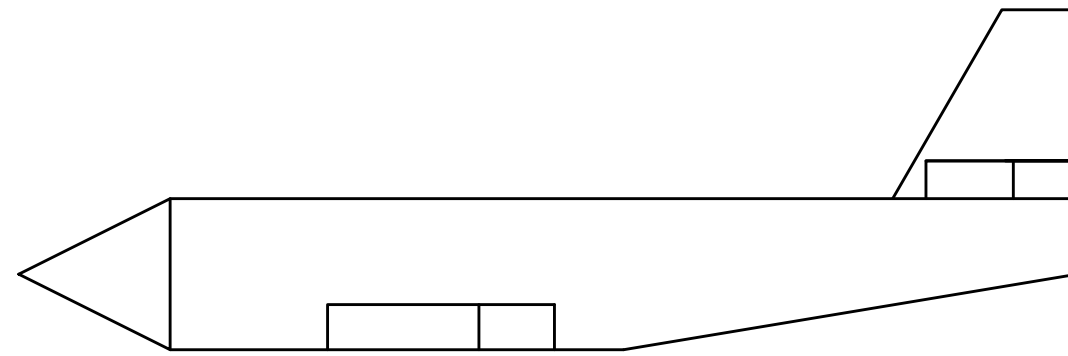
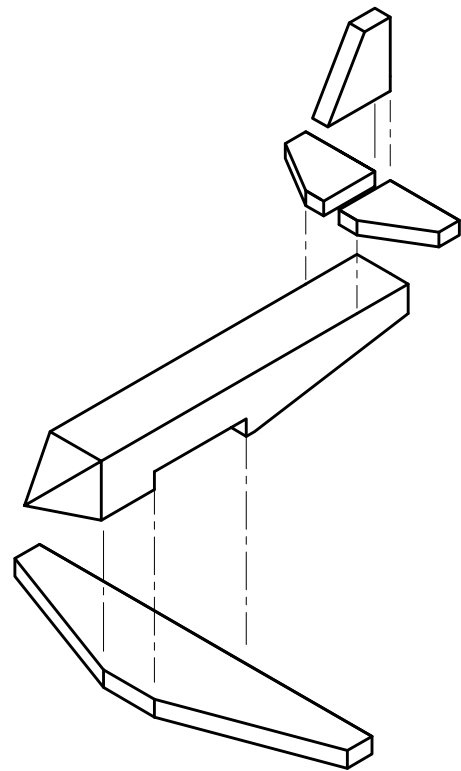
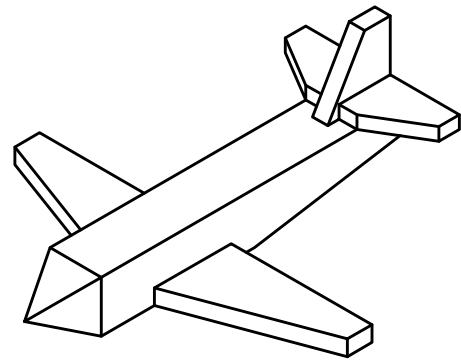


Question 1. An isometric view and an exploded view of a wooden toy aeroplane are shown below. Two orthographic views of the toy are given on the right. In the space provided :

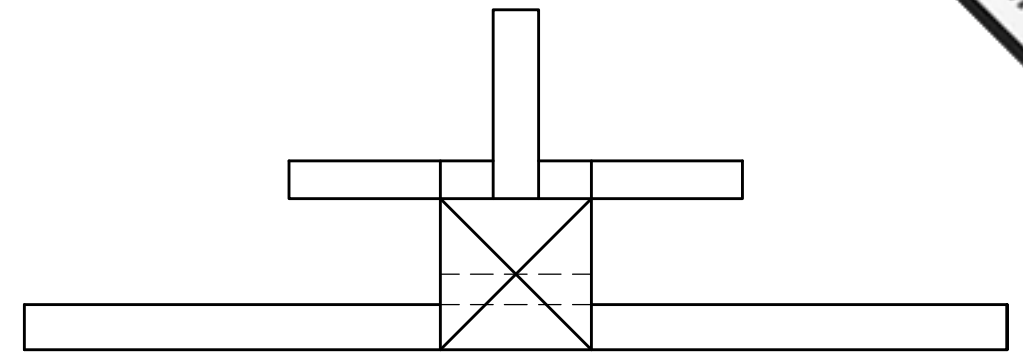
- Project a PLAN view.
- State whether the projection angle is 1st angle or 3rd angle.

