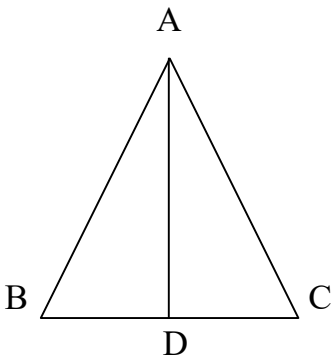
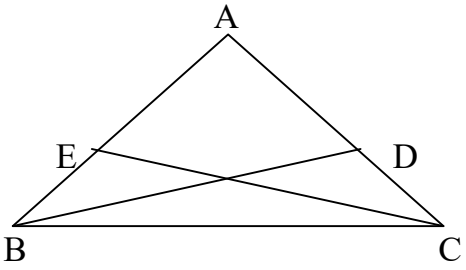
CONGRUENCY OF TRIANGLES

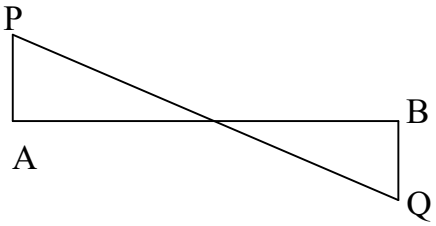
1. ABC is an isosceles triangle with side AB and AC equal. D is the midpoint of BC. Prove that-
   a. Angle B = Angle C.
   b. AD is perpendicular to BC.



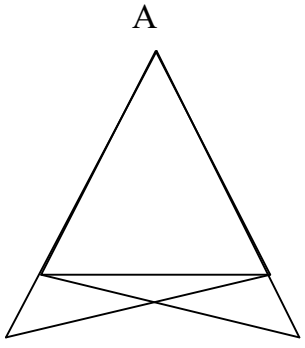
2. ABC is a triangle in which BD is perpendicular to AC and CE is perpendicular to AB. If BD=CF, prove that BE=CD.



3. In the following figure PA and QB are both perpendicular to AB and equal. Prove that PQ bisects AB.



4. ABC is a triangle in which BD is perpendicular to AC and CE is perpendicular to AB. If BD=CE, prove that BE=CD.



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