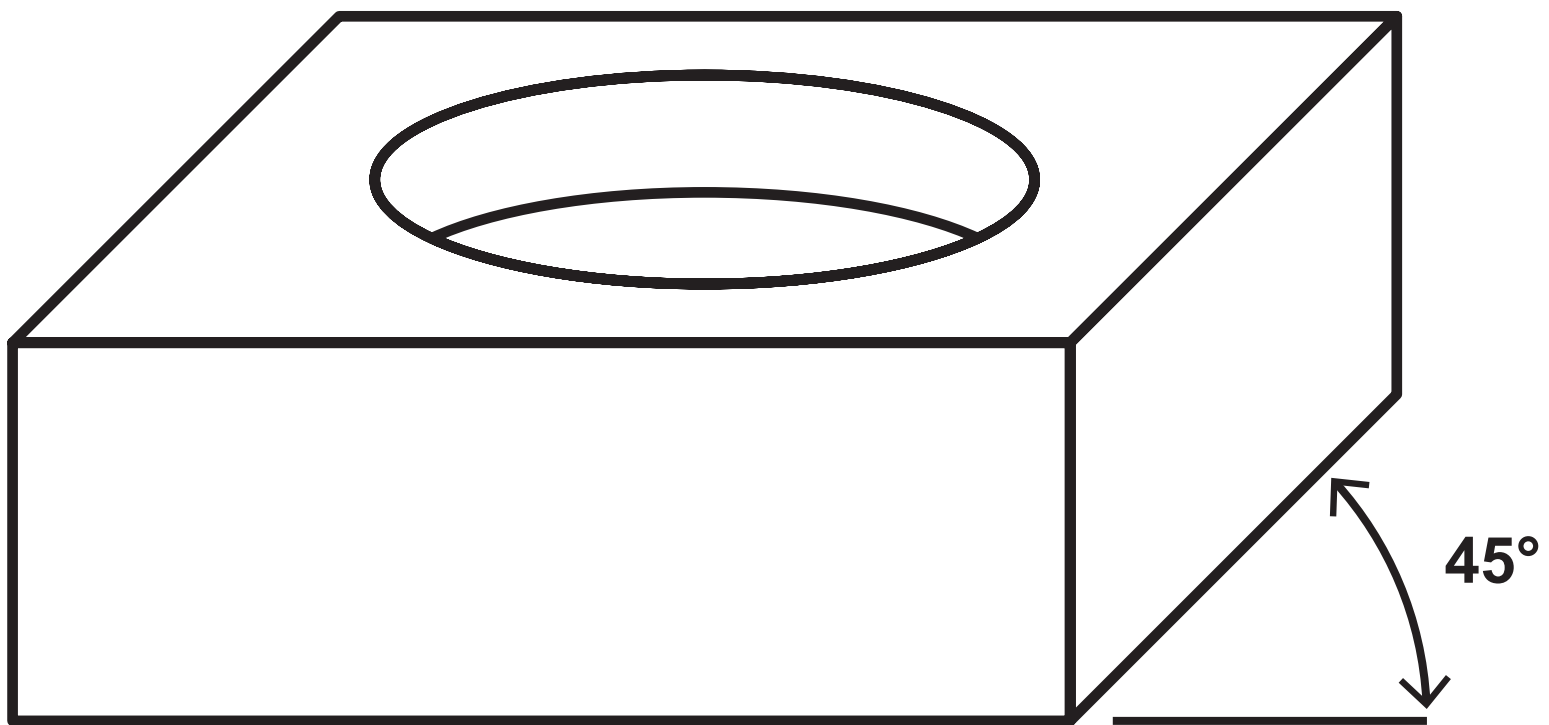
Question 1(a)

FIGURE 1

Picture of product	Material and product	Property
	Cotton T-shirt	Soft
	Polyester resin printed circuit board (PCB)	(i) _____
	Balsa wood toy plane	(ii) _____
	Stainless steel kitchen scissors	(iii) _____
	Solid white board hardback book cover	(iv) _____

