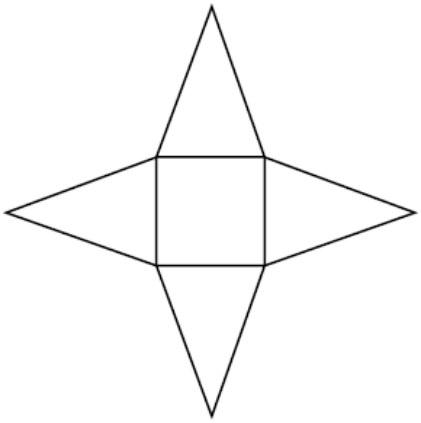
Geometry – 2025 Specimen IGCSE 0580 Math

1. Specimen/2025/Paper_01/No.2

The diagram shows the net of a solid.



(a) What is the mathematical name of the solid?

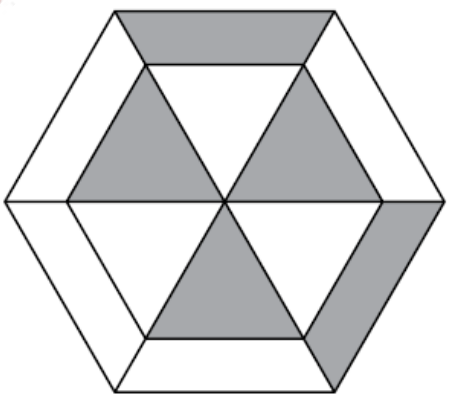
..... [1]

(b) For this solid, write down the number of vertices.

..... [1]

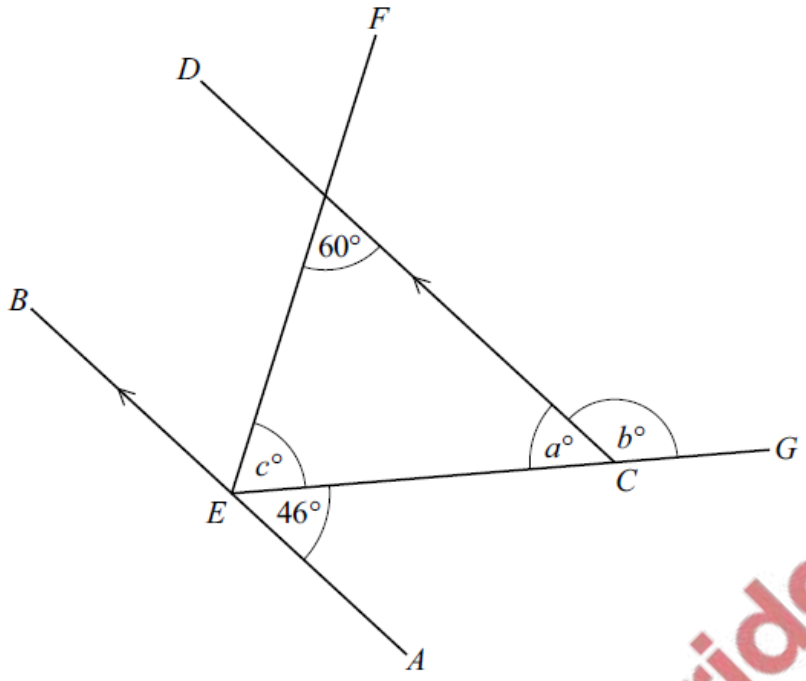
2. Specimen/2025/Paper_01/No.7

The diagram shows a shape with five shaded sections.



Shade one more section on the diagram so that it has rotational symmetry of order 3. [1]

3. Specimen/2025/Paper_01/No.10



NOT TO SCALE

Lines AB and CD are parallel.
EF and EG are straight lines.

(a) Find the value of a.
Give a geometrical reason for your answer.

a = ... because ..... [2]

(b) Find the value of b.
Give a geometrical reason for your answer.

b = ... because .....

..... [2]

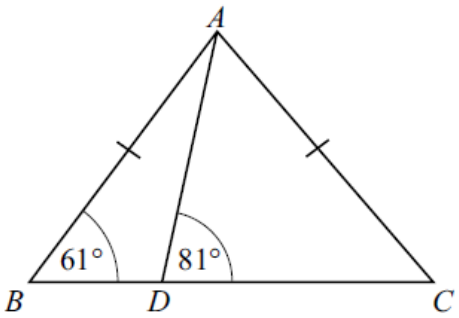
(c) Find the value of c.
Give a geometrical reason for your answer.

c = ... because .....

..... [2]

4. Specimen/2025/Paper_02/No.4

The diagram shows two triangles, ABD and ADC.



NOT TO SCALE

BDC is a straight line, $AB = AC$, angle $ABD = 61°$ and angle $ADC = 81°$.

Work out angle DAC.

