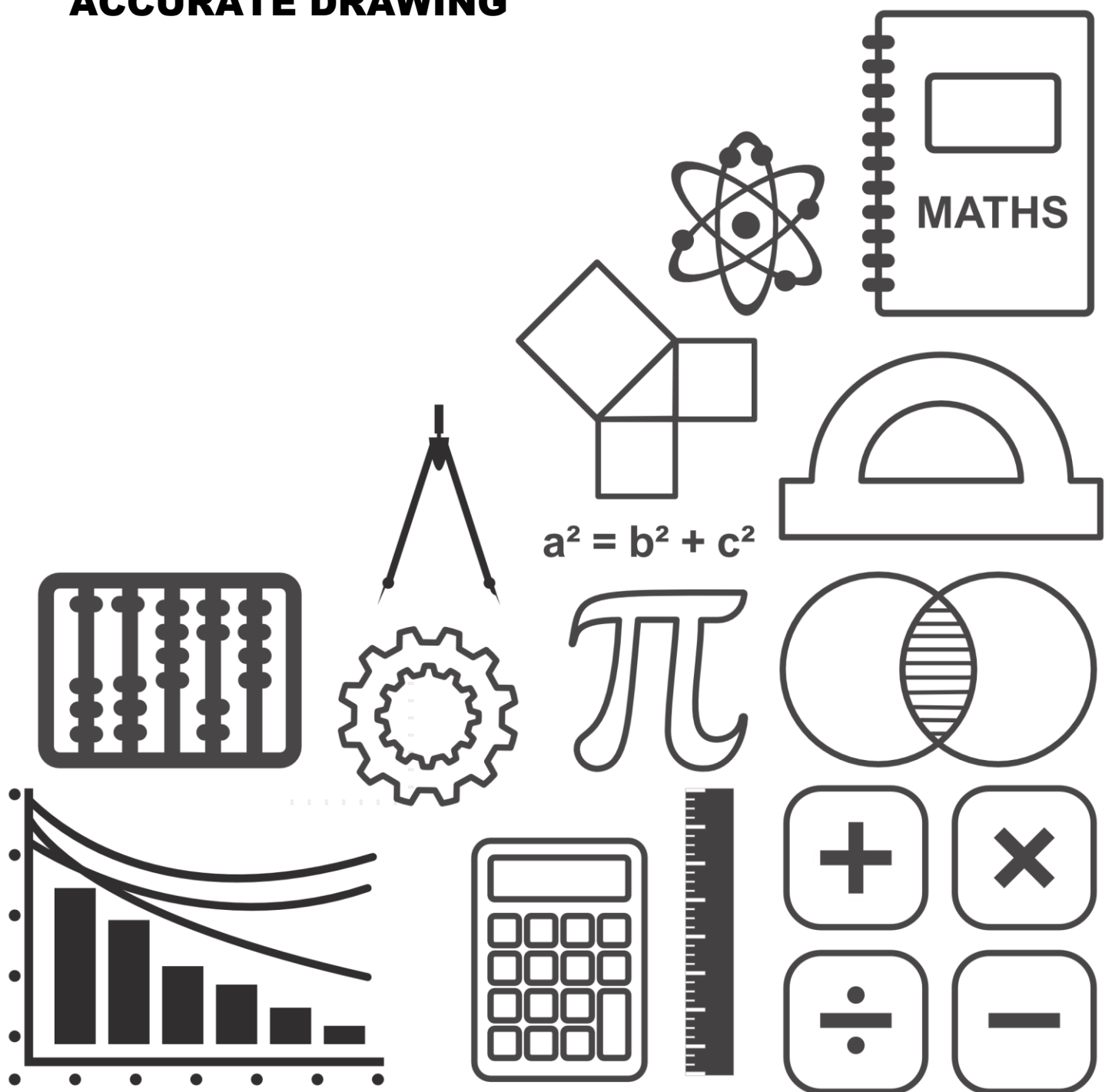


GCSE TOPIC BOOKLET ACCURATE DRAWING

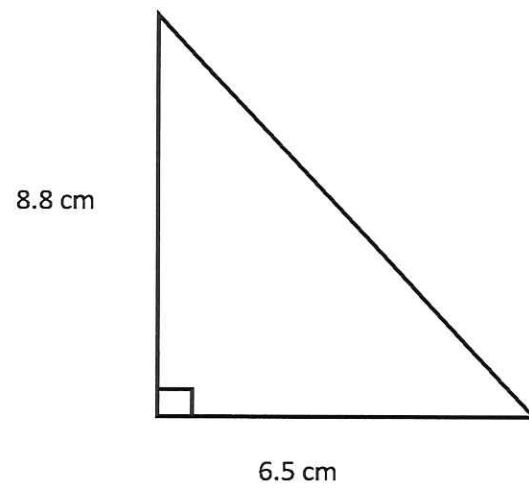


1. Make an accurate drawing of triangle ABC, in which $AB = 13\text{cm}$, $BC = 10\text{cm}$ and angle $ABC = 65^\circ$. (3)

2. Make an accurate drawing of triangle PQR, in which $PQ = 12\text{cm}$, angle $QPR = 53^\circ$ and angle $PQR = 68^\circ$. (3)

3. Make an accurate drawing of the following triangle.

(2)



4. Draw a circle of diameter 8cm. (1)

5. Draw a circle of diameter 7cm. (1)

6.

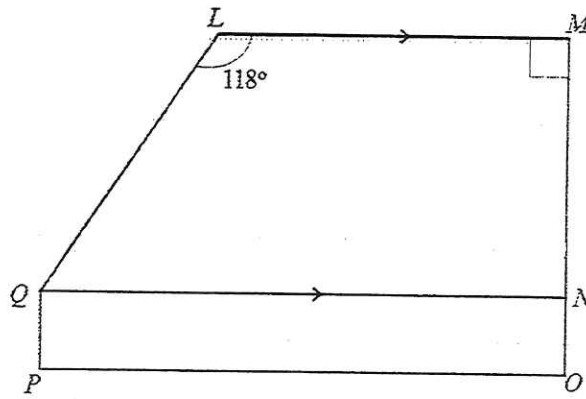


Diagram not drawn to scale

The diagram shows the side of a rabbit's hutch.

LM is parallel to QN .

$PQNO$ is a rectangle.

The angle $\widehat{QLM}$ between the top of the hutch and the front is 118° .

(a) Calculate the size of the angle $\widehat{LQP}$.

[4]

(b) The rabbit's hutch needs a circular hole, of radius 4 cm, cut out to create space for a water bottle.

