

Design and Technology
COMPONENT 1: Textiles

Monday 19 June 2023 – Morning

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.

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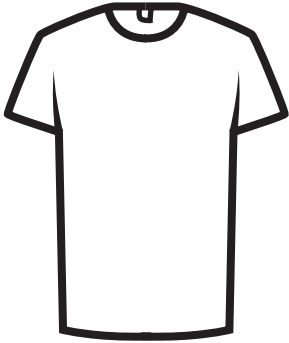
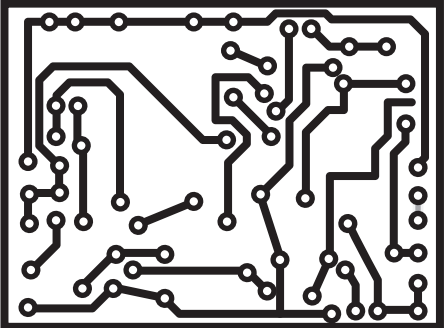

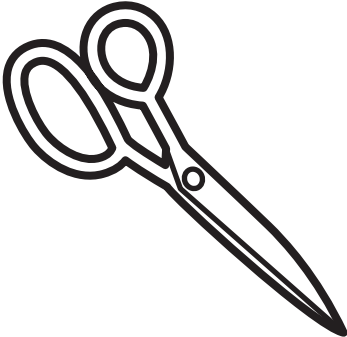
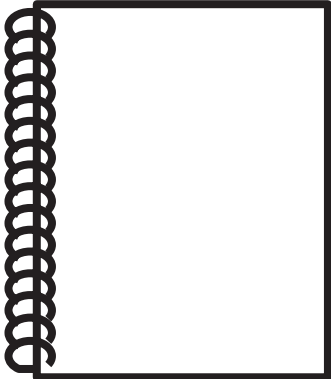
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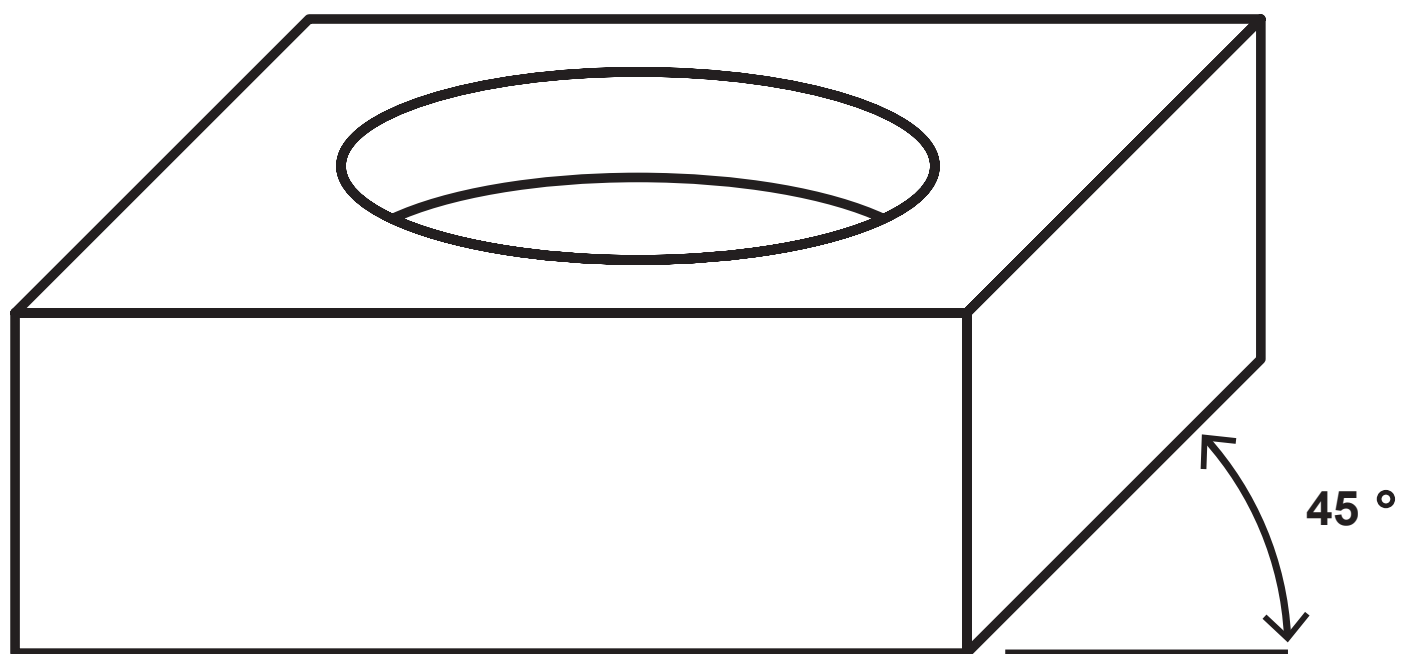
Question 1(a)

FIGURE 1

| Picture of product | Material and product | Property |
|-------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------|
|  | Cotton T-shirt | Soft |
|  | Polyester resin printed circuit board (PCB) | (1 mark) (i) _____ |
|  | Balsa wood toy plane | (1 mark) (ii) _____ |
|  | Stainless steel kitchen scissors | (1 mark) (iii) _____ |
|  | Solid white board hardback book cover | (1 mark) (iv) _____ |

