

Mathematics

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(Chapter – 7) (Triangles)(Exemplar Problems)
(Class – IX)

Exercise 7.1

Write the correct answer in each of the following:

Question 11:

In triangles ABC and DEF, $AB = FD$ and $\angle A = \angle D$. The two triangles will be congruent by SAS axiom if

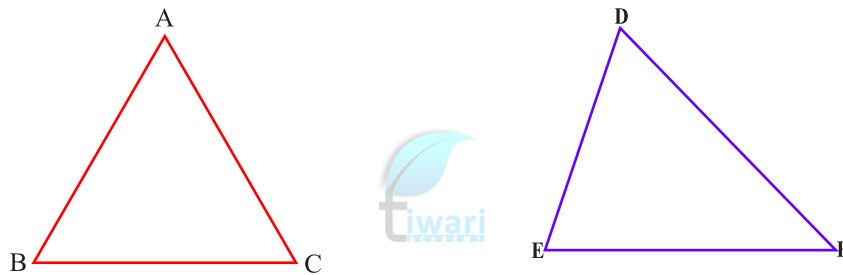
- (A) $BC = EF$ (B) $AC = DE$ (C) $AC = EF$ (D) $BC = DE$

 **Answer 11:**

- (B) $AC = DE$

Solution:

Given that: In triangles ABC and DEF, $AB = FD$ and $\angle A = \angle D$.



For SAS axiom, in triangles ABC, the sides adjacent to $\angle A$ (AB and AC) should be equal to sides adjacent to $\angle D$ (DE and DF in triangle DEF)

We have already given that $AB = DF$

$$\Rightarrow AC = DE$$

Hence, the option (B) is correct.

