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## **Basic Concepts with Examples**

- SIMILAR TRIANGLES. Two triangles are said to be similar if
  - (i) Their corresponding angles are equal and
  - (ii) Their corresponding sides are proportional.
- All congruent triangles are similar but the similar triangles need not be congruent.
- Two polygons of the same numbers of sides are similar, if
  - (i) Their corresponding angles are equal and
  - (ii) Their corresponding sides are in the same ratio.
- BASIC PROPORTIONALITY THEOREM. In a triangle, a line drawn parallel to one side, to intersect the other sides in distinct points, divides the two sides in the same ratio.
- CONVERSE OF BASIC PROPORTIONALITY THEOREM. If a line divides any two sides of a triangle in the same ratio, the line must be parallel to the third side.