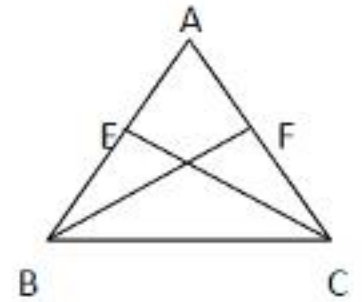


# JSUNIL TUTORIAL , SAMASTIPUR

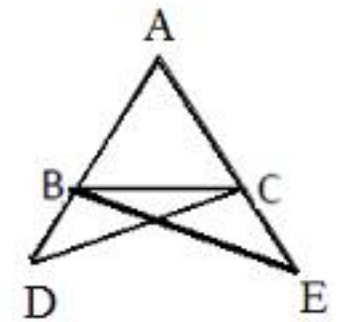
## 7<sup>th</sup> Congruence of triangle

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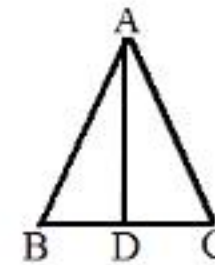
Q1. In given figure 01.  $AB=AC$  , E and F are mid point of AC and AB Prove that  $BC \perp EF$  and  $BE = CF$



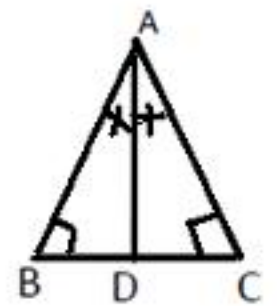
Q2. In given figure02.  $AB=AC$ , if AB and AC produce to D and E respectively such that  $BD=CE$  Prove that  $BE=CD$



Q3. In figure AD is perpendicular bisector of BC Prove  $AB=AC$



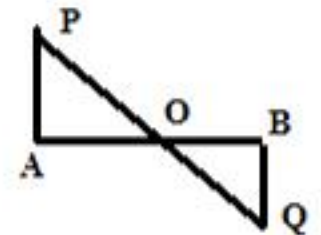
Q4. In given figure AD is bisector of  $\angle A$  of isosceles triangle  $AB=AC$  prove that  $\angle B = \angle C$



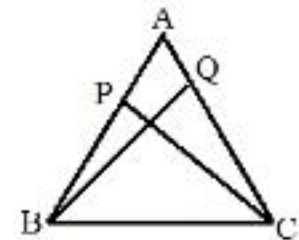
Q5. What are the conditions for congruency of triangle?

Q6. In a triangle ABC,  $AB=AC$  and  $BD=DC$  Prove that (i)  $\triangle ADB = \triangle ADC$  (ii)  $\angle ADB = \angle ADC$

7. In given figure  $PA \perp AB$  and  $QB \perp AB$  and  $PA=QB$  Prove that  $\triangle OAP = \triangle BOQ$

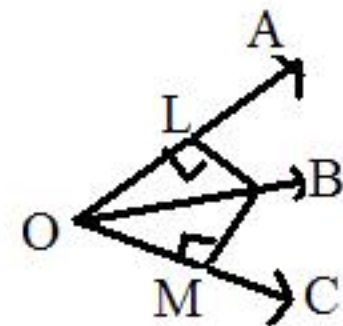


Q 8. In a triangle ABC, P and Q are points on equal sides AB and AC such that  $AP=AQ$  Prove that  $BQ=CP$



Q9. Prove that in an isosceles triangle, the angles opposite to the equal sides are equal

Q 10. In given fig.  $PL \perp OA$  and  $PM \perp OB$  such that  $PL=PM$ . Is  $\triangle PLO \cong \triangle PMO$ ?



Q11. Fill in the blanks

- Two square are congruent if they have same ----- and ----
- Two triangle are congruent if they have same ----- and -----
- Two circle are congruent if they have same -----
- Two line segments are congruent if they have -----
- Two angle are congruent if they have -----

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