

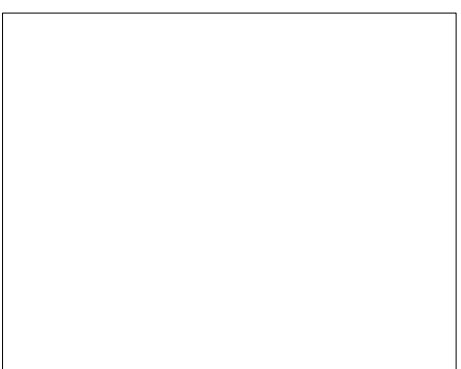
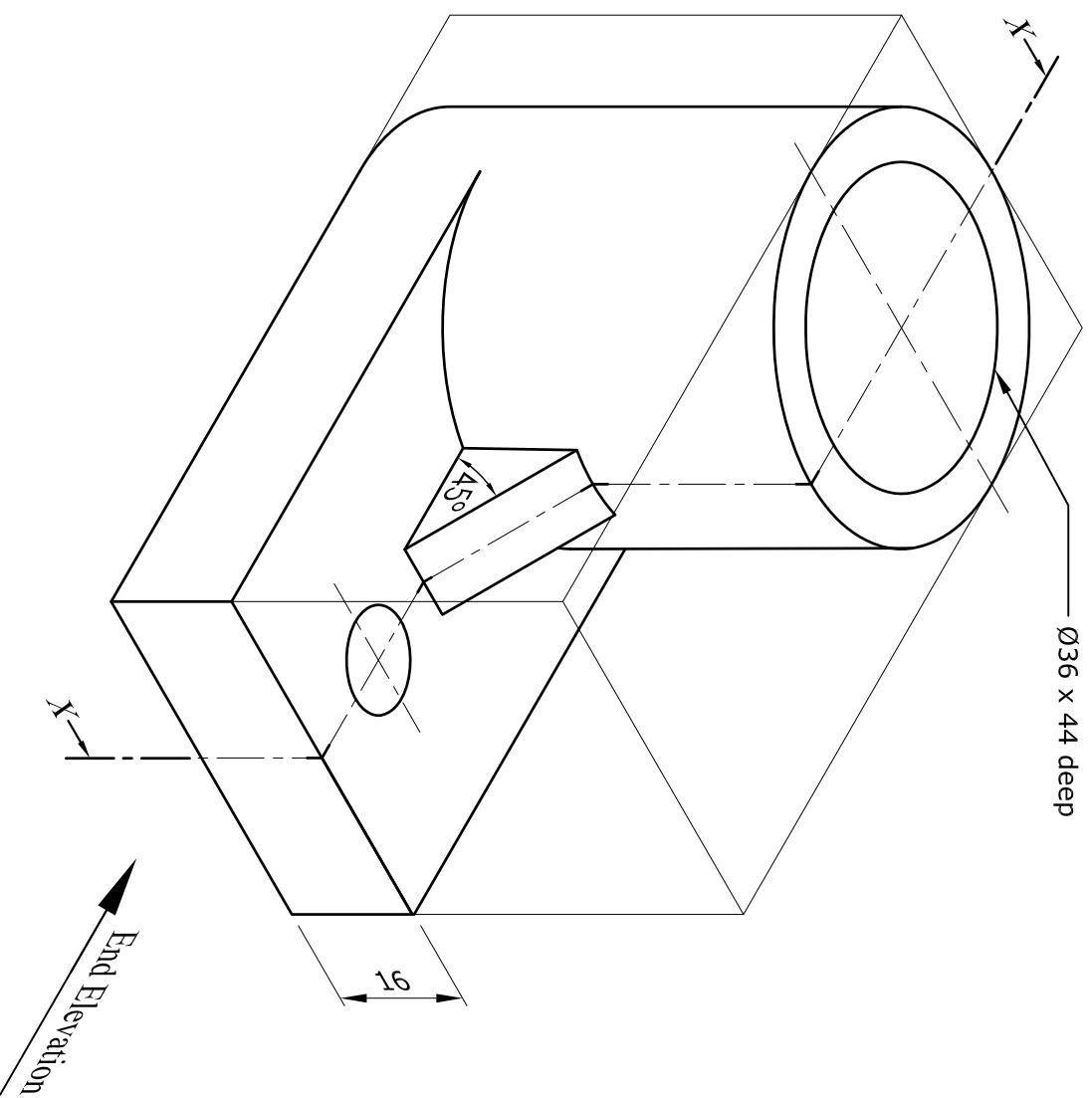
Question 1.

