

Design and Technology  
COMPONENT 1: Papers and Boards

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.**

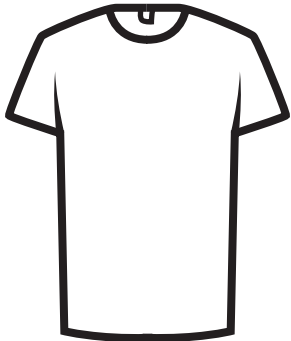
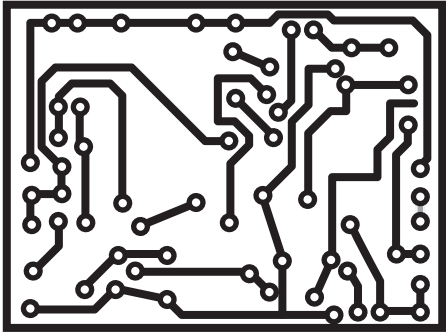
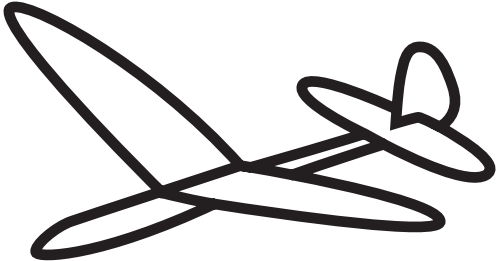

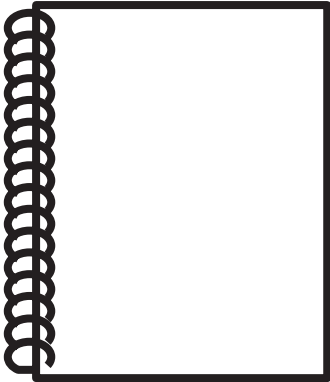
## **Contents**

### **Page**

<b>4</b>	<b>Question 1(a)</b>
<b>5</b>	<b>Question 2</b>
<b>6</b>	<b>Question 2(c)</b>
<b>7</b>	<b>Question 2(d)</b>
<b>8</b>	<b>Question 3</b>
<b>9</b>	<b>Question 3(d)</b>
<b>10</b>	<b>Question 4</b>
<b>11</b>	<b>Question 5</b>
<b>12</b>	<b>Question 5(a)</b>
<b>13</b>	<b>Question 5(b)</b>
<b>14</b>	<b>Question 6(a)</b>
<b>15</b>	<b>Question 6(b)</b>
<b>16–17</b>	<b>Question 7</b>
<b>18</b>	<b>Question 7(c)</b>
<b>19</b>	<b>Question 7(c) – 5mm isometric grid</b>
<b>20</b>	<b>Question 8</b>
<b>Spare Copies</b>	
<b>21</b>	<b>Question 1(a)</b>
<b>22</b>	<b>Question 5(a)</b>
<b>23</b>	<b>Question 7(c) – 5mm isometric grid</b>

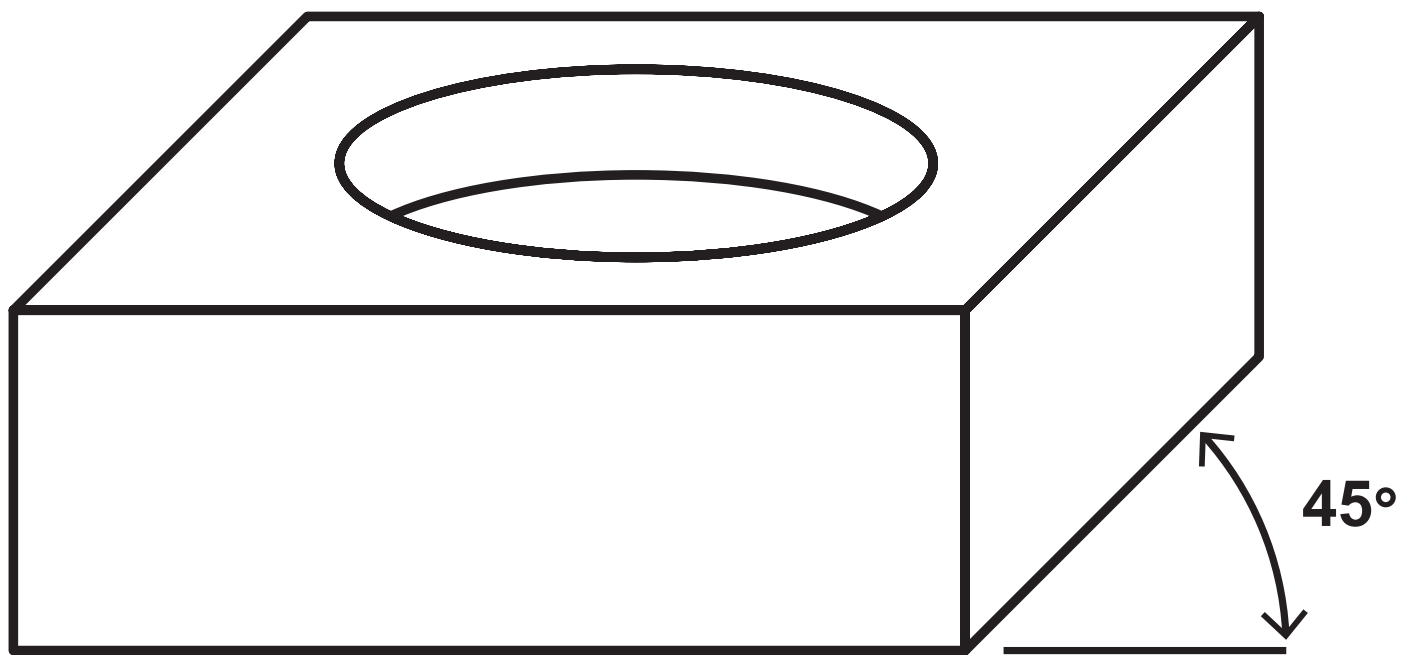
Question 1(a)

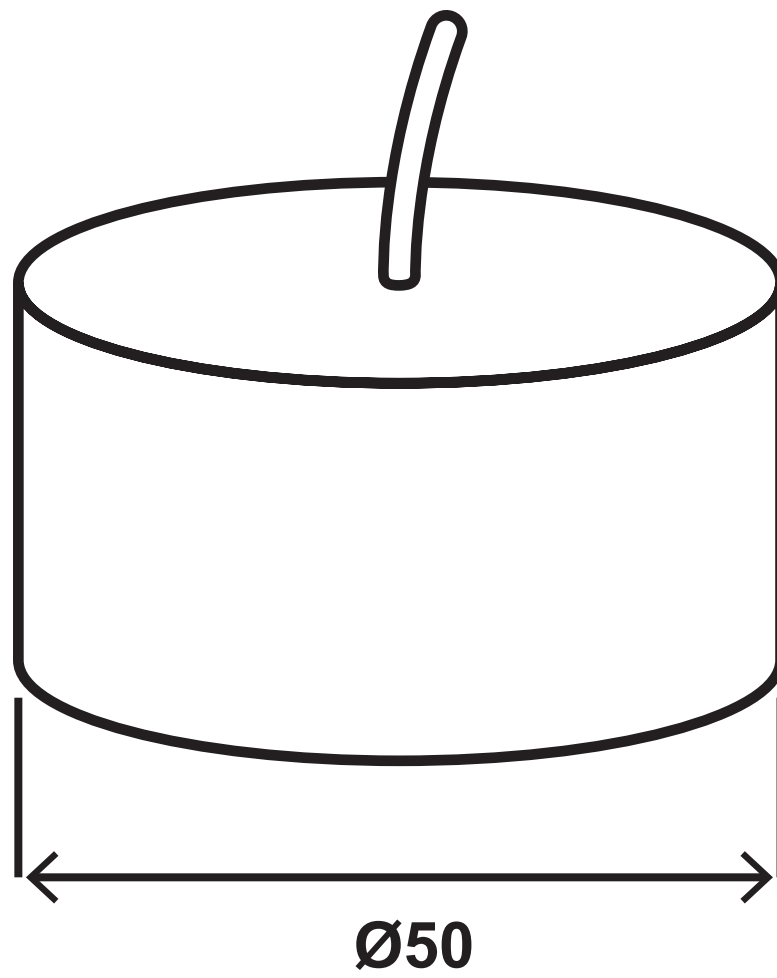
FIGURE 1

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)****All dimensions in mm****Ø – diameter****FIGURE 3**

