

HW 3 Engineering Curves II

1. A point P is 25 mm and 35 mm respectively from two straight lines which are at right angles to each other. Draw a rectangular hyperbola from P within 8 mm distance from each line.
2. The foci of an ellipse are 120 mm apart. The minor axis is 70 mm long. Determine the length of the major axis and draw half ellipse by rectangle method and other half by concentric circles method.
3. A boy, standing on the terrace of a building of 15 m height, throws a ball, which has its height flight and just crosses a tree of 25 m height. Trace the path of the ball, if the distance between the building and the tree is 8 m.
4. A curve is the locus of the point, moving in a plane, such that the ratio of its distances from the focus to that of directrix is constant and equal to one. Given the distance between focus F and the directrix DD. i.e. $RF = 36$ mm. Draw a curve and give the name.