Question 2

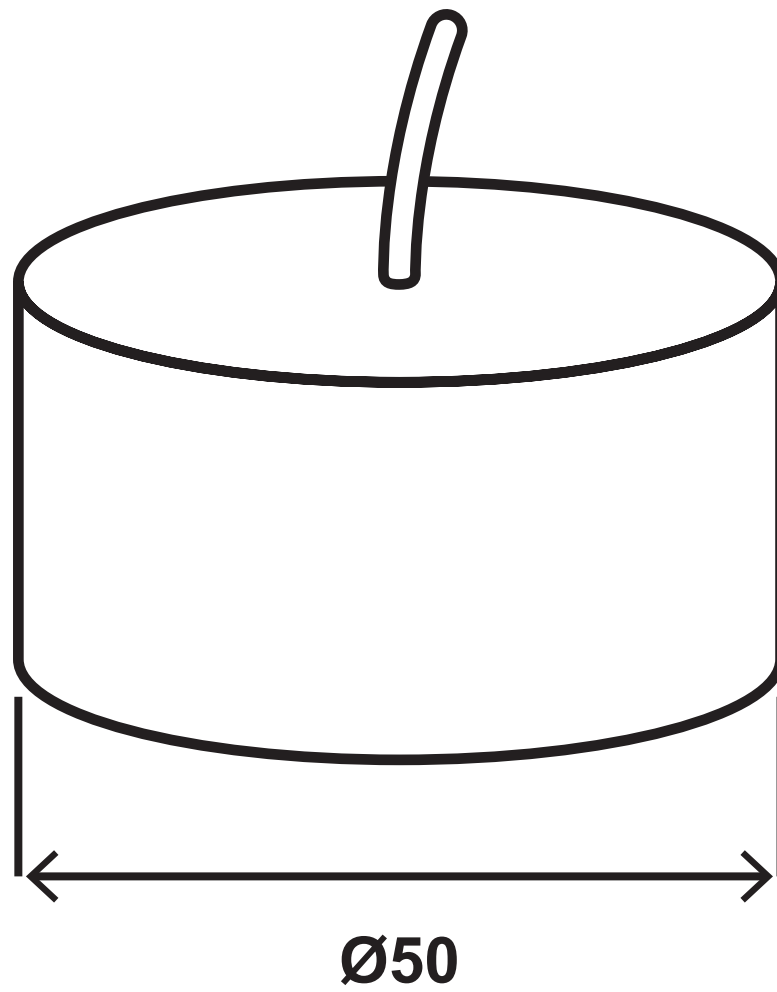
FIGURE 2



Question 2(c)**FIGURE 3**

All dimensions in mm

Ø – diameter



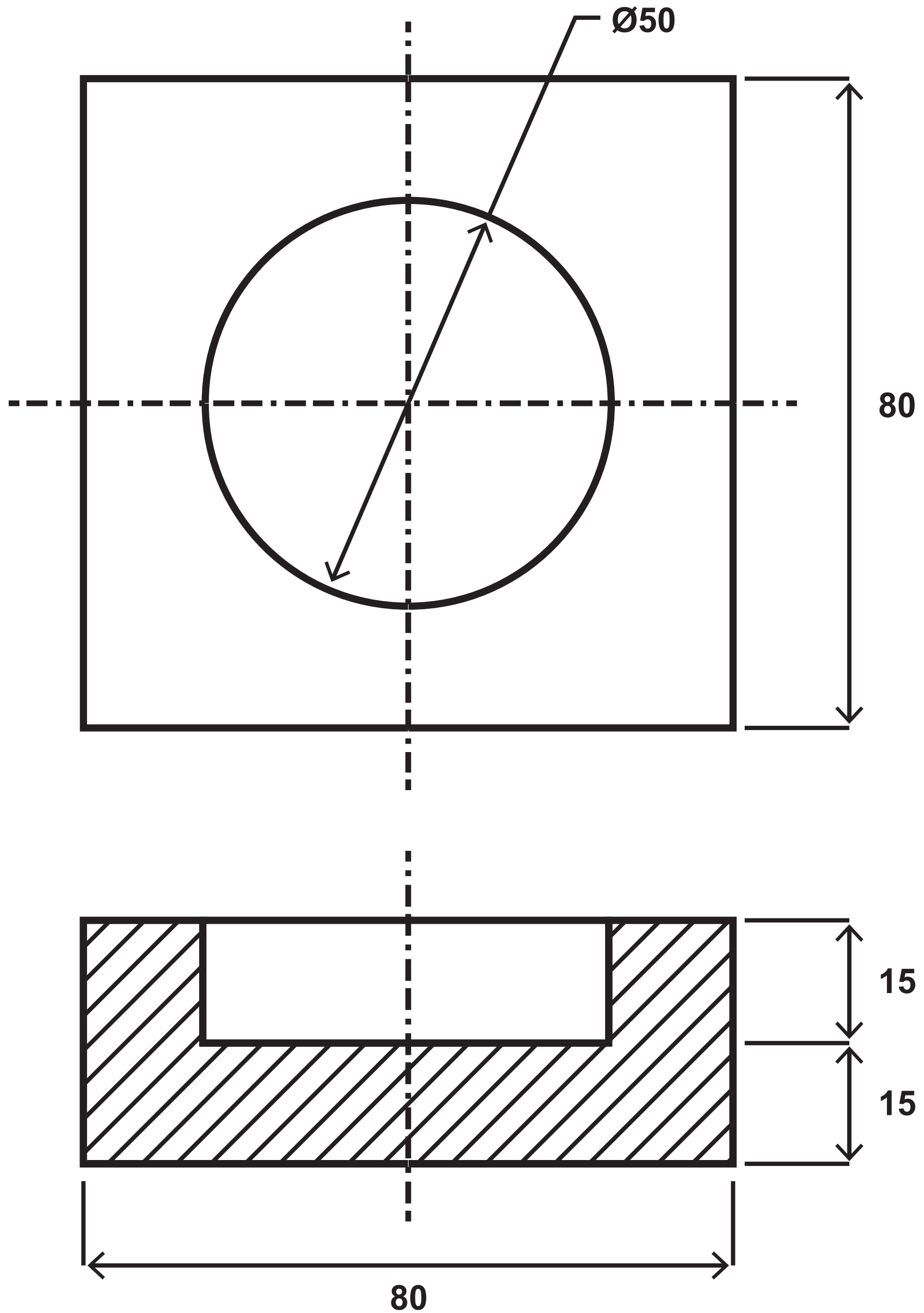
Question 2(d)

FIGURE 4

$$\text{Volume of cylinder} = \pi \times r^2 \times h$$

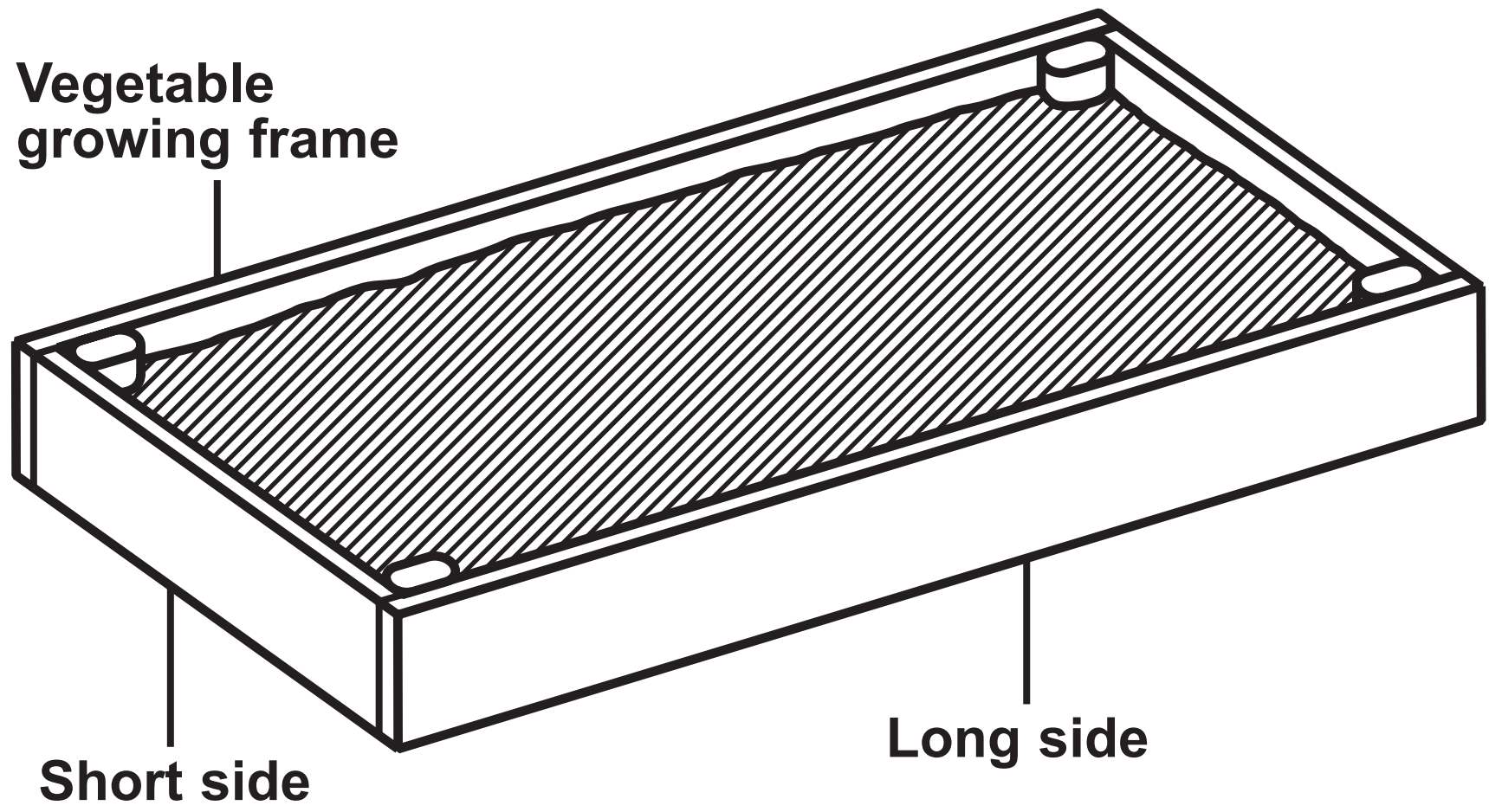
$$\text{Use } \pi = 3.142$$

All dimensions in mm



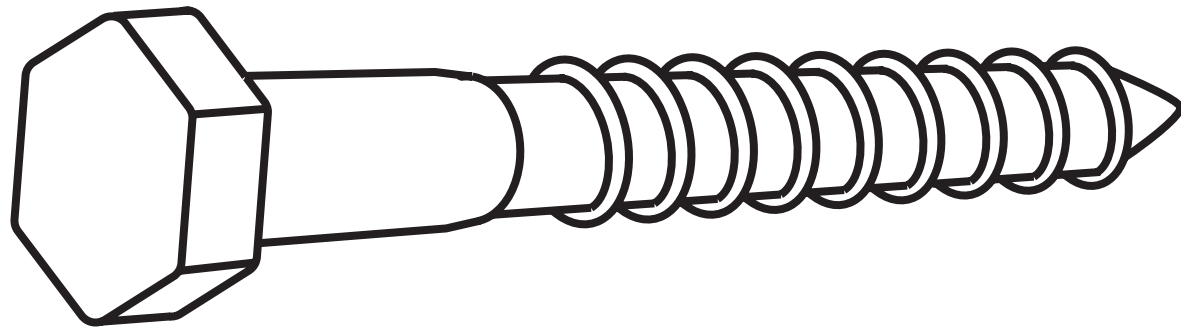
Question 3

FIGURE 5



Question 3(d)

