

Mathematics

(www.tiwariacademy.net)

(Chapter – 5) (Introduction to Euclid’s Geometry)(Exemplar Problems)
(Class – IX)

Exercise 5.3

Solve each of the following question using appropriate Euclid’s axiom:

Question 10:

In the Fig. 5.10, we have $AC = DC$, $CB = CE$. Show that $AB = DE$.

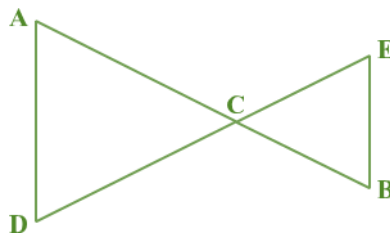


Fig. 5.10

Answer 10:

Given that:

and

$$\begin{aligned} AC &= DC \\ CB &= CE \end{aligned}$$

...(i)

...(ii)

According to Euclid’s axioms, if equals are added to equals, the then wholes are also equal.

So, on adding equation (i) and equation (ii), we get

$$\begin{aligned} \Rightarrow AC + CB &= DC + CE \\ AB &= DE \end{aligned}$$

