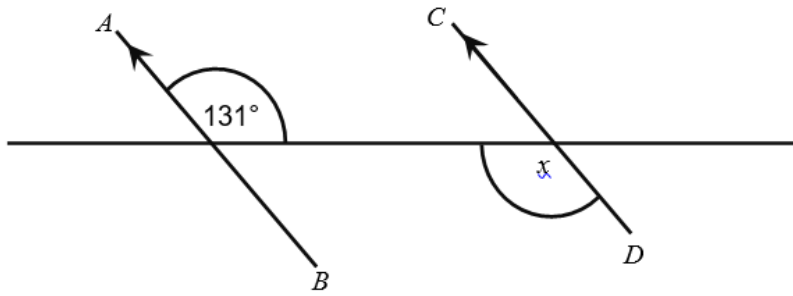


Geometry

Revision

In the diagram,  $AB$  is parallel to  $CD$

Not drawn accurately



Write down the value of  $x$   
Give a reason for your answer

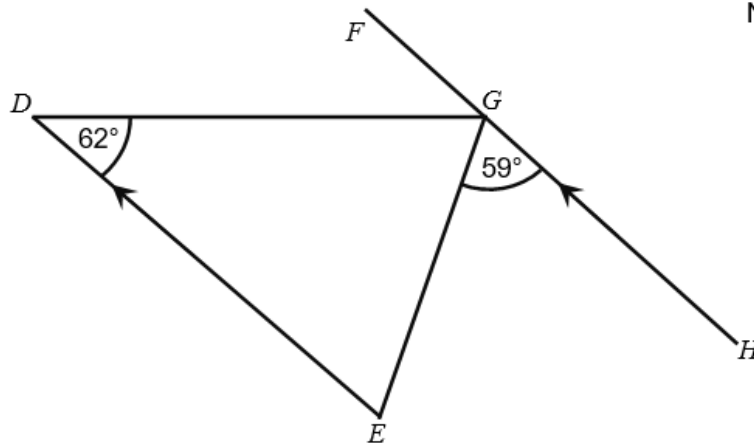
**[2 marks]**

Answer \_\_\_\_\_ degrees

Reason \_\_\_\_\_

\_\_\_\_\_

$FGH$  is a straight line.  
 $DE$  is parallel to  $FGH$



Not drawn accurately

Show that triangle  $DEG$  is isosceles.  
 Give reasons for your answer.

[3 marks]




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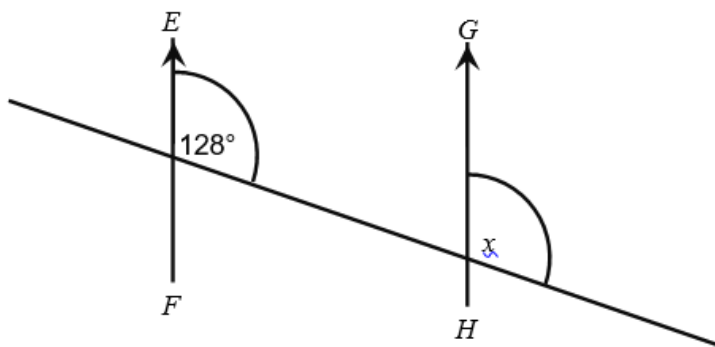


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$EF$  is parallel to  $GH$



Not drawn accurately

Work out down the value of  $x$   
 Give a reason for your answer.