FIGURE 6



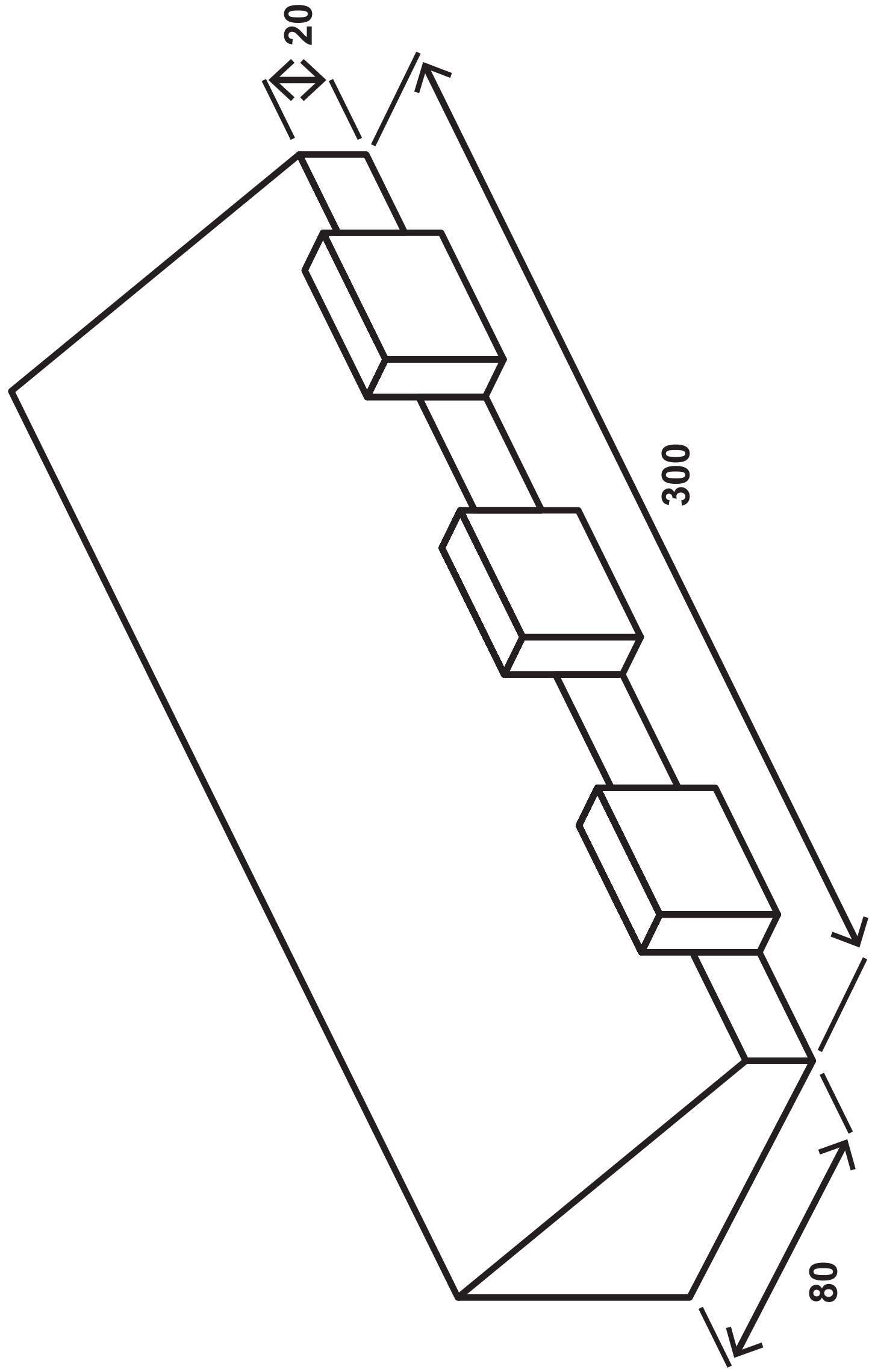
Question 4

FIGURE 7



FIGURE 8

All dimensions in mm



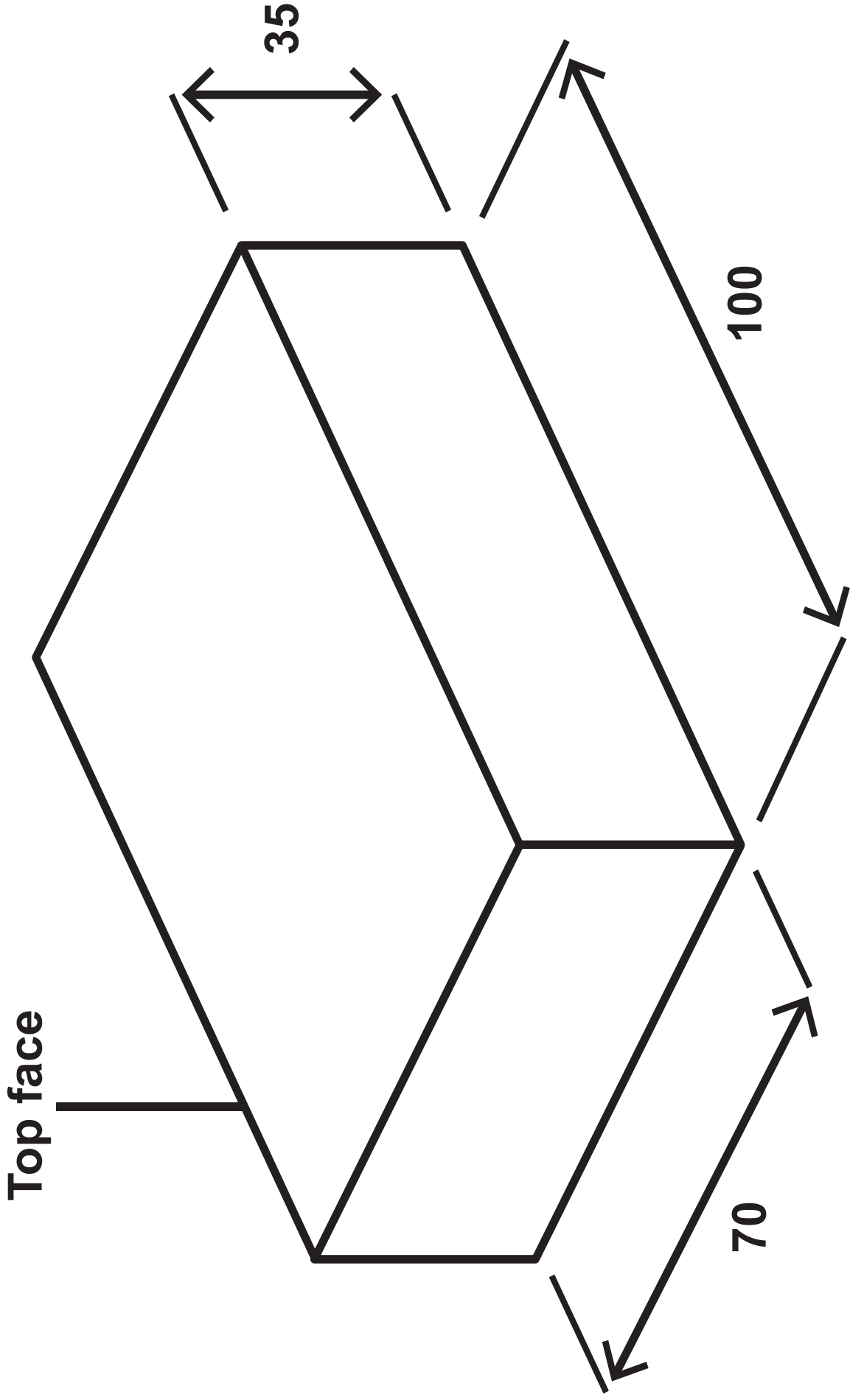
(continued on the next page)

