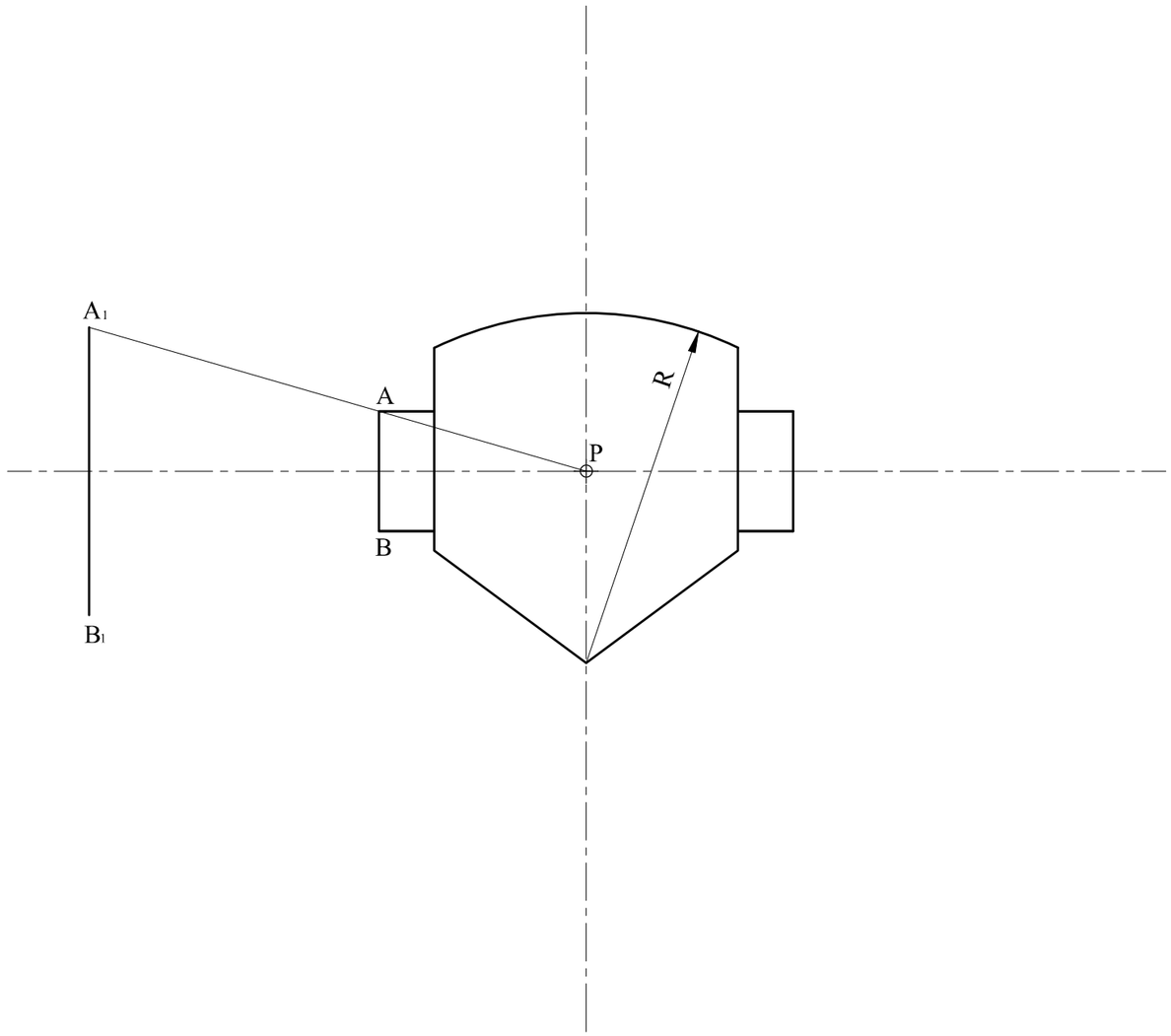
Question 1. A drawing of a motor bike logo is shown below. By means of geometrical construction, line AB has been enlarged to A_1B_1.
Complete the construction to enlarge the whole drawing using centre P as the pole.
Note: Construct the left-hand side of the logo and reflect the right-hand side.