The figure below shows a **Metal Component**. Using the given dimensions and in First Angle Projection draw:

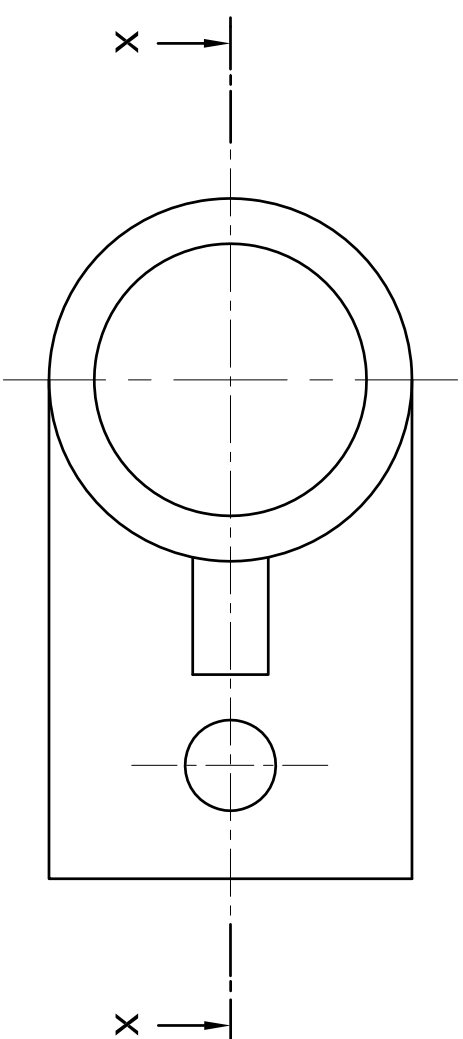
- a) a Sectional Front Elevation X-X
- b) the End Elevation
- c) the Symbol and the Scale used.

Notes: - The larger hole is 44 mm deep.
 - The smaller hole is through.

24 Marks



END ELEVATION



SECTION X-X

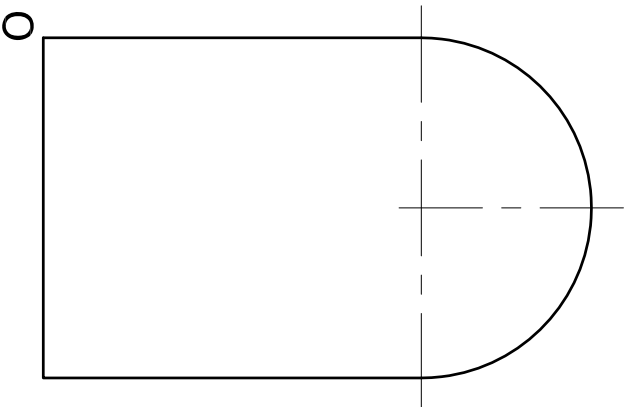
PLAN

SCALE _____

Question 2

The figure below shows the profile of a sign. **Enlarge** the sign in the ratio of 3 : 2. Use corner 'O' as the Pole.

15 marks



Question 3.