Turn over

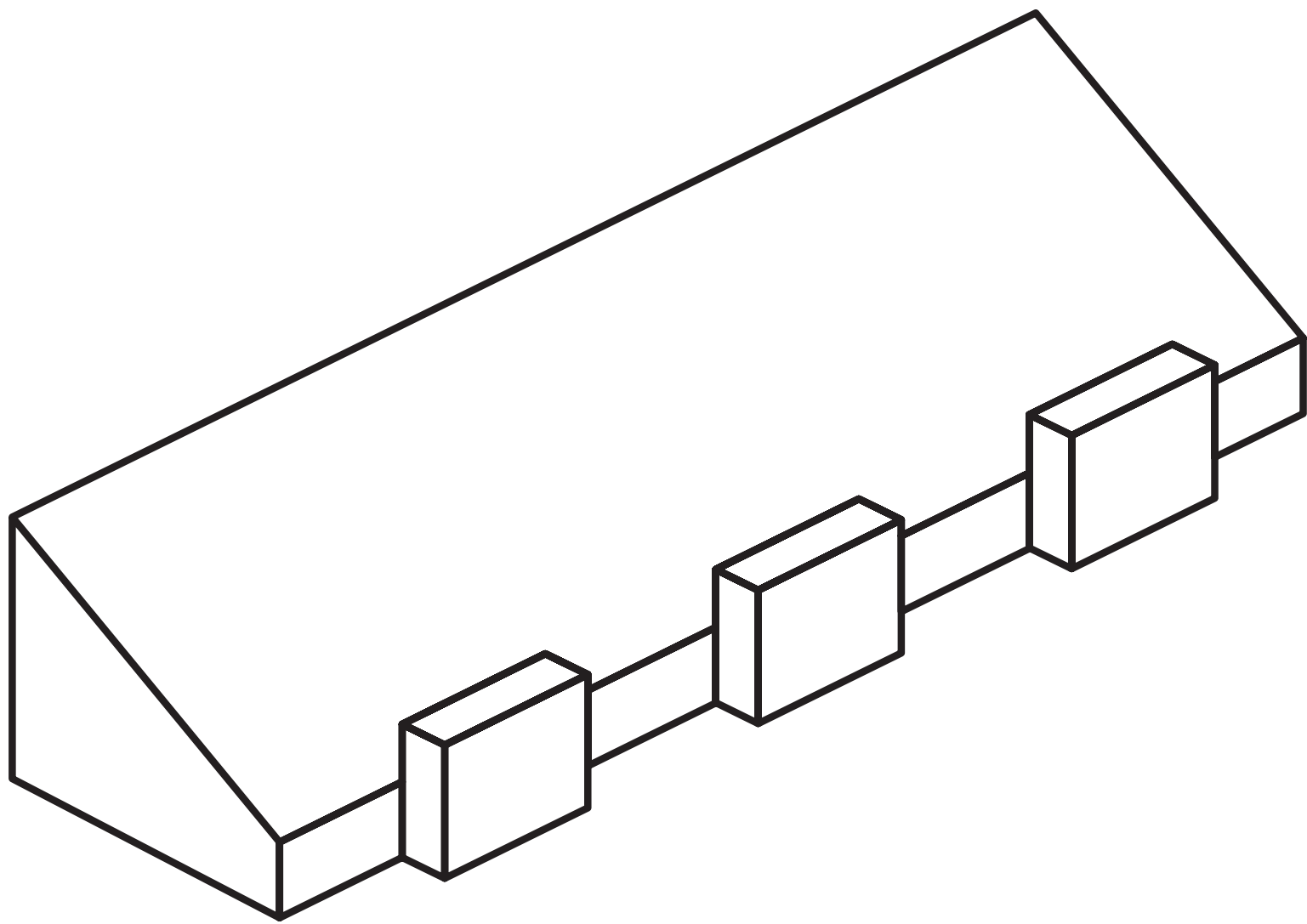
FIGURE 8

Additional information – dimensions of box of chocolates

All dimensions in mm



Question 5(a) – Outline



Question 5(b)

FIGURE 9

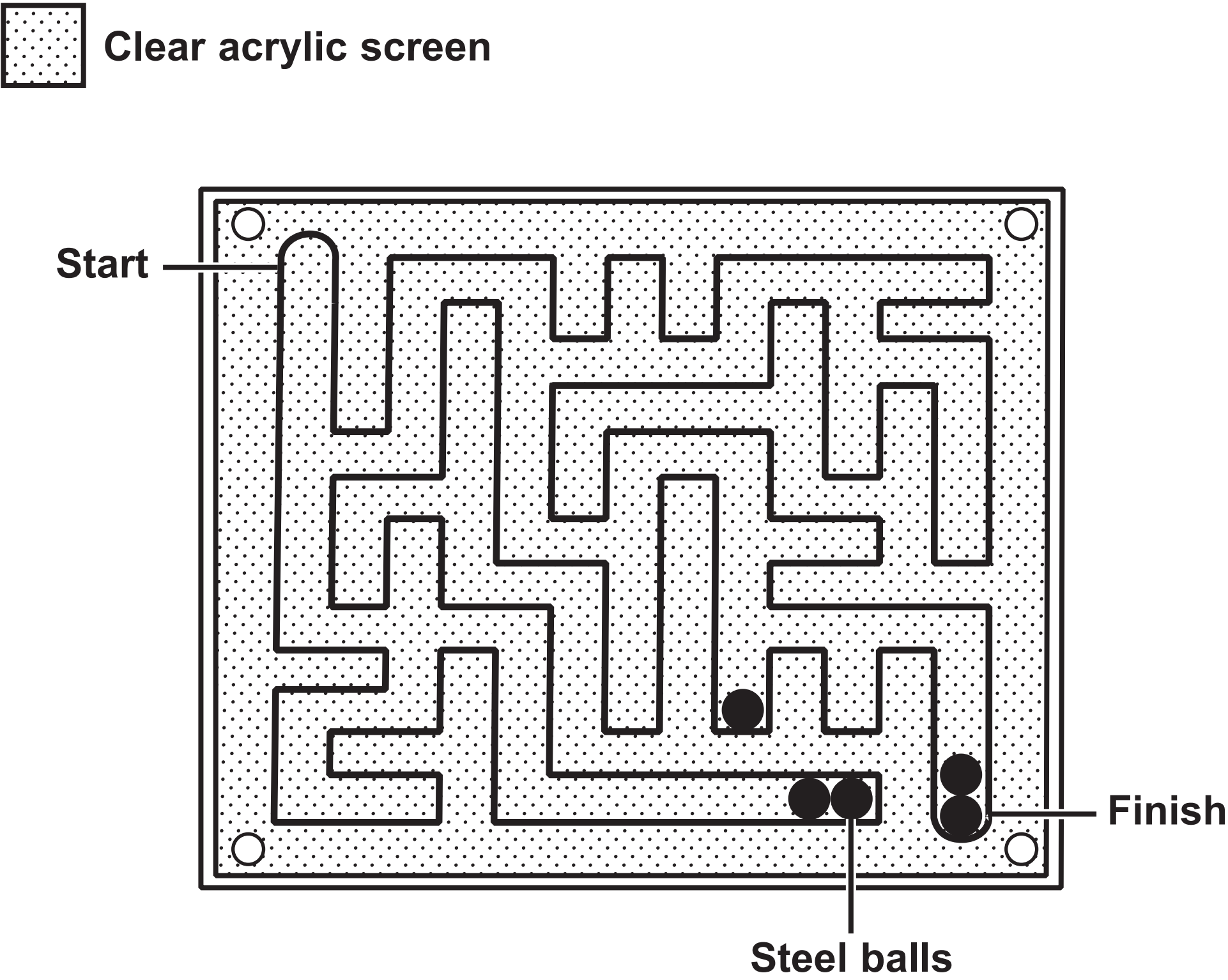
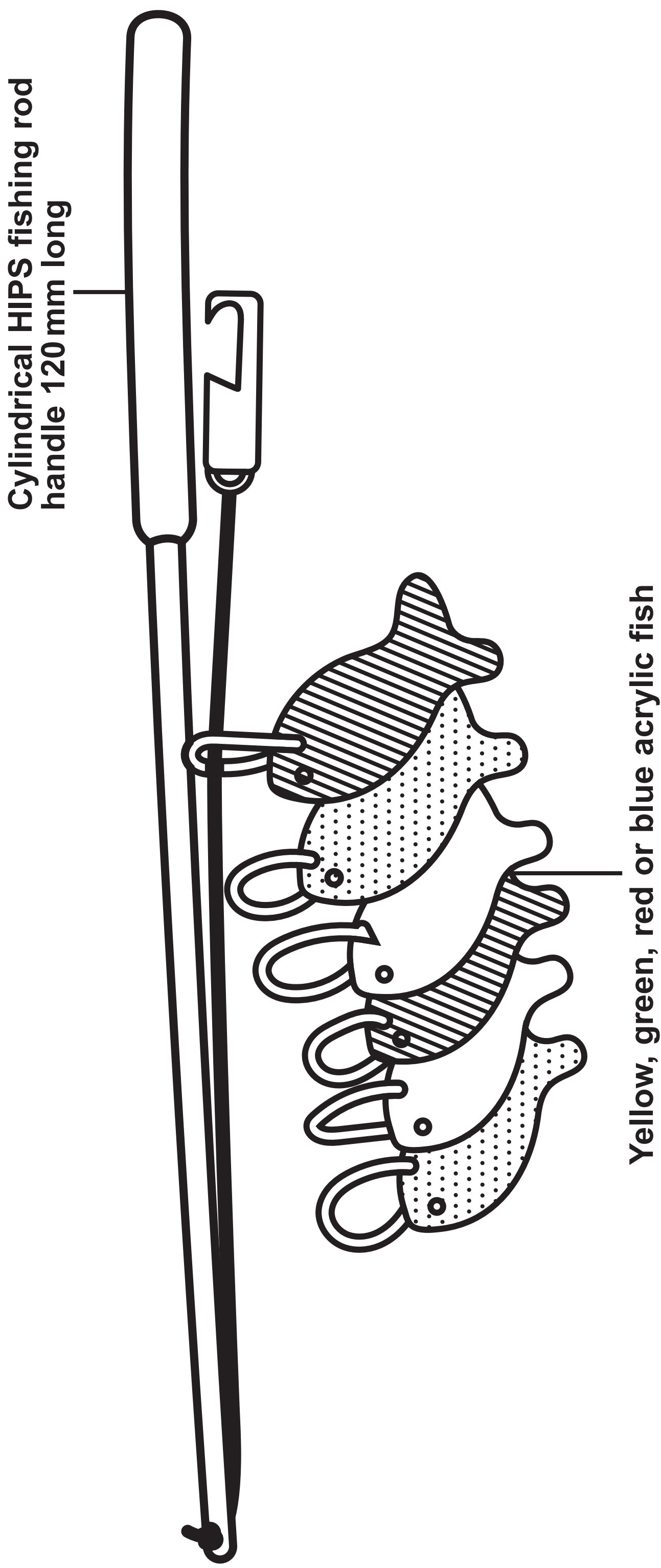


