

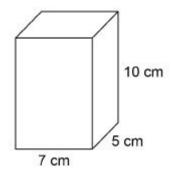


# GCSE MATHEMATICS (8300) FOUNDATION

Geometry

Total number of marks: 31 per optional item

Here is a cuboid.



Work out the volume.

Answer \_\_\_\_\_cm<sup>3</sup>

(Total 2 marks)

### Q1

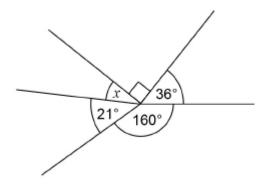
Here is a rectangle.

7 cm
5 cm

Work out the perimeter.

Circle your answer.

12 cm 24 cm 35 cm 70 cm



Not drawn accurately

Work out the size of angle x.

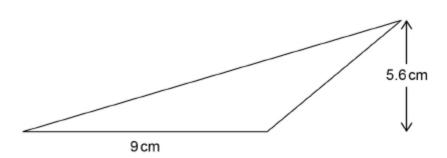
Answer	degrees

(Total 2 marks)

Q14

A triangle has base 9 cm and perpendicular height 5.6 cm

Not drawn accurately

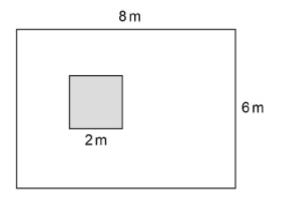


Work out the area of the triangle.

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

A rectangular carpet measures 8 m by 6 m.

Part of the carpet is covered by a square rug of length 2 m

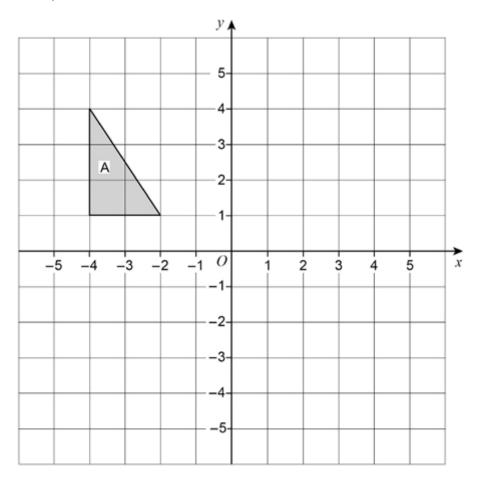


Not drawn accurately

Show that  $\frac{1}{12}$  of the carpet is covered by the rug.

Q12

Reflect shape A in the x-axis.



### **Q21**a

(a) A circle has radius 4.2 cm

Work out the length of the circumference.

Give your answer to 1 decimal place.

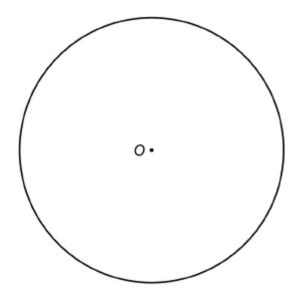
Answer	cm
7 (110 ) (1	OIII

(Total 3 marks)

### Q21b

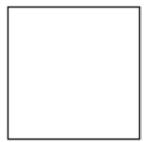
(b) The circle below has centre O.

Draw a sector on the circle.



### Q14a

The front elevation, side elevation and plan of a solid are all the same, as shown.

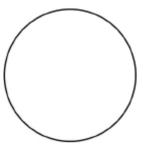


(a) Write down the name of the solid.

(Total 1 mark)

### Q14b

(b) The front elevation, side elevation and plan of a solid are all the same, as shown.



Write down the name of the solid.

(Total 1 mark)

### Q16

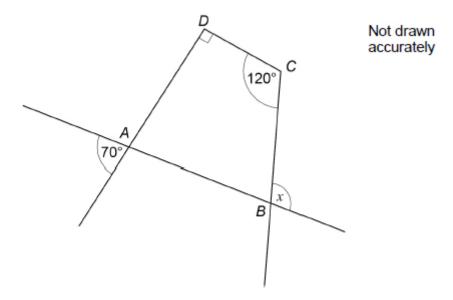
Which shape **must** have rotational symmetry?

Circle your answer.

isosceles triangle trapezium kite parallelogram

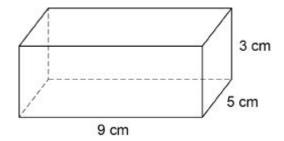
ABCD is a quadrilateral.

Sides are extended as shown.



Show that  $x = 100^{\circ}$ 

Here is a cuboid.



The two largest faces are blue.

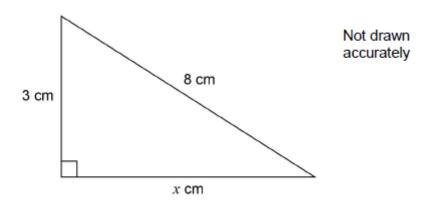
The other four faces are green.

Is the total blue area greater than the total green area?

You **must** show your working.

(Total 3 marks)

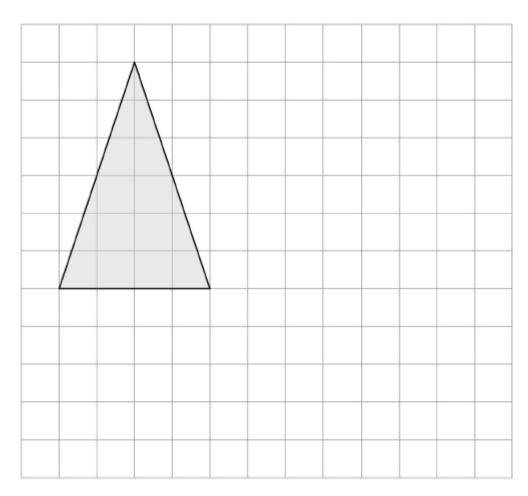
### **Q22**



Work out the value of x as a decimal.

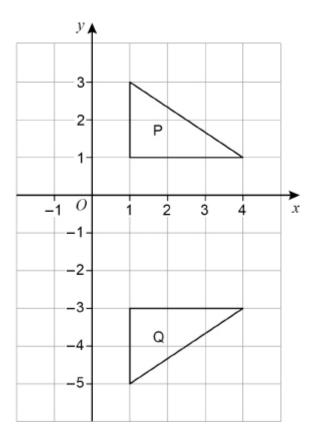
Q18

On the grid, draw an enlargement of the triangle with scale factor  $\frac{1}{2}$ 



### Q24a

(a) Here are two triangles, P and Q.



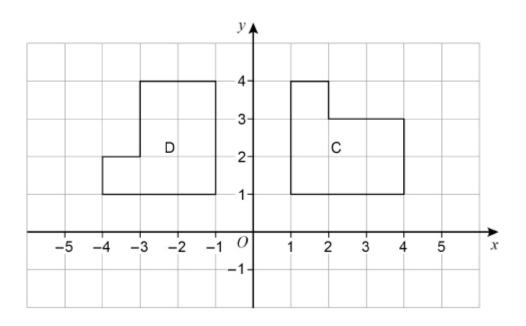
Here is a statement.

A transformation that maps P to Q is a reflection in the line x = -1

Make **one** criticism of the statement.

### Q24b

(b) Here are two shapes, C and D.



Here is a statement.

A transformation that maps C to D is a rotation through 90° anticlockwise.

Make **one** criticism of the statement.