9th Comprehensive test paper Chapter Triangles

MULTIPLE CHOICE OUESTIONS

Mathematics for Class IX

1. From the given figure we can conclude
   (a) $\Delta ABC \cong \Delta PQR$ (b) $\Delta ABC \cong \Delta QPR$
   (c) $\Delta ABC \cong \Delta RPQ$ (d) $\Delta BCA \cong \Delta RQP$

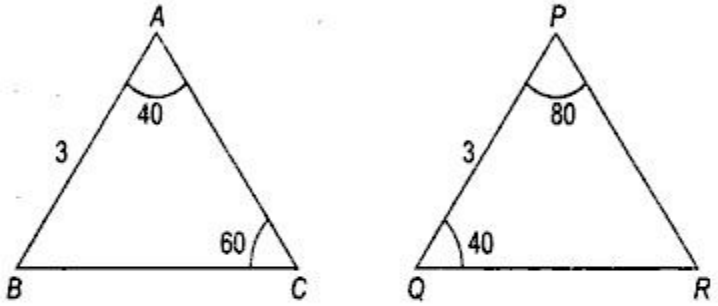
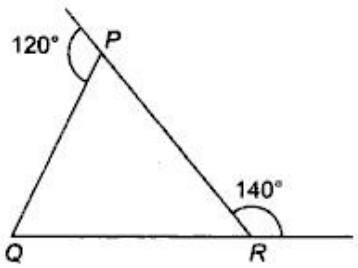


Fig. Q. 1

2. The triangles given above are congruent by
   (a) *SAS* Axiom (b) As *A* axiom (c) *RHS* Axiom (d) *SSS* Axiom.
3. $\Delta ABC \cong \Delta XYZ$, $\angle A = 55°$ and $BC = 3.5$ cm then $\angle X$ and zy are respectively
   (a) 45°, 5.5 cm (b) 55°, 3.5 cm (c) 3.5 cm, 45° (d) 65° 3.5 cm.
4. $\Delta PQR \cong \Delta BAC$, $AB = (3x - 2)$ cm and $QP = (2x + 3)$ cm then $x =$
   (a) 1 cm (b) 3 cm (c) 5 cm (d) 2 cm
5. Which one of the following measurement cannot be sides of a triangle.
   (a) 3, 4, 5 (b) 5, 8, 12 (c) 7, 6, 4 (d) 4, 12, 7
6. In ΔABC, $AB = 13$ cm, $BC = 5$ cm and $CA = 12$ cm then which angle will be greatest
   (a) $\angle A$ (b) $\angle B$ (c) $\angle C$ (d) all are equal
7. In triangles PQR and STU, $PQ = TS$ $RP = US$ then which two angles should be equal so t $\Delta PQR \cong \Delta STU$ by *SAS*
   (a) $\angle P = \angle T$ (b) $\angle Q = \angle T$ (c) $\angle R = \angle P$ (d) $\angle P = \angle S$
8. In given figure longest side is
   (a) *PQ* (b) *QR* (c) *PR* (d) all sides equal.



9. In the given fig two triangles congruent. Name the two triangles in order and by whicl congruency

(a) $\Delta ABC \cong \Delta PRQ$, by SAS (b) $\Delta ABC \cong \Delta PQR$ by SSS

(c) $\Delta ABC \cong \Delta PQR$ by SAS (d) $\Delta ACB \cong \Delta PQR$ by SAS

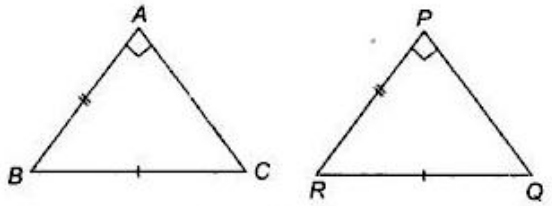


Fig. Q. 1

10. $\Delta ABC \cong \Delta RPQ$ if $\angle A = 30°$ and $\angle Q = 70°$ than $\angle C =$

(a) 30° (b) 80° (c) 70° (d) 100°

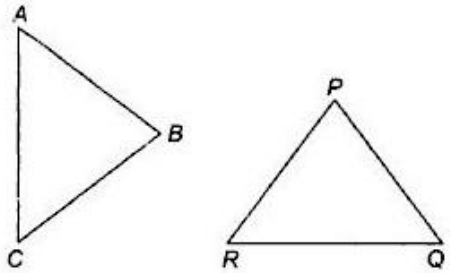
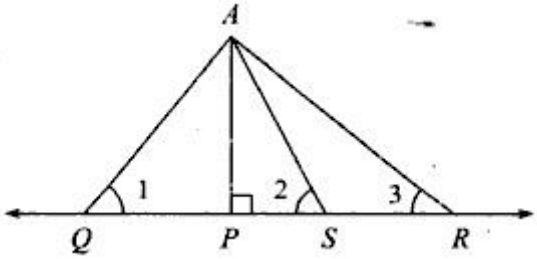
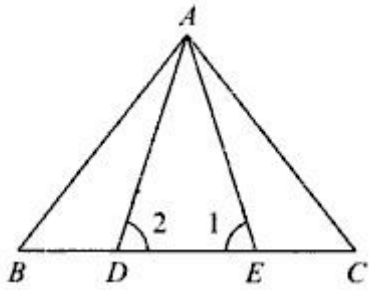


Fig. Q. 2

1	ΔABC is an isosceles triangle in which $AB = AC$. Side BA is produced to D, such that $AD = AB$. Show that $\angle BCD$ is a right angle.
2.	Two sides AB, BC and median AM of one triangle ABC are respectively equal to sides PQ, QR and median PN of ΔPQR. Prove that (i) $\Delta ABM \cong \Delta PQN$. (ii) $\Delta ABC \cong \Delta PQR$.
3.	If two altitudes of a triangle are equal then the triangle is an isosceles triangle.
4.	In Fig. $AP \perp l$ and $PR > PQ$. Show that, $AR > AQ$.
	
5.	Show that the difference of any two sides of a triangle is less than the third side.
6.	In the given figure, $AD = AE$, $BD = EC$ prove $AB = AC$.

	
7.	O' is any interior point of ΔABC, prove that $OA + OB + OC > \frac{1}{2}(AB + AC + BC)$.
8.	If P is a point on the perpendicular bisector of a line segment AB, then prove P is equidistant from A and B.
9.	In right triangle ABC, right angled at C, M is the mid point of hypotenuse AB, C is joined to M and produced to a point D, such that $DM = CM$. Point D is joined to point B. Show that: (i) $\Delta AMC \cong \Delta BMD$. (ii) $\angle DBC$ is right angle. (iii) $\Delta DBC \cong \Delta ACB$. (iv) $CM = \frac{1}{2}AB$.
10.	In Fig. $AC = AE, AB = AD$ and $\angle BAD = \angle EAC$. Show that, $BC = DE$.