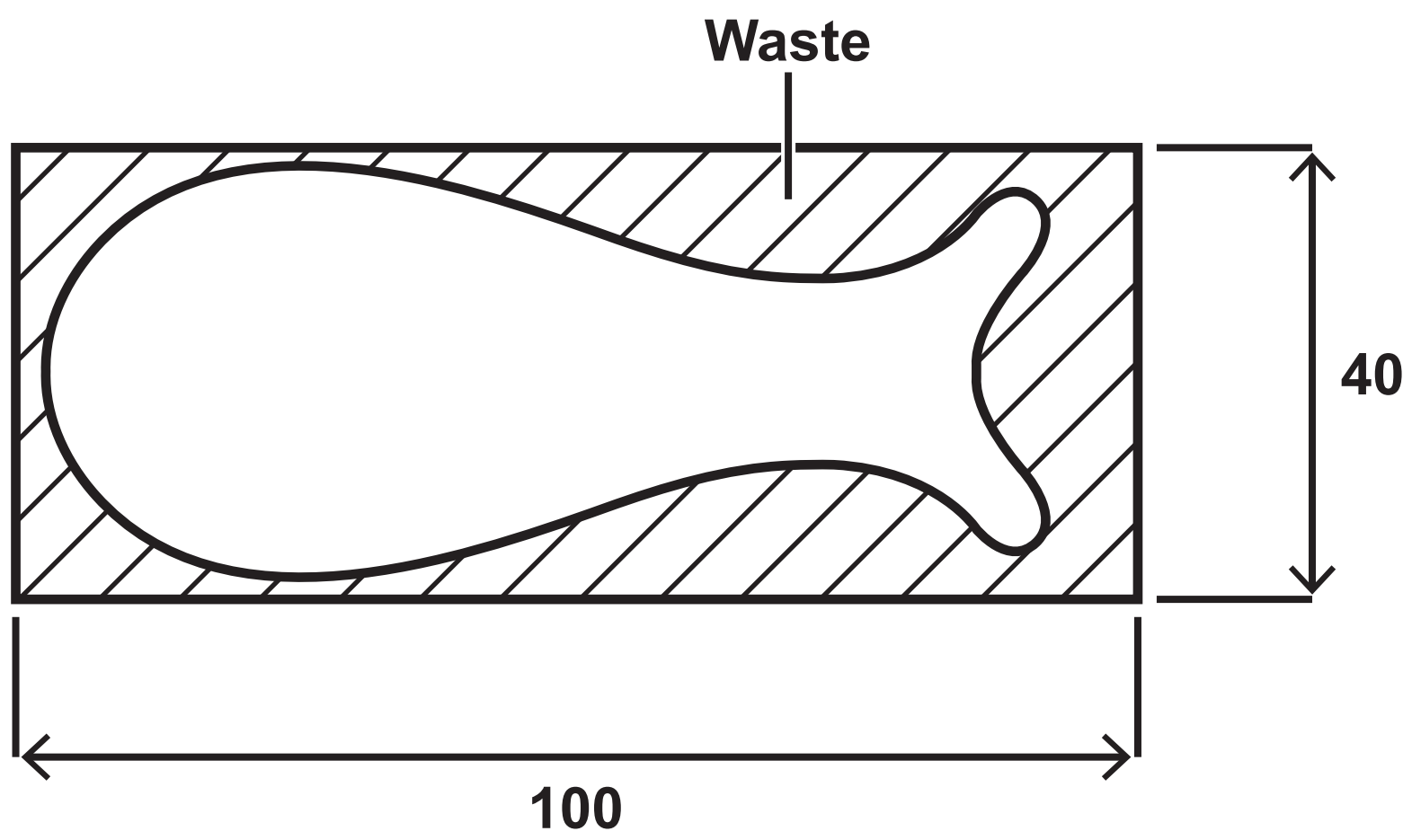
FIGURE 10



Question 6(b)

