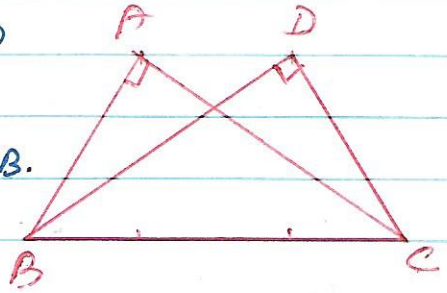
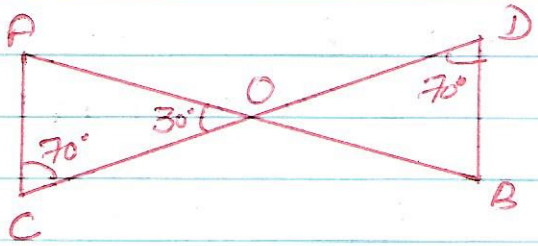
6) In fig, triangle ΔABC & ΔBCD are right angled at A & D respectively. Prove that $\Delta ABC \cong \Delta DCB$.

Is $AB = DC$? Give reason.



7) In fig, can you use ASA congruence rule and conclude that $\Delta AOC \cong \Delta BOD$?



8) It is to be established by RHS congruence rule that $\Delta ABC \cong \Delta RPQ$. What additional information is needed, if it is given that $\angle B = \angle P = 90°$ and $AB = RP$?

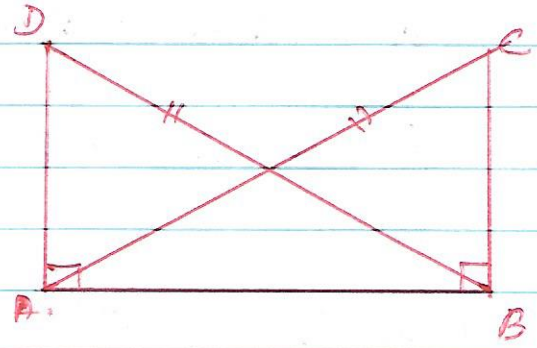
9) In fig, $DA \perp AB$, $CB \perp AB$ $AC = BD$.

State the three pair of equal parts in ΔABC and ΔDAB.

Which of the following statement is meaningful?

(i) $\Delta ABC \cong \Delta BAD$

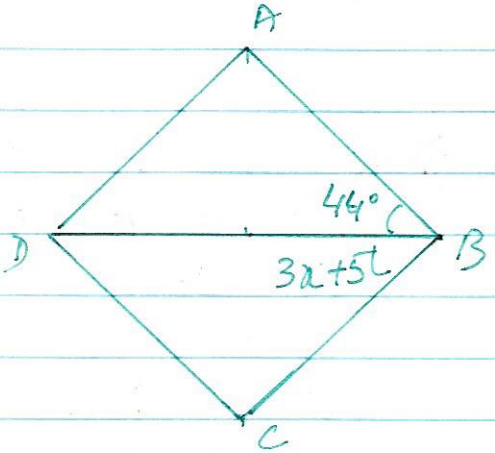
(ii) $\Delta ABC \cong \Delta ABD$



10) In given figure, $\Delta ADB \cong \Delta CDB$.

Find x if $\angle ABD = 44°$

$\angle DBC = (3x+5)°$



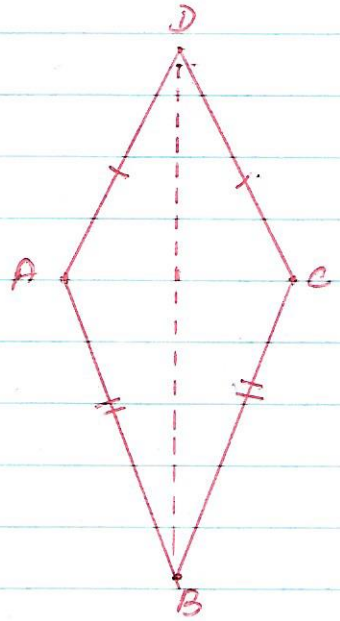
Chapter 7 : Congruence of Triangles

1) ΔABC and ΔPQR are congruent under the correspondance:
$ABC \leftrightarrow RQP$.
Write the parts of ΔABC that corresponds to
(i) $\angle P$ (ii) $\angle Q$ (iii) $\overline{RP}$

2) In ΔABC and ΔPQR, $AB = 3.5$ cm, $BC = 7.1$ cm, $AC = 5$ cm
$PQ = 7.1$ cm, $QR = 5$ cm, $PR = 3.5$ cm.