Question 2

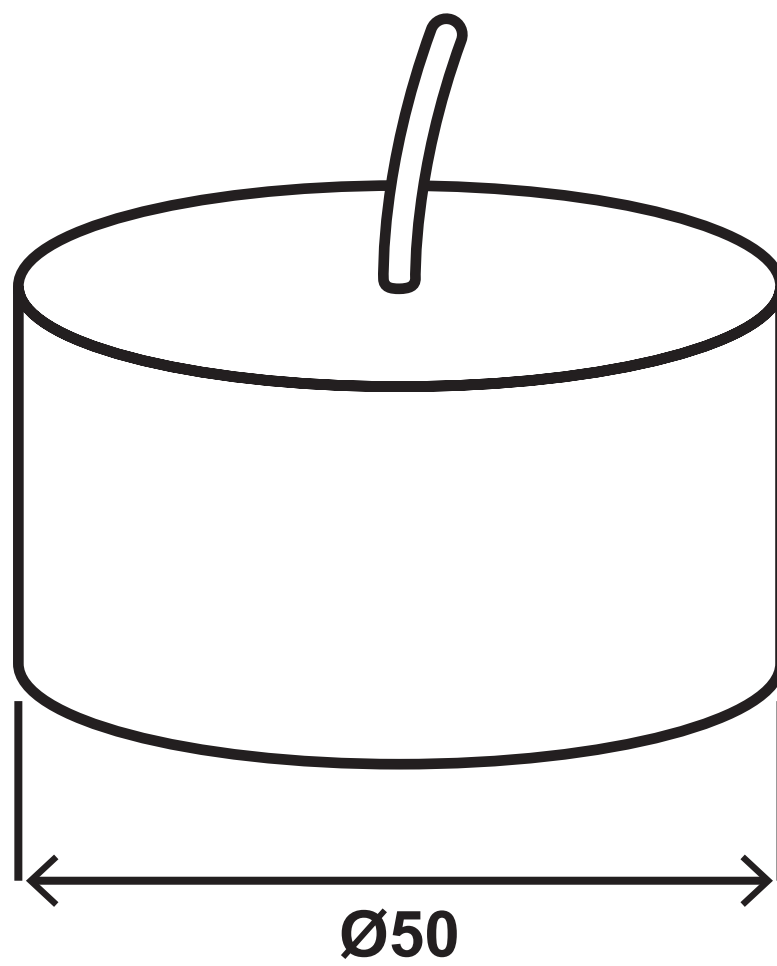
FIGURE 2



Question 2(c)**FIGURE 3**

All dimensions in mm

Ø – diameter



Question 2(d)

FIGURE 4

All dimensions in mm

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

Use $\pi = 3.142$

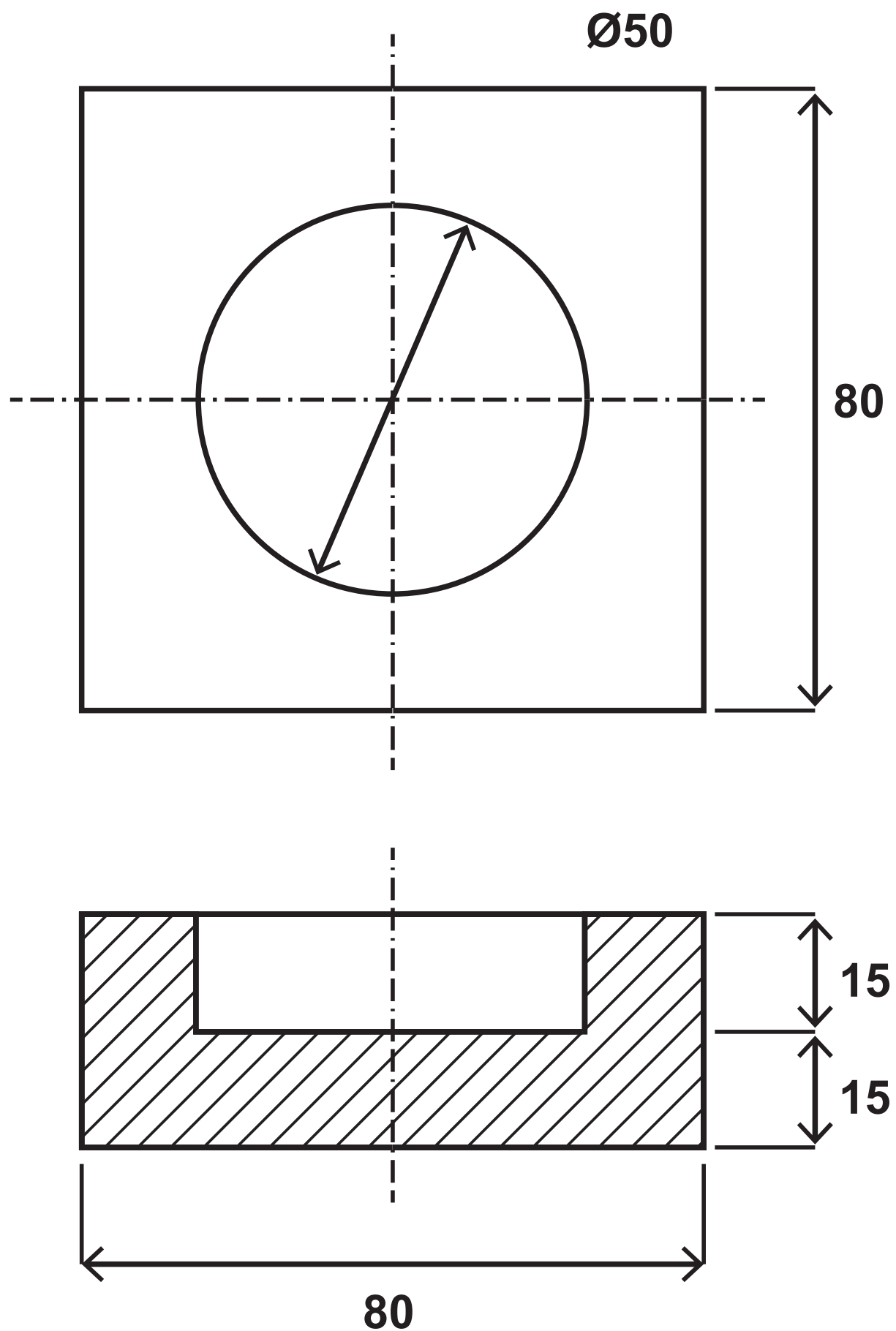
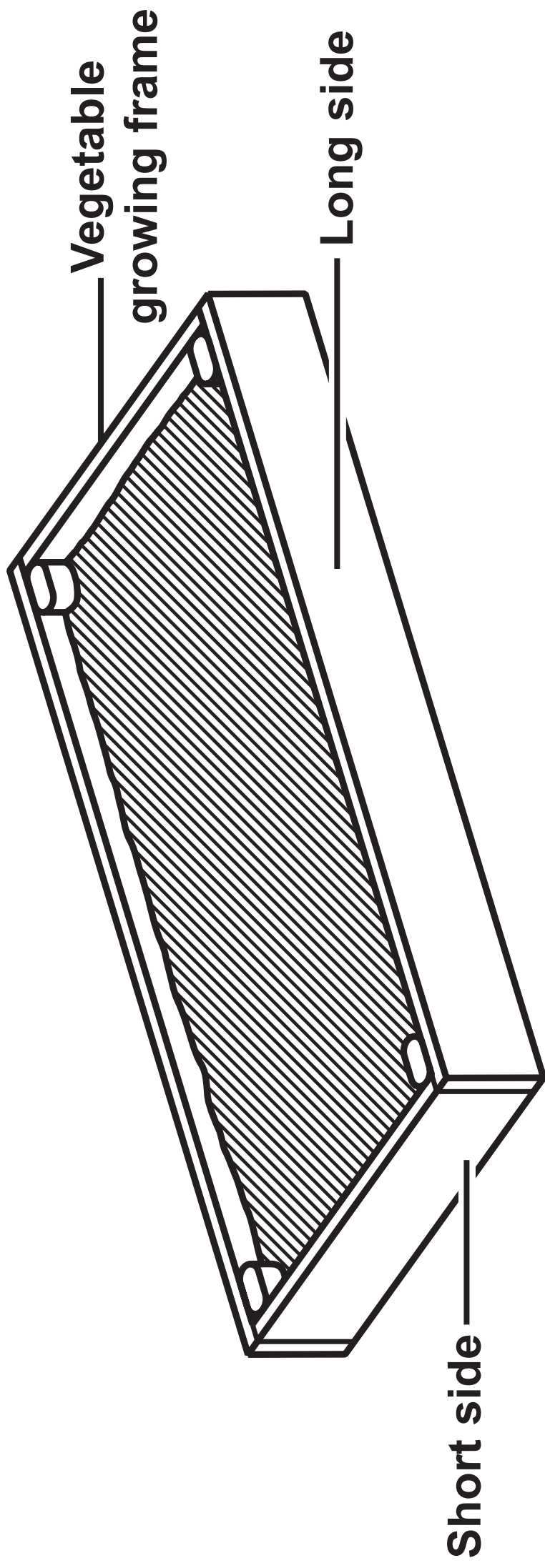
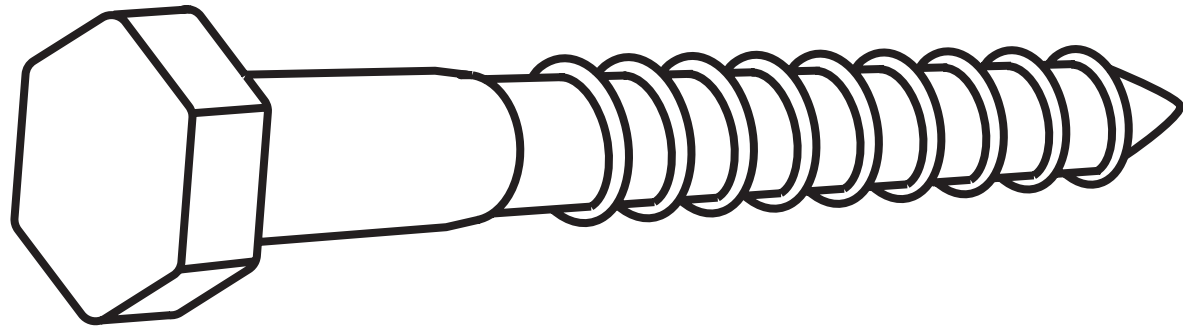


