Congruence Ex 16.2 Q7

Answer :

In $\triangle ABC$ and $\triangle BAD$ we have,
AC = BD (given)
BC = AD (given)
and AB = BA (common)
Therefore by SSS criterion of congruency, $\triangle ABC \cong \triangle BAD$.
There option (iii) is true.

Congruence Ex 16.2 Q8

Answer :

We have AB = AC.
Also since D is the midpoint of BC, BD = DC.
And AD = DA.
Therefore by SSS condition, $\triangle ABD \cong \triangle ADC$.

We have used AB, AC : BD, DC and AD, DA.

Congruence Ex 16.2 Q9

Answer :

Yes $\triangle ABC \cong \triangle ACB$ by SSS condition.
Since ABC is an isosceles triangle, AB = AC, BC = CB and AC = AB.

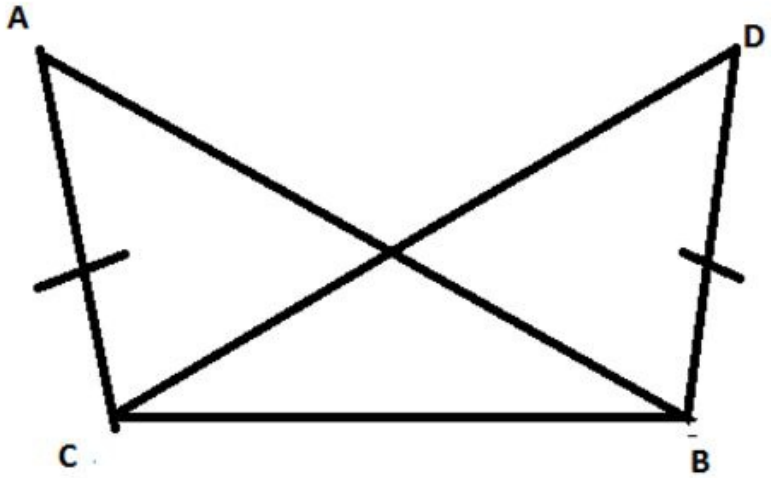
Congruence Ex 16.2 Q10

Answer :

Yes.

In $\triangle ABC$ and $\triangle DBC$
AB=DB (Given)
AC=DC (Given)
BC=BC (Common)
By SSS criterion of congruency, $\triangle ABC \cong \triangle DBC$

No, $\angle ABD$ and $\angle ACD$ are not equal
because $AB \neq AC$.



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