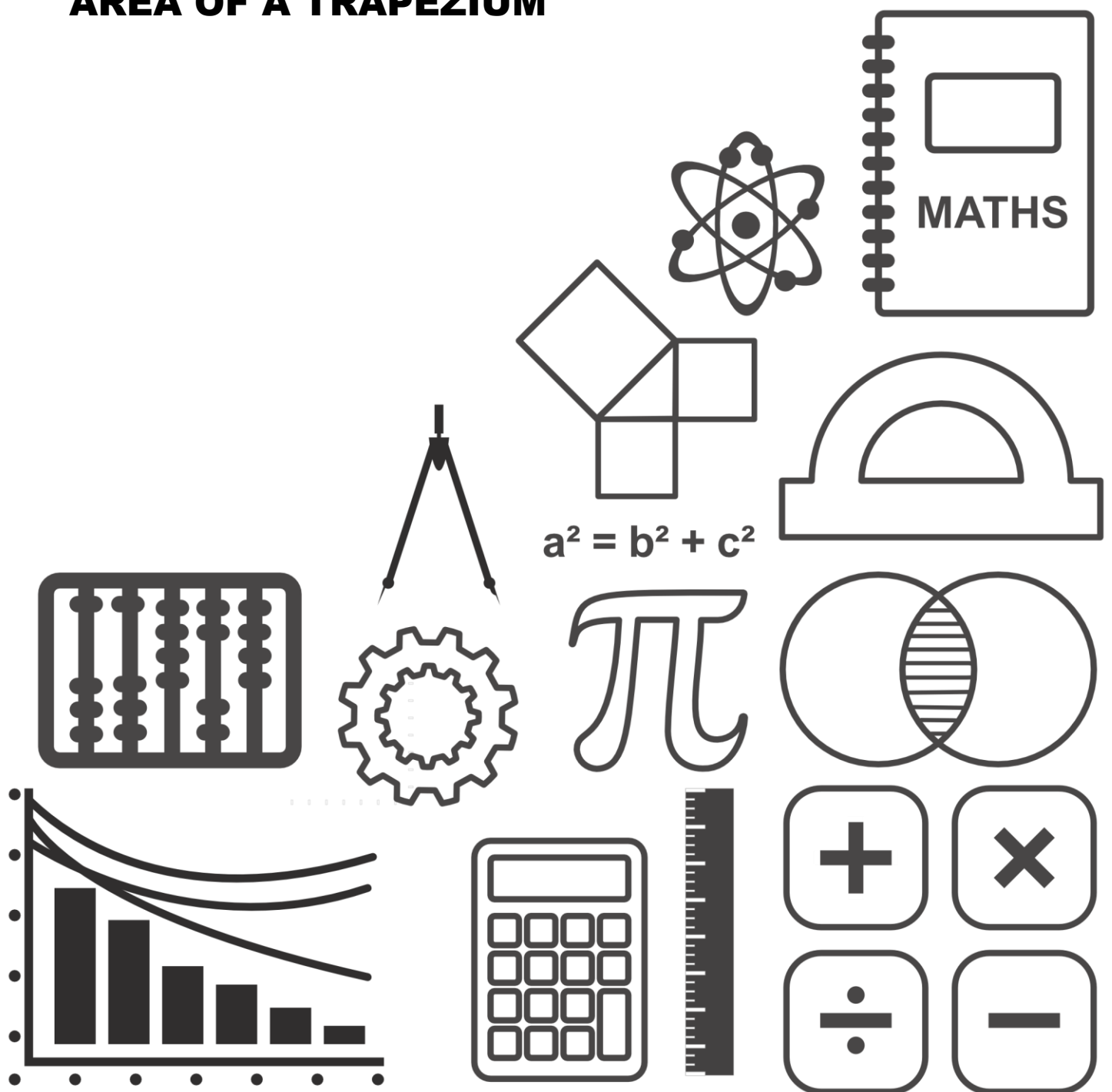
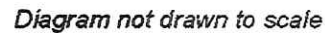


GCSE TOPIC BOOKLET AREA OF A TRAPEZIUM

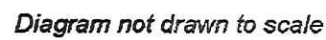




[3]

[illegible]

b)



[2]

[illegible]

The bottom part of the sail is a trapezium with perpendicular height x metres.