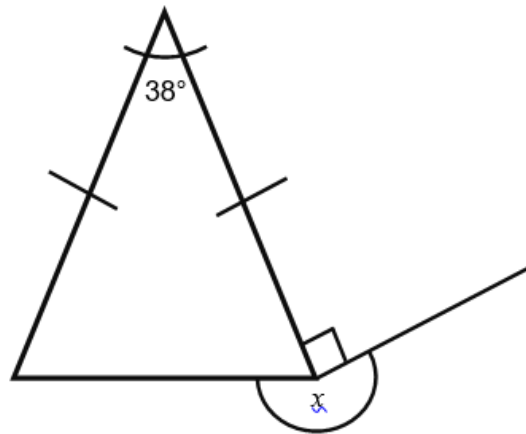
[2 marks]

Answer \_\_\_\_\_ degrees

Reason \_\_\_\_\_

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In triangle  $CDE$ ,  $CD = DE$



Not drawn accurately

Work out the value of  $x$   
Give reasons for your answer

[3 marks]

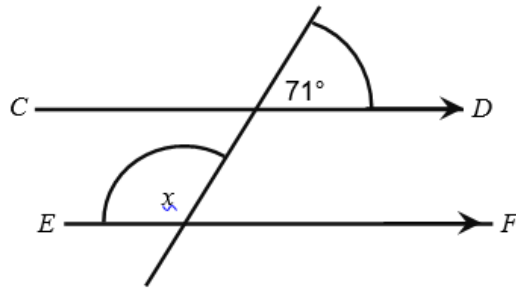
Answer \_\_\_\_\_

Reasons \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

$CD$  is parallel to  $EF$

Not drawn accurately



Work out the value of  $x$   
Give reasons for your answer

**[3 marks]**

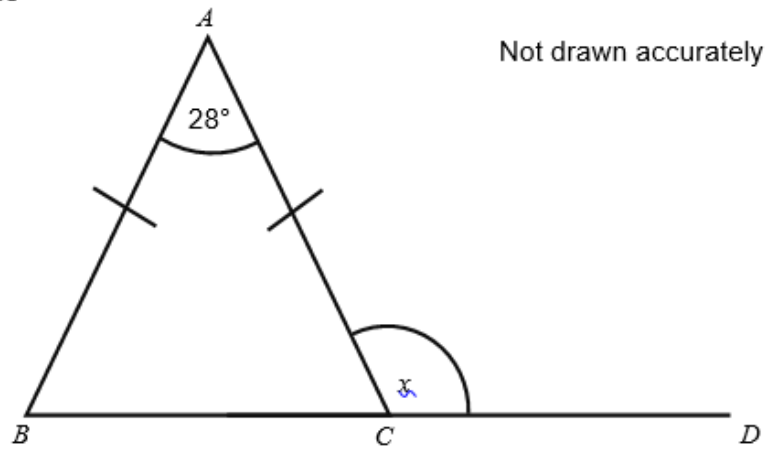
Answer \_\_\_\_\_ degrees

Reasons \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

$AB = AC$   
 $BCD$  is a straight line



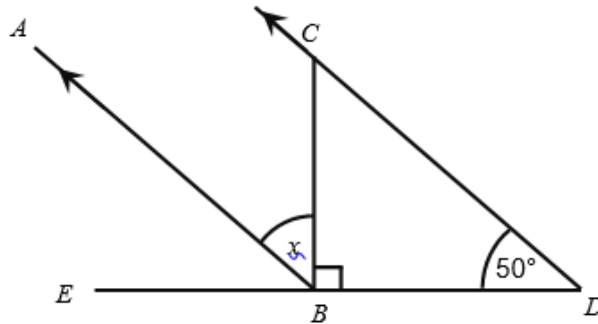
Work out the value of  $x$   
Give reasons for your answer.

**[3 marks]**

Answer \_\_\_\_\_ degrees

Reasons \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

$AB$  is parallel to  $CD$



Not drawn accurately

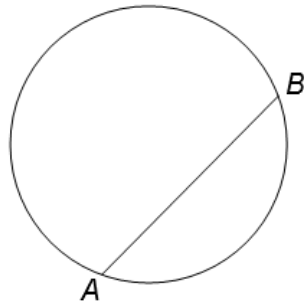
Work out the value of  $x$   
Give reasons for your answer.

**[3 marks]**

Answer \_\_\_\_\_ degrees

Reasons \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Circle the word that describes the line  $AB$ .



