1 Here is a hexagon *ABCDEF*.

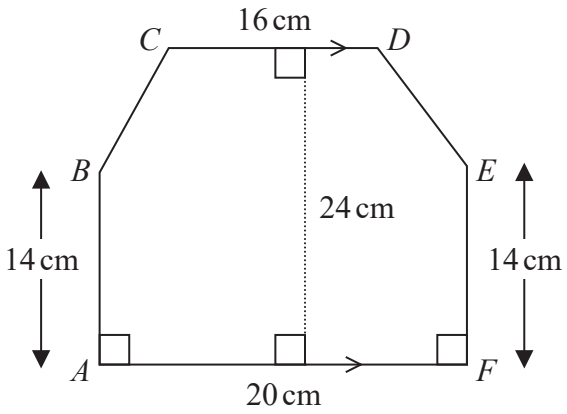

Diagram **NOT** accurately drawn

CD is parallel to *AF*.

Work out the area of hexagon *ABCDEF*.

..... cm^2

(Total for Question 1 is 4 marks)

5 Yasmin has some identical rectangular tiles.
Each tile is L cm by W cm.

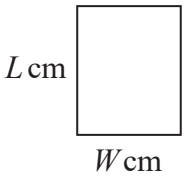

Diagram **NOT** accurately drawn

Using 9 of her tiles, Yasmin makes rectangle $ABCD$, shown in the diagram below.

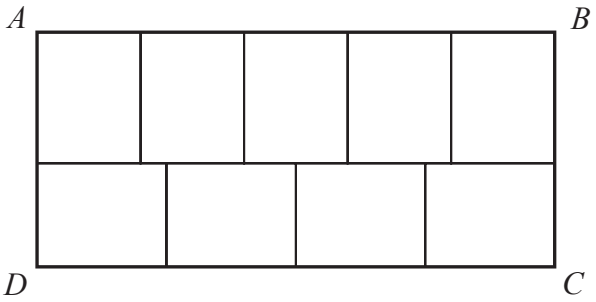

Diagram **NOT** accurately drawn

The area of $ABCD$ is $1620\,\text{cm}^2$

Work out the value of L and the value of W.

$L =$ ..... $W =$ .....

(Total for Question 5 is 5 marks)

5 Calvin has 12 identical rectangular tiles.
He arranges the tiles to fit exactly round the edge of a shaded rectangle, as shown in the diagram below.

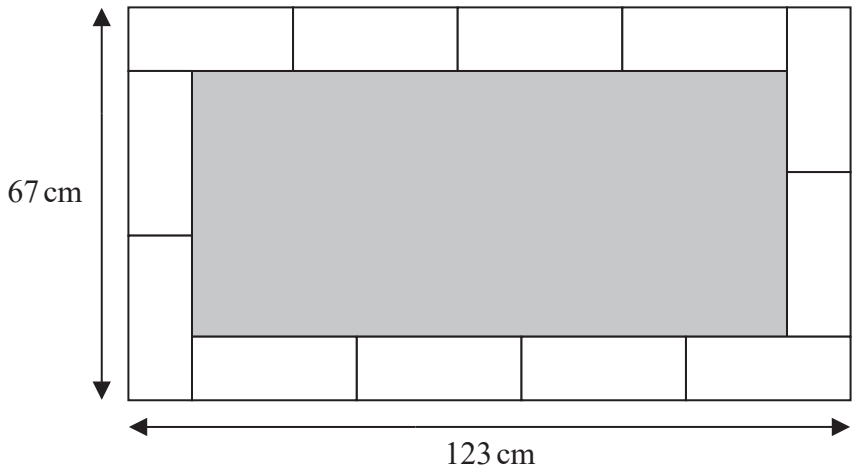

Diagram **NOT** accurately drawn

Work out the area of the shaded rectangle.

..... cm^2

(Total for Question 5 is 5 marks)

5 The diagram shows Yuen's garden.

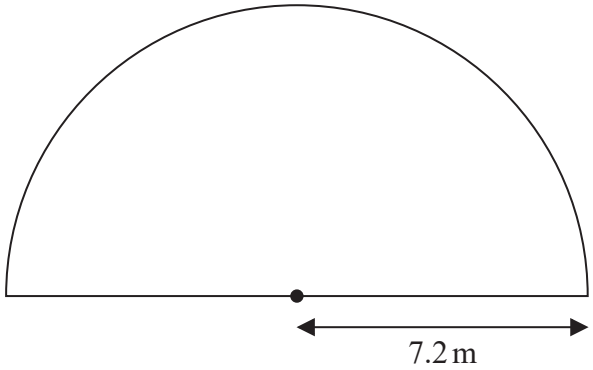

Diagram **NOT** accurately drawn

The garden is in the shape of a semicircle of radius 7.2 m.
Yuen is going to cover his garden with grass seed.