Note: Show the five hidden lines in the plan view.

(16 marks)



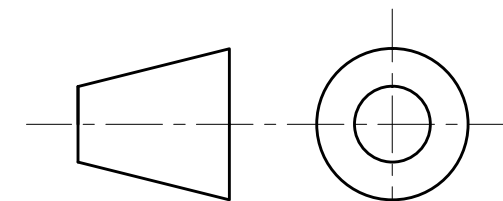
FRONT VIEW



END VIEW

PLAN VIEW

..... ANGLE PROJECTION

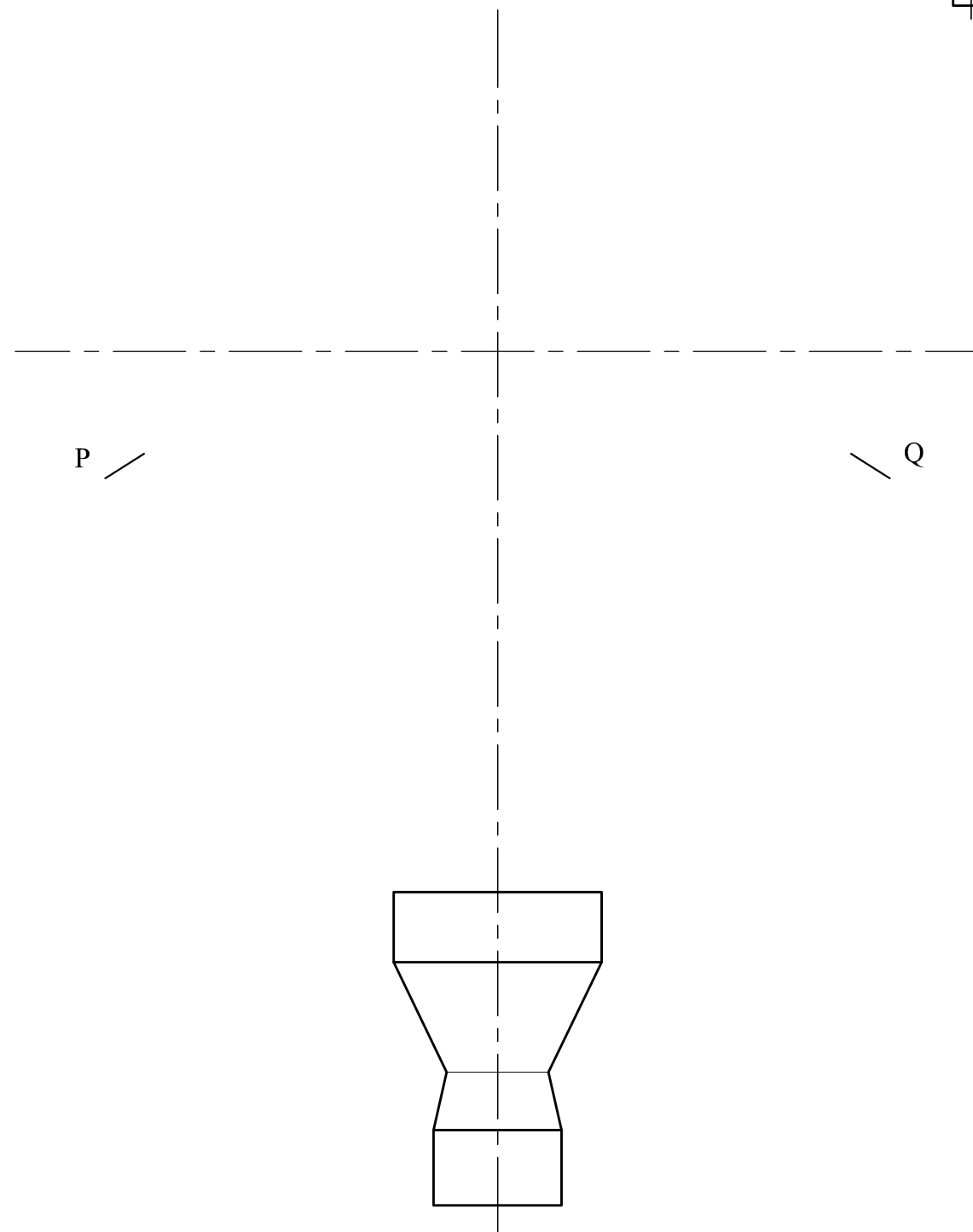
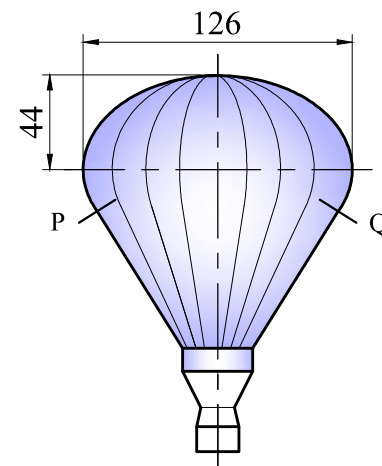


