Area of Compound Shapes

Question Paper

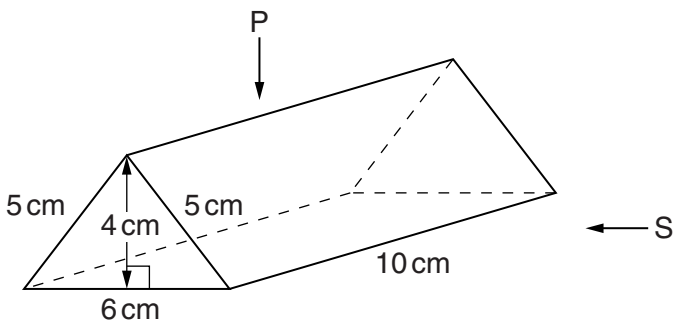
Level	OCR
Subject	Maths
Exam Board	GCSE (9-1)
Topic	Basic Geometry
Sub Topic	Area of Compound Shapes
Grade Level	Grade 3
Booklet	Question Paper

Time Allowed: **24 minutes**

Score: **/20**

Percentage: **/100**

1 A chocolate bar is contained in a closed box which is a triangular prism.

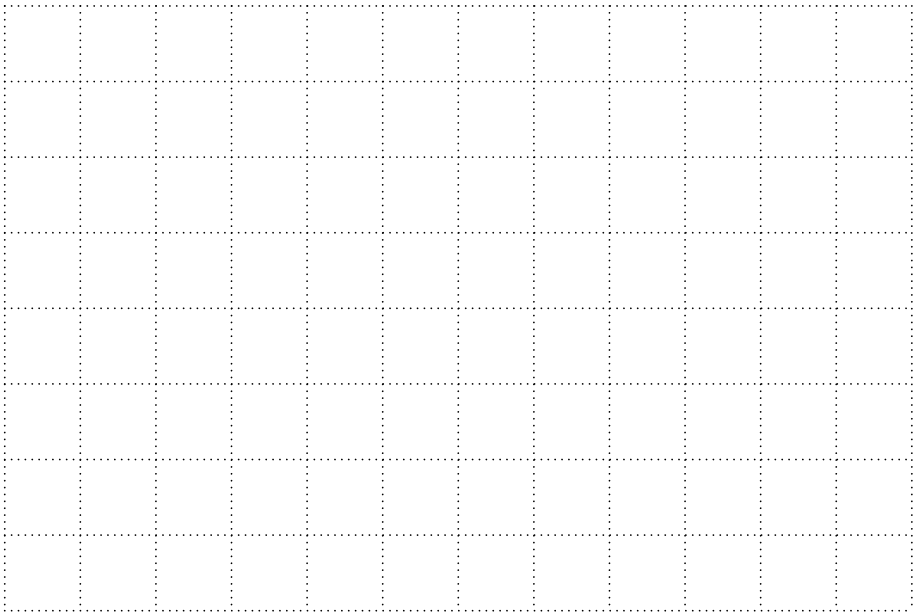


(a) Make an accurate, full-size drawing of

(i) the plan (from P) and

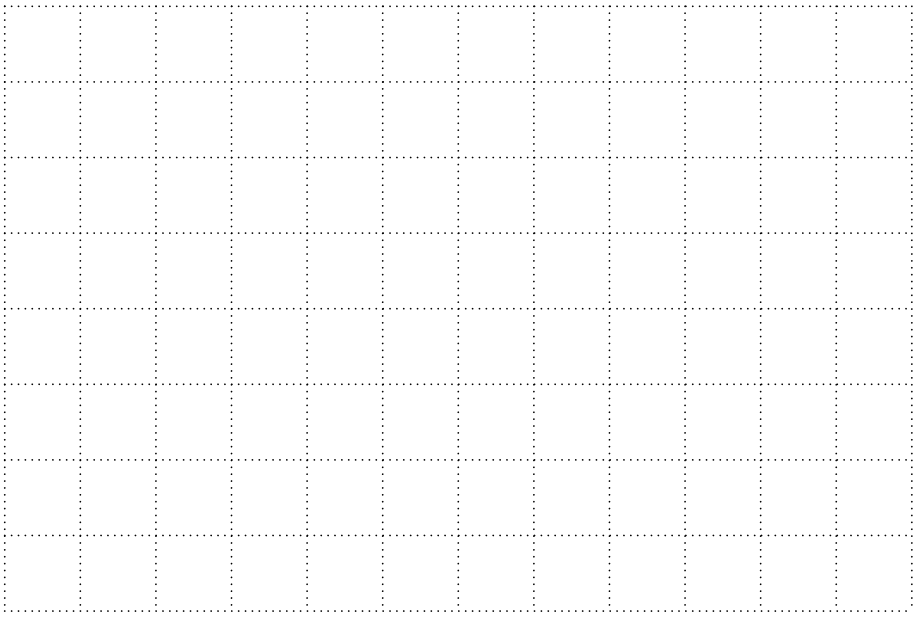
(ii) the side elevation (from S) of the prism.

