

Ch-7 Triangles

1. Two geometrical figures are congruent, if they have exactly the same shape and size.
2. Two triangles are congruent, if and only if their corresponding sides and the corresponding angles are equal.
3. Two triangles are congruent, if two sides and the included angle of one triangle are equal to the corresponding sides and the included angle of the other triangle. (SAS)
4. Two triangles are congruent. if two angles and the included side of one triangle are equal to the corresponding two angles and the included side of the other triangle. (ASA)
5. If any two angles and a non-included side of one triangle are equal to the corresponding angles and side of another triangle respectively, then the two triangles are congruent. (AAS)
6. Two triangles are congruent, if the three sides of one triangle are equal to the corresponding three sides of the other triangle. (SSS)
7. Two right triangles are congruent, if the hypotenuse and one side of one triangle are respectively equal to the hypotenuse and one side of the other triangle. (RHS)
8. Angles opposite to two equal sides of a triangle are equal.
9. If two angles of a triangle are equal, then the sides opposite to them are also equal.
10. If two sides of a triangle are unequal, the longer side has greater angle opposite to it.
11. In a triangle, the greater angle has the longer side opposite to it.
12. The sum of any two sides of a triangle is greater than the third side.
13. Difference of any two sides of a triangle is less than the third side.