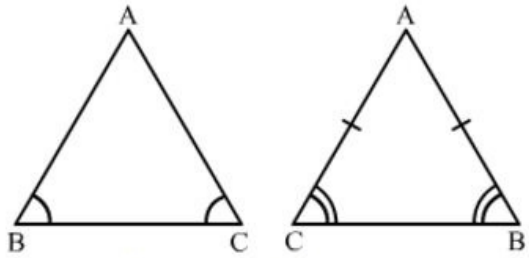
Congruence Ex 16.4 Q4

Answer :



(i) Yes $\triangle ABC \cong \triangle ACB$.

(ii) We have used $\angle ABC = \angle ACB$ *and* $\angle ACB = \angle ABC$ *again*.

Also BC = CB

(iii) Yes, it is true to say that AB = AC since $\angle ABC = \angle ACB$.

Congruence Ex 16.4 Q5

Answer :

As per the given conditions, $\angle CAD = \angle BAD$
and $\angle CDA = \angle BDA$ (because AX bisects $\angle BAC$)
$AD = DA$ (common)
Therefore, by ASA, $\triangle ACD \cong \triangle ABD$

Congruence Ex 16.4 Q6

Answer :

We have
$\angle OAC = \angle OBD$, $AO = OB$
Also, $\angle AOC = \angle BOD$ (Opposite angles on same vertex)
Therefore, by ASA $\triangle AOC \cong \triangle BOD$

********** END **********