

Question 1.

An isometric view of a **printer cartridge packaging** is shown below. Two orthographic views of the packaging are given on the right.

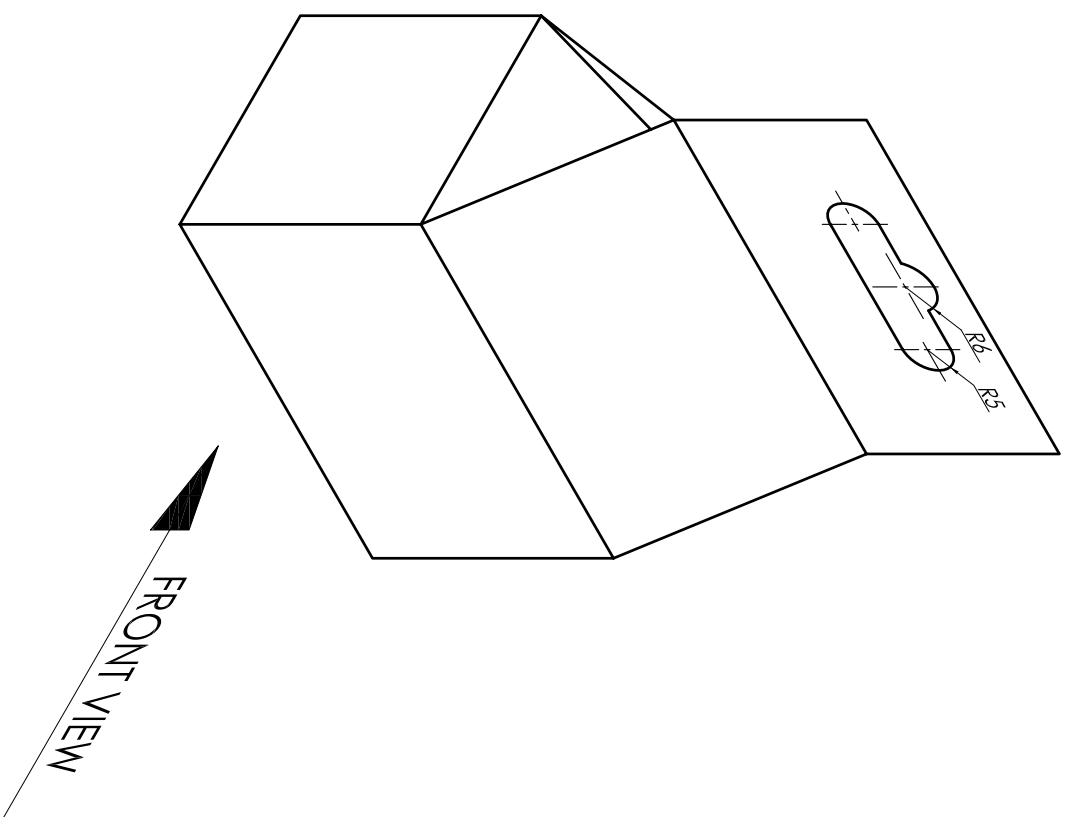


In the space provided:

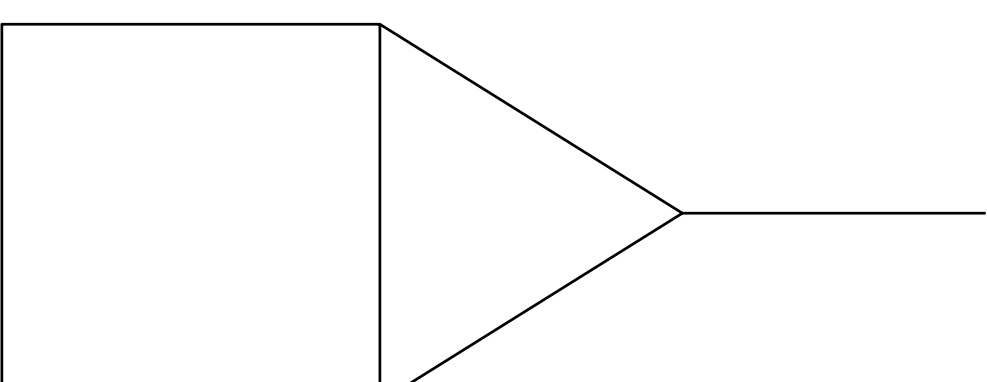
- i) Complete the **FRONT VIEW**.
- ii) Write the **projection angle** (1st or 3rd angle).
- iii) Draw the **projection symbol**.

Notes: - Show the two hidden details in the front view.
 - The centres for the circles are given.

