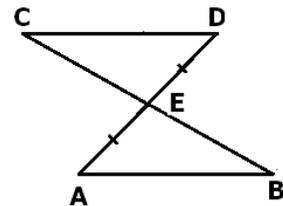


1. A triangle has _____ parts.
2. In triangle ABC, AB = 5cm, BC = 6cm and CA = 7cm. In triangle PQR, PQ = 5cm, QR = 7cm and PR = 6cm. triangle ABC is congruent to _____
3. Two right triangles are always congruent. True / False. Why?

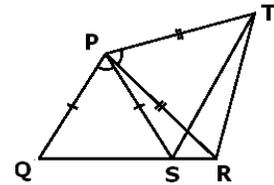
Section B 2 marks each

4. Line-segment AB is parallel to another line-segment CD. E is the mid-point of AD. Show that
(i) $\triangle AEB \cong \triangle DEC$
(ii) E is also the mid-point of BC. (See fig)
5. Angles opposite to equal sides of an isosceles triangle are equal. Prove.



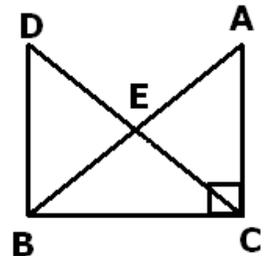
Section C 3 marks each

6. In Fig. PQ = PS, PR = PT and $\angle QPS = \angle RPT$. Show that QR = ST.
7. $\triangle ABC$ 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.



Section D 6 marks each

8. Two triangles are congruent if two angles and the included side of one triangle are equal to two angles and the included side of other triangle.
9. In right triangle ABC, right angled at C, E is the mid-point of hypotenuse AB. C is joined to E and produced to a point D such that DE = CE. Point D is joined to point B (see fig). Show that: (i) $\triangle AEC \cong \triangle BED$
(ii) DBC is a right angle.
(iii) $\triangle DBC \cong \triangle ACB$
(iv) $CE = \frac{1}{2} AB$
(v) E is equidistant from A, B and C



Absolutely Free