

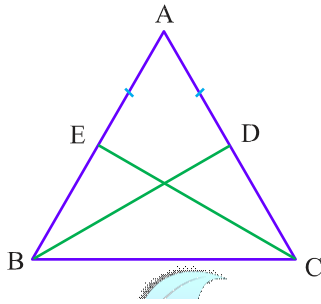


INDIAN LEARNERS OWN ACADEMY, KUWAIT

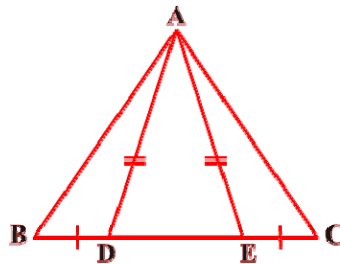
Class : IX	Subject : Mathematics
Assignment by : Mrs. Nusrat Unnisa	Topic / Lesson : Triangles

6th Assignment Questions:-

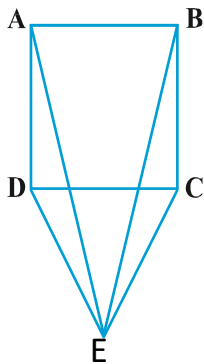
- 1) ABC is an isosceles triangle with $AB = AC$ and BD and CE are its two medians. Show that $BD = CE$.



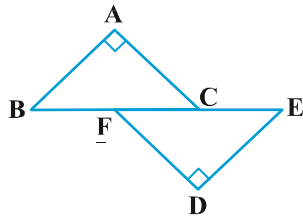
- 2) In Figure, D and E are points on side BC of a $\triangle ABC$ such that $BD = CE$ and $AD = AE$. Show that $\triangle ABD \cong \triangle ACE$.



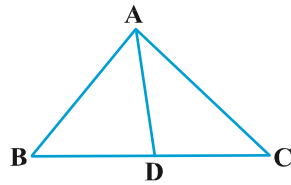
- 3) CDE is an equilateral triangle formed on a side CD of a square ABCD. Show that $\triangle ADE \cong \triangle BCE$.



4. In Figure, $BA \perp AC$, $DE \perp DF$ such that $BA = DE$ and $BF = EC$. Show that $\triangle ABC \cong \triangle DEF$.

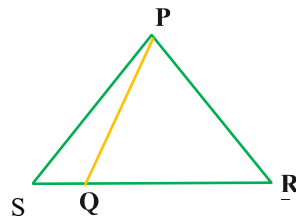


5. In Figure, AD is the bisector of $\angle BAC$. Prove that $AB > BD$.

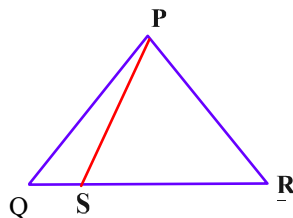


6. Q is a point on the side SR of a $\triangle PSR$ such that $PQ = PR$. Prove that $PS > PQ$.

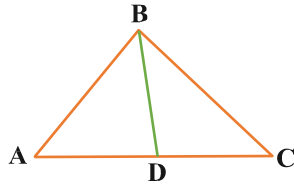
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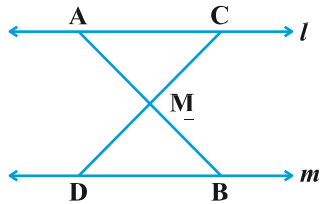
7. S is any point on side QR of a $\triangle PQR$. Show that: $PQ + QR + RP > 2 PS$.



8. D is any point on side AC of a $\triangle ABC$ with $AB = AC$. Show that $CD < BD$.



9. In Figure, $l \parallel m$ and M is the mid-point of a line segment AB. Show that M is also the mid – point of any line segment CD, having its end points on l and m , respectively.



10. Bisectors of the angles B and C of an isosceles triangle with $AB = AC$ intersect each other at O. BO is produced to a point M. Prove that $\angle MOC = \angle ABC$.