FIGURE 5



Question 3(d)**FIGURE 6**

Question 4

FIGURE 7

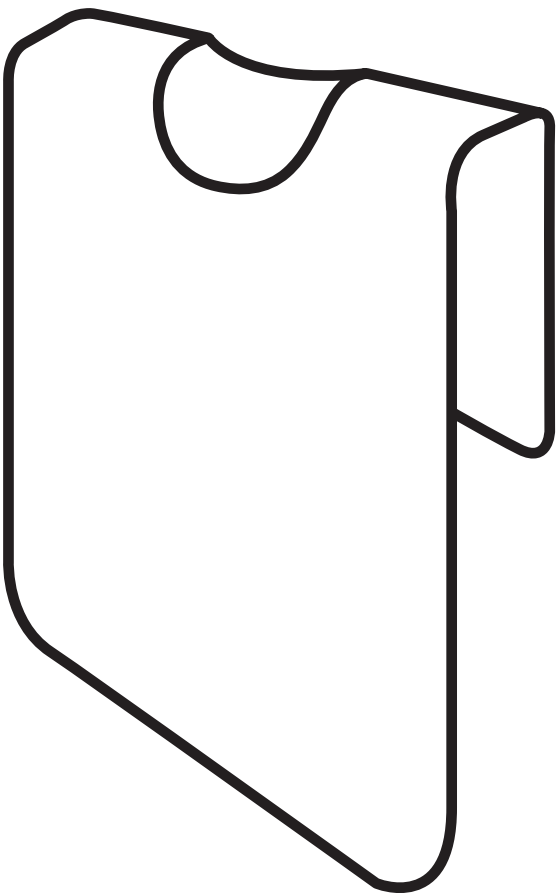


Question 5

FIGURE 8

Additional information

| Average waist size of a child: | |
|--------------------------------|-------|
| 6–7 yrs | 57 cm |
| 7–8 yrs | 58 cm |
| 8–9 yrs | 60 cm |
| 9–10 yrs | 62 cm |



Question 5(a)