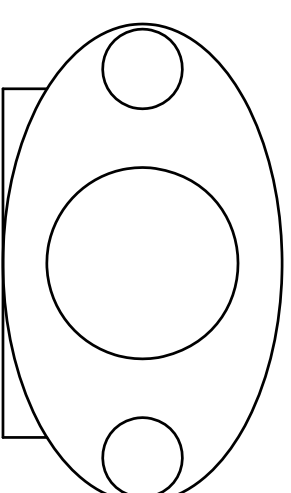
The drawing on the right shows a **toy radio** which has an elliptical shape. On the start lines provided you are asked to construct the ellipse and draw the circles by using the given dimensions:

Major axis = 120 mm

Minor axis = 70 mm

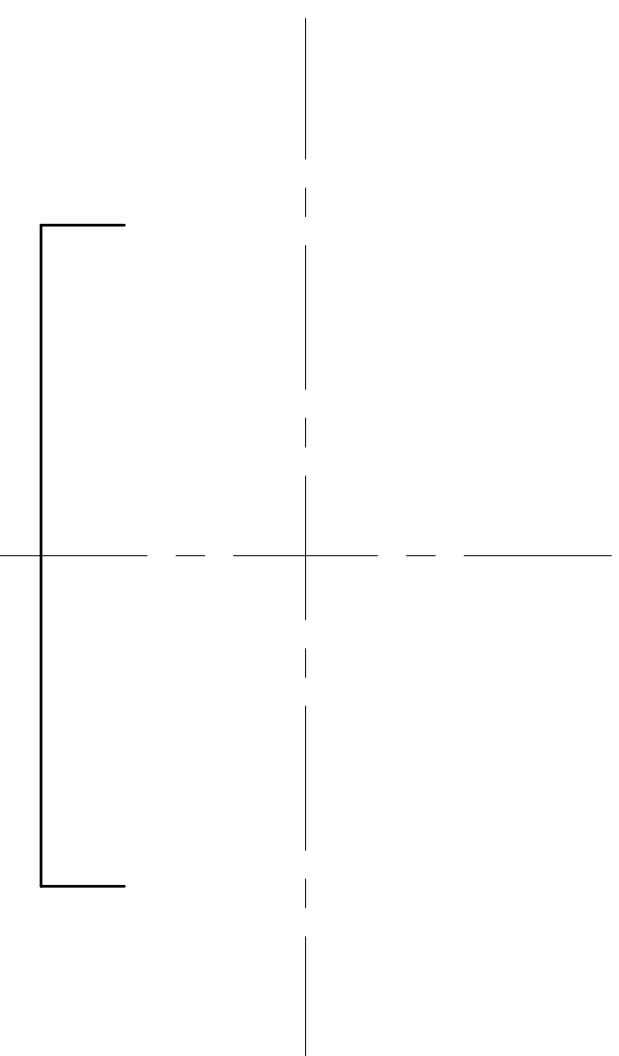
Smaller speakers = R10

Large speaker = R24



Note that: The centres of the smaller speakers lie on the focal points of the ellipse.