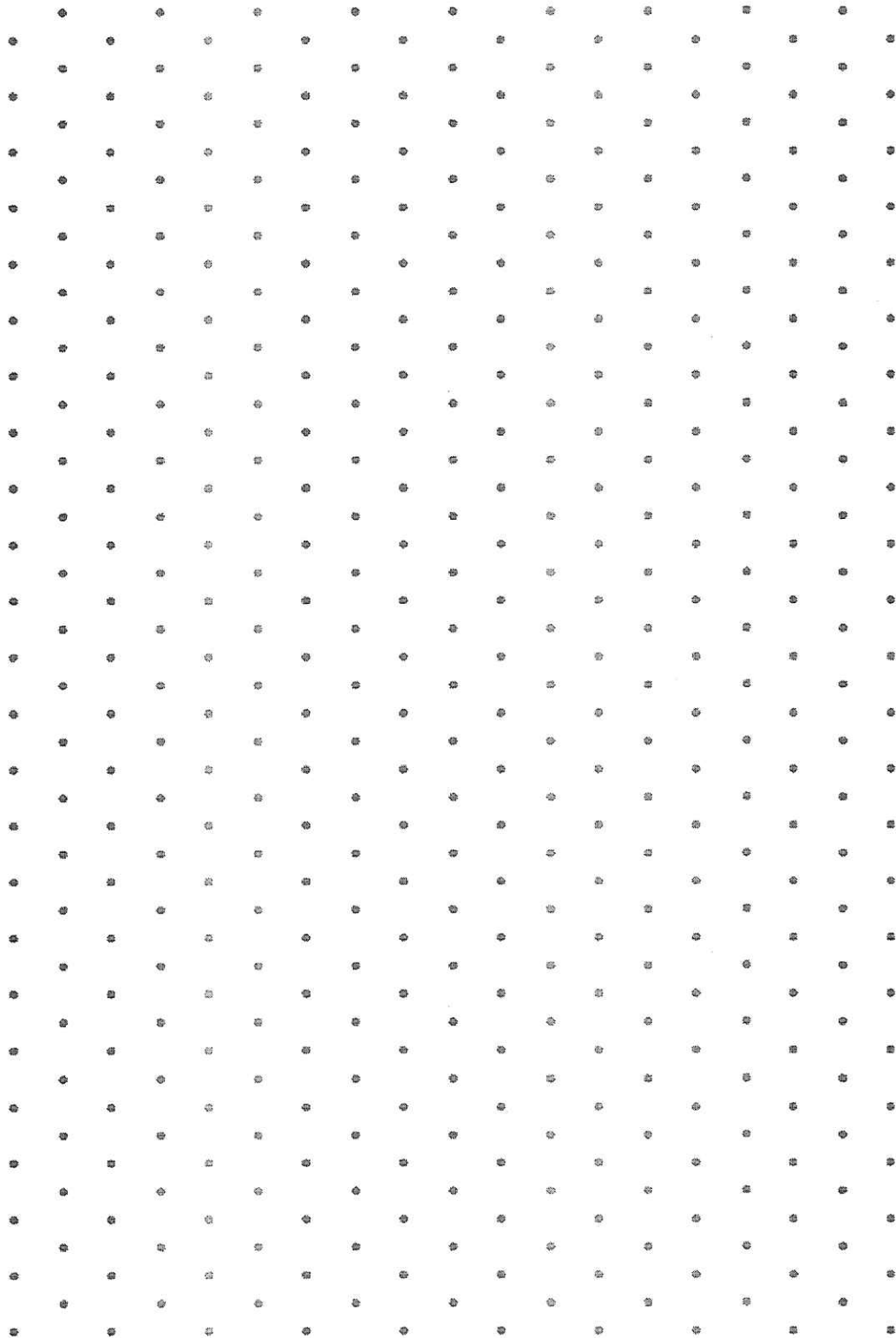
Draw a circle with a radius of 4 cm below.

[1]

7.