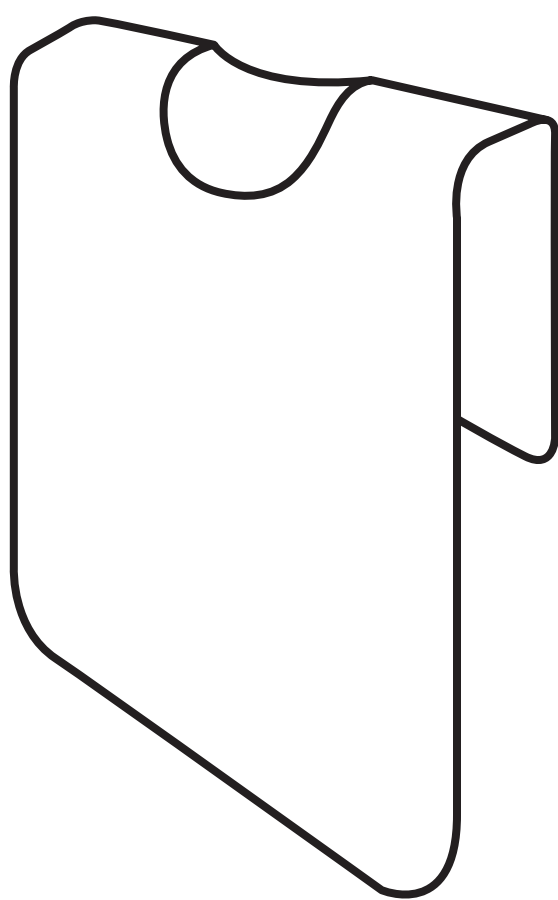
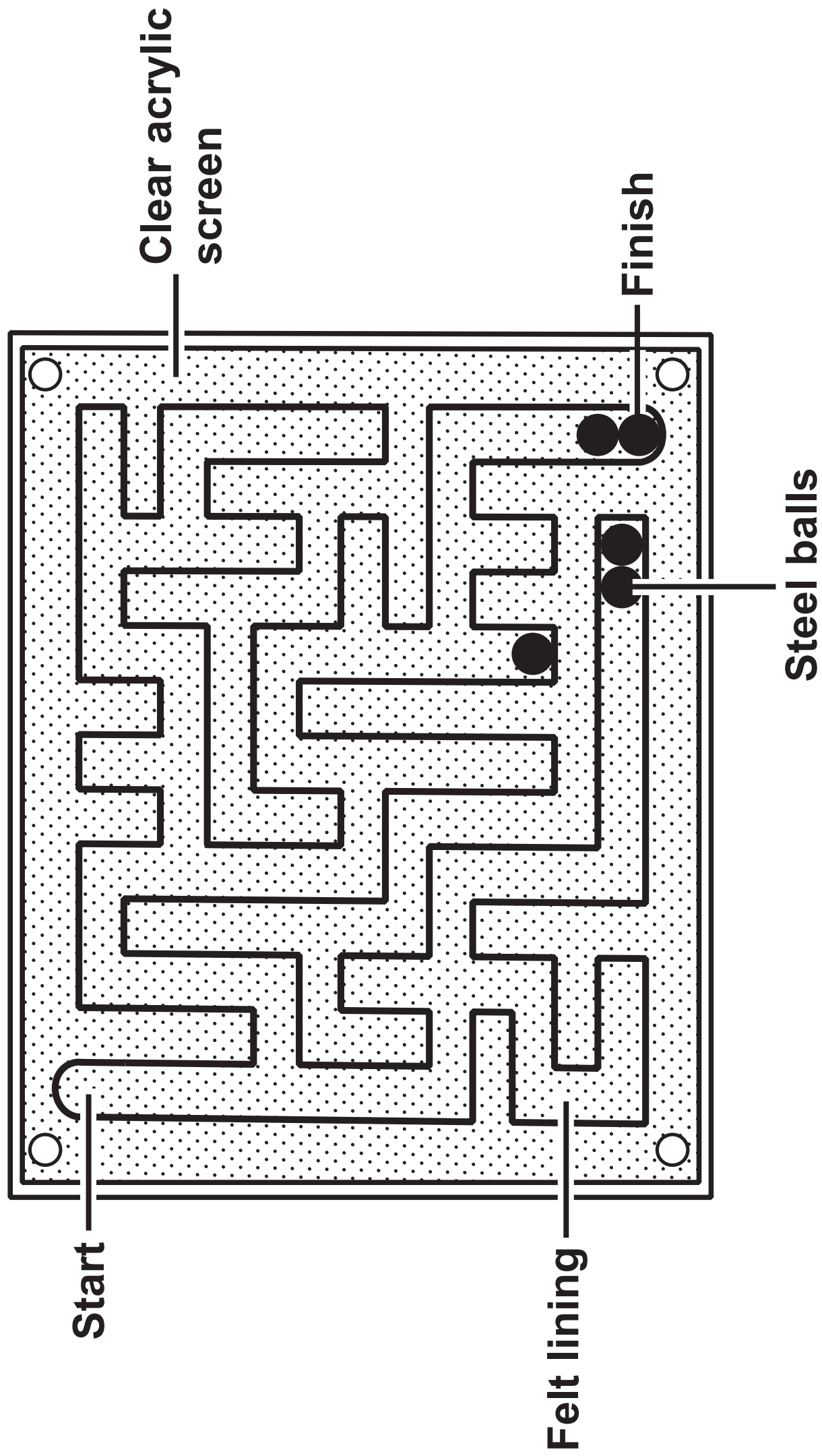
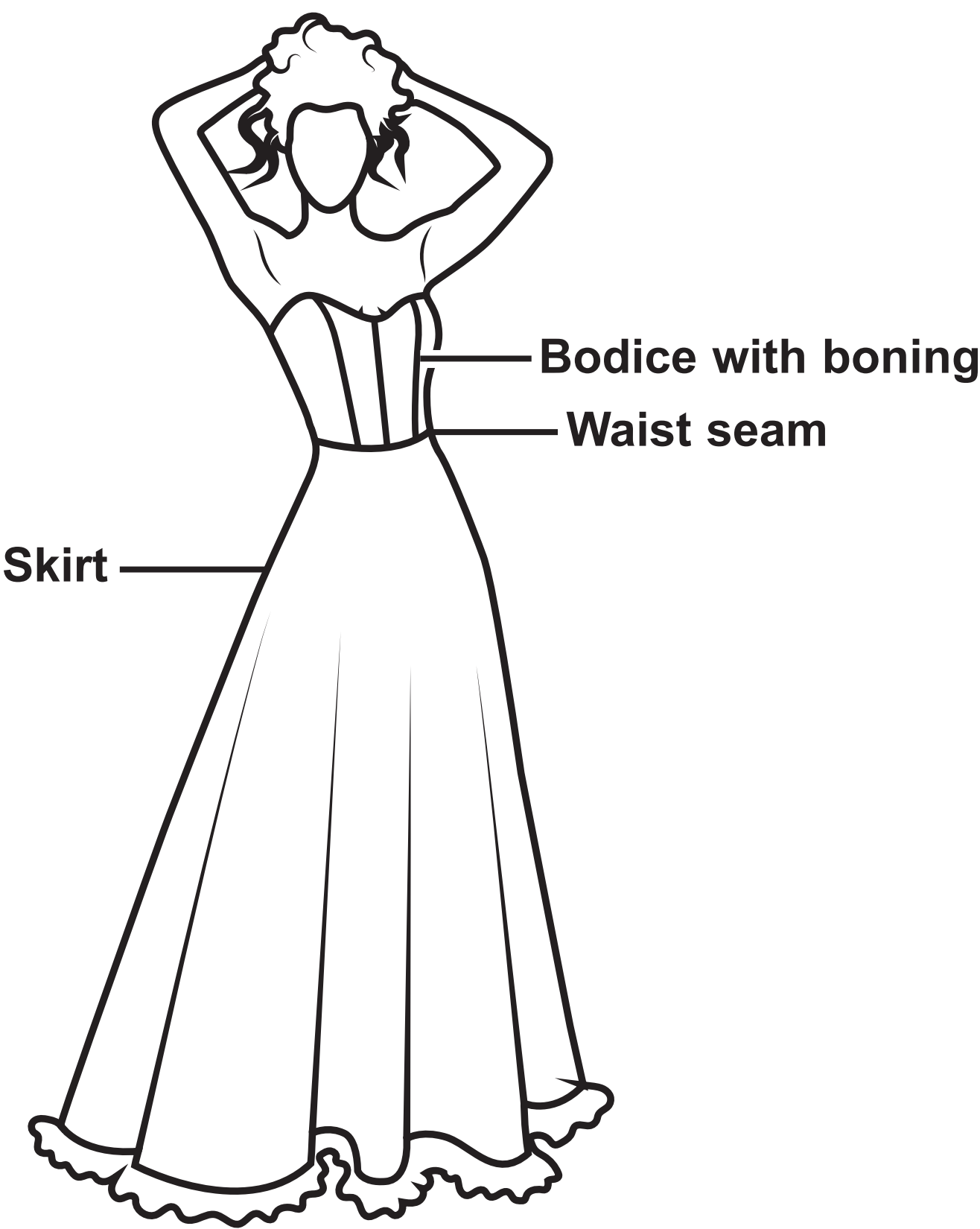