14 marks



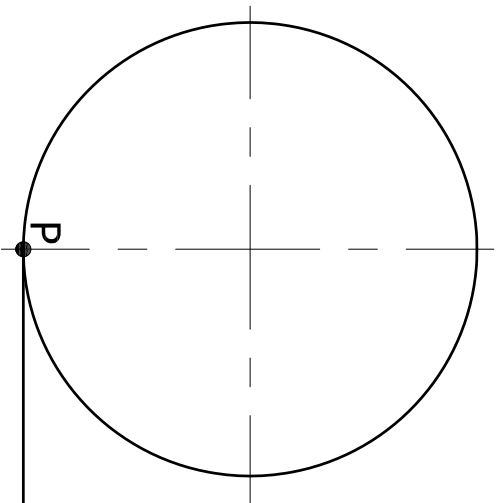
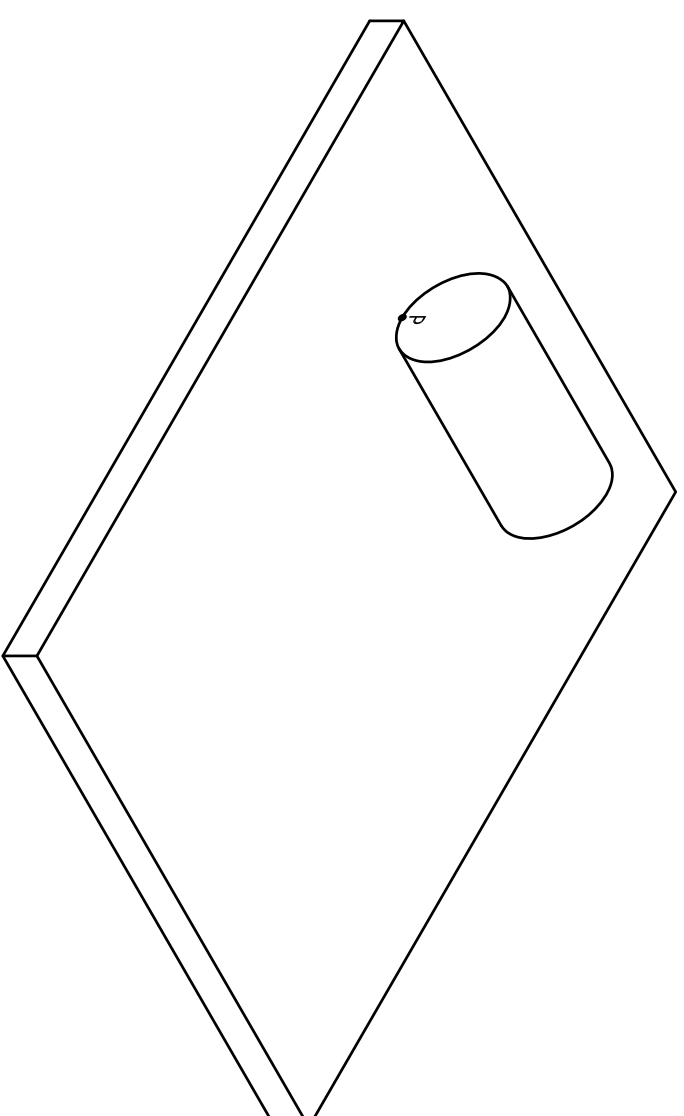
Question 4.

A point 'P' is marked on the circumference of a cylinder.

The cylinder rolls without slipping along a horizontal surface. It rolls for a revolution and then stops.

- Notes:**
- i.** On the start lines below plot geometrically the path of point 'P'.
 - ii.** Write down the name of the curve produced in the space provided.