FIGURE 11

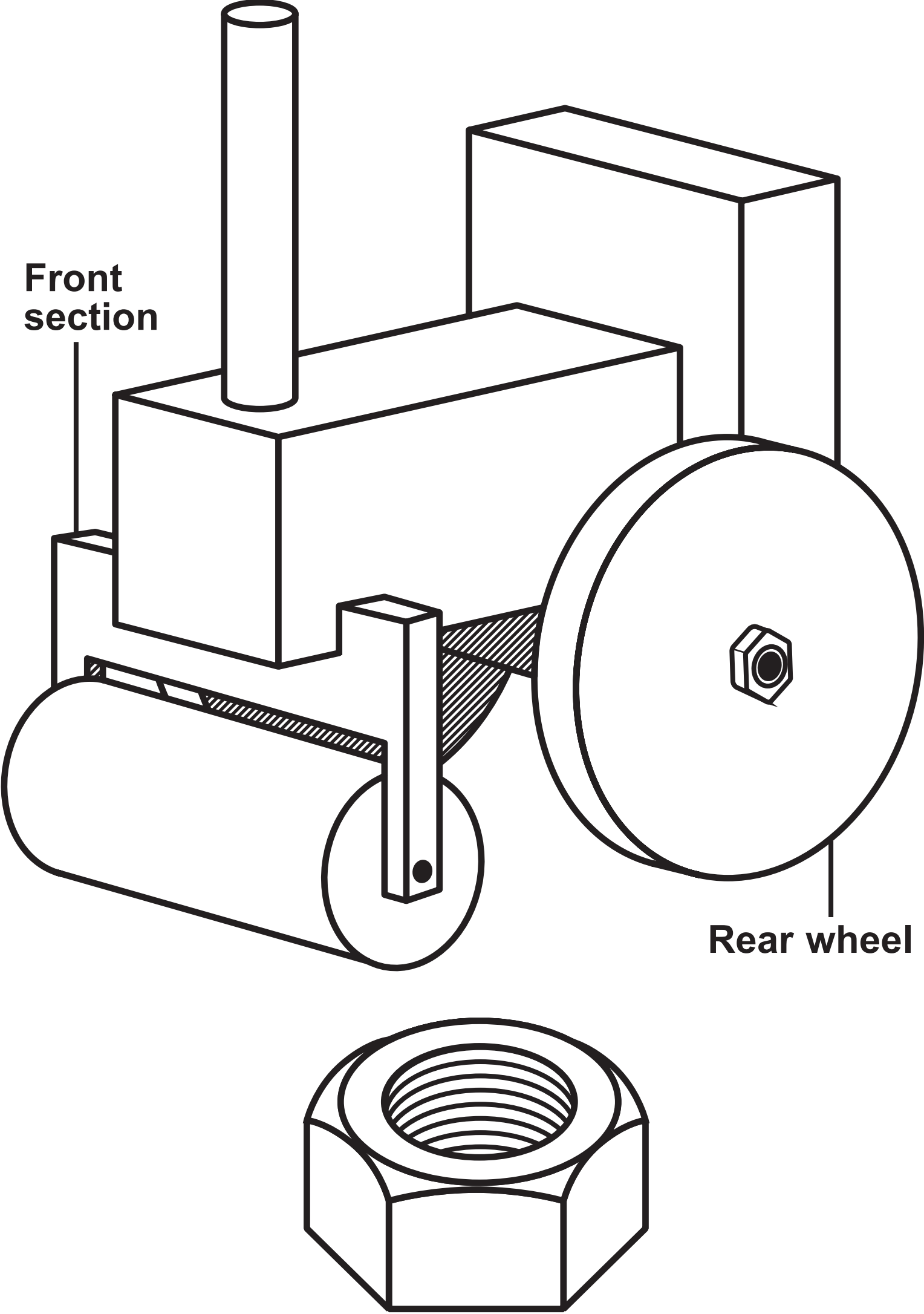
All dimensions in mm



Question 6(b) – Blank

Question 7(a)

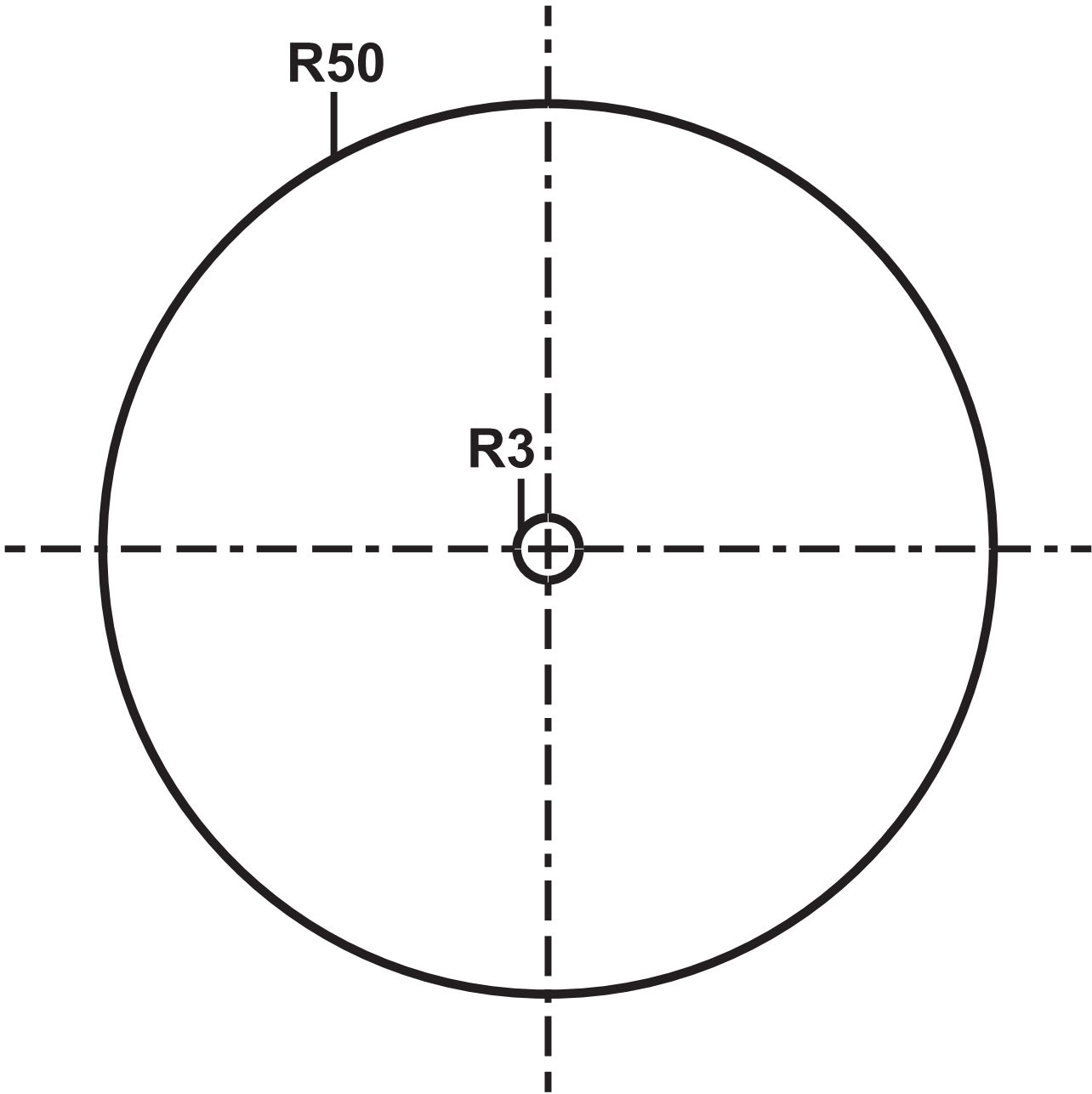
FIGURE 12



Question 7(b)

