

CLASS IX
MATHEMATICS
TRIANGLES
HANDOUT
MODULE – 2/4

In this module we will discuss what we have studied the important concepts so far in this chapter.

a) Properties of triangles:

(i) Angle sum property: Sum of the three angles of a triangle is 180° .

(ii) Exterior angle property: In a triangle if any side is extended the angle so formed is an exterior angle which is equal to the sum of the interior opposite angles.

(b) Congruent figures:

Two figures are congruent if they have same shape and same size.

(c) Congruent relations:

(d) Congruent Criteria: (i) SAS Congruent Criteria

Now in this module we will discuss other Congruent Criteria

1. ASA Congruence rule (Theorem):- Two triangles are congruent, if two angles and the included side of one triangle are equal to two angles and the included side of other triangle.

ASA congruence criteria (rule) is needed to be proved.

2. AAS congruence criteria: - Two triangles are congruent, if any two angles and one side of one triangle are equal to two angles and the side of other triangle.

3. SSS congruence criteria:- Two triangles are congruent, if three sides of one triangle are equal to corresponding sides of other triangle.

4. RHS congruence criteria: - In two right triangles, if hypotenuse and one side of one triangle are equal to hypotenuse and one side of other triangle are equal then two triangles are congruent.