14 marks



Name of curve: _____

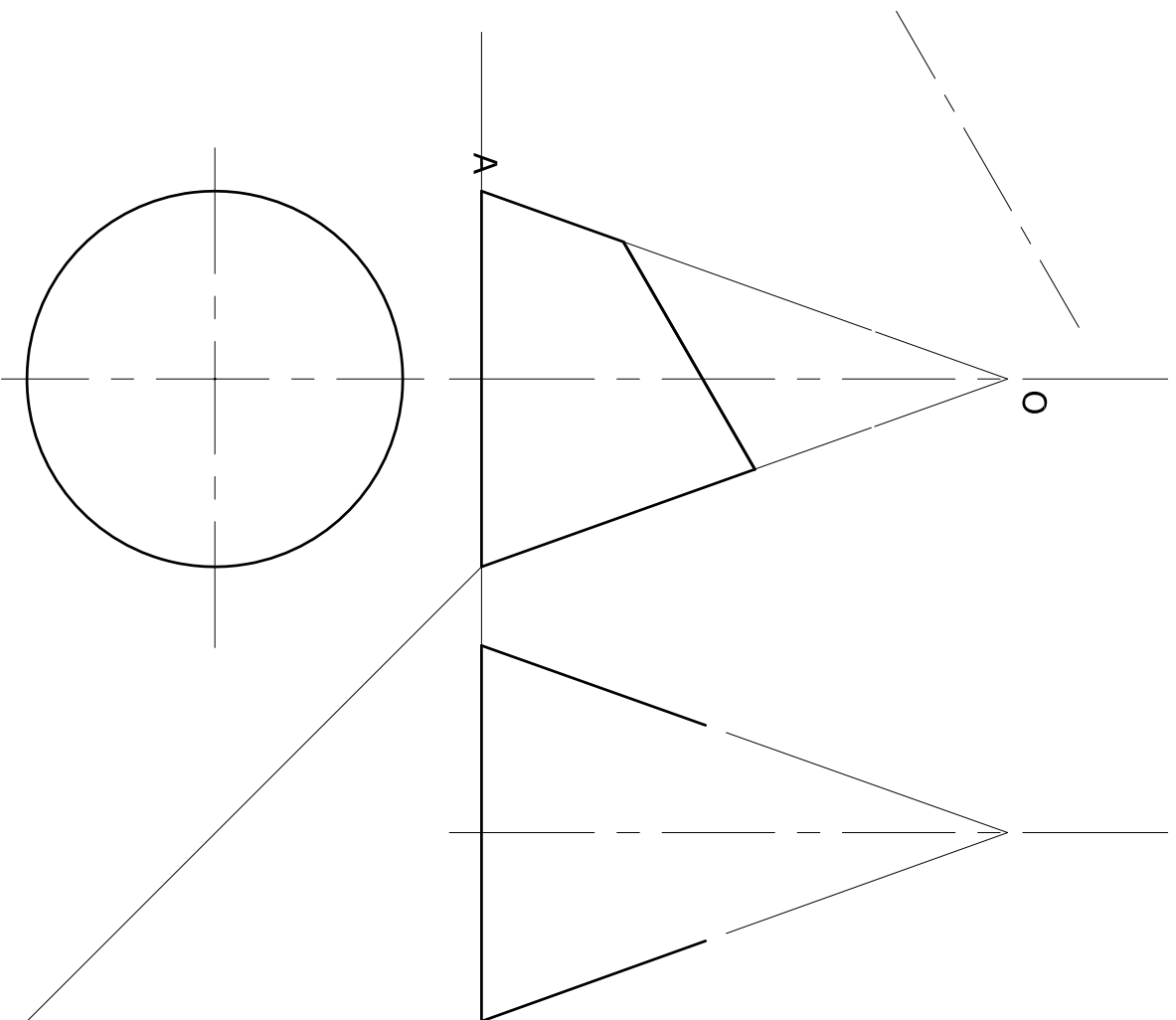
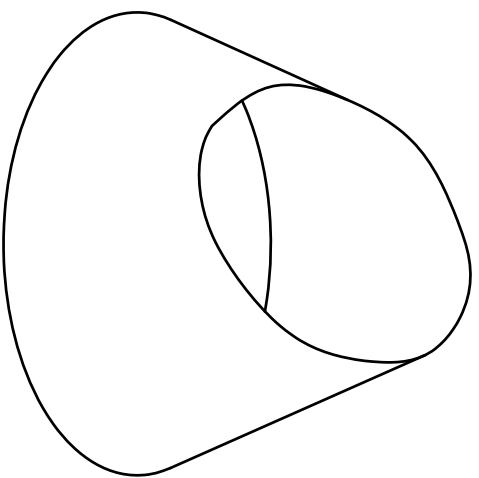
Question 5

A thin sheet metal pencil holder is shown on the right. It is mainly made up of truncated right cone.

- a) Complete the end elevation and plan.
- b) Draw the true shape of the cut.

Leave all construction lines visible.

18 marks



Question 6.

On the right one complete turn of a **helical tube** is shown. On the start lines given below draw the tube.

Show all construction.

Notes: The pitch and diameter are given on the start lines below.

15 marks