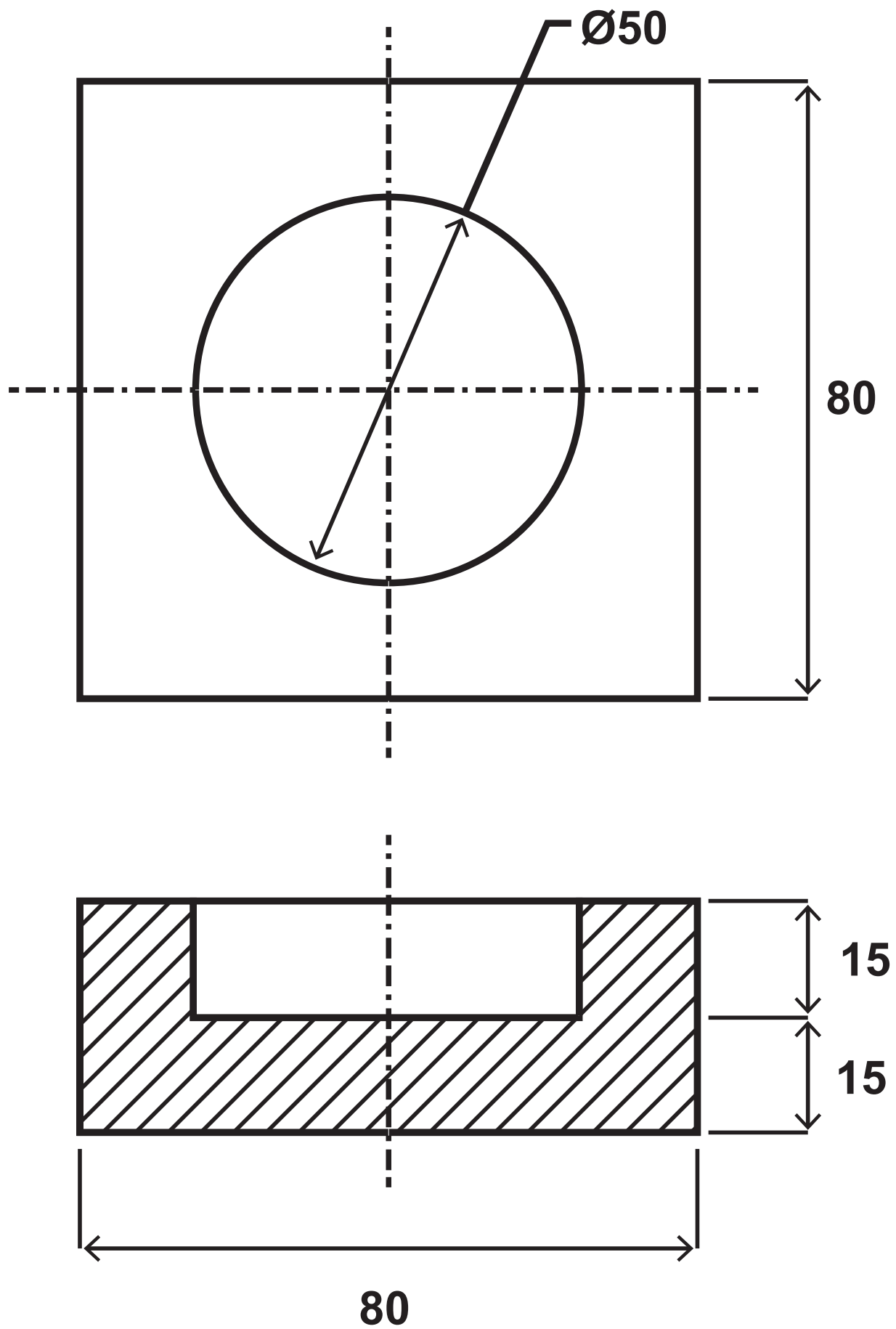
## Question 2(d)