FIGURE 9



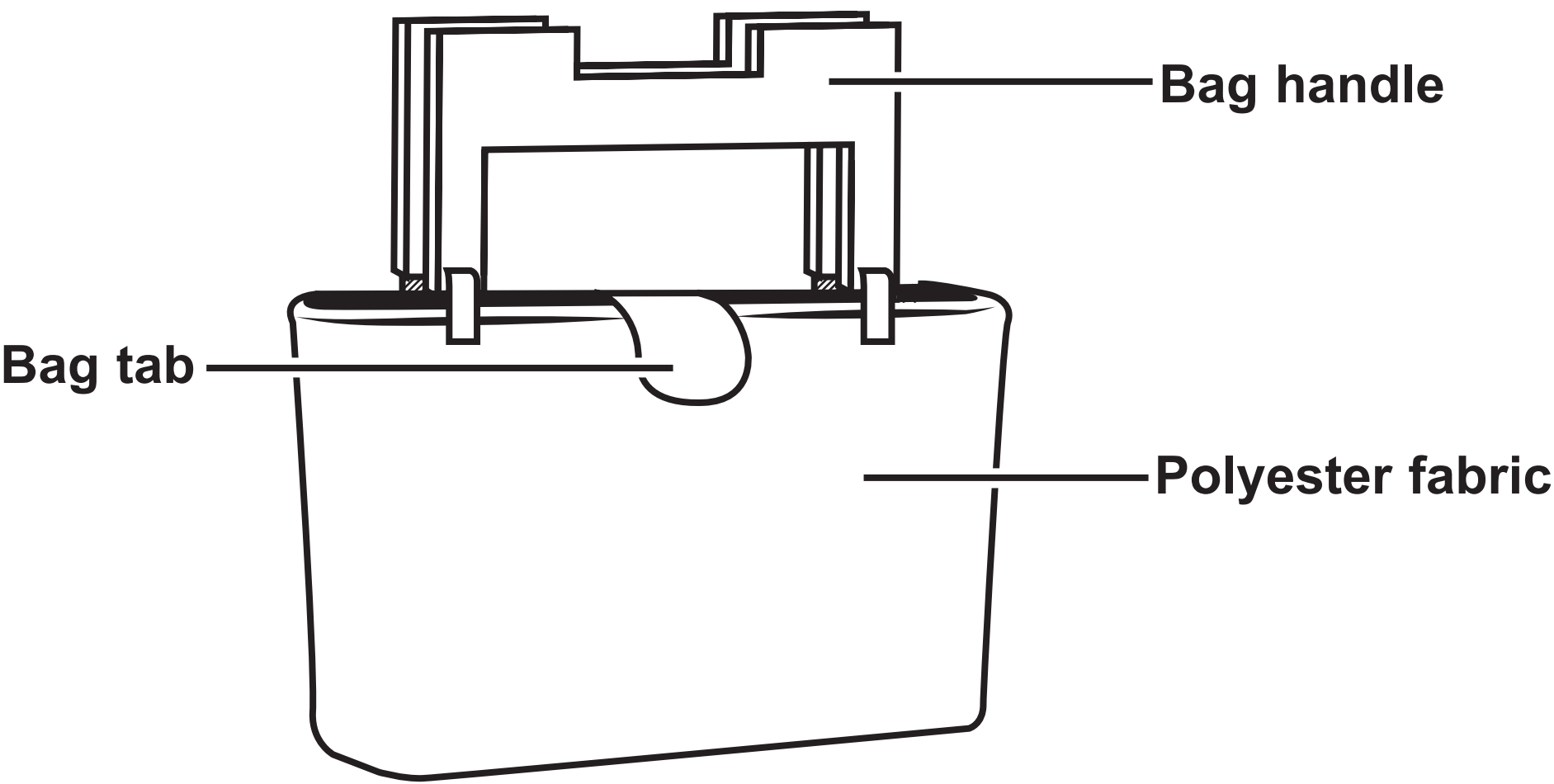
Question 6

FIGURE 10



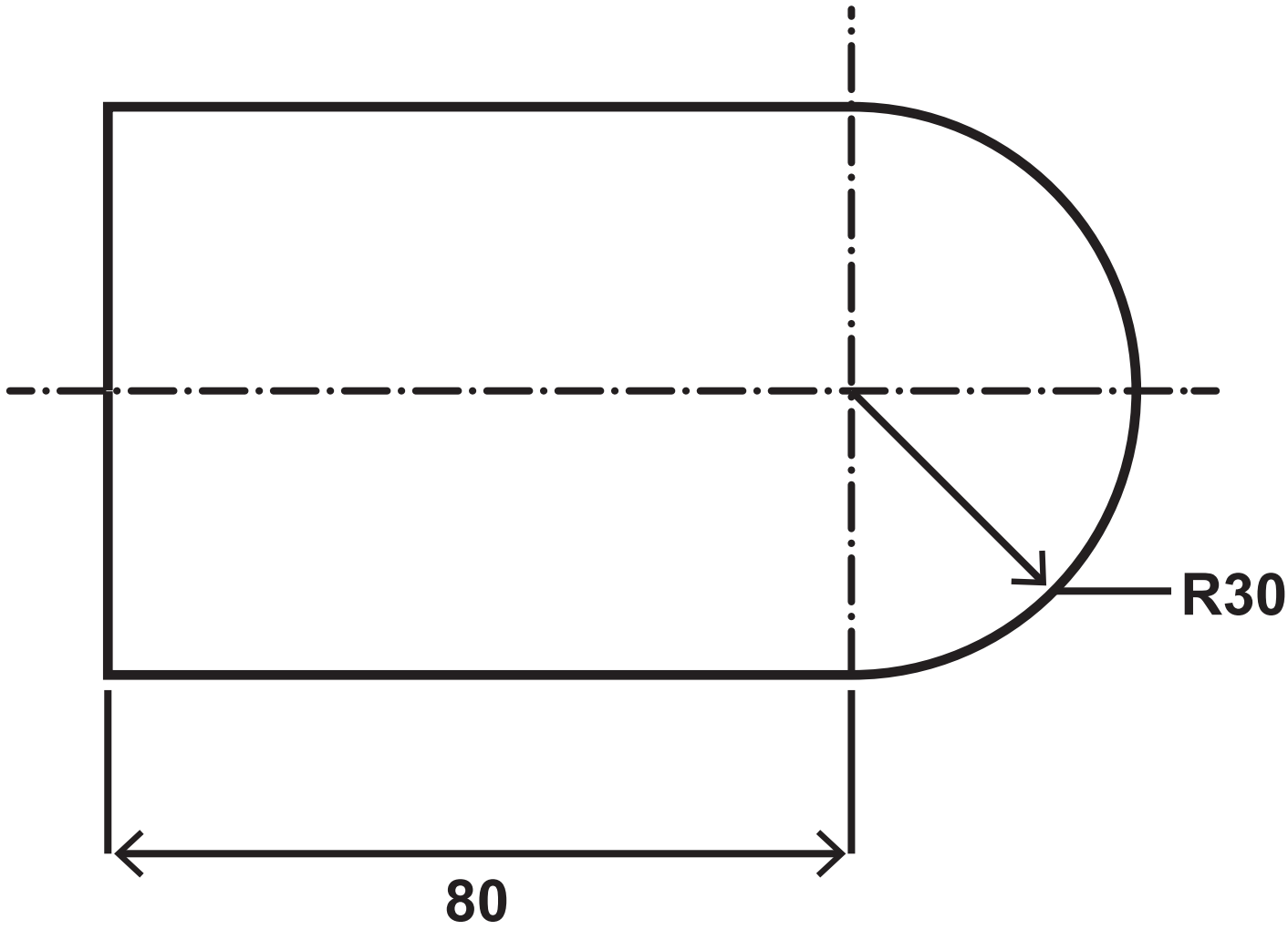