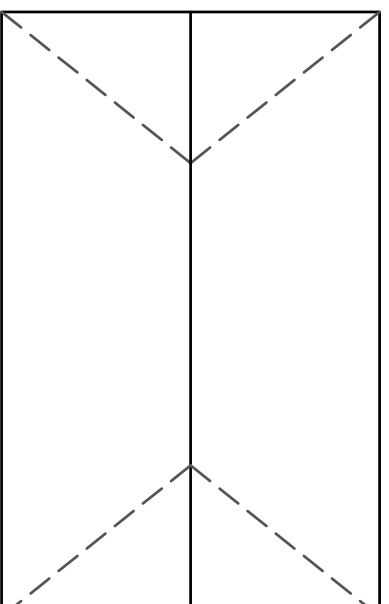
16 Marks



FRONT VIEW



END VIEW



PLAN

_____ ANGLE PROJECTION

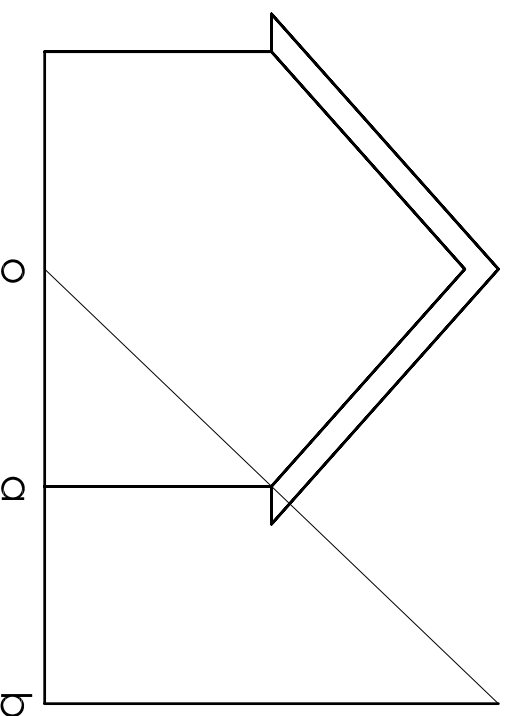
PROJECTION SYMBOL

Question 2.

Your friend needs to enlarge the toy house profile given below. **By using the radial method, enlarge the profile** such that **oa** increases to **ob**.

Note: Use 'o' as the pole.

14 marks

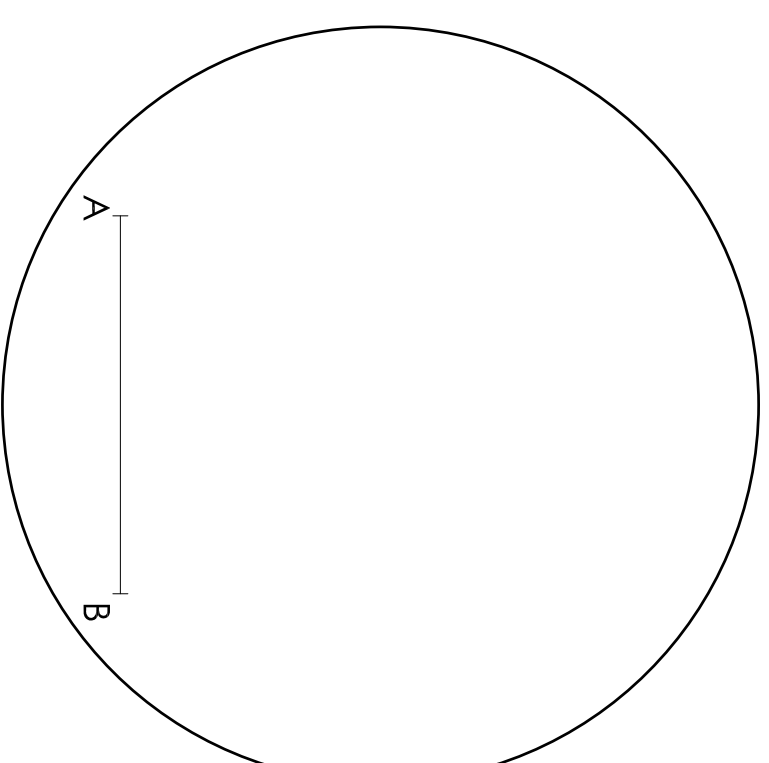
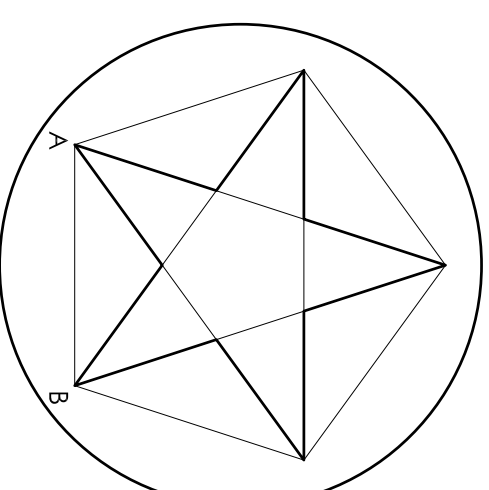


Question 3.

The drawing on the right shows the elevation of a **decorative lighting accessory**.
On the given start lines complete the star by:

- i) constructing the **pentagon** starting from base AB.
- ii) drawing the **star** based on the pentagon constructed in **step i**).