All dimensions in mm

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

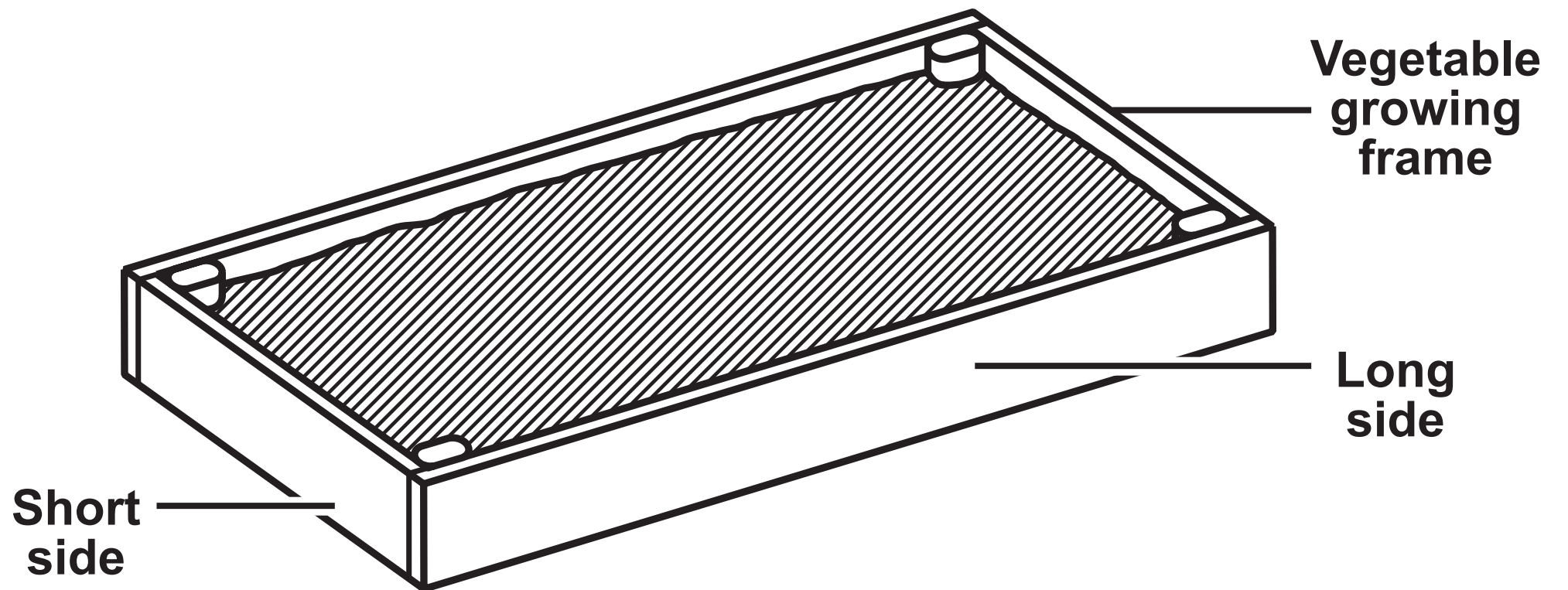
Use  $\pi = 3.142$

FIGURE 4

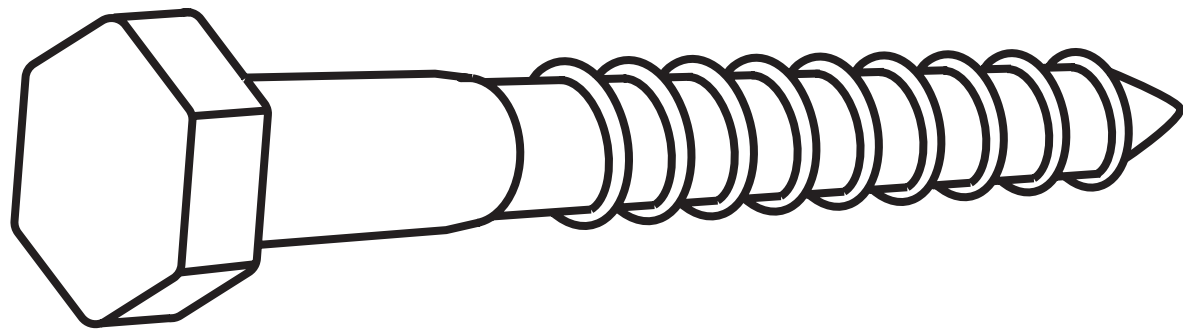


## Question 3

FIGURE 5





**Question 3(d)****FIGURE 6**

Question 4

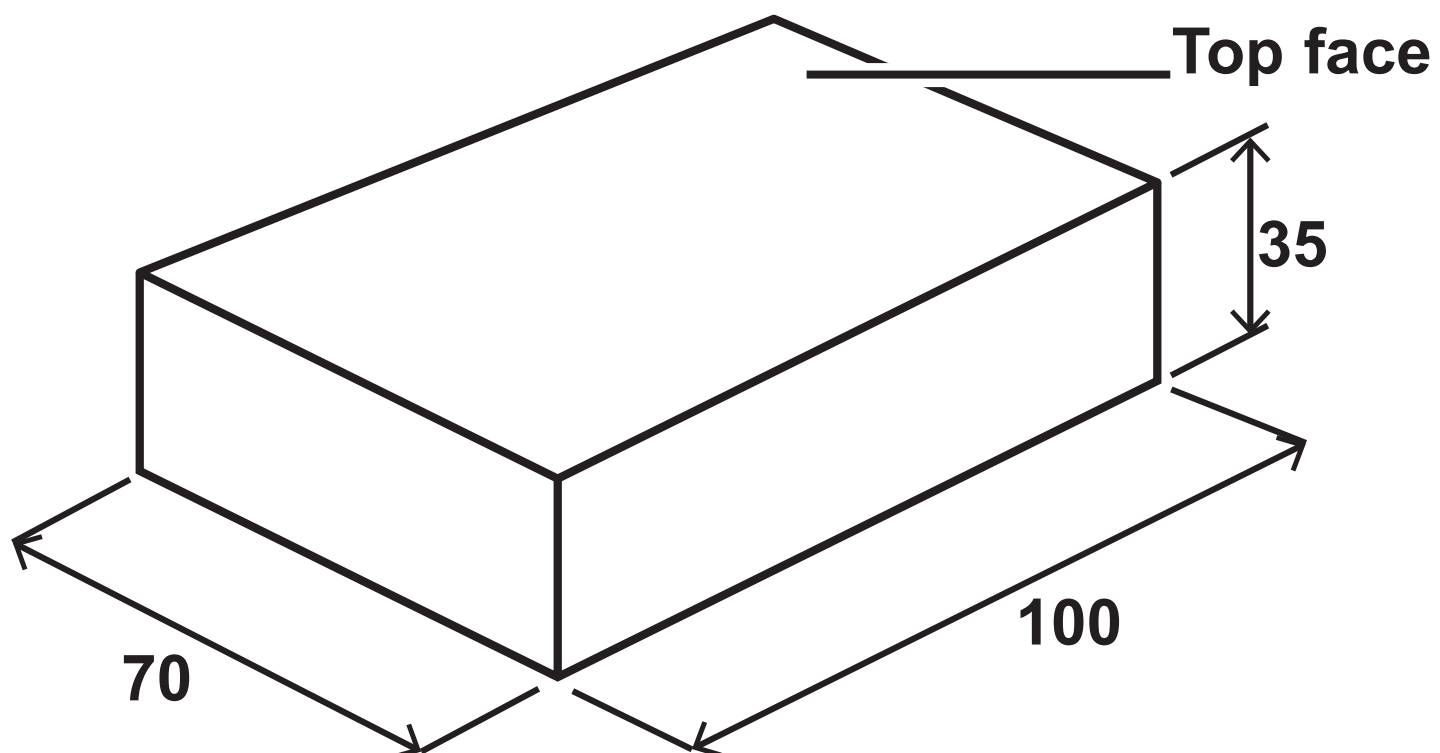
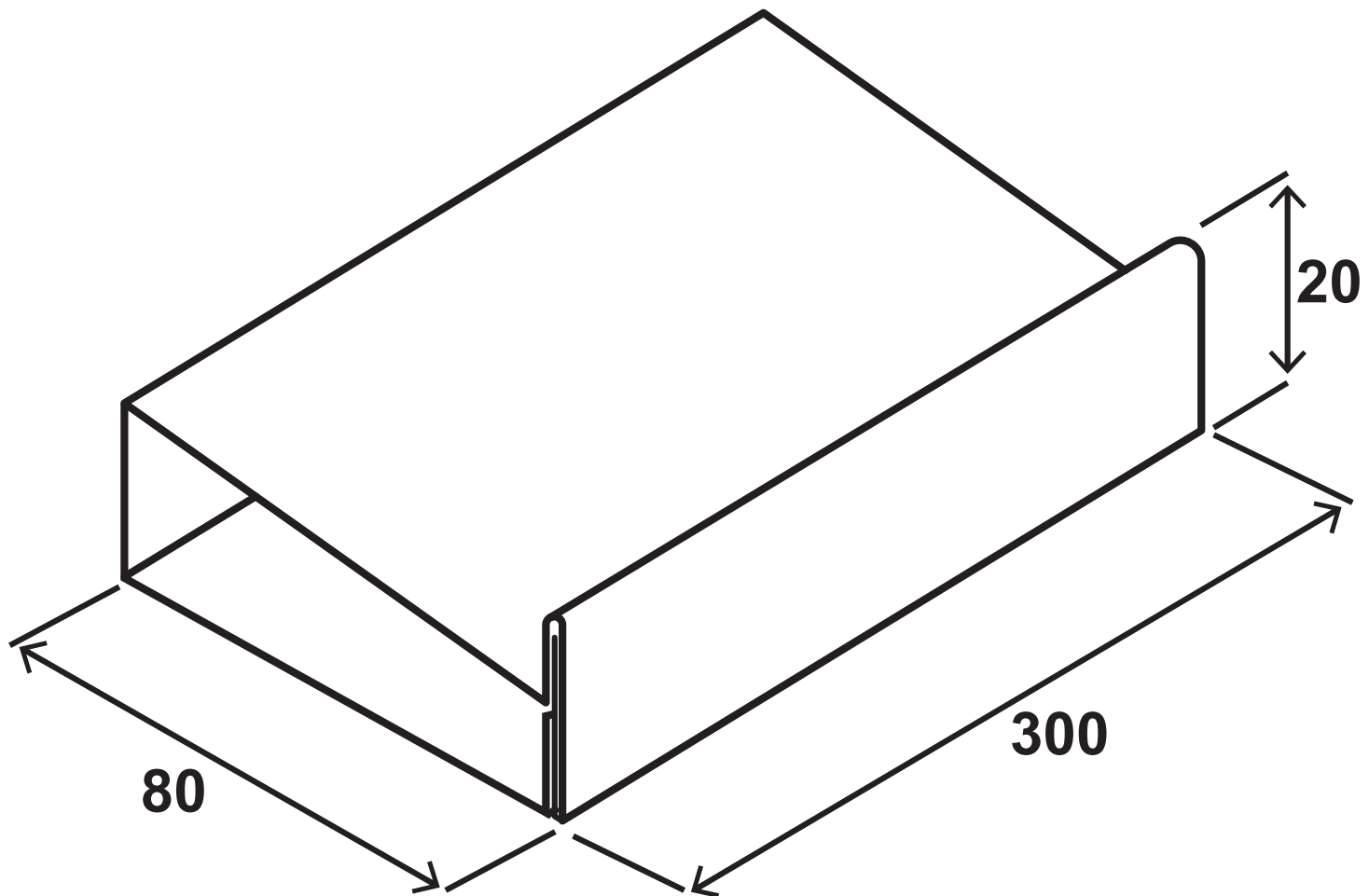
FIGURE 7



