Practical Geometry

Condition for Uniquely drawing the Triangle

We need three measurements for Uniquely drawing the Triangle

Three Measurement could be (Two sides, One Angle), (three sides) and (2 angles, 1 side).

Condition for Uniquely drawing the Quadrilaterals

Five measurements can determine a quadrilateral uniquely

Here is some the measurement which will help us uniquely draw the quadrilaterals

1) A quadrilateral can be constructed uniquely if the lengths of its four sides and a diagonal is given.

2) A quadrilateral can be constructed uniquely if its two diagonals and three sides are known.

3) A quadrilateral can be constructed uniquely if its two adjacent sides and three angles are known.

4). A quadrilateral can be constructed uniquely if its three sides and two included angles are given

5) Some special property can help in uniquely drawing the quadrilaterals.

Example

Square with side given

Rectangle with side given

Rhombus with diagonals given