

CLASS IX
MATHEMATICS
TRIANGLES

HANDOUT
MODULE – 4/4

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 (ii) ASA (AAS) (iii) SSS (iv) RHS

Some properties of the triangle:

1. Angles opposite to equal sides of an isosceles triangle are equal.
2. Sides opposite to equal angles of a triangle are equal.

Now in this module we will discuss some inequalities of a triangle.

1. If two sides of a triangle are unequal, the angle opposite to the longer side is larger (greater).
2. In any triangle, the side opposite to the larger (greater) angle is longer.
3. The sum of any two sides of a triangle is greater than the third side.