12 marks

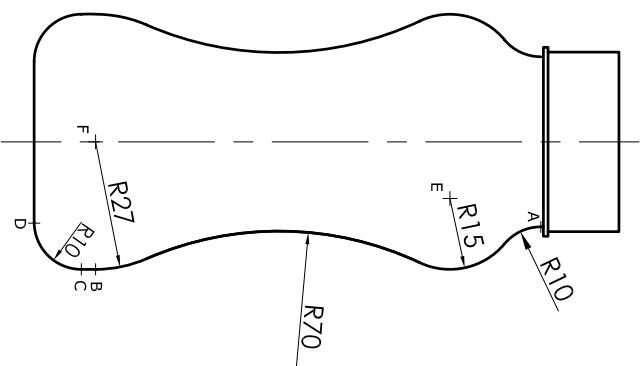


Question 4.

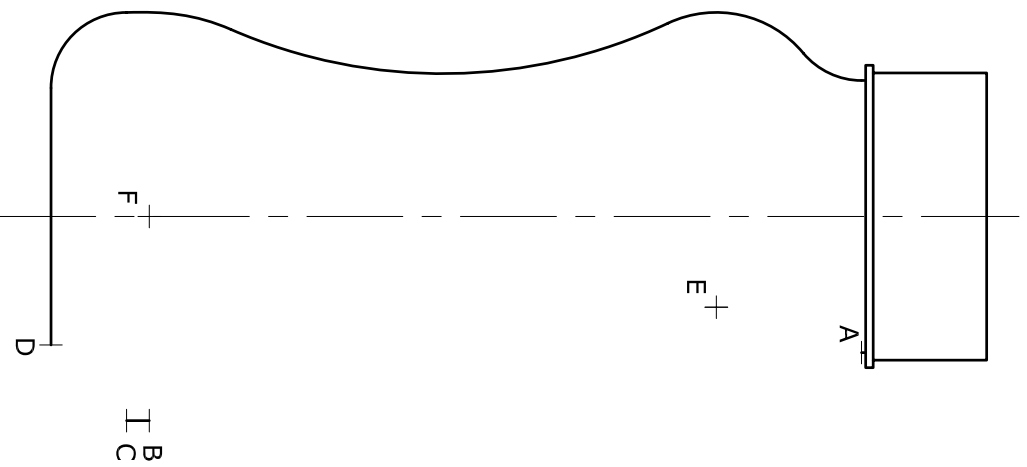
A dimensioned profile of a plastic bottle is given.

Using the given start lines, **complete the profile** showing clearly the constructions used to locate the centres and points of tangencies.

- Notes:**
- Points A, B, C and D are all points of tangencies.
 - Draw the R15 arc (from centre E).
 - Draw the R27 arc (from centre F).
 - Locate the centre of and draw the R10 arc at the bottom.
 - Locate the centre of and draw the R10 arc at the top.
 - Locate the centre of and draw the arc of R70.



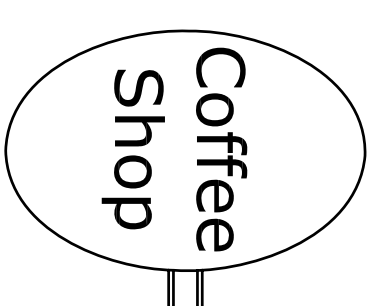
16 marks



Question 5.

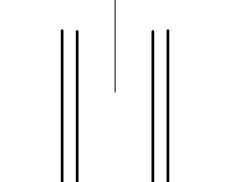
The drawing on the right shows a sign to be hung to a coffee shop. On the start lines provided you are asked to **construct the ellipse**.

Major axis = 150 mm
Minor axis = 100 mm



14 marks

Coffee
Shop



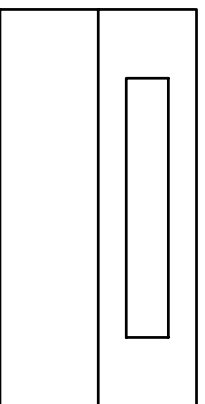
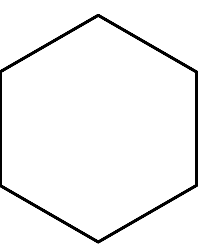
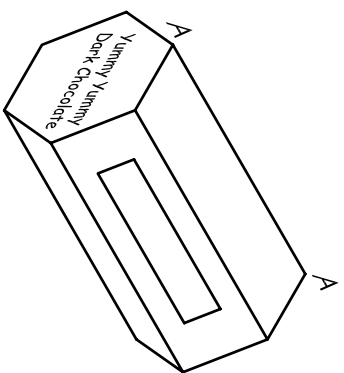
Question 6.

A chocolate box is based on a **hexagonal prism**. The front and end elevation are given below.

Construct the surface development.

Notes: - A-A is the start line for the development.
- Include the lids.

14 marks



A ————— A



Question 7.

The drawing on the right shows an old clock. On the start lines provided you are asked to **draw the missing parts of its profile** (the circle and the tangents) using the dimension given below.

Radius of circle = 40mm

14 marks