Question 7(a)

FIGURE 11



Question 7(b)

FIGURE 12

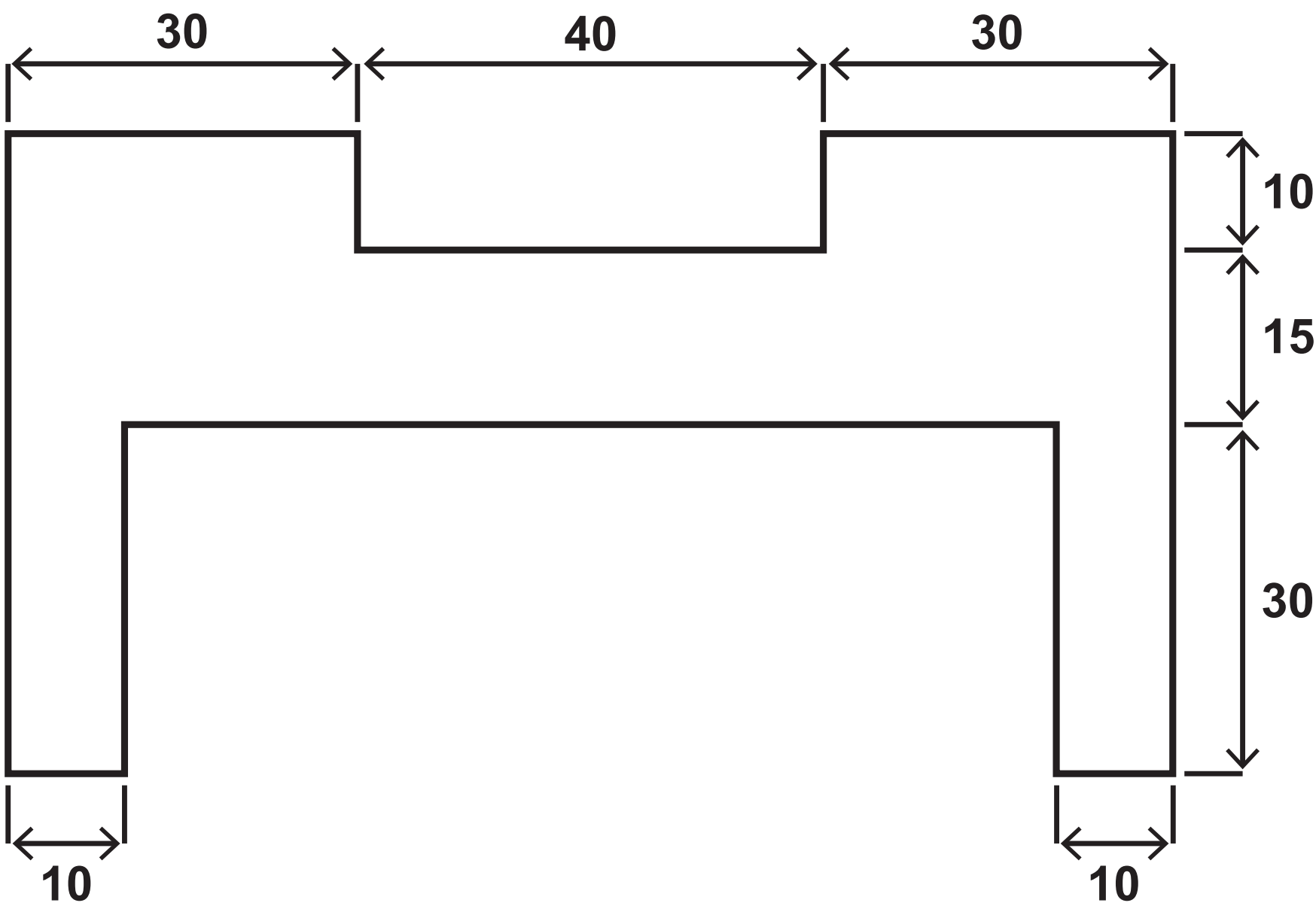


Question 7(c)

