

- 1 Markus makes a steel framework.

The framework is in the shape of the right-angled triangle ABC shown in the diagram.

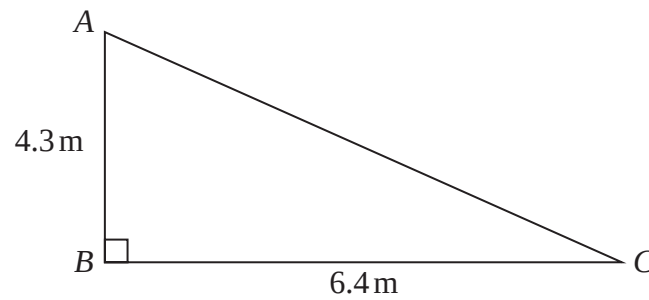


Diagram **NOT**
accurately drawn

The steel that Markus uses costs \$22 per metre.

The steel can **only** be bought in a length that is a whole number of metres.

Work out the total cost of the steel that Markus buys in order to make the framework.

\$.....

(Total for Question 1 is 4 marks)

- 2 The diagram shows an isosceles triangle.

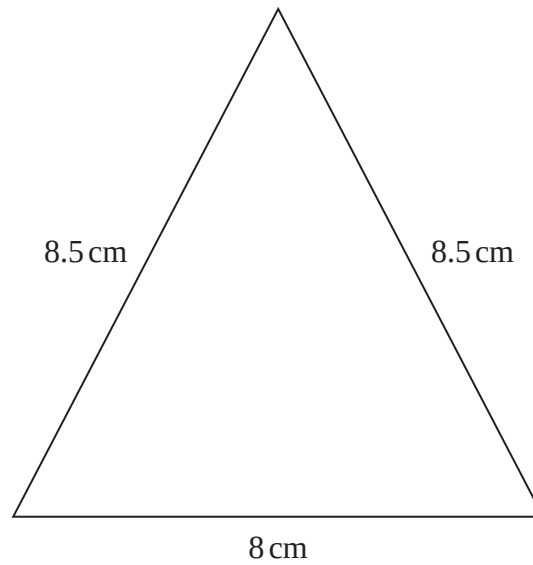


Diagram **NOT**
accurately drawn

Work out the area of the triangle.

.....cm²

(Total for Question 2 is 4 marks)

3 The diagram shows two right-angled triangles, DEF and EFG .

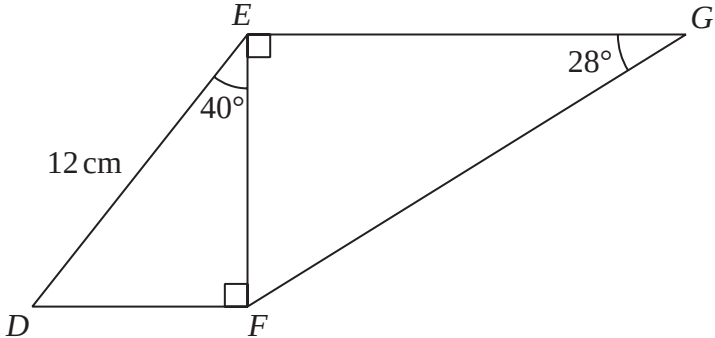


Diagram **NOT** accurately drawn

Work out the length of EG .
Give your answer correct to 3 significant figures.

..... cm

- 4 The diagram shows a rectangle and a diagonal of the rectangle.

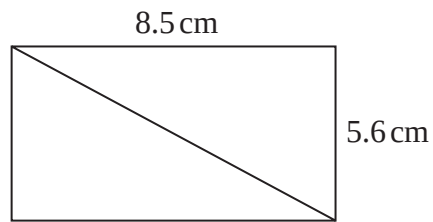


Diagram **NOT**
accurately drawn

Work out the length of the diagonal of the rectangle.
Give your answer correct to 1 decimal place.

..... cm

(Total for Question 4 is 3 marks)

5 The diagram shows a shaded shape $ABCD$ made from a semicircle ABC and a right-angled triangle ACD .

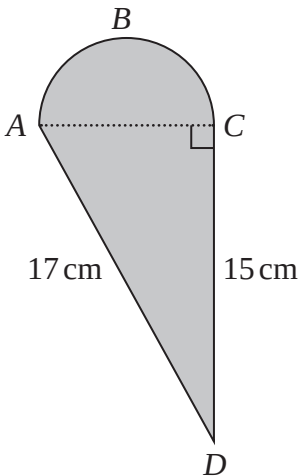


Diagram **NOT**
accurately drawn

AC is the diameter of the semicircle ABC .

Work out the perimeter of the shaded shape.
Give your answer correct to 3 significant figures.

..... cm

(Total for Question 5 is 5 marks)

6 The diagram shows a quadrilateral $ABCD$

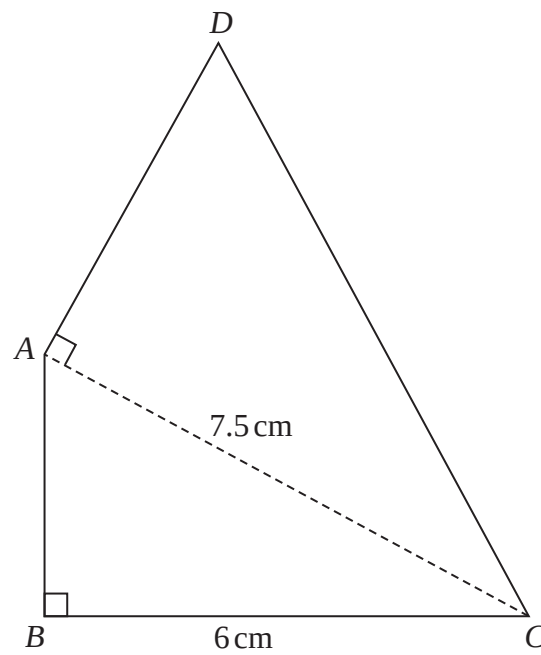


Diagram **NOT**
accurately drawn

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

$$BC = 6\text{ cm} \quad AC = 7.5\text{ cm}$$

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

Work out the length of AD

..... cm

(Total for Question 6 is 6 marks)

7 Here is a parallelogram $PQRS$, in which angle SPQ is acute.

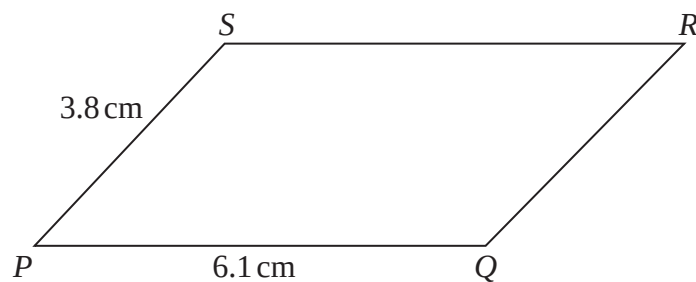


Diagram **NOT**
accurately drawn

$$PQ = 6.1 \text{ cm} \quad PS = 3.8 \text{ cm}$$

The area of the parallelogram is 18 cm^2

Work out the length of QS

Give your answer correct to 3 significant figures.

..... cm

(Total for Question 7 is 5 marks)

- 8 The shaded shape is made using three identical right-angled triangles and a square.

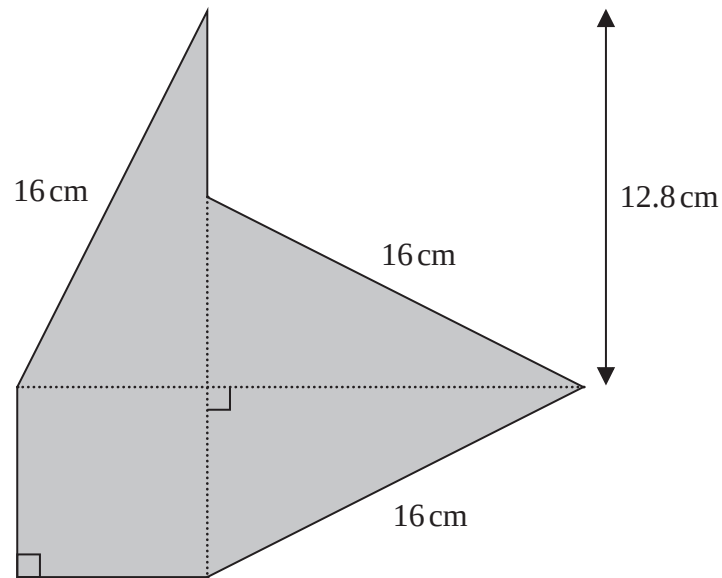


Diagram **NOT**
accurately drawn

Work out the perimeter of the shaded shape.

..... cm

(Total for Question 8 is 4 marks)

- 9 The diagram shows isosceles triangle ABC

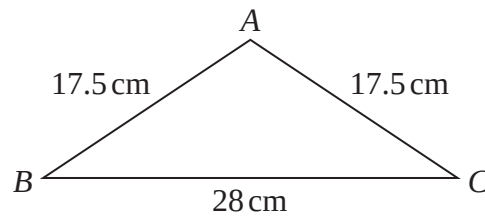


Diagram **NOT**
accurately drawn

$$AB = AC = 17.5 \text{ cm}$$

$$BC = 28 \text{ cm}$$

Calculate the area of triangle ABC

..... cm^2

(Total for Question 9 is 4 marks)

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

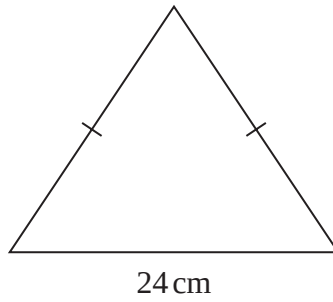


Diagram **NOT**
accurately drawn

The perimeter of the triangle is 54 cm.

Work out the area of the triangle.

..... cm²

(Total for Question 10 is 5 marks)

- 11** The diagram shows a shape made up of three semicircles, enclosing a right-angled triangle.

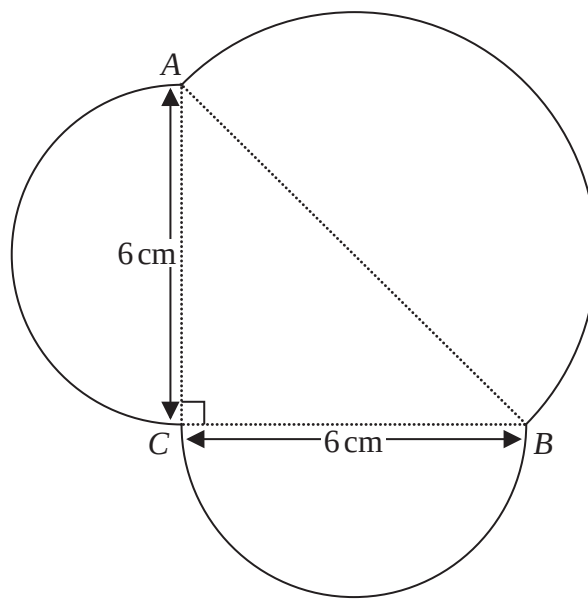


Diagram **NOT**
accurately drawn

AB , BC and CA are each the diameter of a semicircle.

$BC = CA = 6$ cm.

Work out the perimeter of the shape.

Give your answer correct to one decimal place.

..... cm

(Total for Question 11 is 5 marks)

12 Here is a cuboid $ABCDEFGH$

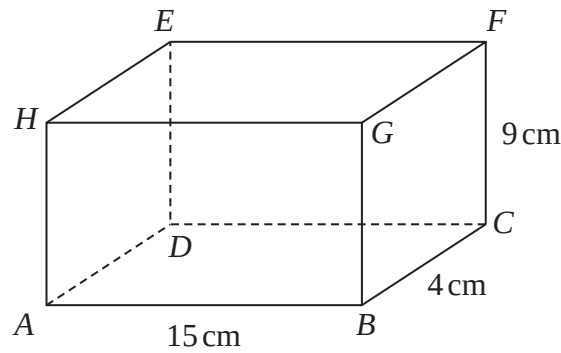


Diagram **NOT** accurately drawn

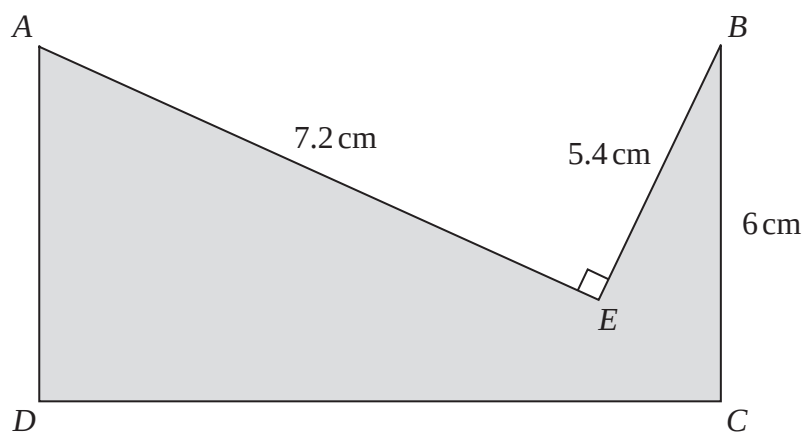
$AB = 15\text{ cm}$ $BC = 4\text{ cm}$ $CF = 9\text{ cm}$

- (a) Work out the length of BE
Give your answer correct to 3 significant figures.

..... cm

(2)
(Total for Question 12 is 2 marks)

- 13 The diagram shows a shaded shape $AEBCD$ made by removing triangle AEB from rectangle $ABCD$



$$AE = 7.2 \text{ cm} \quad BE = 5.4 \text{ cm} \quad BC = 6 \text{ cm} \quad \text{angle } AEB = 90^\circ$$

Work out the perimeter of the shaded shape.

..... cm

(Total for Question 13 is 4 marks)