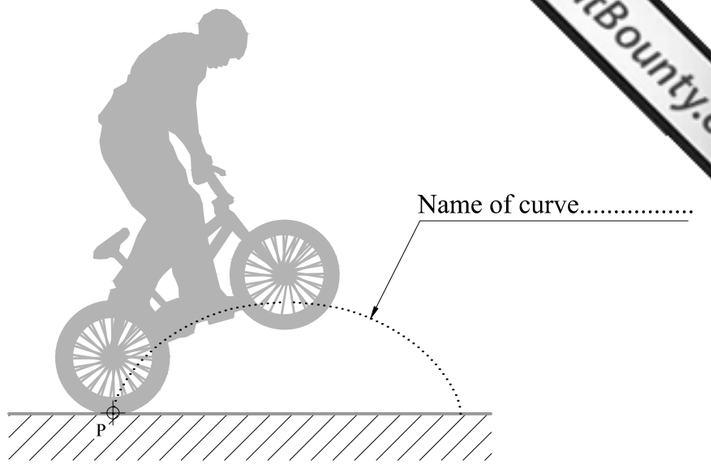
(10 marks)



Question 2. The profile of a cyclist on a motocross bike is given on the right. Starting from the given position, the rear wheel is to turn forward for one revolution on a horizontal platform without slipping. Using the given start lines below:

a. Trace the locus of point P.
b. In the space provided, state the name of the curve traced.

(14 marks)