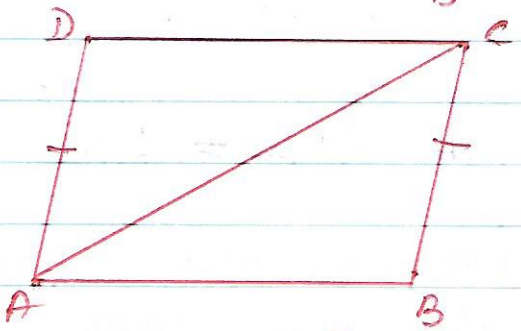
Find whether two triangles are congruent or not.

3) In fig $AD = CD$ and $AB = CB$.

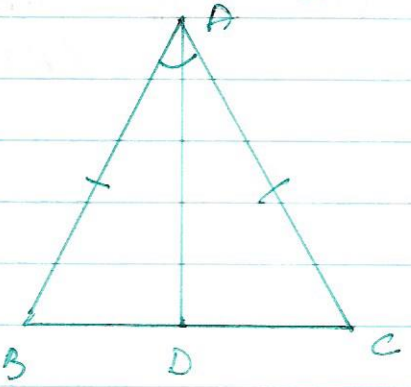


(i) State the three pairs of equal parts in ΔABD and ΔCBD.
(ii) Is $\Delta ABD \cong \Delta CBD$? Why or why not?
(iii) Does BD bisect $\angle ABC$? Give reason.

4) In the given fig, $AD = BC$
$AD \parallel BC$. Is $AB = DC$?
Give reasons.



5) In fig, $AB = AC$ and
AD is the bisector of $\angle BAC$.
(i) State three pair of equal parts in triangle ADB and ADC.
(ii) Is $\Delta ADB \cong \Delta ADC$? Give reason.
(iii) Is $\angle B = \angle C$? Give reason.

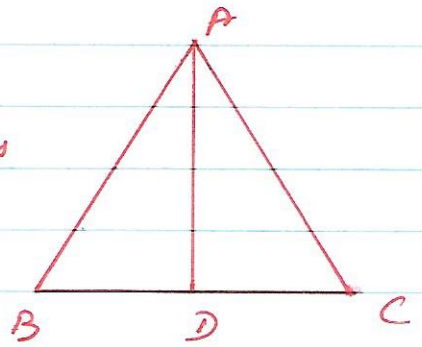


11) In ΔABC, $AB = AC$ and AD is the median.

(a) Write the three pairs of equal parts in ΔABD and ΔADC

(b) Is $\Delta ABD \cong \Delta ACD$; why?

(c) Is $\angle BAD = \angle CAD$; why?

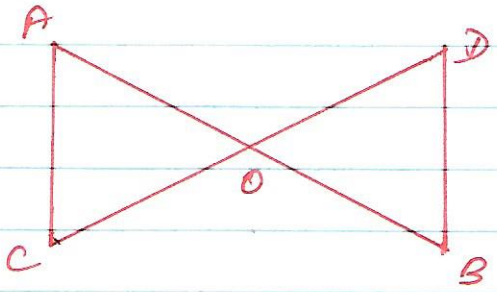


12) In the figure, lines AB and CD intersect at O and $OC = OD = 5$ cm.

$\angle ACO = 65°$, $\angle AOC = 35°$

$\angle BDO = 65°$.

Prove that $\Delta AOC \cong \Delta BOD$.



13) In the figure, PS bisects $\angle P$.

$PS \perp QR$.

(a) State the 3 pairs of equal parts in ΔPSQ and ΔPSR. Give reason.

(b) Is $\Delta PSQ \cong \Delta PSR$? If yes, give reason.

(c) Is $QS = SR$? Why or why not

(d) Is $\angle Q = \angle R$? Why or why not?