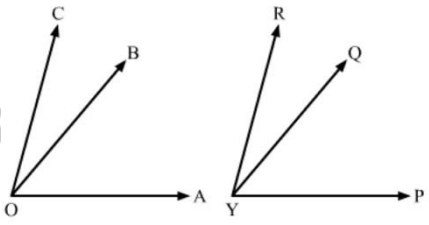
Subject: - Mathematics

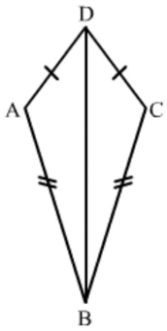
PRACTICE PAPER

CBSE-7th

Topic: - Congruence of Triangles

1. In Fig. $\angle AOC \cong \angle PYR$ and $\angle BOC \cong \angle QYR$. Name the angle which is congruent to $\angle AOB$.





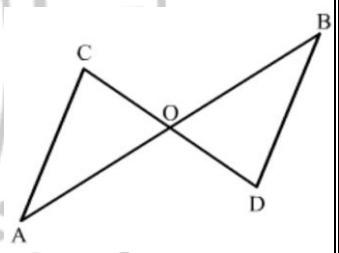
2. In Fig. AD = DC and AB = BC

a) Is $\Delta ABD \cong \Delta CBD$?

b) State the three parts of matching pairs you have used to answer it.

3. ABC and DBC are both isosceles triangles on a common base BC such that A and D lie on the same side of BC. Are triangles ADB and ADC congruent? Which condition do you see? If $\angle BAC = 40°$ and $\angle BDC = 100°$, then find $\angle ADB$.

4. In fig. line segments AB and CD bisect each other at O. Which of the following statement is true?



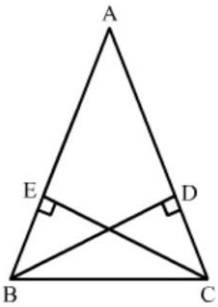
a) $\Delta AOC \cong \Delta DOB$

b) $\Delta AOC \cong \Delta BOD$

c) $\Delta AOC \cong \Delta ODB$

State the three parts of matching pairs you have used to answer it.

5. In fig. BD and CE are altitudes of ΔABC and BD = CE.

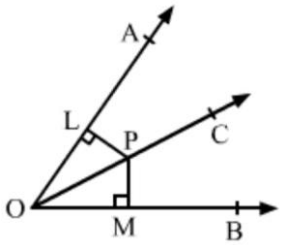


a) Is $\Delta BCD \cong \Delta CBE$?

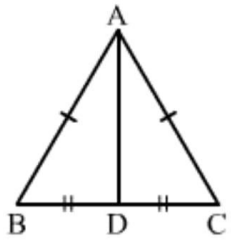
b) State the three parts of matching pairs you have used to answer it.

6. In fig. PL ⊥ OA and PM ⊥ OB such that PL = PM. Is $\Delta PLO \cong \Delta PMO$?

Give reason in support of your answer.



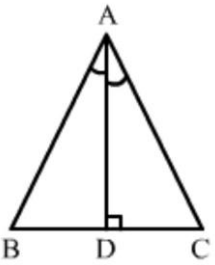
7. In fig. AB = AC and BD = DC. Prove that $\Delta ADB \cong \Delta ADC$ and hence show that: -



a) $\angle ADB = \angle ADC = 90°$

b) $\angle BAD = \angle CAD$.

8. In fig. ABC is a triangle in which AD is the bisector of $\angle A$. If AD $\perp$ BC , show that ΔABC is isosceles.



9. In fig. $AB \parallel DC$ and AB = DC

a) Is $\Delta ACD \cong \Delta CAB$

b) State the three pairs of matching parts used to answer it.

c) Which angle is equal to $\angle CAD$?

d) Does it follow from c) point that $AD \parallel BC$?