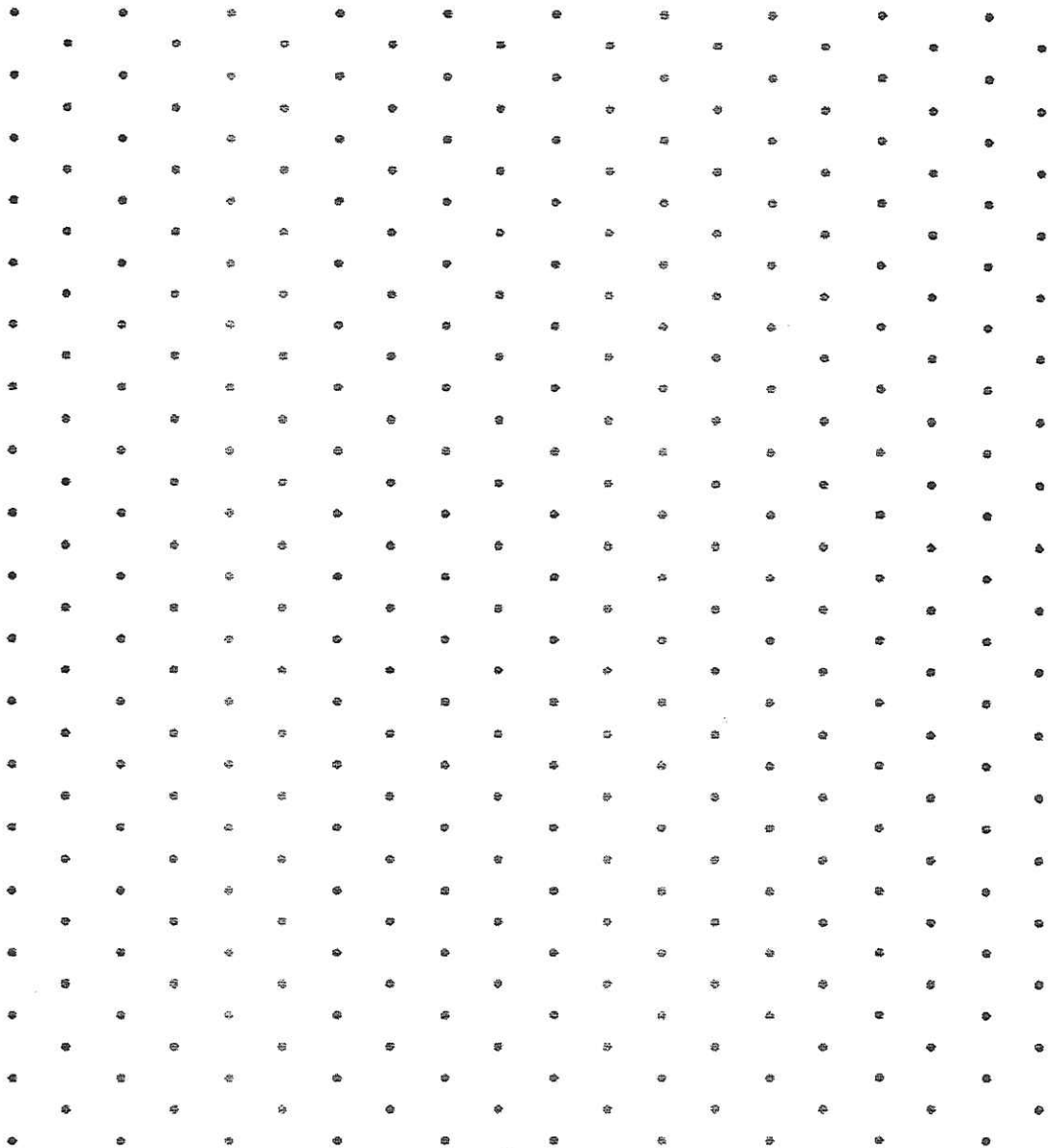
On the isometric paper below, draw a cuboid of dimensions 8 cm by 6 cm by 4 cm.

[2]



8. On the isometric grid below, draw a cuboid of dimensions 7 cm by 5 cm by 3 cm.

[2]



9. A surveyor has placed a pole at a point Q and another at R . The poles are 100 m apart. He needs to position another pole at a point P such that:

- $\hat{PQR} = 44^\circ$
- P is at a distance of 80 metres from Q .

- (a) Using a scale of 1 cm to represent 10 metres draw an accurate drawing of the position of the pole at P . [2]



- (b) How far is the pole at P from R ? Give your answer in metres. [2]

10. (a) Complete an accurate drawing of triangle XYZ in which $XY = 8\text{ cm}$, $\hat{YXZ} = 98^\circ$ and $\hat{XYZ} = 40^\circ$. The line XY has been drawn for you. [3]



- (b) Using a ruler and a pair of compasses, construct the perpendicular bisector of the line PQ . [2]



- (c) On the roof of the hutch, a small opening is used to place food inside for the rabbit. The opening is in the shape of a trapezium, as shown in the sketch below.

