CHAPTER-7
TRIANGLES

EXCERSISE - 7.2

1. In traingles ABC and PQR, $\angle A = \angle Q$ and $\angle B = \angle R$. Which side of $\triangle PQR$ should be equal to side AB of $\triangle ABC$ so that the two triangles are congruent? Give reason for your answer.

2. In triangles ABC and PQR, $\angle A = \angle Q$ and $\angle B = \angle R$. Which side of $\triangle PQR$ should be equal to side BC of $\triangle ABC$ so that the two triangles are congruent? Give reason for your answer.

3. "If two sides and an angle of one triangle are equal to two sides and an angle of another triangle, then two triangles must be congruent."Is the statement true ? Why ?

4. "If two angles and a side one triangle are equal to two angles and a side of another triangle, then the two triangles must be congruent."Is the statement true ? Why ?

5. Is it possible to construct a triangle with lengths of its sides as 4 cm, 3 cm and 7 cm? Give reason for your answer.

6. It is given that $\triangle ABC \cong \triangle RPQ$. Is it true to say that BC = QR? Why ?

7. If $\triangle PQR \cong \triangle EDF$, then is it true to say that PR = EF? Give reason for your answer.

8. In $\triangle PQR$,$\angle P = 70^\circ$ and $\angle R = 30^\circ$. Which side of the triangle is the longest? Give reason for your answer.

9. AD is a median of the triangle ABC. Is it true that AB + BC + CA $>$ 2AD? Give reason for your answer.

10. M is a point on side BC of a triangle ABC such that AM is the bisector of $\angle BAC$. Is it true to say that perimeter of the triangle is greater than 2AM? Give reason for your answer.

11. Is it possible to construct a triangle with lengths of its sides as 9 cm, 7 cm and 17 cm? Give reason for your answer.

12. Is it possible to cosntruct a triangle with lengths of its sides as 8 cm, 7 cm and 4 cm? Give reason for your answer.