(i) Plan



[2]

(ii) Side elevation



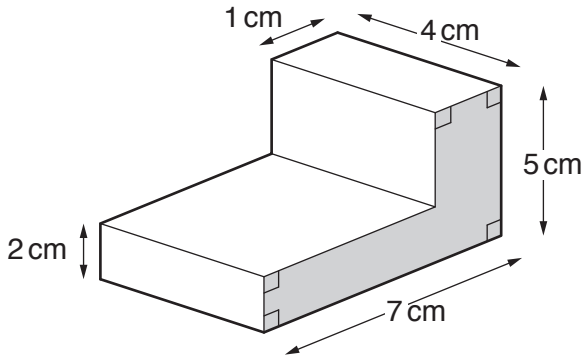
[2]

(b) The box is made from card.

What is the total area of card needed to make the box?

(b) _____ cm^2 **[4]**

2 This solid shape is a prism.



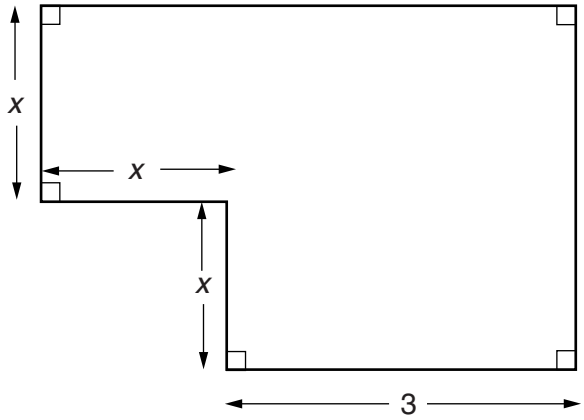
Not to scale

(a) Show that the area of the shaded face of the solid is 17 cm^2. **[2]**

(b) Work out the **total** surface area of the solid.

(b) ..... cm^2 **[3]**

3 The diagram shows the plan of a room.
All lengths are in metres.



Not to scale

(a) Show that the total area of the room, $A\,m^2$, can be given by this formula.

$$A = x^2 + 6x$$

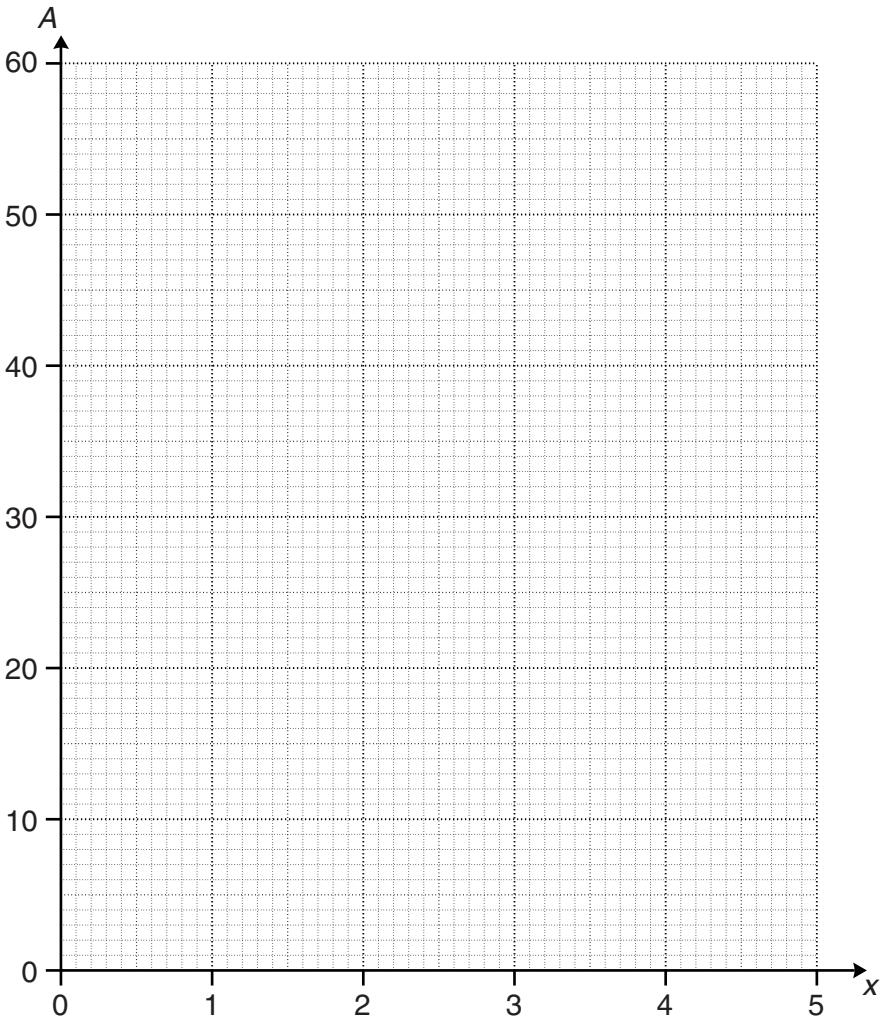
[2]

(b) Complete the table for $A = x^2 + 6x$.

x	**0**	1	2	3	4	5
A	0		16	27	40	

[2]

(c) Draw the graph of $A = x^2 + 6x$ for x from 0 to 5.



[2]

(d) The total area of the room is $35\,m^2$.

Use your graph to find the length x.

(d) _____ m **[1]**