

CLASS 7

MATHS

REVISION NOTES

Revision Notes for Class 7 Maths Chapter 9: Geometric Twins

Quick revision notes summarizing all key concepts from Class 7 Maths Chapter 9 "Geometric Twins".

Quick revision notes summarizing all key concepts from Class 7 Maths Chapter 9 “Geometric Twins”.

Congruent figures are figures that are identical in shape and size — one can be superimposed exactly on the other.

Two **circles** are congruent exactly when they have the same radius (or diameter).

Two **rectangles** are congruent exactly when they have the same length and the same breadth.

Congruence criteria for triangles: SSS (all three sides equal), SAS (two sides + the included angle equal), ASA (two angles + the included side equal), AAS (two angles + a non-included side equal), RHS (right angle + hypotenuse + one side equal, for right triangles only).

SSA (two sides + a non-included angle) is NOT a valid congruence criterion in general — it can produce two different triangles (the ambiguous case), except in the special right-angle case where it becomes RHS.

AAA (all angles equal) only proves similarity, not congruence — congruence needs matching size (at least one side), not just matching shape.

The order of vertices in a congruence statement (e.g. $\triangle ABC \cong \triangle DEF$) shows the exact correspondence of vertices, sides, and angles; any single pair of congruent triangles can be written correctly in six different vertex orders.

CPCT (Corresponding Parts of Congruent Triangles) means that once two triangles are shown congruent, all their corresponding sides and angles are automatically equal.

In an **isosceles triangle**, the angles opposite the two equal sides are equal (base angles equal). In an **equilateral triangle**, all three sides and all three angles (60° each) are equal.

Angle-chasing in compound figures uses: angle sum of a triangle = 180° , angles on a straight line (linear pair) = 180° , and vertically opposite angles are equal.

See also: [NCERT Solutions for Class 7 Maths Chapter 9](#)

Practice more: [Extra Questions for Class 7 Maths Chapter 9](#)

For the full chapter, see the [Class 7 Maths book page](#) and the [Class 7 Maths Formulas Handbook](#).