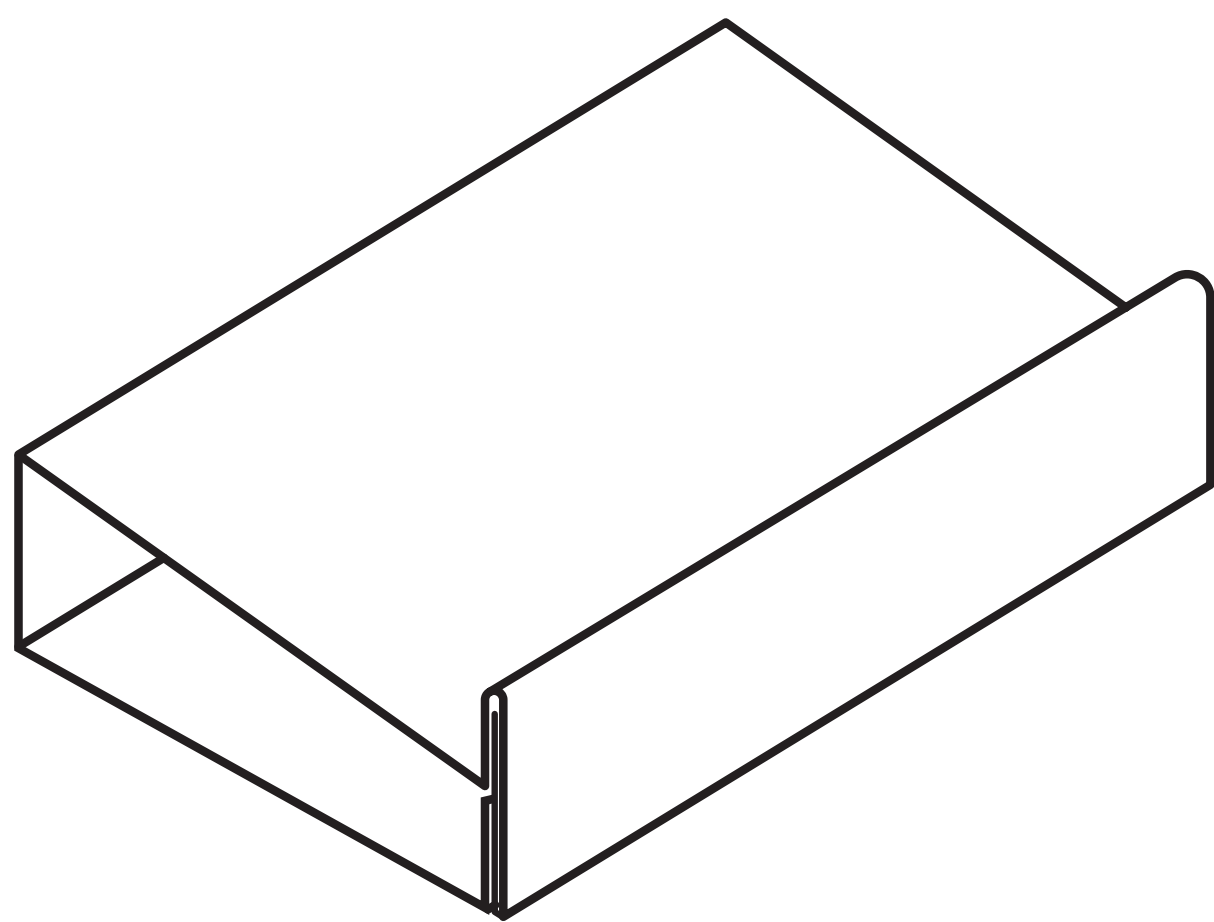
## Question 5

FIGURE 8

All dimensions in mm

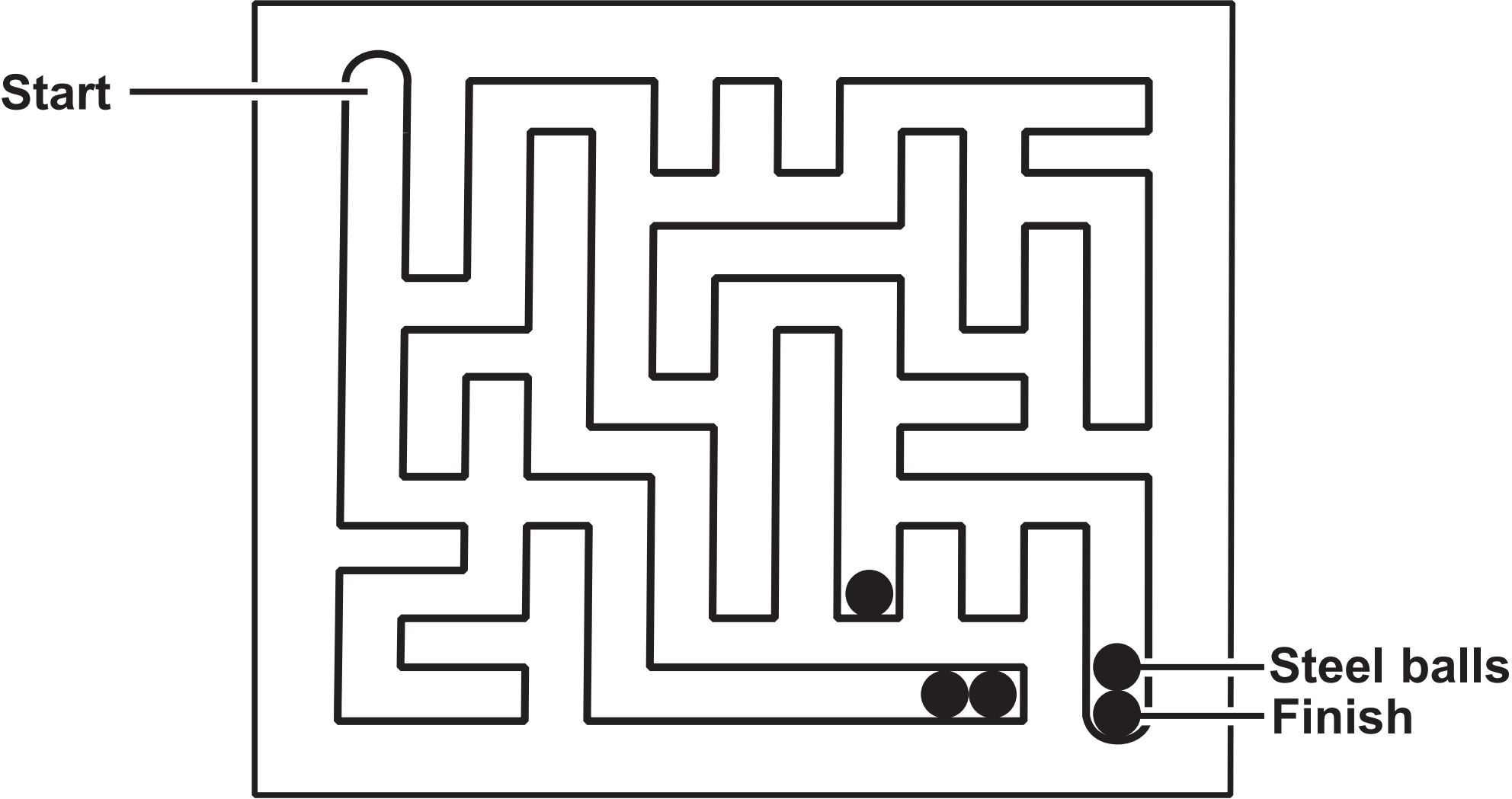


Question 5(a)



