Theorems of Triangles



Similarity of Triangles

Two triangles are similar if their corresponding angles are congruent and corresponding sides are in proportion.

Tests of similarity: (AA / SSS / SAS)

For similar triangles, if the sides are in the ratio of a:b

- ⇒ Corresponding **heights**are in the ratio of a:b
- \Rightarrow Corresponding **medians** are in the ratio of a:b
- ⇒ **Circumradii** are in the ratio of a:b
- ⇒ Inradii are in the ratio of a:b
- \Rightarrow **Perimeters** are in the ratio of a:b
- \Rightarrow Areas are in the ratio a^2 : b^2

Congruency of Triangles

Two triangles are congruent if their corresponding sides and angles are congruent.

Testsofcongruence: (SSS / SAS / AAS / ASA)

All ratios mentioned in similar triangle are now 1:1