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GRAPHICAL COMMUNICATIO

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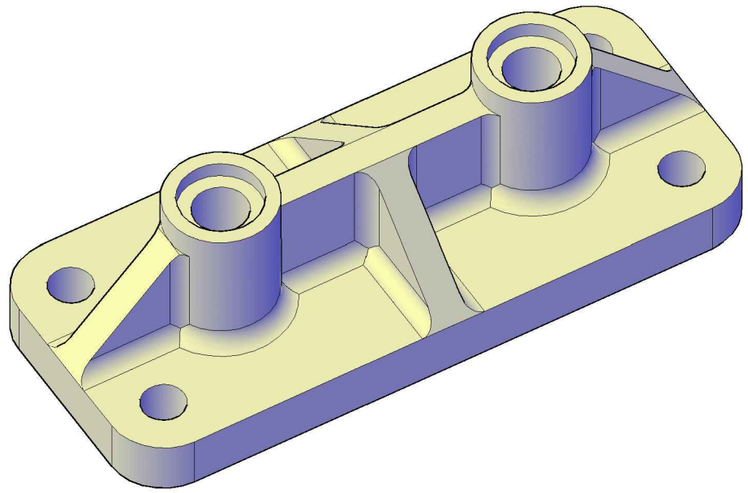
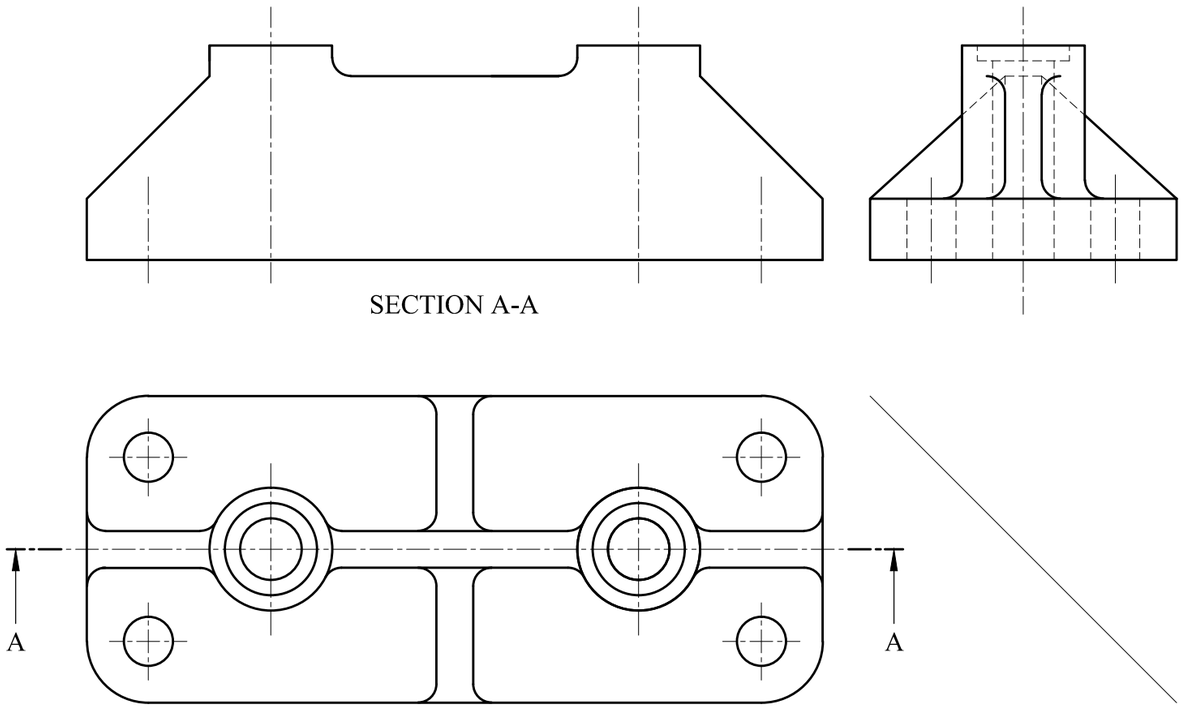
Question 3. A pictorial view, an end view, a plan view and an incomplete front view of a cast iron **Base Plate** are given.

a. Complete the sectional front A-A.
b. Draw the symbol of the projection used.

(15 marks)



Projection Symbol

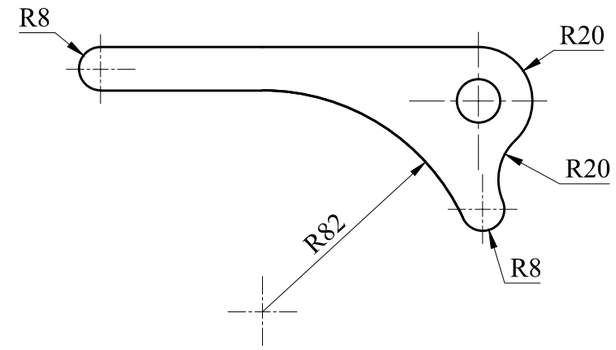


Question 4. A dimensioned profile of a bicycle brake handle is shown on the right.

Using the start lines given below, construct the handle.