Angle DAC = ... [2]

5. Specimen/2025/Paper_02/No.13

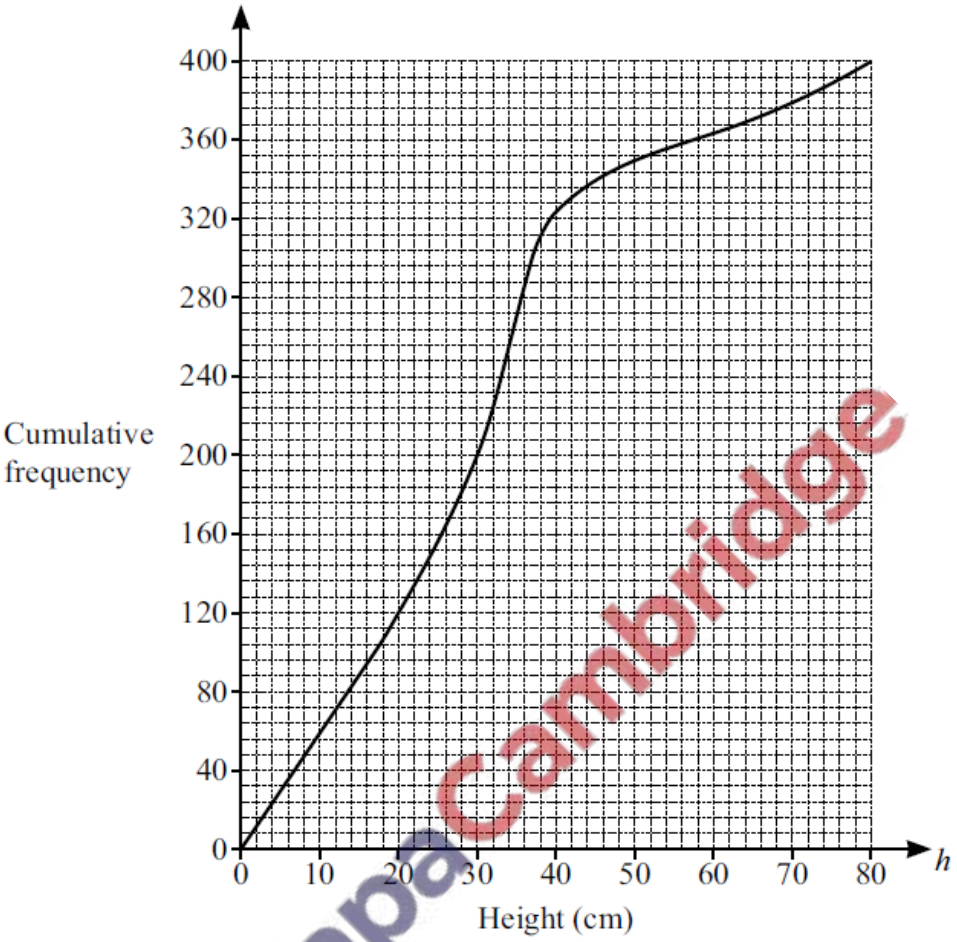
Find the number of sides of a regular polygon with interior angle 162°.

..... [2]

6. Specimen/2025/Paper_02/No.17

A student measures the height, h cm, of each of 400 plants.

(a) The cumulative frequency diagram shows the results.



Use the diagram to find an estimate for

(i) the median

..... cm [1]

(ii) the interquartile range

..... cm [2]

(iii) the 80th percentile

..... cm [2]

(iv) the number of plants with a height greater than 60 cm.

..... [2]

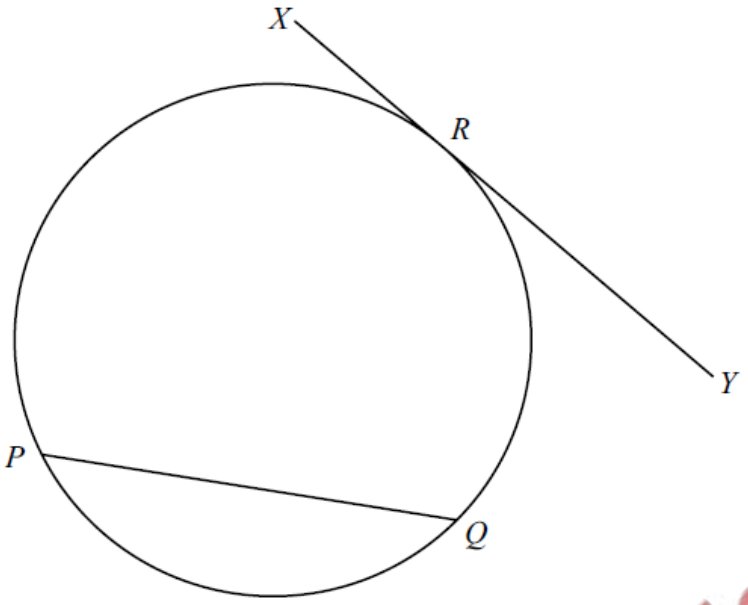
7. Specimen/2025/Paper_03/No.9

A triangle has sides 6 cm, 7 cm and 8 cm.

Using a ruler and compasses only, construct the triangle.
The 6 cm line has been drawn for you.
Show all your construction arcs.

[2]

8. Specimen/2025/Paper_03/No.11



NOT TO SCALE

(a) The line XY touches the circle at the point R.

Write down the mathematical name for the line XY.

..... [1]

(b) Points P and Q lie on the circle.

Write down the mathematical name for the line PQ.

..... [1]

(c) The area of the circle is $43.5\,cm^2$.

Calculate the radius of the circle.

..... cm [2]

(d) The diameter of a different circle is 6.4 cm.

Calculate the circumference of this circle.
Give your answer in millimetres.

..... mm [3]

9. Specimen/2025/Paper_04/No.2

In triangle PQR, $QR = 10$ cm and $PR = 11$ cm.

Using a ruler and compasses only, construct triangle PQR.
The line PQ has been drawn for you. [2]