Yuen has 12 boxes of grass seed.
Each box of grass seed contains enough seed to cover 6 m^2 of the garden.

Has Yuen enough grass seed for his garden?
Show your working clearly.

(Total for Question 5 is 3 marks)

5 A field is in the shape of a trapezium.

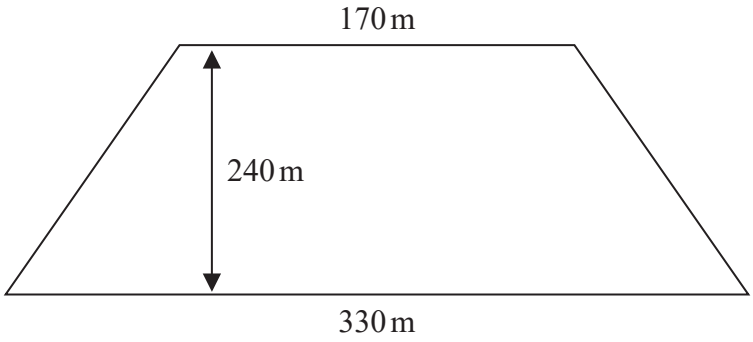

Diagram **NOT** accurately drawn

The field is sold for a price of $49 650

Given that 1 hectare = 10 000 m^2

work out the average price of the field per hectare.

$.....

(Total for Question 5 is 4 marks)

9 The diagram shows an isosceles triangle ABC

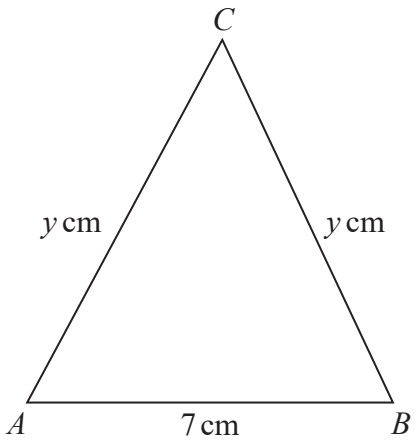

Diagram **NOT** accurately drawn

$AB = 7\,\text{cm}$ $AC = BC = y\,\text{cm}$

The area of the triangle is $42\,\text{cm}^2$

Work out the value of y

$y =$ .....

(Total for Question 9 is 4 marks)

9 The diagram shows isosceles triangle ABC

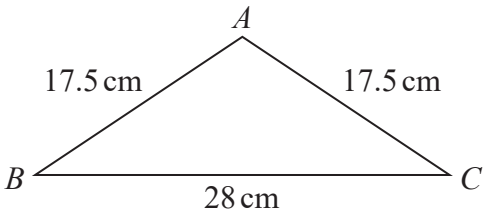

Diagram **NOT** accurately drawn

$AB = AC = 17.5$ cm $\quad$ $BC = 28$ cm

Calculate the area of triangle ABC

..... cm^2

(Total for Question 9 is 4 marks)

9 The diagram shows a shape made from a right-angled triangle and a semicircle.

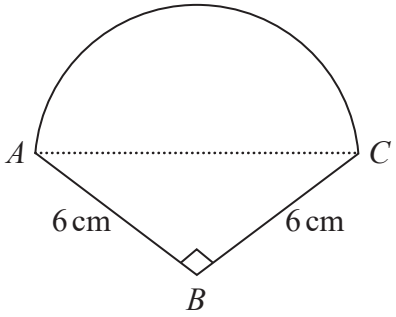

Diagram **NOT** accurately drawn

AC is the diameter of the semicircle.
BA = *BC* = 6 cm
Angle *ABC* = 90°

Work out the area of the shape.
Give your answer correct to 1 decimal place.

..... cm^2

(Total for Question 9 is 5 marks)

10 The diagram shows one face of a wall.
This face is in the shape of a pentagon with exactly one line of symmetry.

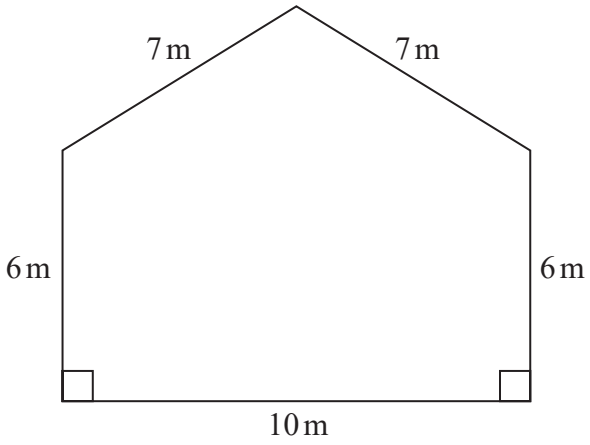

Diagram **NOT** accurately drawn

Omondi is going to paint this face of the wall once.
He has to buy all the paint that he needs to use.

