Group C Pre-Test – Maths GCSE F

|  |  |
| --- | --- |
| Name |  |

Q1

**a)** A triangle has two angles 46° and 61°

Find the size of the third angle.

 ……………………… (2 marks)

**b)** A quadrilateral has angles 60°, 60°, 120° and 120°

Write down the names of three possible quadrilaterals that can have these angles.

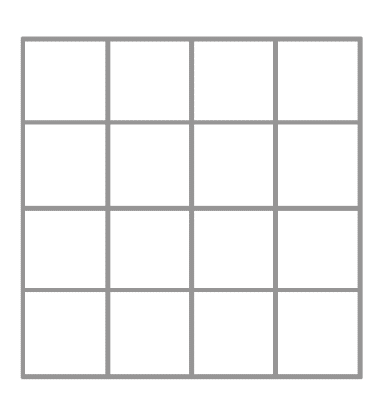
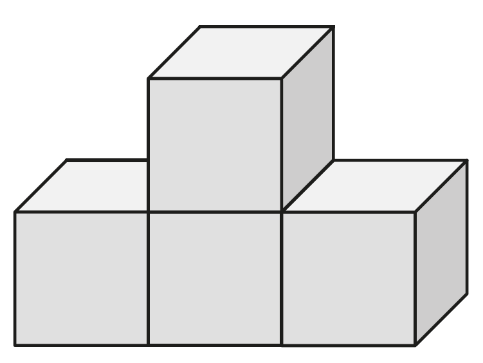
…………………………

…………………………

………………………… (3 marks)

Q2

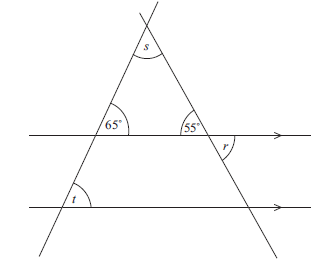
Use the grid to draw the plan view of the 3D solid.



  (1 mark)

Q3

Work out the size of



**a)** Angle .

 ………………………………… (1 mark)

**b)** Angle .

………………………………… (2 marks)

**c)** Angle .

………………………………… (1 mark)

Q4

Work out the area of this shape.

5 m

7m

9 m

………………………………… m2 (3 mark)

Q5

**a)** Find the size of one exterior angle of a regular octagon.

………………………………… (2 marks)

**b)** Hence, or otherwise, find the size of one interior angle of a regular octagon.

………………………………… (2 marks)

A close up of a device

Description automatically generated Q6

A circular pond has diameter 3 m.

**a)** Calculate the area of the pond.

Give your answer as an exact multiple of

………………………………… m2 (2 marks)

**b)** Federico wants to put a fence around the pond as close to the edge as possible.

He has 9 m of fencing.

Does Federico have enough fencing? Explain your answer.

(3 marks)

A close up of a device

Description automatically generated Q7

A circular mirror measures 24 cm in diameter.

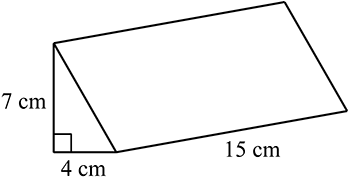
The mirror is cut in half.

Work out the perimeter of half of the mirror.

………………………………… cm (3 marks)

Q8

A prism has a cross-section in the shape of a right-angled triangle.



The two shorter sides of the triangle are 7 cm and 4 cm.

The length of the prism is 15 cm.

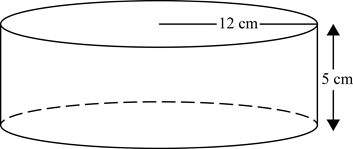
Find the volume of the prism in cm3

………………………………… cm3 (3 marks)

A close up of a device

Description automatically generated Q9

The diagram shows a cylinder with radius 12 cm and height 5 cm.



Calculate the curved surface area of the cylinder.

Give your answer correct to the nearest whole number.

………………………………… cm2 (2 marks)

Q10

Work out the size of angle ABC.

*x* – 3°

2*x* °

*x* + 8°

*x* °

A

B



C

D

…………………………………°(3 marks)

|  |  |
| --- | --- |
| Overall Mark | / 33 |