FIGURE 13

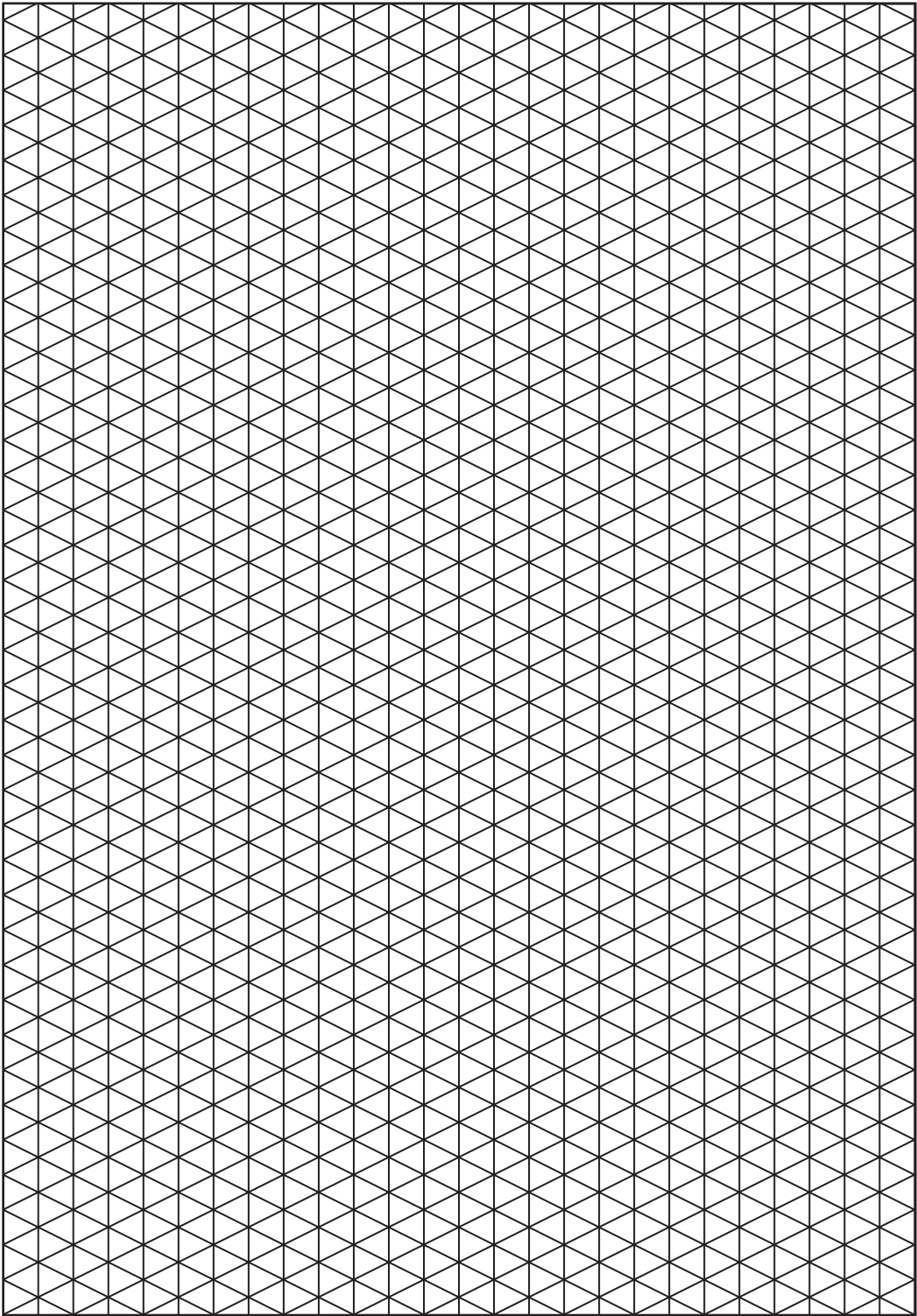
All dimensions in mm

Diagram not to scale



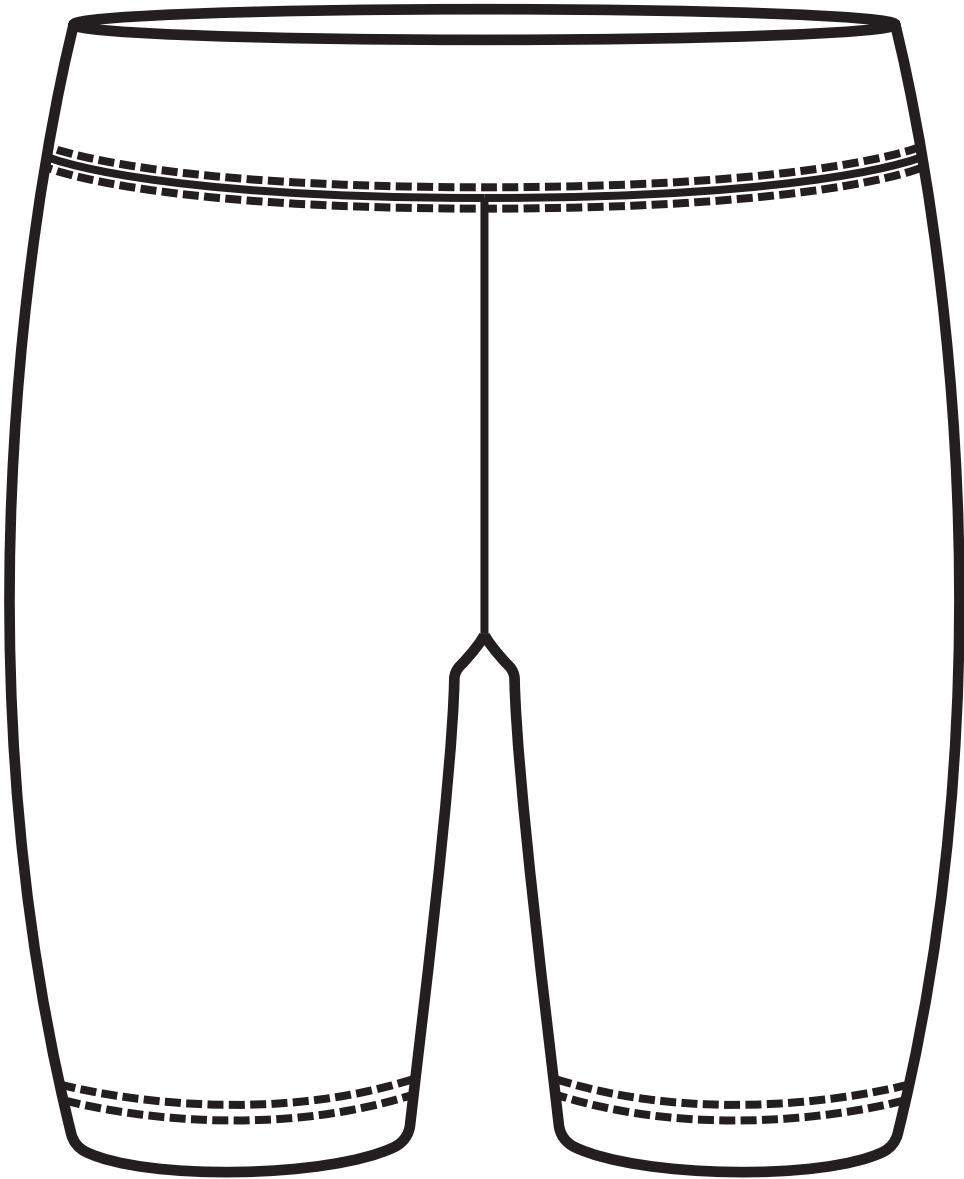
Question 7(c)

5 mm isometric grid



Question 8

FIGURE 14



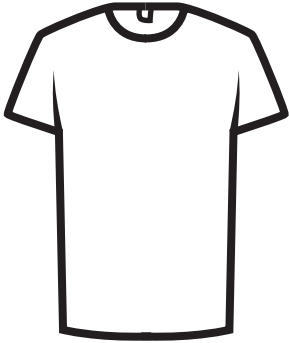
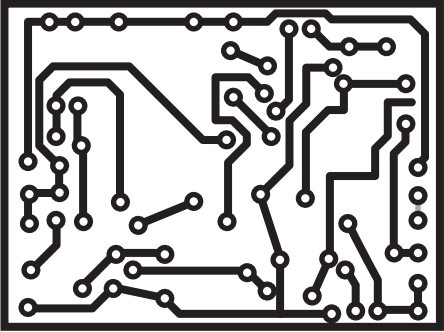
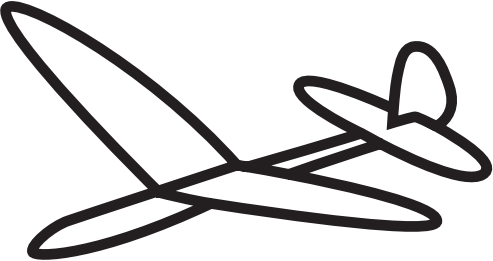
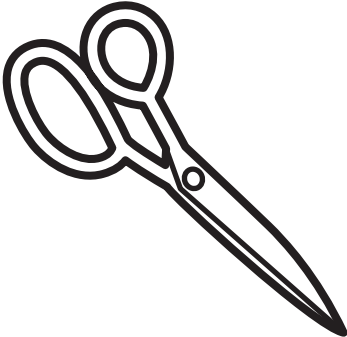
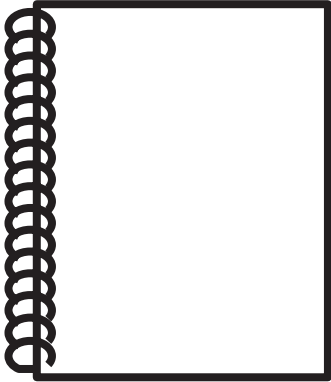
Question 8(d)

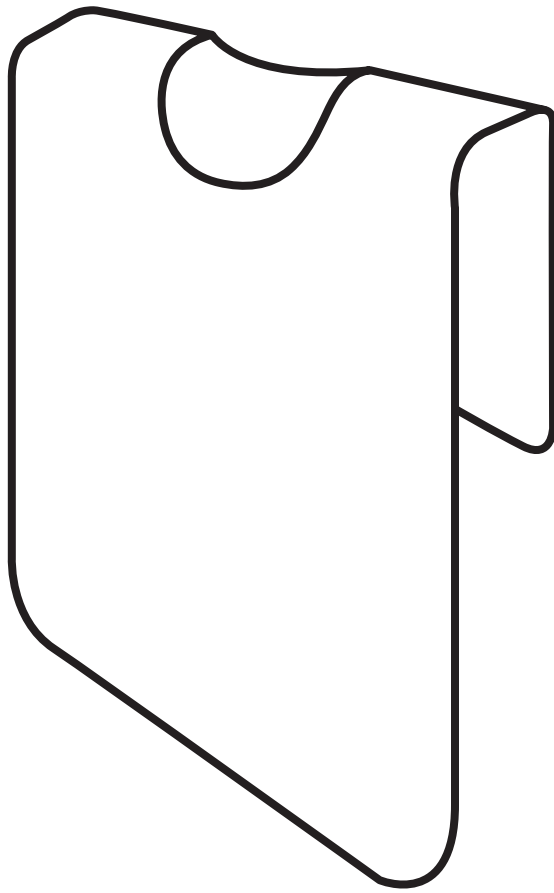
FIGURE 15

| | |
|------------------------|--------------------------------------------------------------|
| Source of nylon | Crude oil from UAE and Saudi Arabia |
| Country of manufacture | China |
| Potential market | Holiday makers, athletes, casual swimmers and schoolchildren |
| Scale of production | Batch |

Question 1(a)

FIGURE 1

| Picture of product | Material and product | Property |
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Question 5(a)

Question 7(c)

5 mm isometric grid