[1 mark]

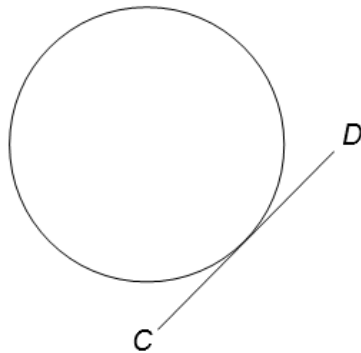
chord

diameter

radius

tangent

Circle the word that describes the line  $CD$ .



[1 mark]

chord

diameter

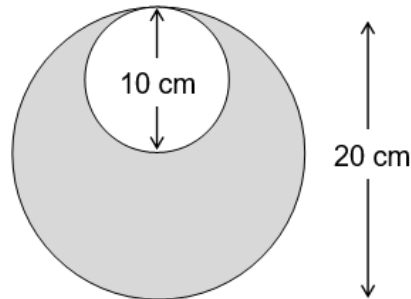
radius

tangent

This shape is made from circles.

The diameter of

the smaller circle is 10 cm  
the larger circle is 20 cm



Not drawn accurately

What fraction of the shape is shaded?

Give your answer in its simplest form.

[4 marks]

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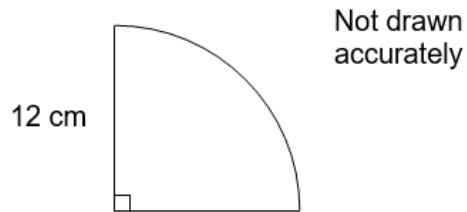
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Answer \_\_\_\_\_

The diagram shows a quarter circle of radius 12 cm



Work out the area of the shape.

**[2 marks]**

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Answer \_\_\_\_\_  $\text{cm}^2$

A marble is a sphere of radius 6 mm

You are given that surface area of a sphere =  $4\pi \times \text{radius}^2$

Work out the surface area of the marble.

**[2 marks]**

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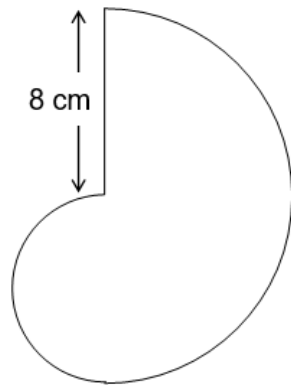
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Answer \_\_\_\_\_  $\text{mm}^2$

The diagram shows a shape made from two semicircles.  
The radius of the larger semicircle is 8 cm



Not drawn accurately

Work out the perimeter of the shape.

Give your answer in terms of  $\pi$ .

**[3 marks]**

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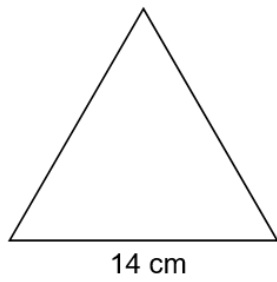
Answer \_\_\_\_\_ cm





The diagram shows an equilateral triangle and a square.

Each side of the triangle is 14 cm



Not drawn accurately

The perimeter of the triangle is equal to the perimeter of the square.

Work out the length of a side of the square.

**[3 marks]**

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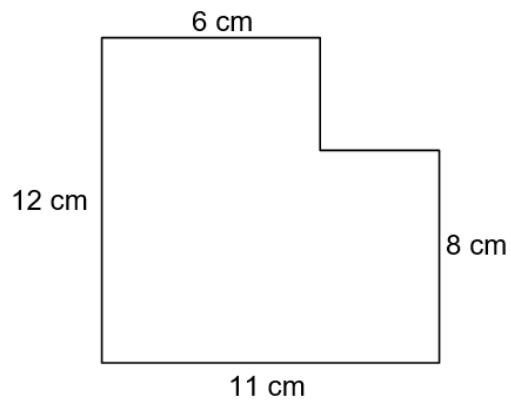
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Answer \_\_\_\_\_ cm



This shape is made from rectangles.



Not drawn accurately

Work out the area of the shape.