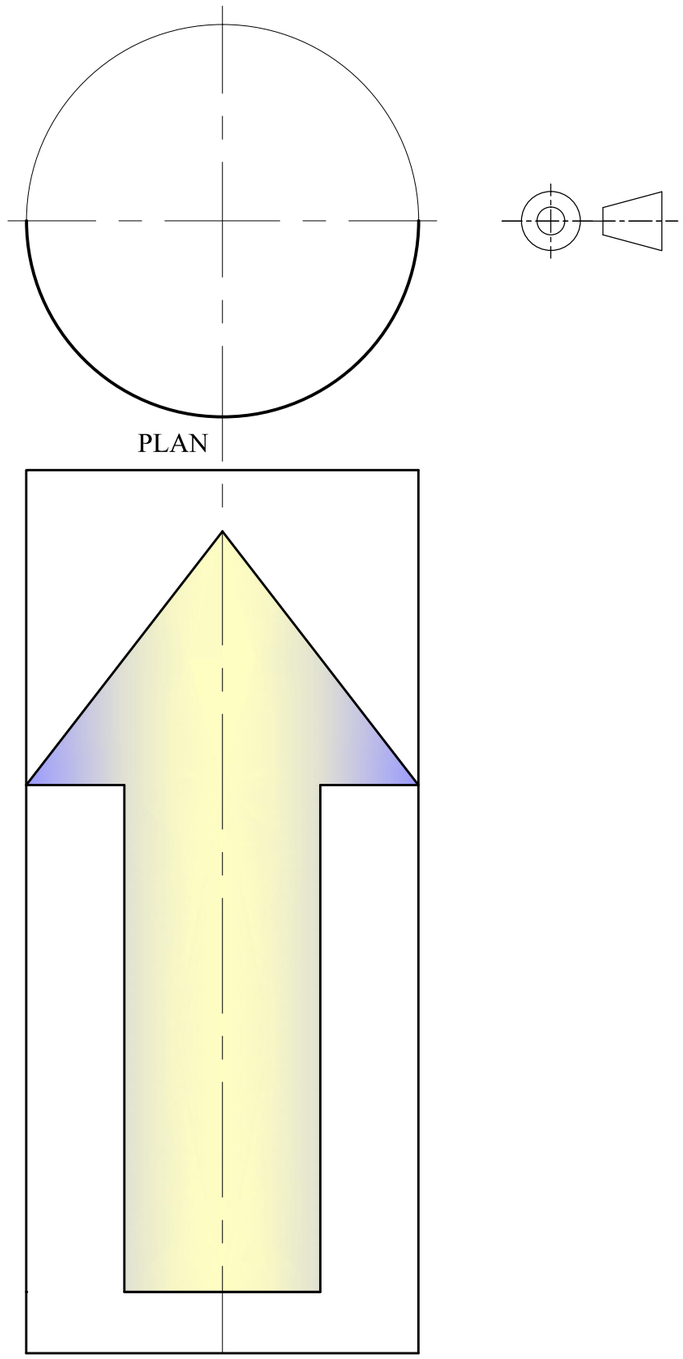
Note: Leave all constructions necessary to locate centres and points of tangencies visible.

(15 marks)



Question 5. The pictorial view given shows an arrow-shaped badge which is fitted on the head tube of a bicycle. The widest part of the badge covers half the circumference of the tube.
Using the front elevation and plan given below, construct the surface development of the arrow.

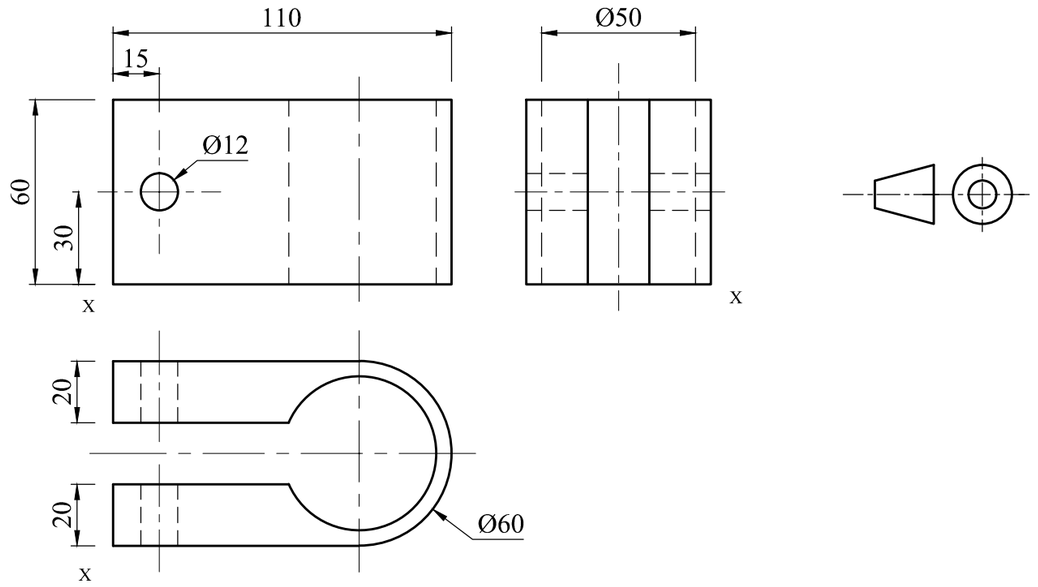
(12 marks)



