

Name: _____

Area and Volume

Date:

Time:

Total marks available:

Total marks achieved: _____

Questions

Q1.

* The diagram shows the floor plan of Mary's conservatory.

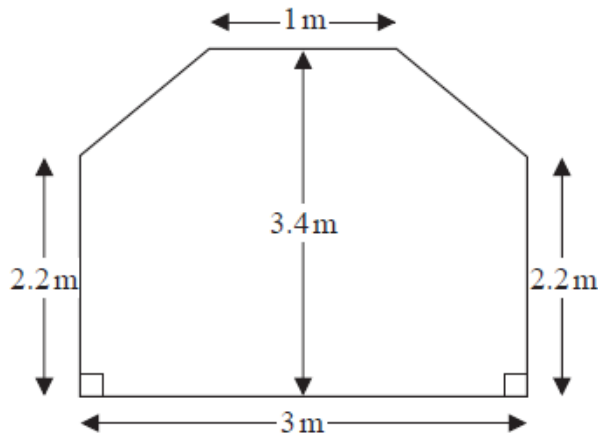


Diagram NOT accurately drawn

Mary is going to cover the floor with tiles.

The tiles are sold in packs.

One pack of tiles will cover 2m^2

A pack of tiles normally costs £24.80

Mary gets a discount of 25% off the cost of the tiles.

Mary has £100

Does Mary have enough money to buy all the tiles she needs?

You must show all your working.

(Total for question = 5 marks)

Q2.

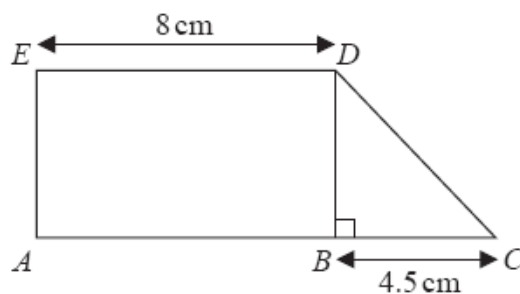


Diagram NOT accurately drawn

$ABDE$ is a rectangle.

ED is 8 cm.

BDC is a right-angled triangle.

BC is 4.5 cm.

ABC is a straight line.

The area of the rectangle $ABDE$ is 40cm^2 .

Work out the area of the triangle BDC .

..... cm^2

(Total for question = 3 marks)

Q3.

*

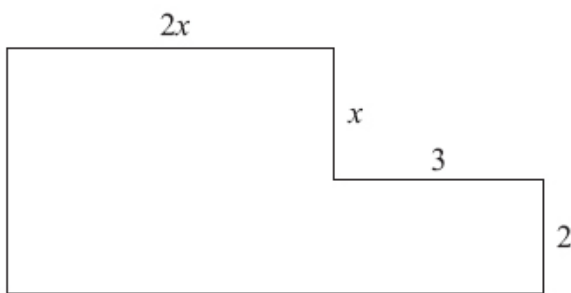


Diagram **NOT**
accurately drawn

In the diagram, all measurements are given in centimetres.
All angles are right angles.

Show that the perimeter of the shape can be written as $2(3x + 5)$.

(Total for Question is 4 marks)

Q4.

The diagram shows a semicircle drawn inside a rectangle.

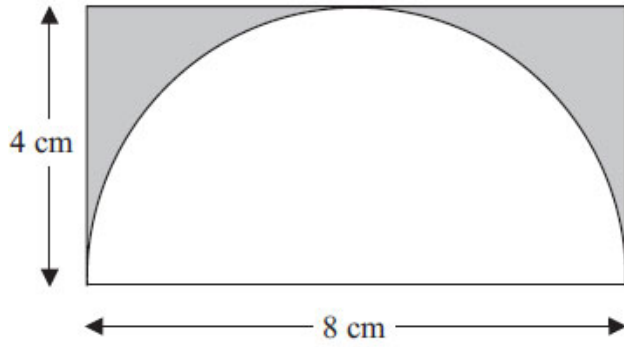


Diagram **NOT** accurately drawn

The semicircle has a diameter of 8 cm.
The rectangle is 8 cm by 4 cm.

Work out the area of the shaded region.
Give your answer correct to 3 significant figures.

..... cm²

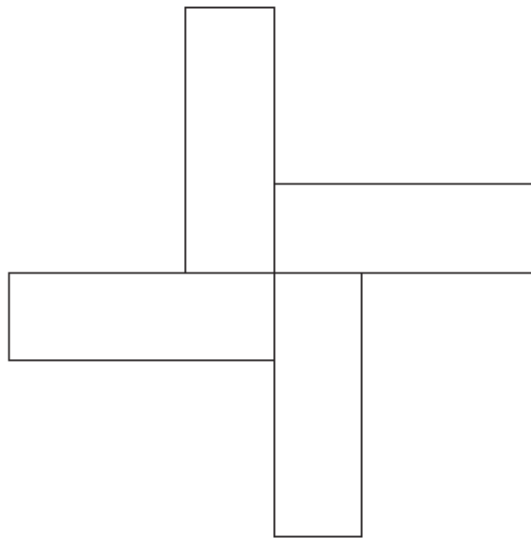
(Total for Question is 4 marks)

Q5.

Here is a rectangle.



The 12-sided shape below is made from 4 of these rectangles.



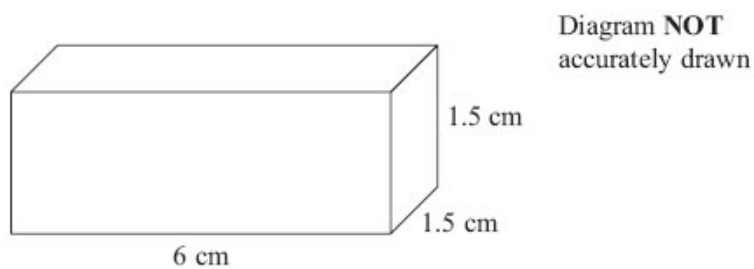
Work out the perimeter of the shape.

..... cm

(Total for Question is 3 marks)

Q6.

Here is a cuboid.



The cuboid is 6 cm by 1.5 cm by 1.5 cm.

Work out the total surface area of the cuboid.

..... cm²

(Total for Question is 3 marks)