



Congruence Ex 16.2 Q1

**Answer :**

1) In  $\triangle ABC$  and  $\triangle DEF$

$AB = DE = 4.5$  cm (Side)

$BC = EF = 6$  cm (Side)

and  $AC = DF = 4$  cm (Side)

Therefore, by SSS criterion of congruence,  $\triangle ABC \cong \triangle DEF$ .

2)

In  $\triangle ACB$  and  $\triangle ADB$

$AC = AD$  (Side)

$BC = BD$  (Side)

and  $AB = AB$  (Side)

Therefore, by SSS criterion of congruence,  $\triangle ACB \cong \triangle ADB$ .

3)

In  $\triangle ABD$  and  $\triangle FEC$ ,

$AB = FE$  (Side)

$AD = FC$  (Side)

$BD = CE$  (Side)

Therefore, by SSS criterion of congruence,  $\triangle ABD \cong \triangle FEC$ .

Congruence Ex 16.2 Q2

**Answer :**

Yes  $\triangle ABD \cong \triangle CBD$  by the SSS criterion.

We have used the three conditions in the SSS criterion as follows:

$AD = DC$

$AB = BC$

and  $DB = BD$

Congruence Ex 16.2 Q3

**Answer :**

We have  $AB = DC$

$BC = AD$

and  $AC = AC$

Therefore by SSS  $\triangle ABC \cong \triangle CDA$ .

We have used Side Side Side congruence condition with one side common in both the triangles.

Yes, we have used the fact that  $AC = CA$ .

\*\*\*\*\* END \*\*\*\*\*