SURFACE DEVELOPMENT OF ARROW

Question 6. Three dimensioned orthographic views of a bike seat clamp are given. In the [illegible]ided below and on the given start lines, project a **full size isometric view** placing corner X in th[illegible]t position.

(16 mar[illegible]



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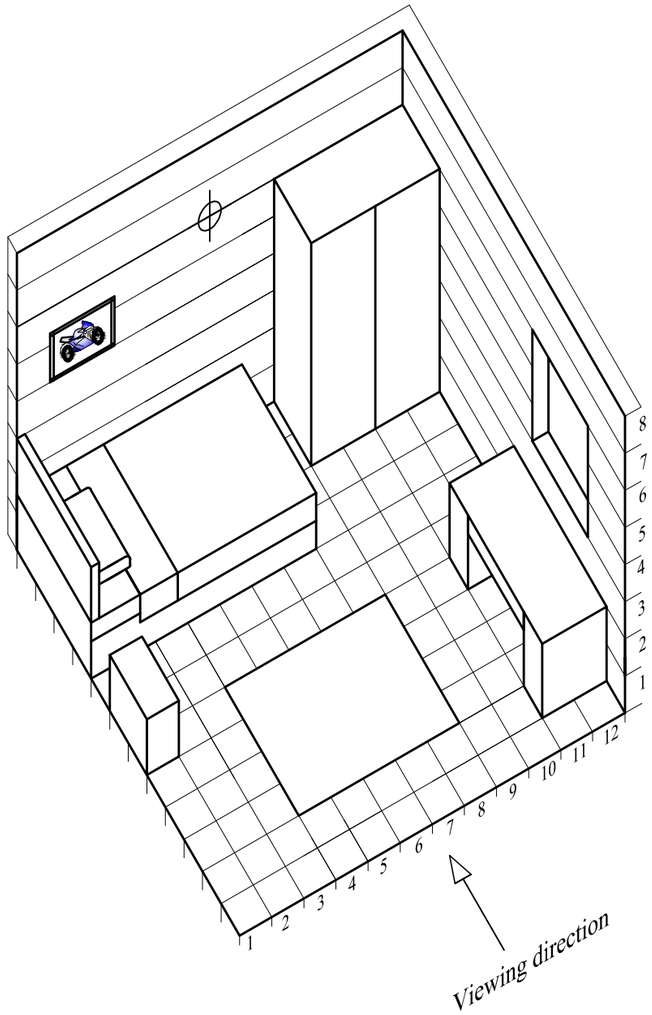
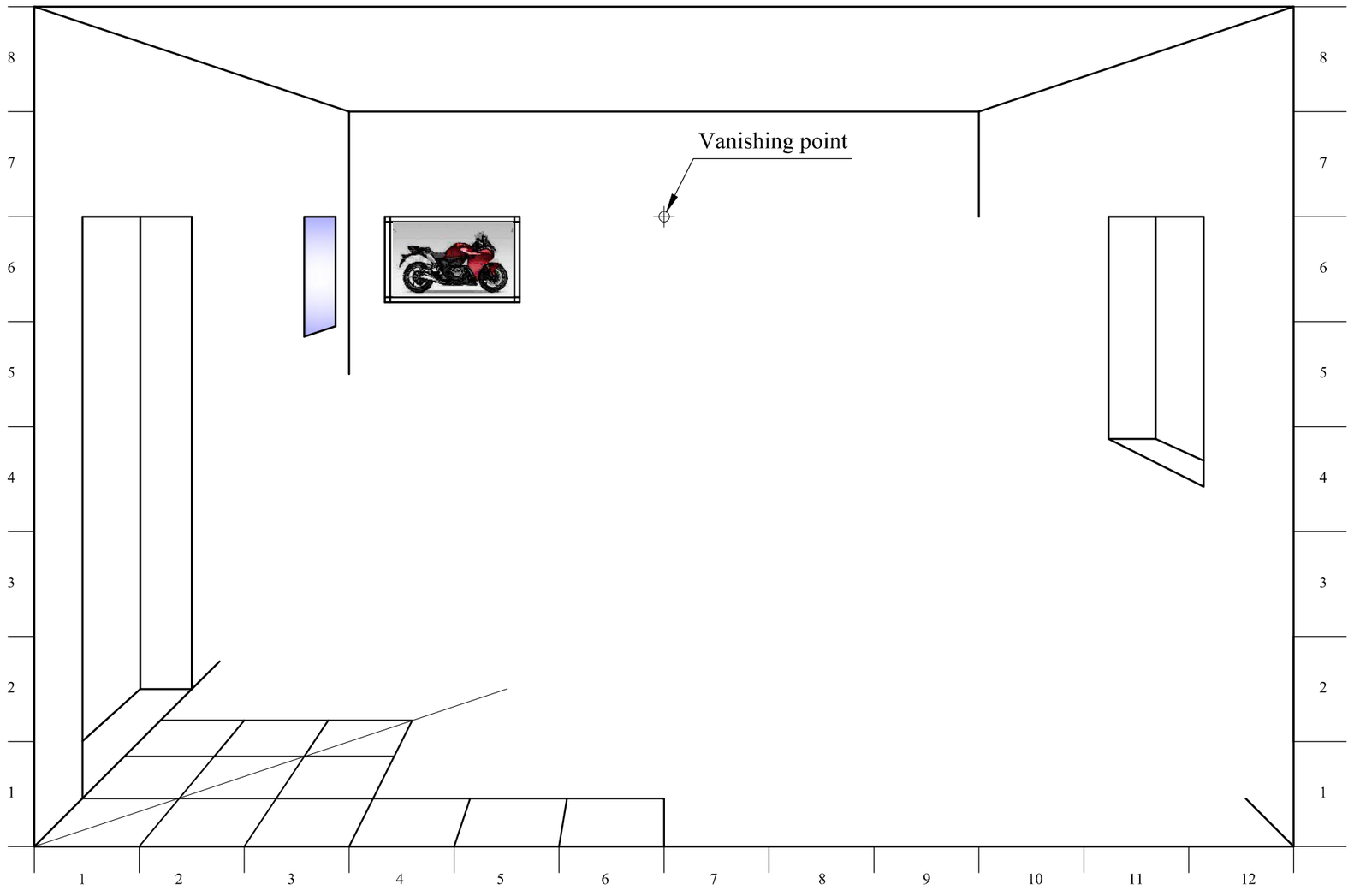
Question 7. A complete planometric view of a student's room is given below. The length, width and height of the room is 12 units X 12 units X 8 units. The start lines of an **estimated single-point perspective view** of the room are also given below. The vanishing point is indicated and the tiles and courses are numbered. Complete the perspective view by following the given steps:

a. Complete the construction of the floor tiles (12 tiles x 12 tiles).
b. Insert the furniture and the carpet (use the tiles and courses to determine the dimensions).
c. Line in with a bold outline the visible tiles, carpet and furniture.

(18 marks)





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Class: