

National Institute of Open Schooling
Secondary Course: Mathematics
Lesson 10: Lines and Angles
Worksheet-10

1. Mark a point on a sheet of paper and draw lines passing through the point as your wish. Observe how many lines could be drawn through the point?
2. By taking two distinct lines AB and CD in a plane, draw two lines are parallel and intersecting to each other. Find out how many point(s) they have in common?
3. Differentiate between concurrent lines and parallel lines and draw it on the sheet of paper.
4. Draw any two acute angles and an obtuse angle on the sheet of paper.
5. How complementary angles are different from supplementary angles? Draw the complementary angles on the paper.
6. If two lines PQ and RS are intersect to each other at the point 'O', then find the pair of vertically opposite angles and relationship between them.
7. A transversal line (P) intersects two parallel lines L_1 and L_2 . Find out the angles in
 - i. Each pair of corresponding angles
 - ii. Each pair of alternate angles
8. Categorize different types of triangles on the basis of sides and angles. Draw these angles on the sheet of paper.
9. Prove that sum of angles of triangle is 180° , without measuring the angles.
10. In triangle ABC, the angle bisect of $\angle B$ and $\angle C$ intersect to each other at the Point 'O' internally, Prove that $\angle BOC = 90^\circ + \frac{1}{2}\angle A$