[4 marks]

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Answer \_\_\_\_\_ cm<sup>2</sup>



Circle the number of vertices of a triangular prism.

[1 mark]

4

5

6

9

Circle the number of edges of a square based pyramid

[1 mark]

4

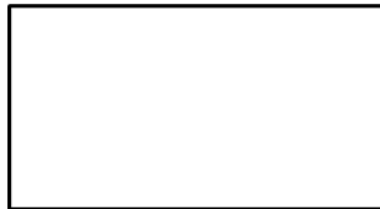
5

8

10

This rectangle is 7 cm long and 5 cm wide.

7 cm



Not drawn accurately

5 cm

Calculate the perimeter of the rectangle.

Answer \_\_\_\_\_ cm

[1 mark]

Calculate the area of the rectangle.

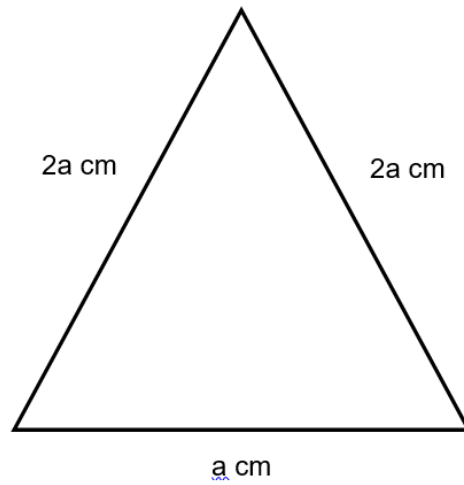
Answer \_\_\_\_\_ cm<sup>2</sup>

[1 mark]

Work out the perimeter of this triangle.

Simplify your answer.

[1 mark]



Answer \_\_\_\_\_ cm

Tom's car travels 40 miles per gallon.

One litre of petrol costs £1.19

1 gallon = 4.5 litres

Work out the cost of petrol when Tom drives 200 miles.

[4 marks]

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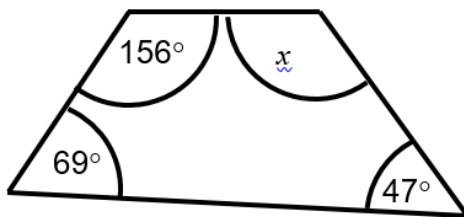
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Answer £ \_\_\_\_\_

Work out the value of  $x$ .

[2 marks]



Not drawn accurately

Answer \_\_\_\_\_ degrees

Give a reason for your answer.

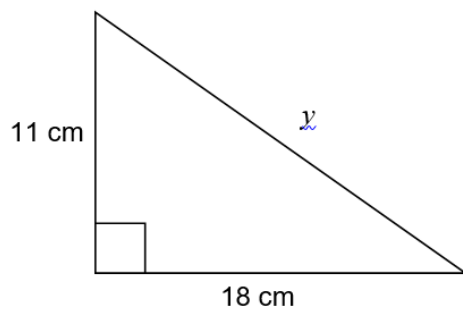
[1 mark]

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Work out the length  $y$ .

[2 marks]



Not drawn accurately

⊕

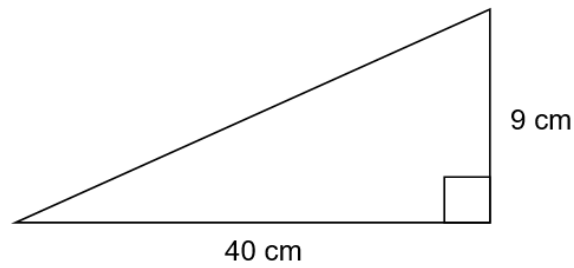
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Answer \_\_\_\_\_ cm □

Work out the perimeter of this triangle.

[3 marks]



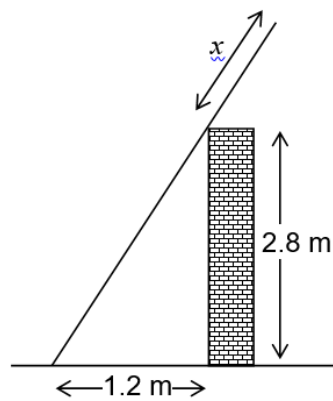
Not drawn accurately

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Answer \_\_\_\_\_ cm

A ladder of length 4 metres leans against a wall that is 2.8 metres high. The foot of the ladder is 1.2 metres from the base of the wall. The length of the ladder above the wall is marked  $x$  in the diagram.



Not drawn accurately

Work out the value of  $x$ .

[3 marks]

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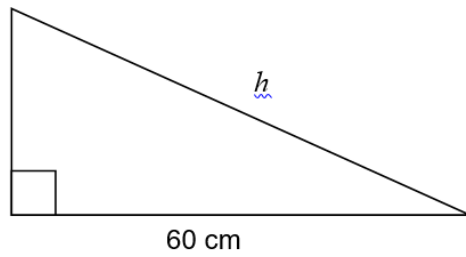
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Answer \_\_\_\_\_ m

The area of this triangle is  $330 \text{ cm}^2$

Work out the length of the hypotenuse,  $h$ .

[4 marks]



Not drawn accurately

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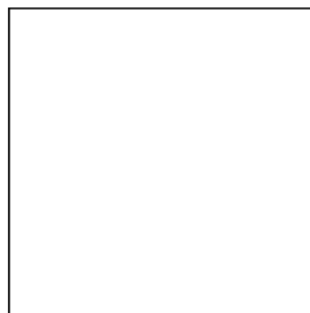
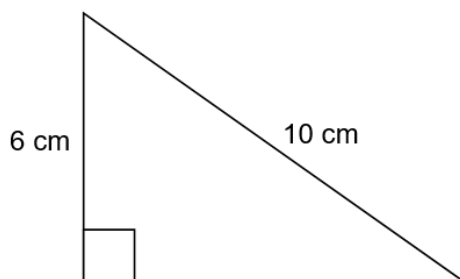
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Answer \_\_\_\_\_ cm

This triangle and square have the same perimeter.

Show that the square has an area 50% greater than the triangle.

[5 marks]



Not drawn accurately

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Here is a scale drawing of a sculpture.



The actual height of the base is 0.5 m

Work out the actual height of the sculpture, including the base.

**[3 marks]**

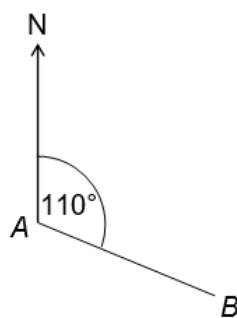
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Answer \_\_\_\_\_ m

The bearing of  $B$  from  $A$  is  $110^\circ$



Not drawn  
accurately

Circle the bearing of  $A$  from  $B$ .