The diagram shows a composite figure made of a rectangle and a trapezium. The rectangle on the left has a height of x metres and a width of 6 m. Its area is given as 12 m^2 . The trapezium is attached to the right side of the rectangle, sharing the same height x metres. The trapezium has a top base of 6 m and a bottom base of 14 m. The total width of the figure at the bottom is 14 m.

[4]

[illegible]

The logo is in the shape of a semicircle on top of a trapezium as shown below.

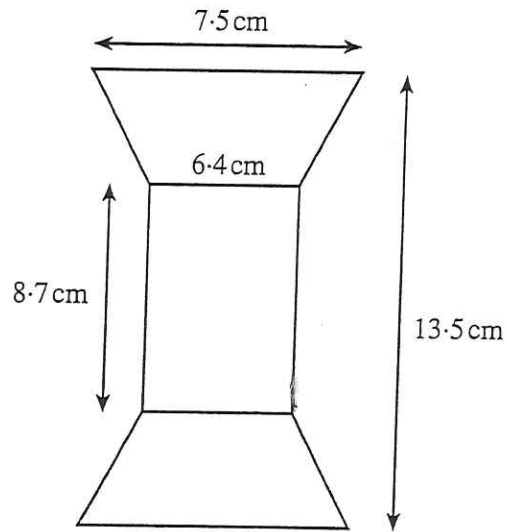
The company has bought enough paint to cover an area of 125 m^2 .

[6]

[illegible]

Page 5 of 10

5. The diagram represents the uniform cross-section of a girder. It consists of a rectangle of dimensions 6.4 cm by 8.7 cm , with a trapezium on each end. The two trapezia are congruent shapes with parallel sides of length 6.4 cm and 7.5 cm . The overall height of the girder is 13.5 cm .



Calculate the area of the cross-section of the girder.

[4]

6.

A plot of land labelled $ABCD$ is shown below.
 AB is parallel to DC and BC is perpendicular to AB .
 $AB = 100$ metres and $DC = 40$ metres.

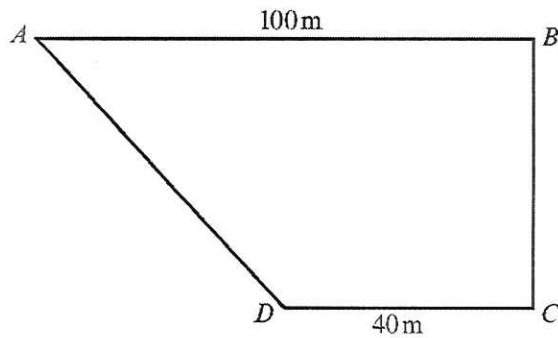


Diagram not drawn to scale

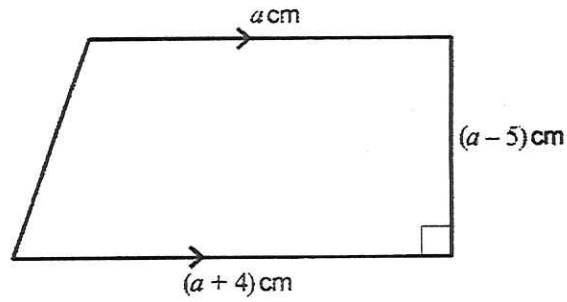
The area of this plot of land is 3500m^2 .

A cable is to be laid from point B to point C .

Calculate the length of this cable.

[4]

The diagram shows a trapezium.



- (a) Show that the area of the trapezium is $(a^2 - 3a - 10)$ cm².
You must show all your working.

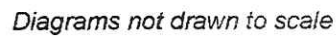
[4]

[illegible]

- (b) The area of the trapezium is 30 cm^2 .
Use an algebraic method to calculate the height of the trapezium.

[5]

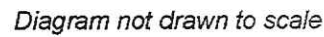
[illegible]



[4]

[illegible]

Rhodri has a tile in the shape of a trapezium.



You must show all your working.

[illegible]