PROJECTION SYMBOL



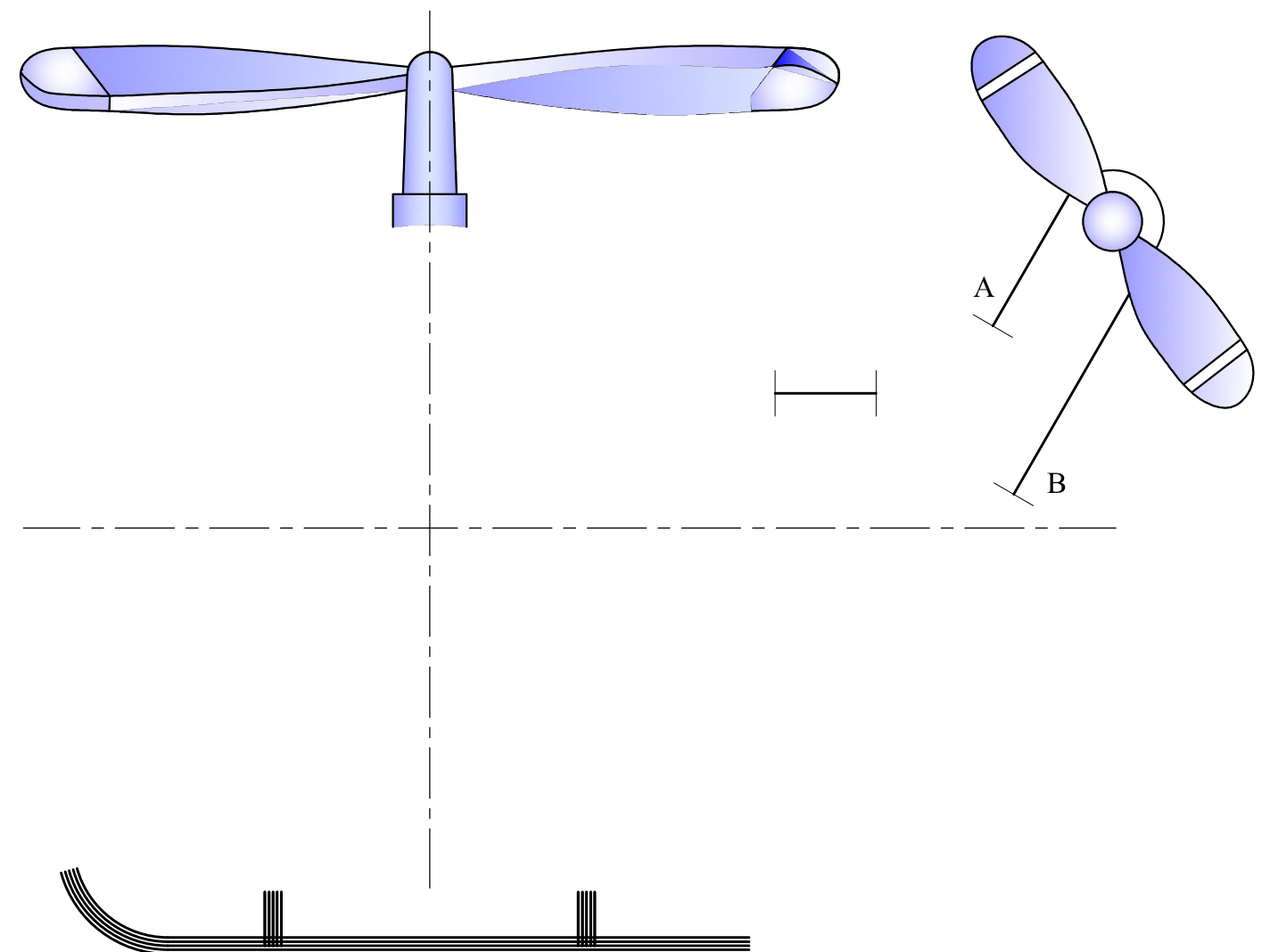
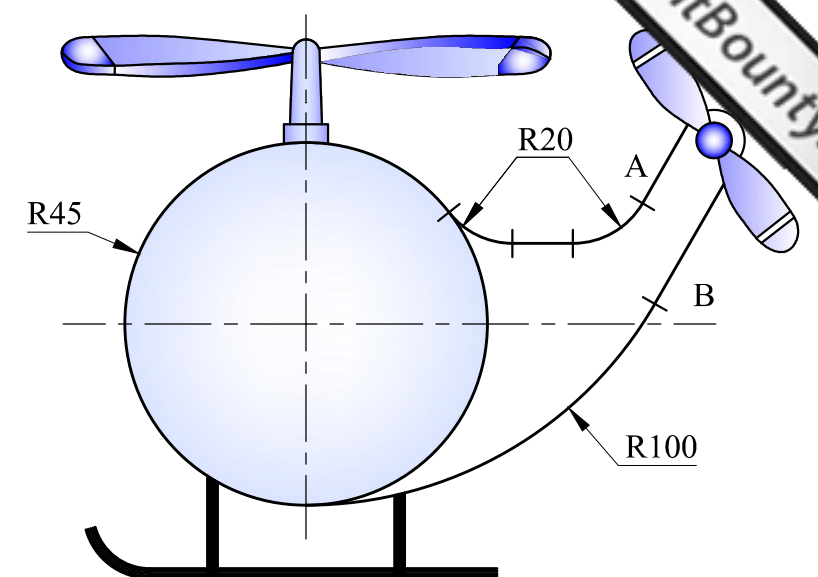
Question 2. The profile of a hot air balloon consists mainly of a part ellipse and two tangential straight portions. On the given start lines and using the given dimensions:

- Construct a part ellipse PQ major axis 126mm and minor axis 88mm.
 - Locate geometrically the Focal Points.
 - Construct tangents at points P and Q to complete the balloon.
- (15 marks)

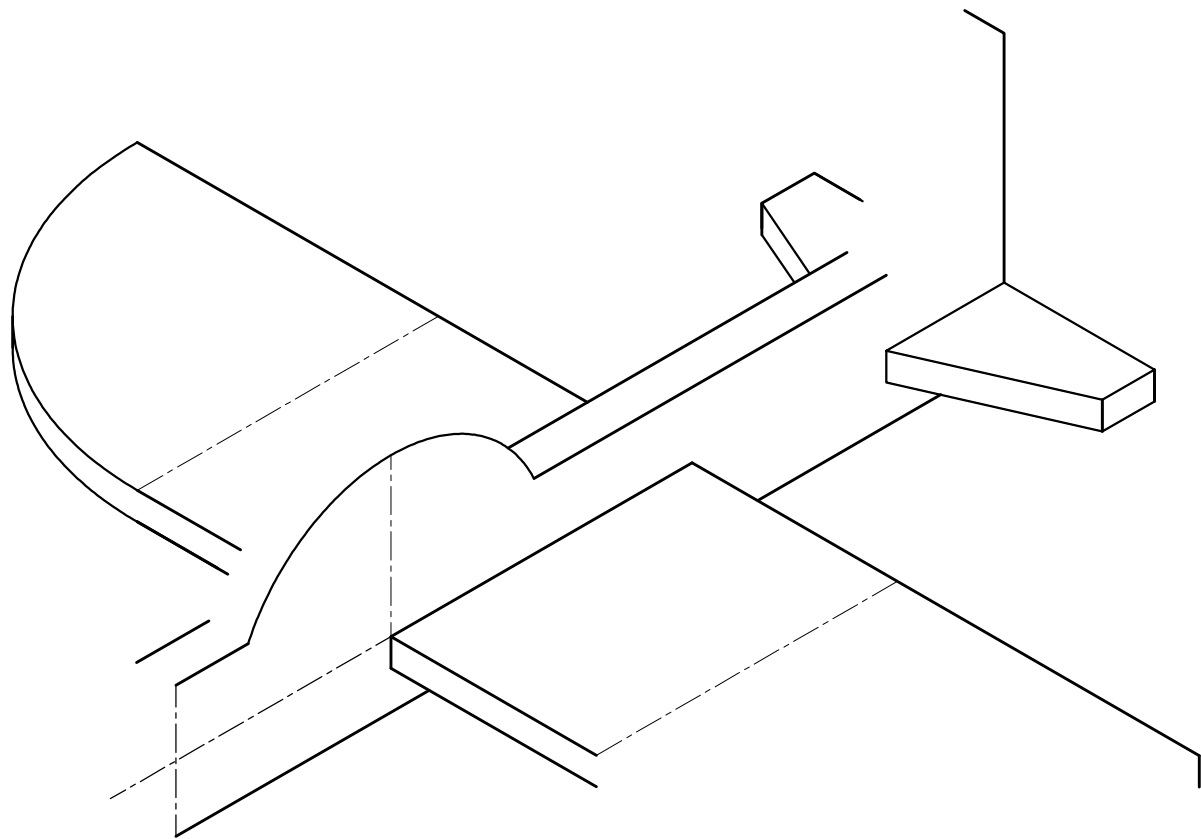
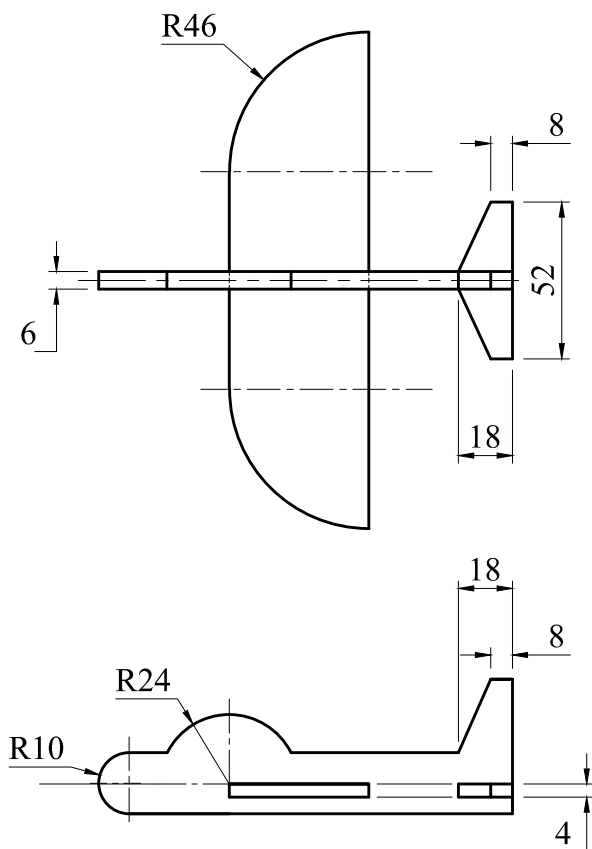
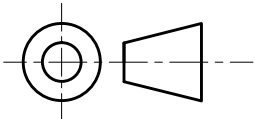


Question 3. A dimensioned profile of a toy helicopter is given. Using the given start lines, complete the outline showing clearly the constructions used to locate centres and points of tangencies. Complete the two supports.

Note:
Dashes A and B are tangential points.
(15 marks)



Question 4. Two orthographic views of a Balsa Wood Glider are given on the right. An incomplete isometric view of the glider is given below. On the given start lines and using the given dimensions, complete the isometric drawing. (16 marks)



Question 5. The three pictograms shown below are designed to help travellers find their way through an airport. In the space provided below, design a pictogram that indicates:

ARRIVING FLIGHTS

Note: Shade your drawing to match the given pictograms.

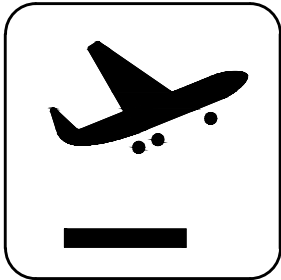
(14 marks)



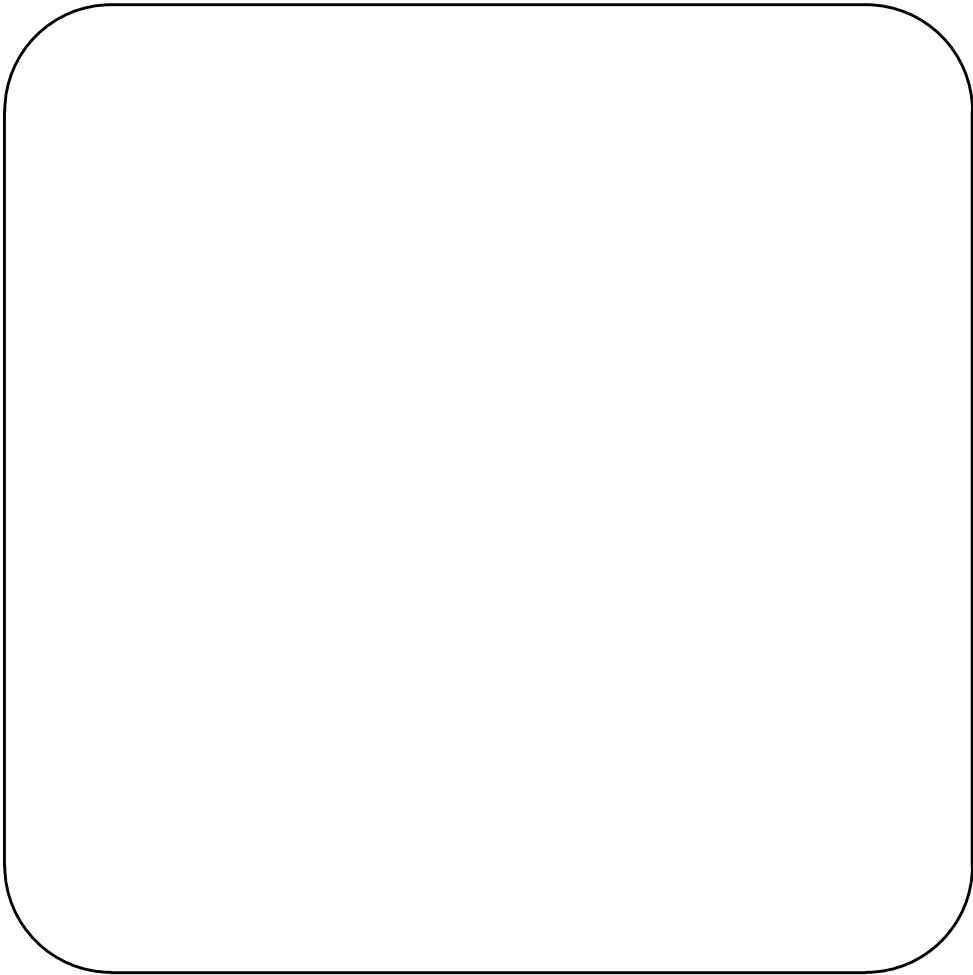
CUSTOMS



TICKET PURCHASE



DEPARTING FLIGHTS



ARRIVING FLIGHTS

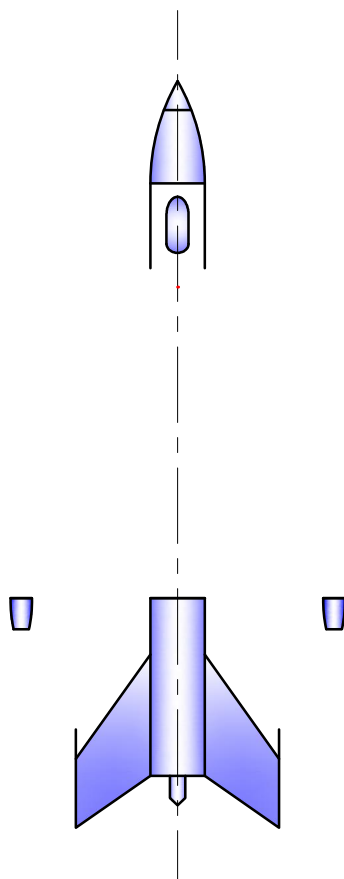
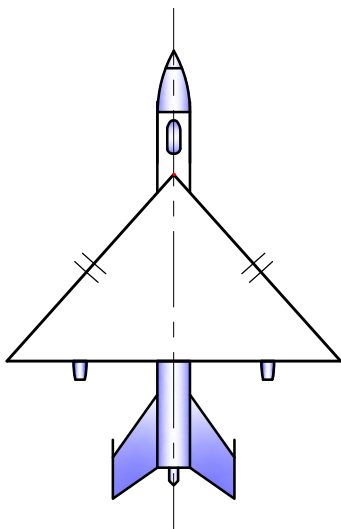
Question 6. The drawing of a military jet is shown on the right. The start lines of the same drawing are given below.

- a. Complete the wings of the jet by constructing an **isosceles** triangle which has a perimeter of 184mm and its sides are in the proportion of 3 : 4 : 3.

- b. Complete the drawing

Note: Leave all construction lines visible.

(10 marks)

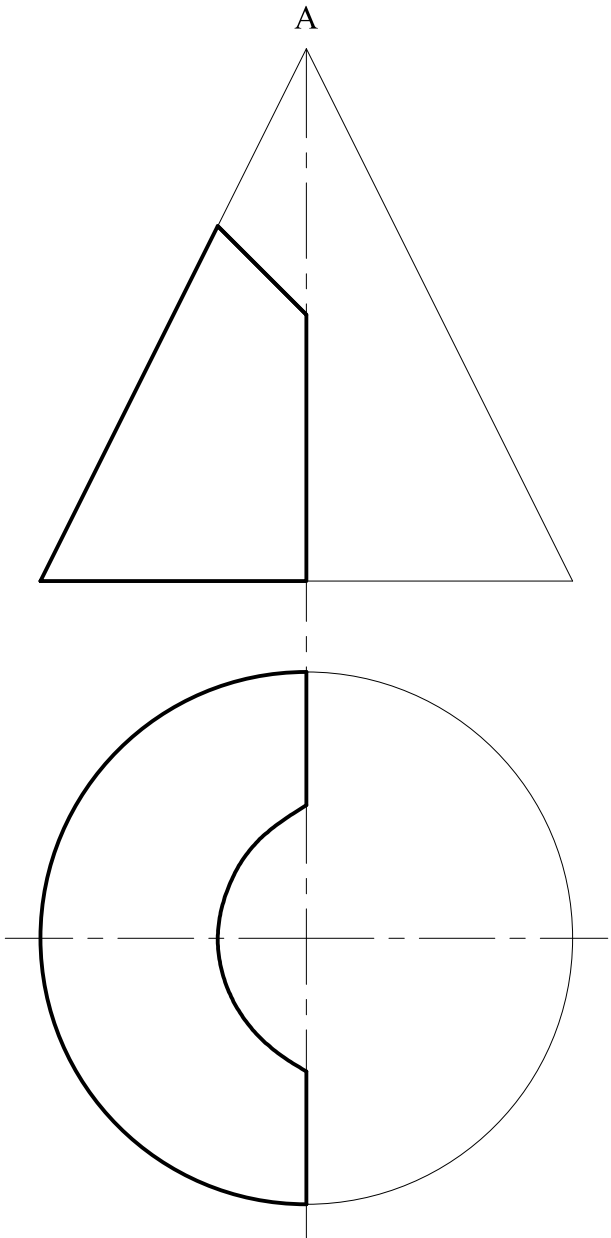


Question 7. The windshield of a model aeroplane consists of a cut cone. The front elevation and the plan of the truncated cone are given below.

In the space provided, construct the surface development of the windshield.

(14 marks)

Windshield



A