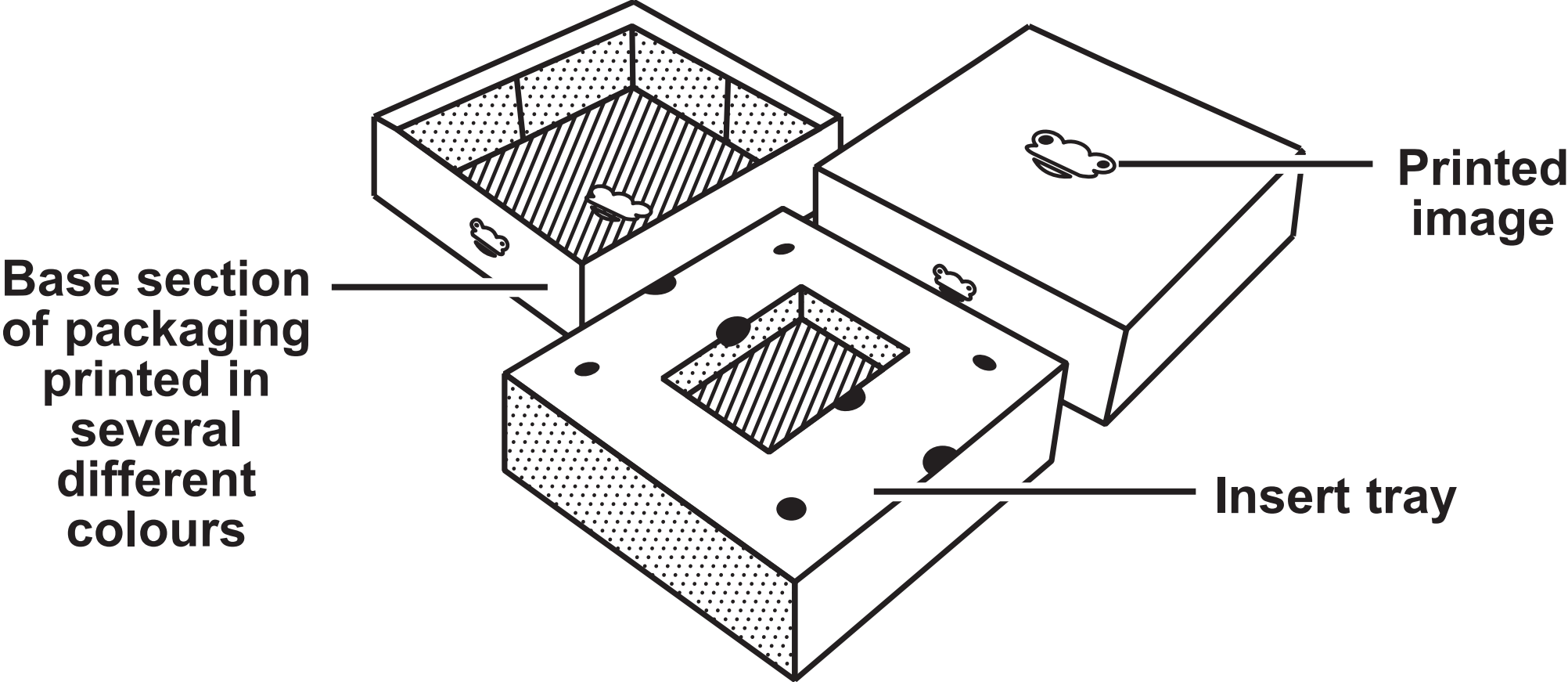
Question 5(b)

FIGURE 9



Question 6(a)

FIGURE 10



Question 6(b)