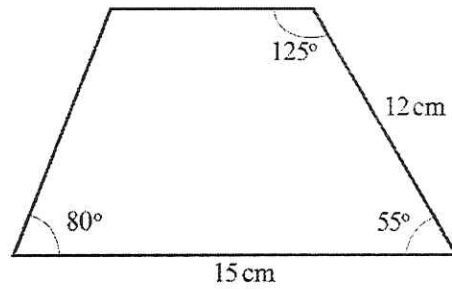
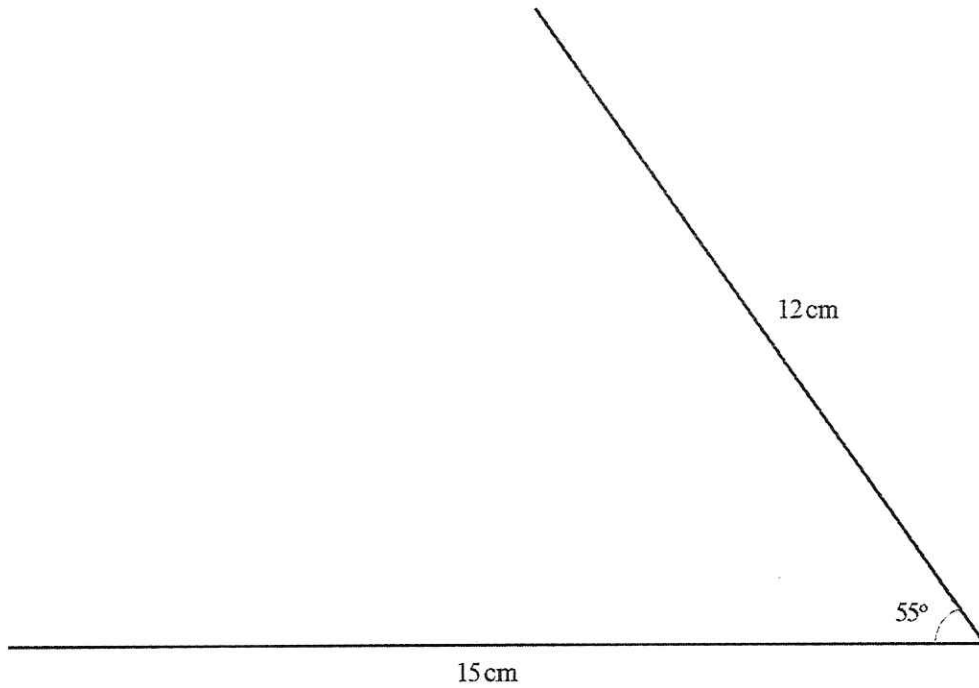


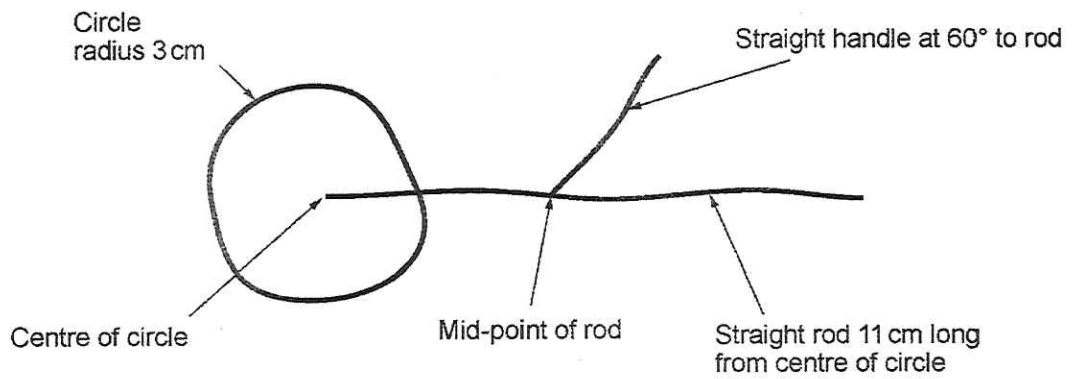
Diagram not drawn to scale

Complete an accurate drawing of the trapezium.
Two of the sides have already been drawn for you.

[2]



11. A toy maker has an idea for a new toy.
He has made a sketch and written some notes that he will use to make further plans.



Make an **accurate** drawing of the sketch in the space below.
It does not matter what length you make the handle as long as it is at an angle of 60° to the rod.

You do **not** have to copy the toy maker's written notes.

[5]

12. A designer creates a pendant for a necklace in the shape of an isosceles triangle.



Diagram not drawn to scale

The length of the base of the pendant is 5 cm and the two equal angles are 70° .

- (a) (i) What is the size of the third angle in the isosceles triangle? [2]

.....

.....

.....

- (ii) What is the name given to the third angle in this triangle?
Circle the correct answer. [1]

Acute angle Obtuse angle Right angle Reflex angle

- (iii) Draw an accurate diagram of this isosceles triangle. [3]