FIGURE 13

All dimensions in mm

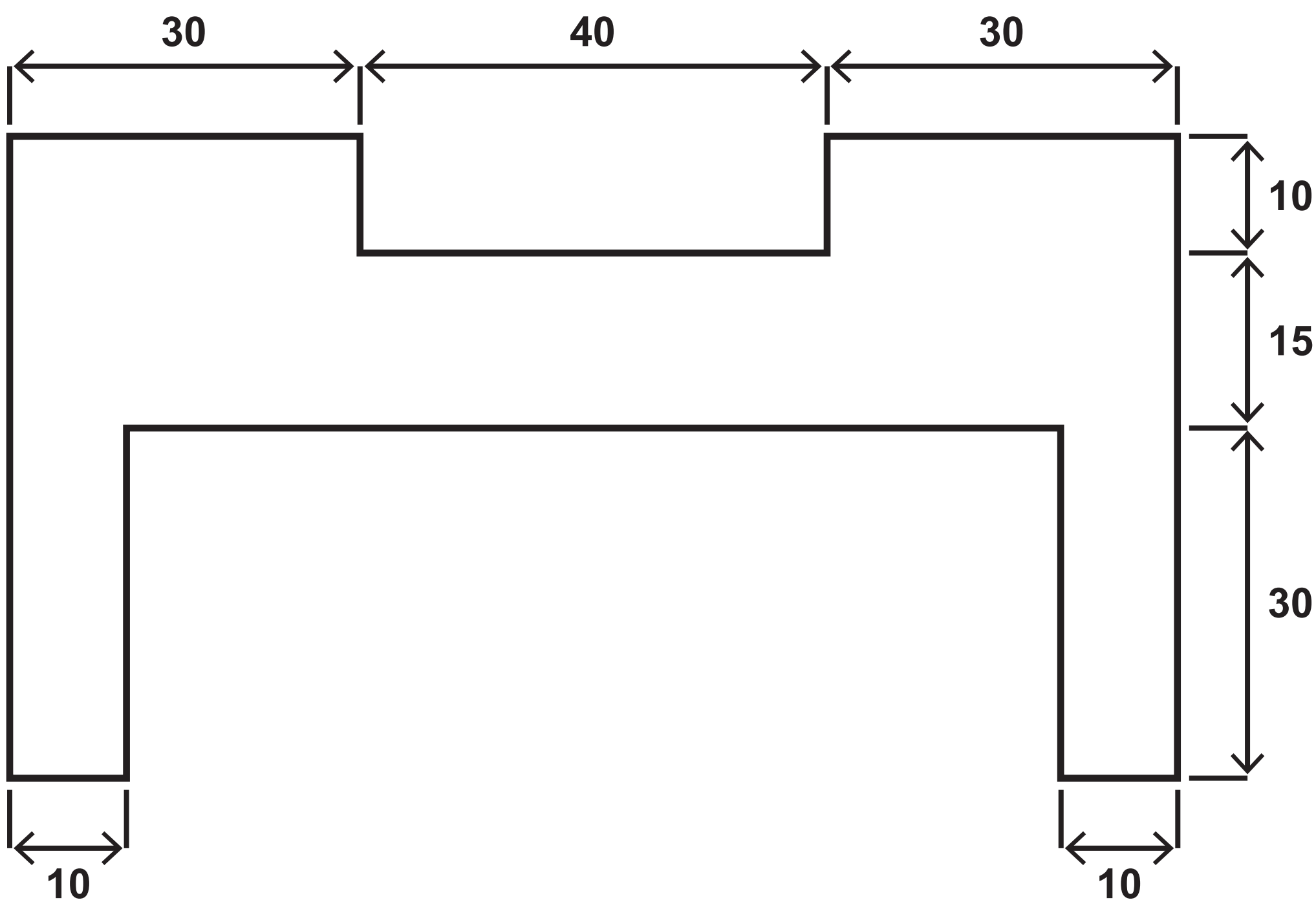


Question 7(c)

FIGURE 14

All dimensions in mm

Diagram not to scale



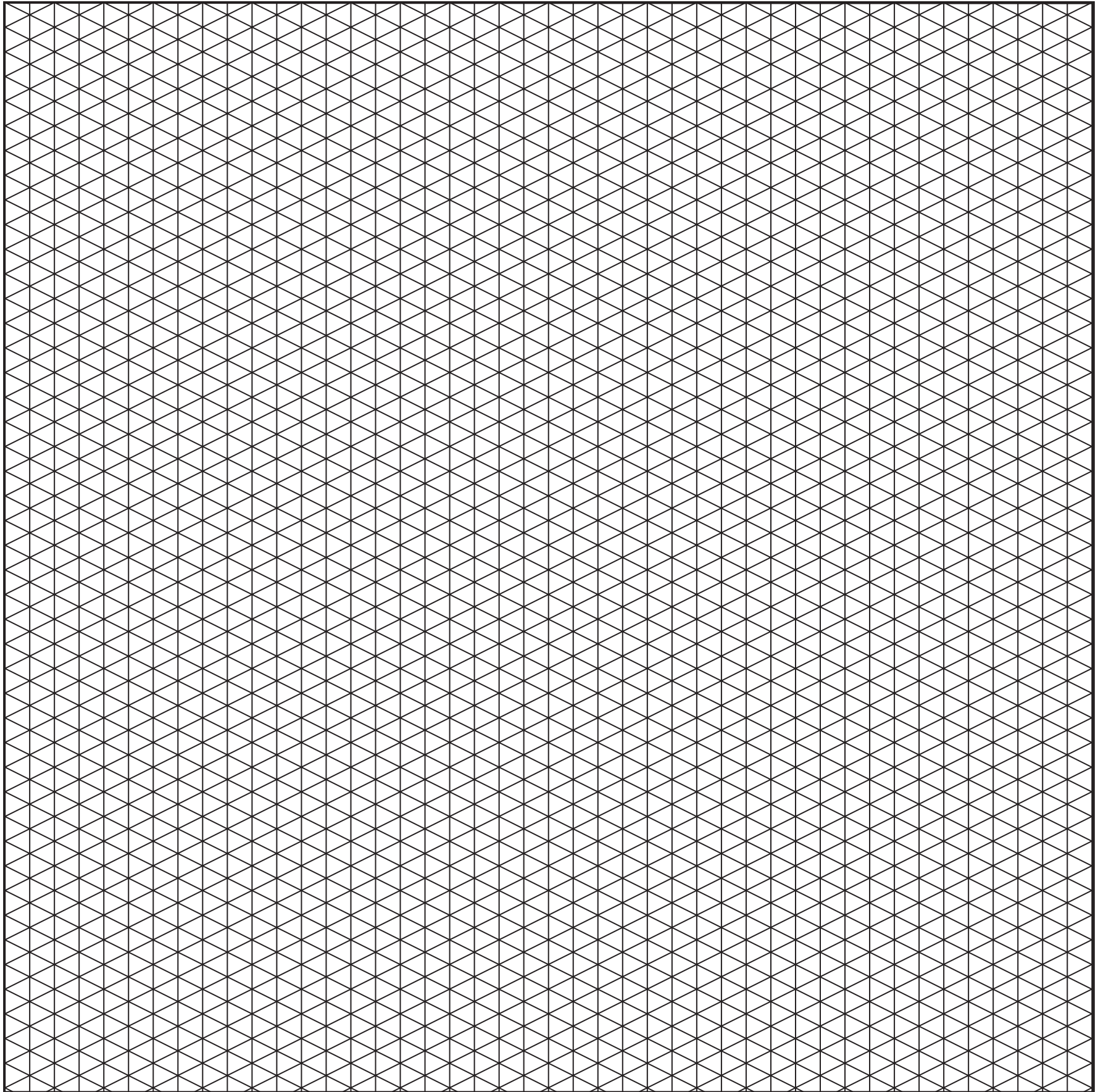
Isometric grid provided on the next page.

(continued on the next page)

Turn over

Question 7(c) continued.