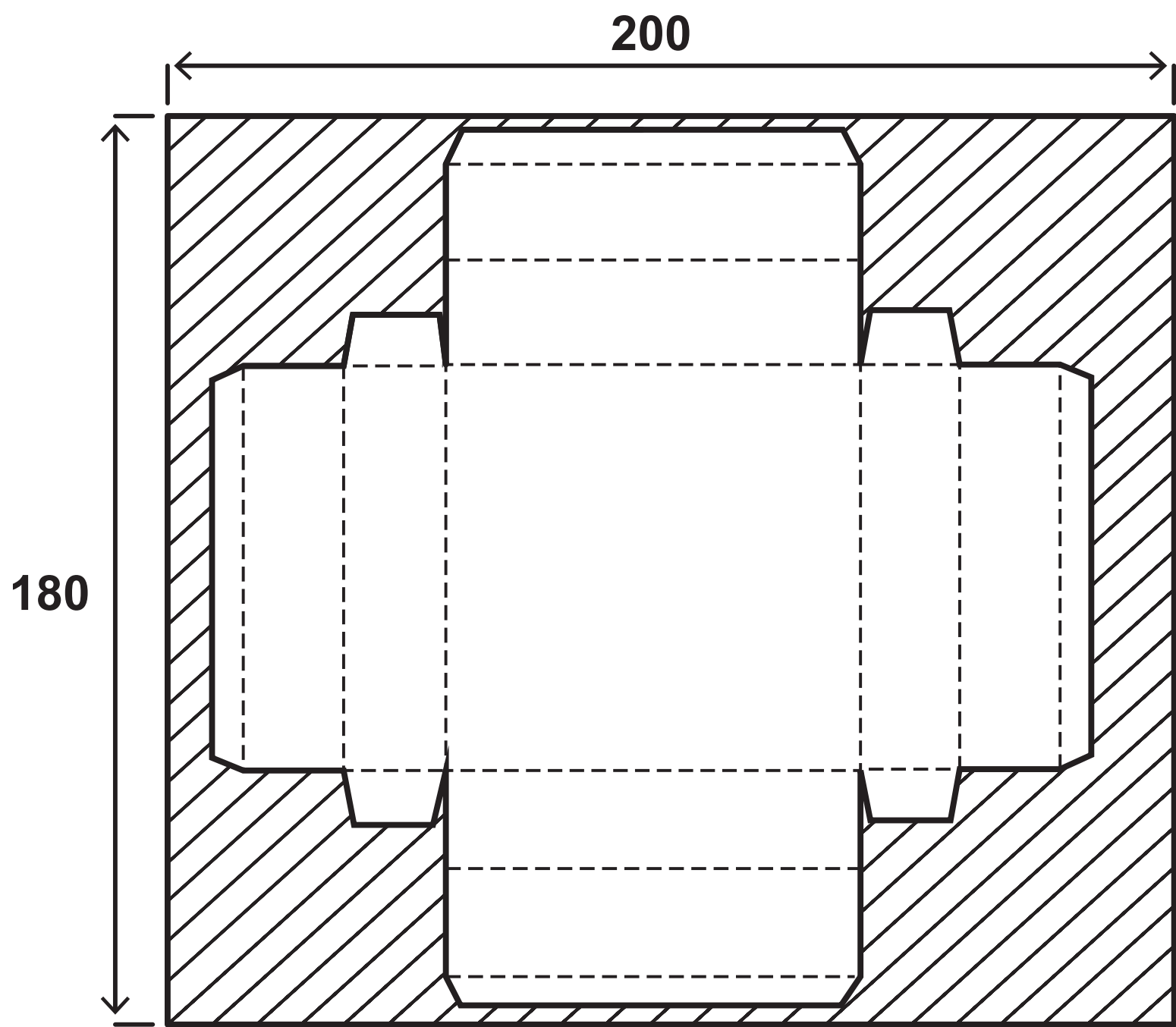
FIGURE 11

All dimensions in mm

Key

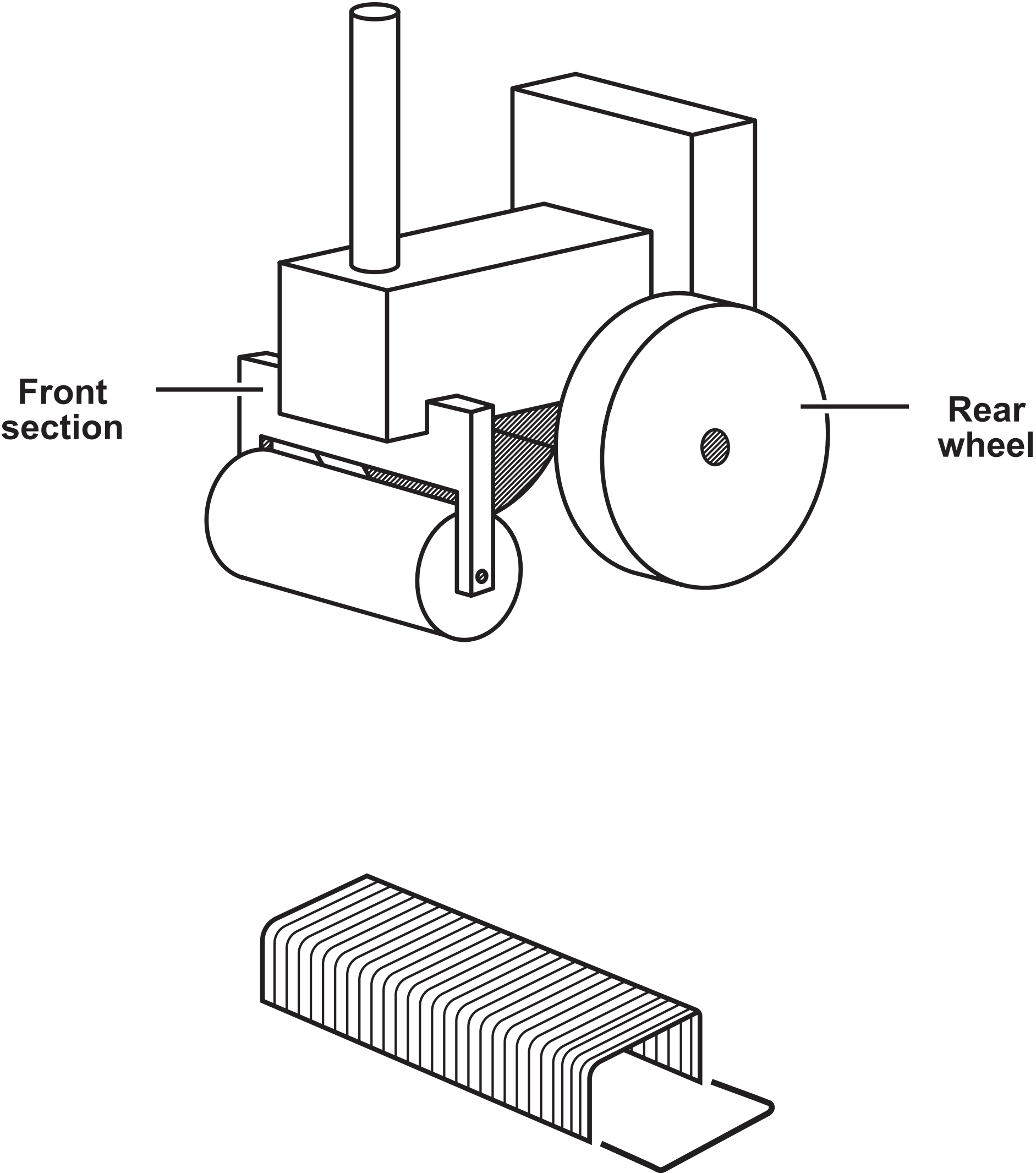
———— Cut line

----- Fold line



Question 7