**[1 mark]**

070°

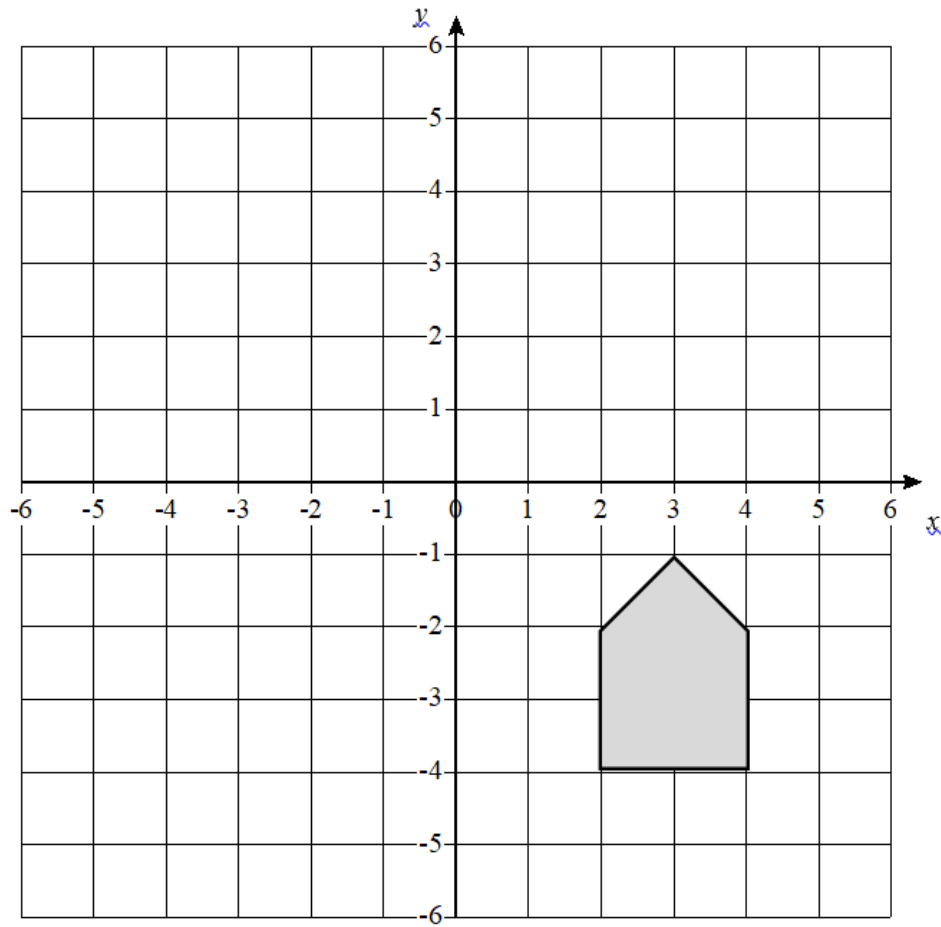
200°

250°

290°

Reflect the shape in the line  $y = -1$

[2 marks]



A cylinder has a radius of 4 cm and a height of 6 cm

Work out the volume.

Give your answer in terms of  $\pi$

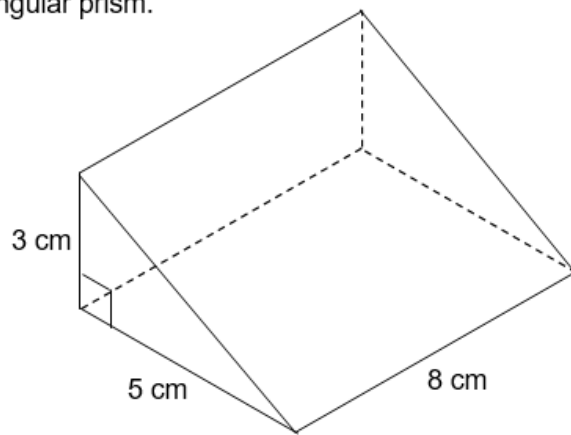
[2 marks]

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Answer \_\_\_\_\_  $\text{cm}^3$

Here is a triangular prism.



Work out the volume.

[3 marks]

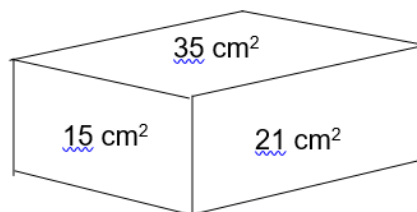
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Answer \_\_\_\_\_  $\text{cm}^3$

Here is a cuboid.

The **areas** of the top and two sides are shown.



Work out the volume of the cuboid.

[3 marks]

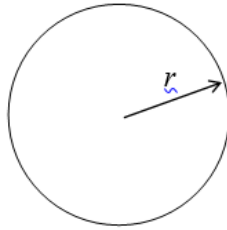
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Answer \_\_\_\_\_  $\text{cm}^3$

Here is a sphere.



$$\text{Volume} = \frac{4}{3}\pi r^3$$

The volume of the sphere is  $36\pi \text{ cm}^3$

Work out the value of  $r$ .

**[2 marks]**

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Answer \_\_\_\_\_