5mm isometric grid



Question 8

FIGURE 15

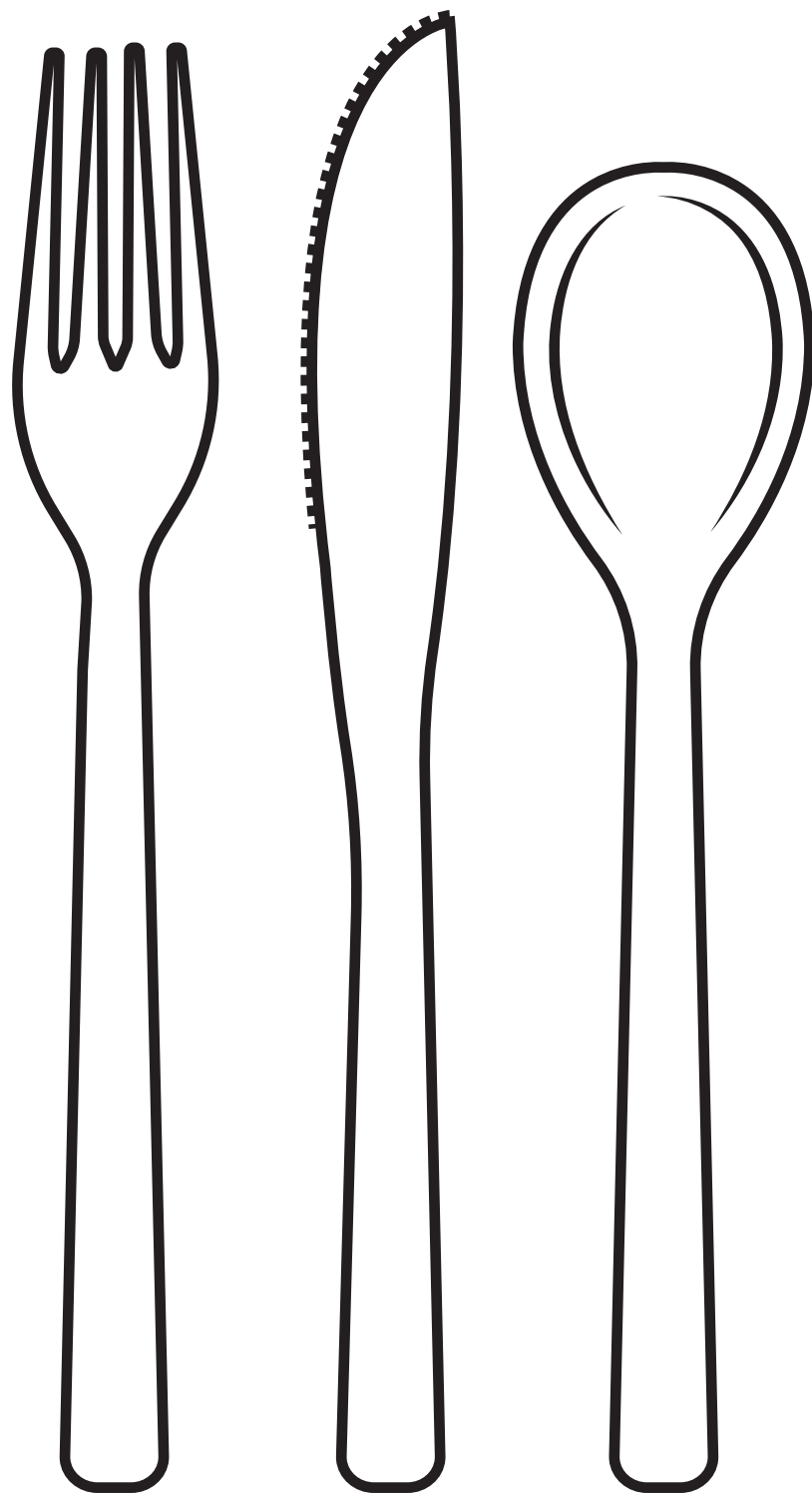
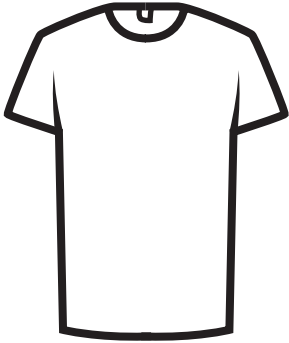
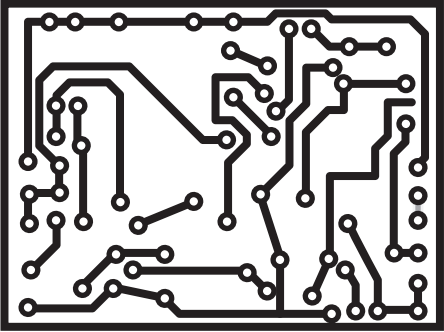

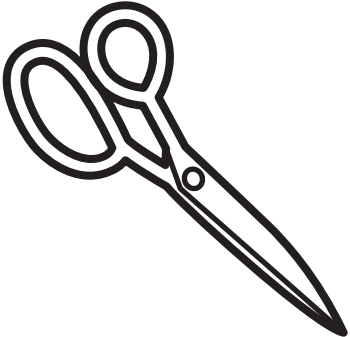
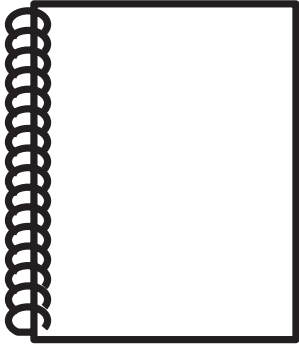


FIGURE 16

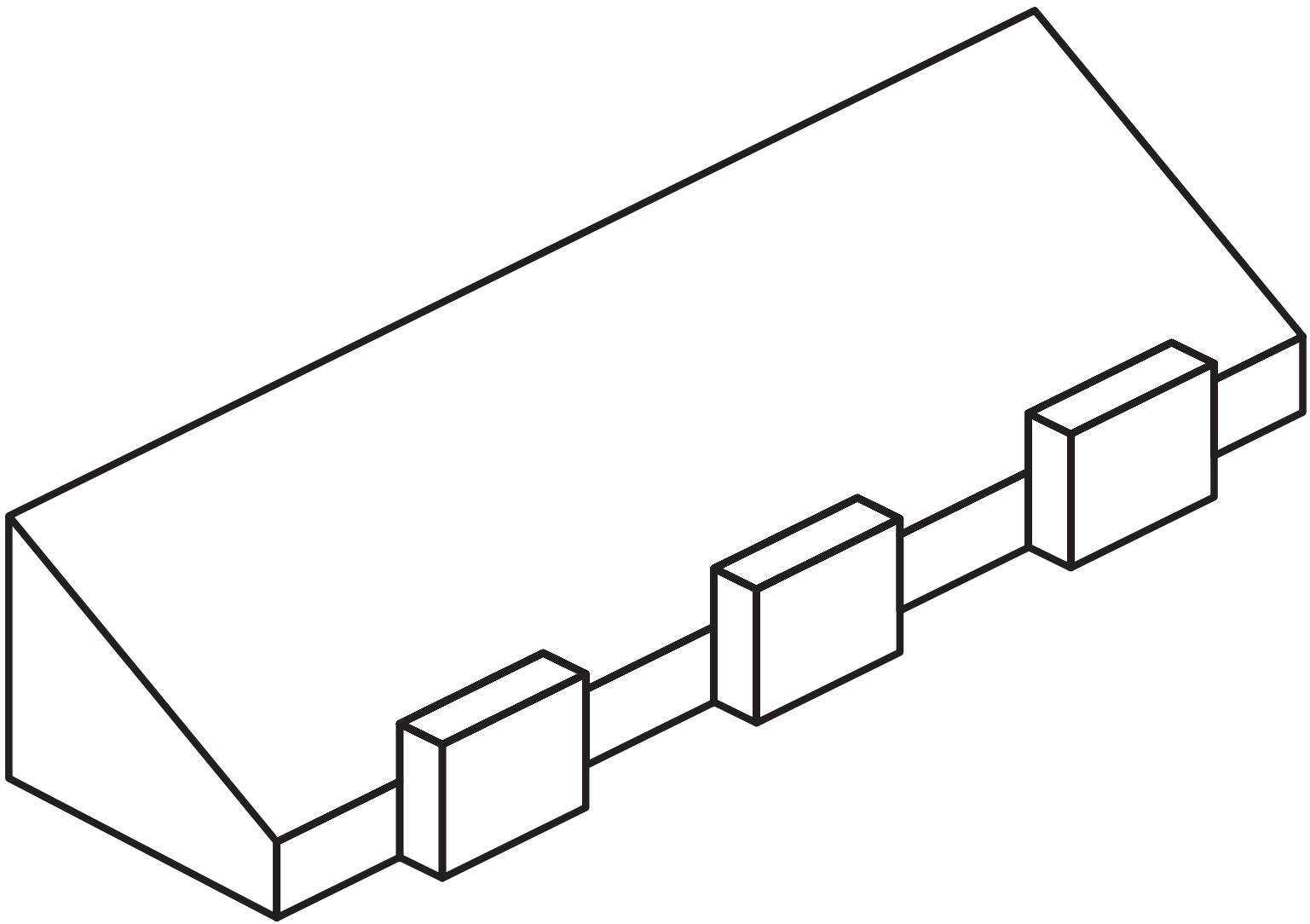
Source of polystyrene	Saudi Arabia
Country of manufacture	China
Potential market	Takeaway restaurants, parties and outside catering events
Scale of production	Continuous

Question 1(a)

FIGURE 1

Picture of product	Material and product	Property
	Cotton T-shirt	Soft
	Polyester resin printed circuit board (PCB)	(i) _____
	Balsa wood toy plane	(ii) _____
	Stainless steel kitchen scissors	(iii) _____
	Solid white board hardback book cover	(iv) _____

Question 5(a) – Outline



Question 6(b) – Blank

Question 7(c)

5mm isometric grid