FIGURE 12

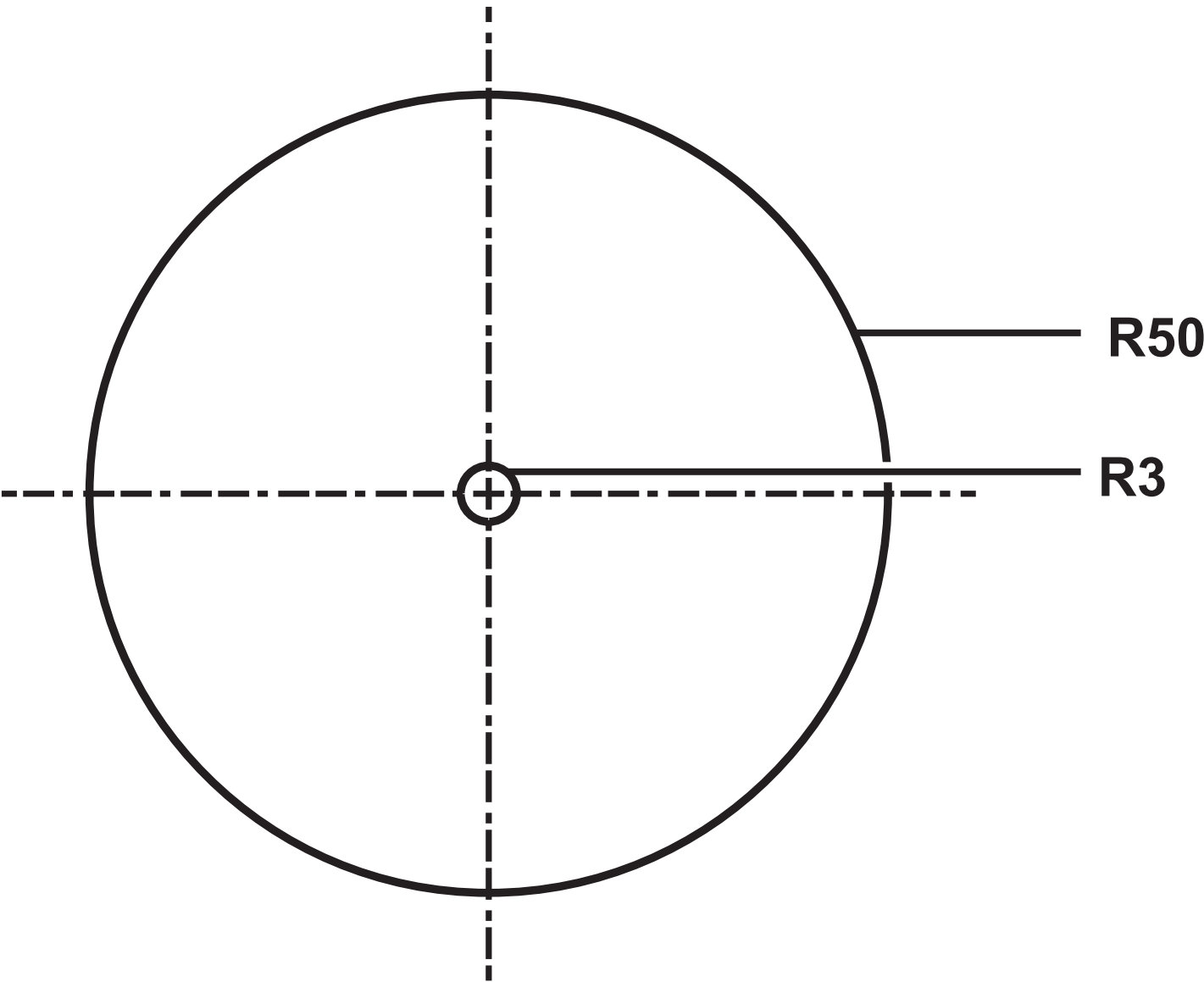




Question 7

FIGURE 13

All dimensions in mm

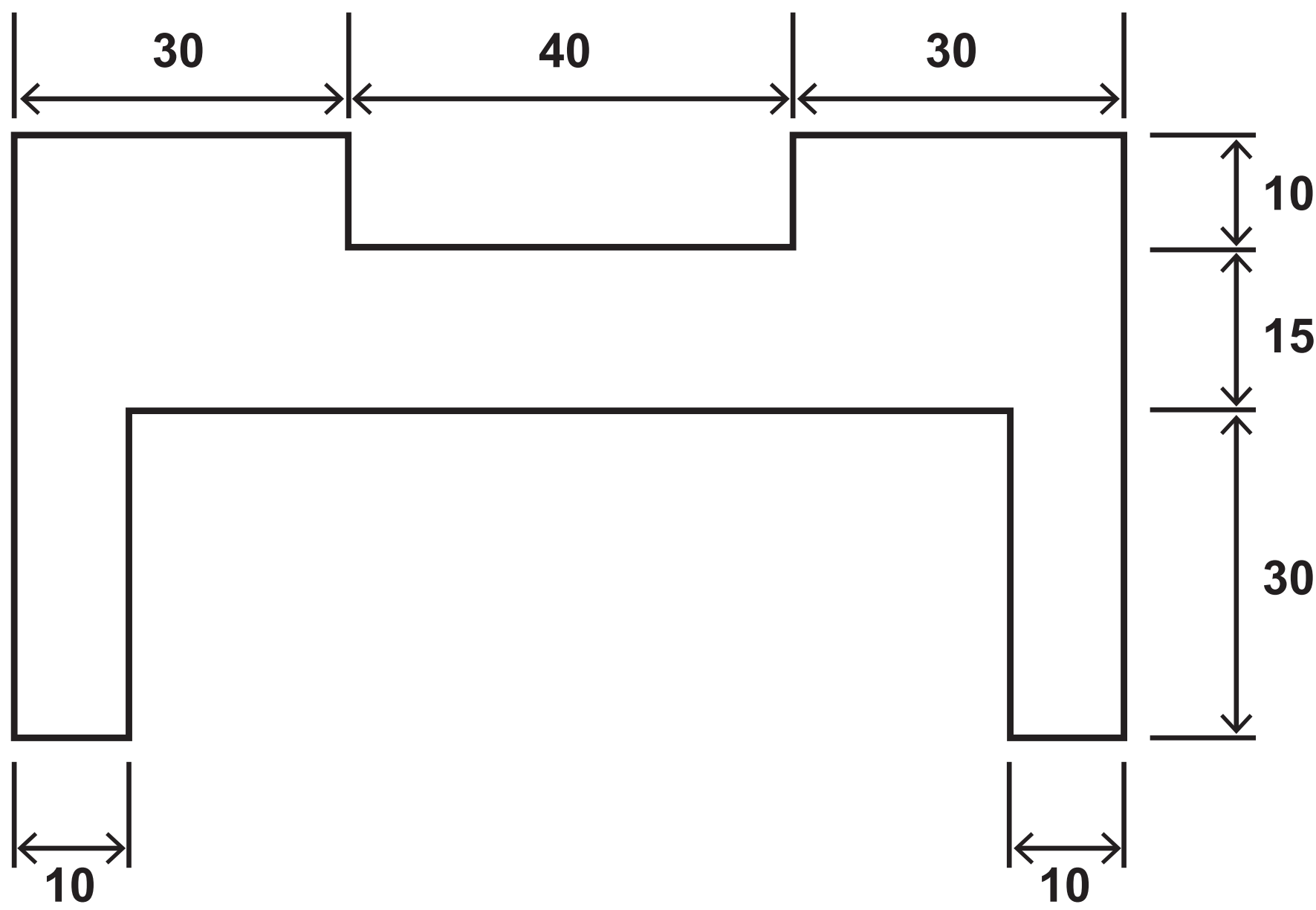


Question 7(c)