The paint in each tin of paint Omondi is going to buy will cover $16\,m^2$ of the face of the wall.

Work out the least number of tins of paint Omondi will need to buy.
Show your working clearly.

.....

(Total for Question 10 is 5 marks)

10 The diagram shows an isosceles triangle, with base length 24 cm.

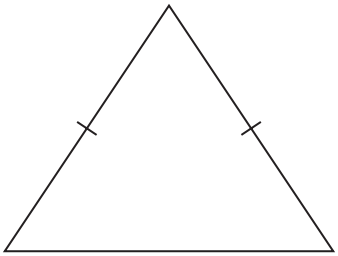

Diagram **NOT** accurately drawn

The perimeter of the triangle is 54 cm.

Work out the area of the triangle.

..... cm^2

(Total for Question 10 is 5 marks)

10 R and T are points on a circle, centre O

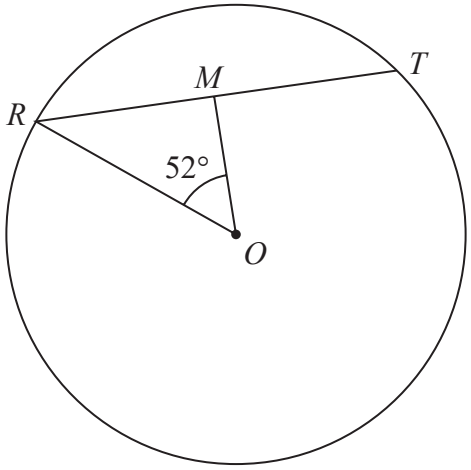

Diagram **NOT** accurately drawn

$RT = 12\,\text{cm}$
M is the midpoint of RT
Angle $ROM = 52°$

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

..... cm^2

(Total for Question 10 is 4 marks)

11 The diagram shows a quadrilateral *ABCD*

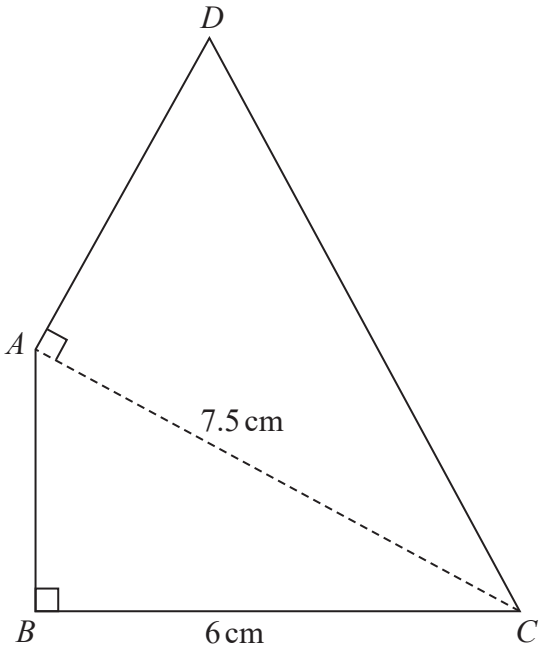

Diagram **NOT** accurately drawn

In the diagram, *ABC* and *DAC* are right-angled triangles.

$BC = 6$ cm $AC = 7.5$ cm

The area of quadrilateral *ABCD* is 31.5 cm^2

Work out the length of *AD*

..... cm

(Total for Question 11 is 6 marks)

22 The diagram shows two circles with centre O and a regular pentagon $ABCDE$

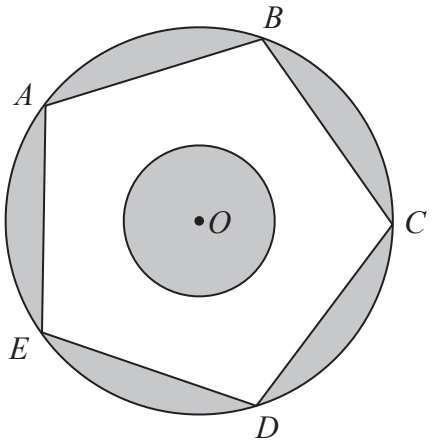

Diagram **NOT** accurately drawn

A, B, C, D and E are points on the larger circle.
The pentagon has sides of length 8 cm.

The diagram is shaded such that

shaded area = unshaded area

Work out the radius of the smaller circle.
Give your answer correct to 3 significant figures.

..... cm

(Total for Question 22 is 6 marks)