FIGURE 14

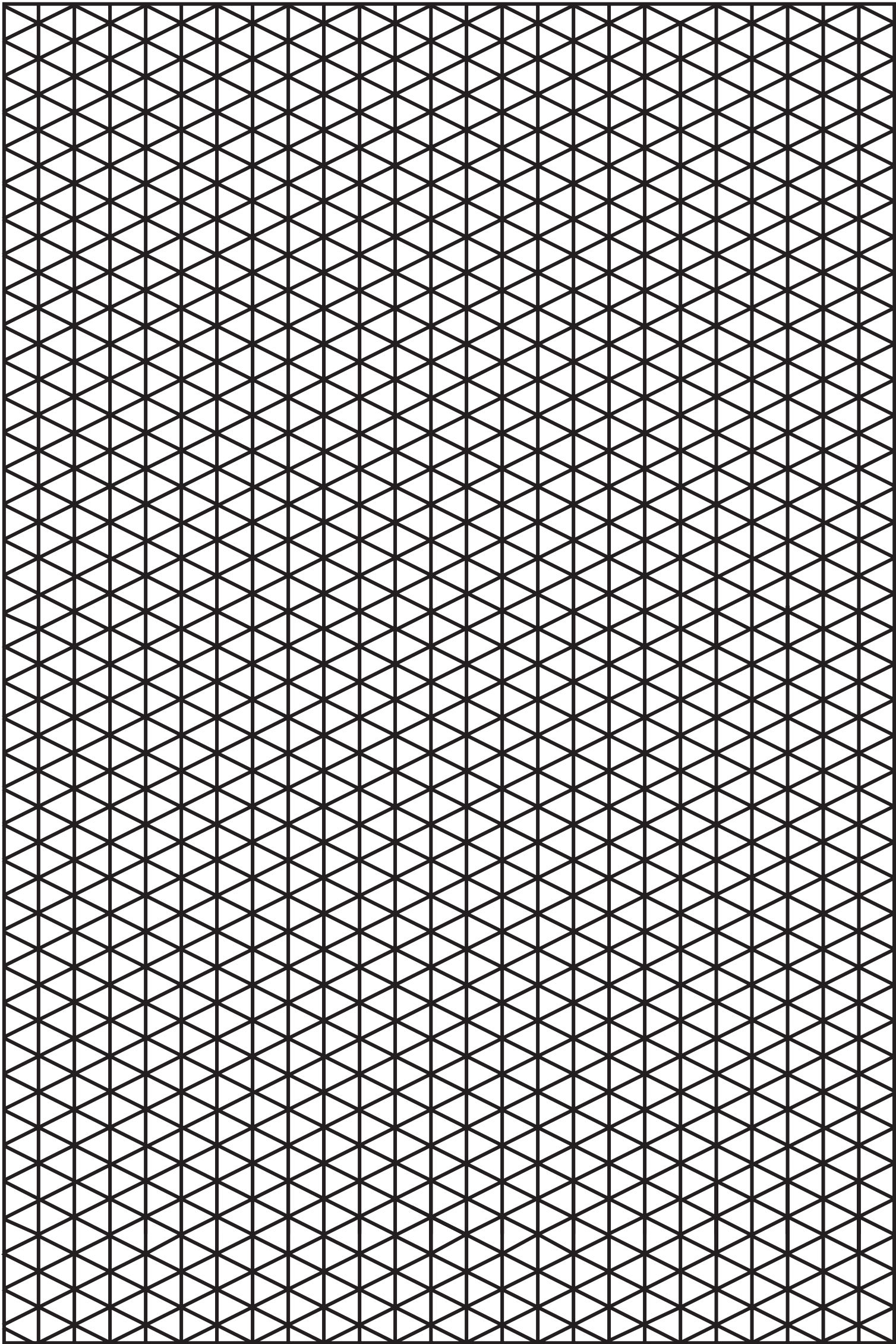
All dimensions in mm

Diagram not to scale



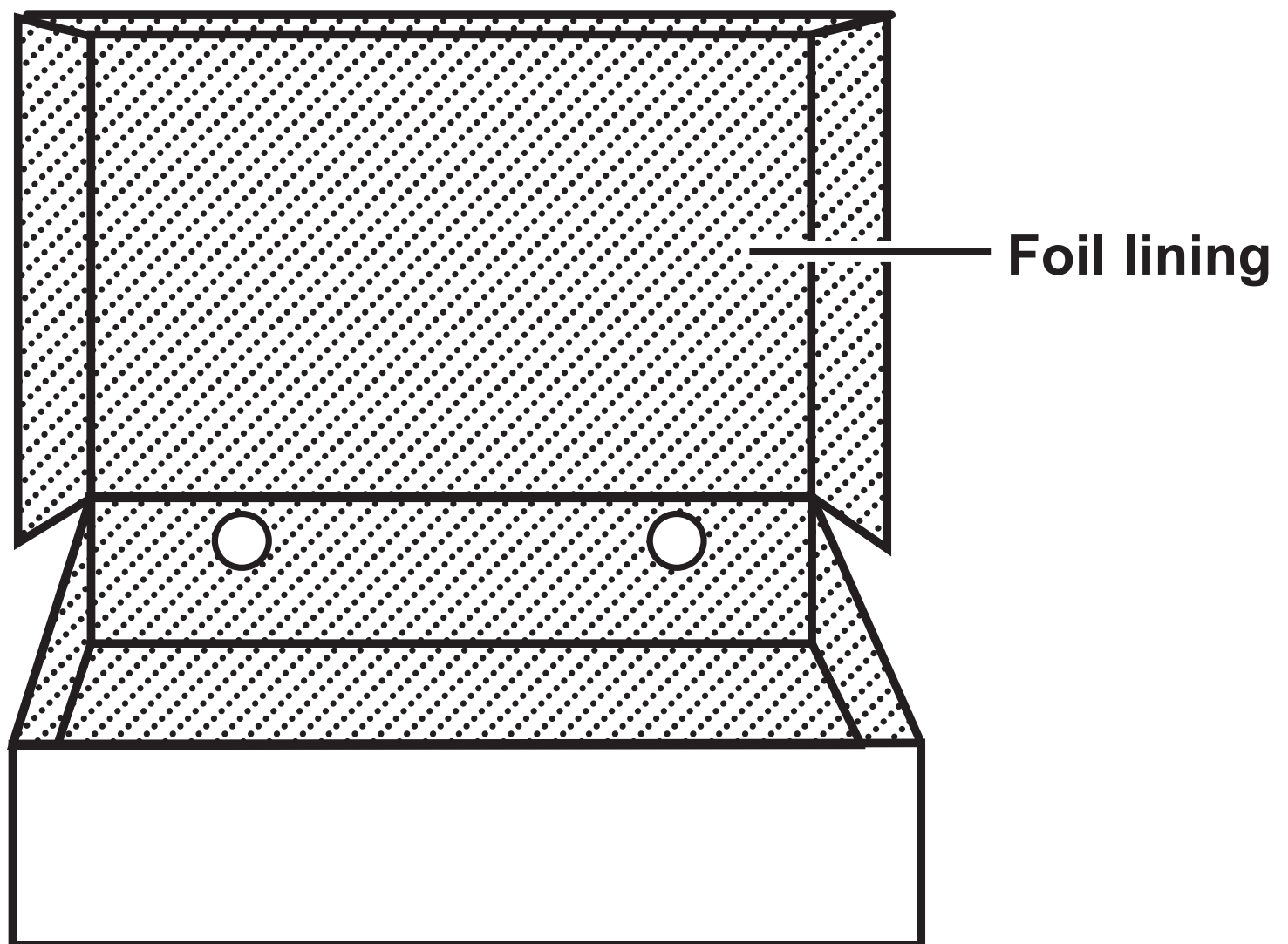
Question 7(c)

5mm isometric grid



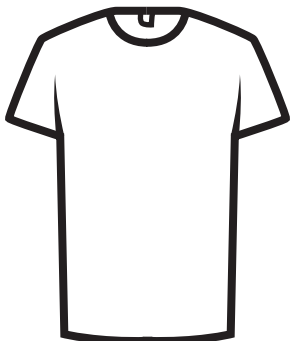
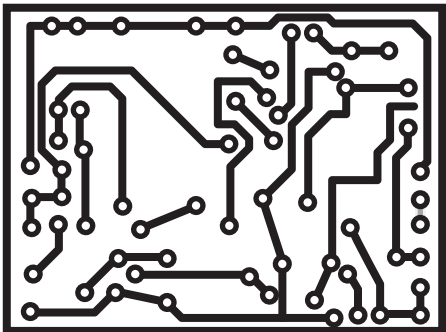
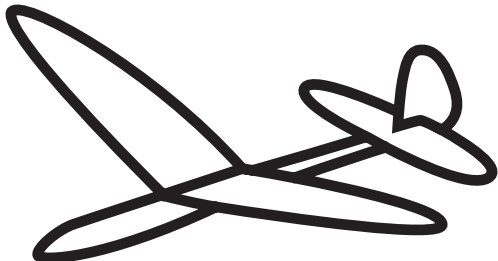

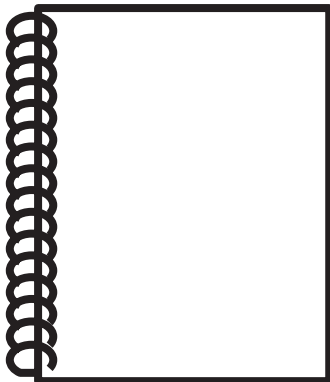
## Question 8

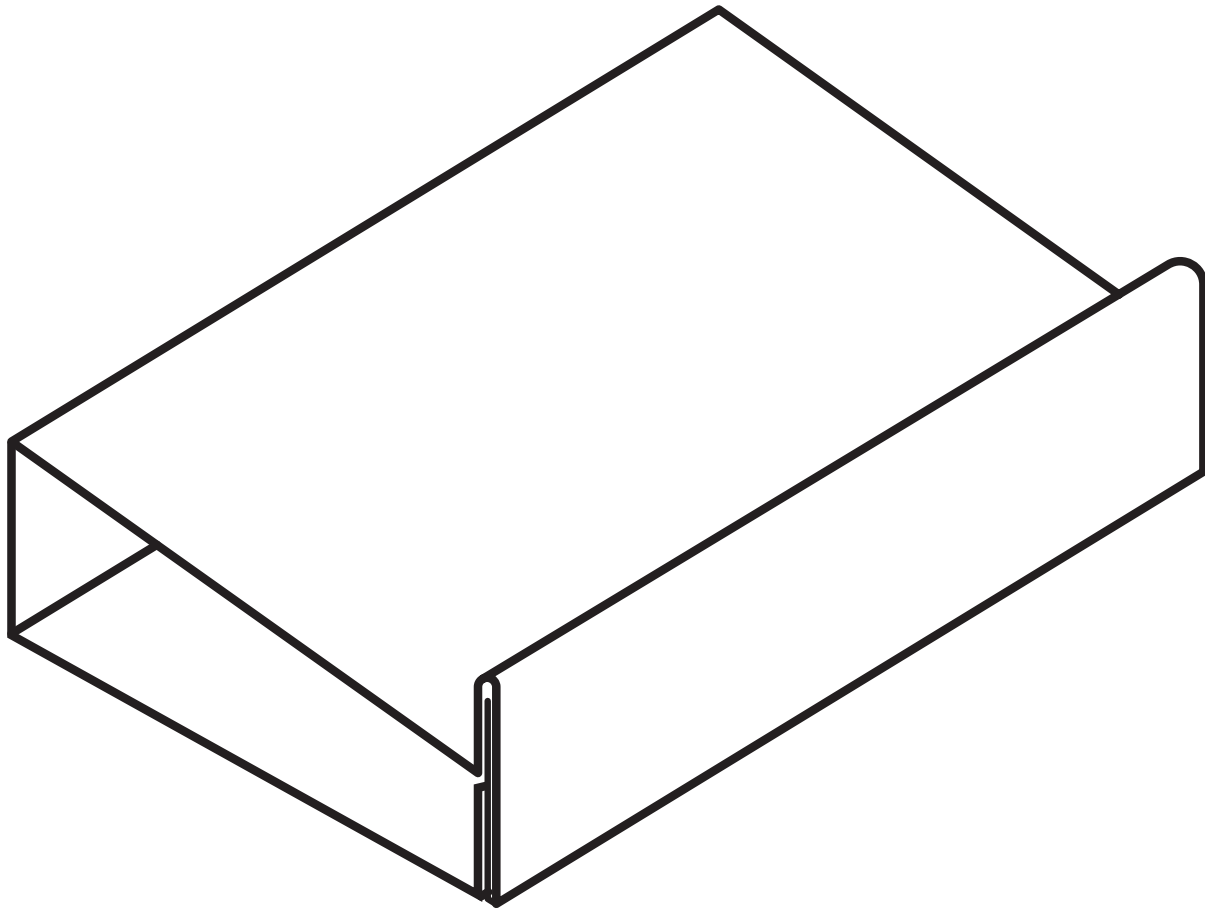
FIGURE 15



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)**

Question 7(c)

5mm isometric grid

