



INDIAN SCHOOL AL WADI AL KABIR

Class: IX	Department: MATHEMATICS	Date of submission: 21/08/2019
Worksheet No: 4	Topic: Introduction to Euclid's Geometry	Note:

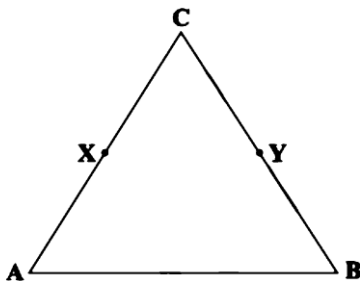
Q.no:

Questions

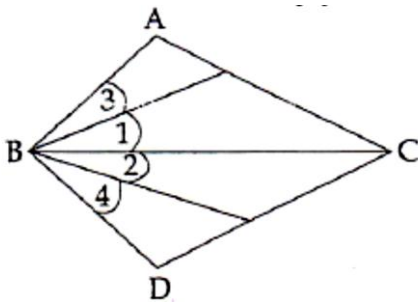
1. In the figure, if $AC = BD$, then prove that $AB = CD$. State the Euclid's axiom used for the same.



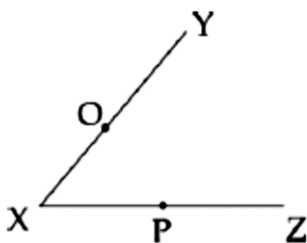
2. In the figure X and Y are the mid-points of AC and BC and $AX = CY$. Show that $AC = BC$.



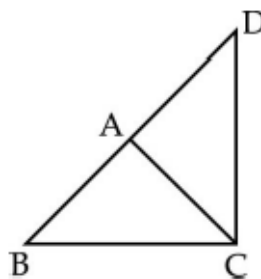
3. In the given figure, $\angle 1 = \angle 2$ and $\angle 3 = \angle 4$. Show that $\angle ABC = \angle DBC$. State the Euclid's axiom used.



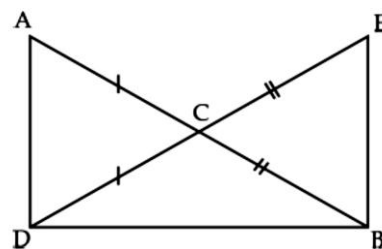
4. In the figure, $OX = \frac{1}{2} XY$, $PX = \frac{1}{2} XZ$ and $OX = PX$. Show that $XY = XZ$, using Euclid's axiom.



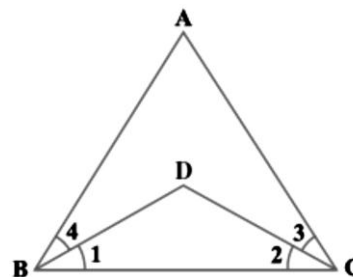
5. In the figure, $AB = AD$ and $AC = AD$. Prove that $AB = AC$. State the Euclid's axiom used.



6. In the figure, $AC = DC$, $CB = CE$, using Euclid's axiom show that $AB = DE$.



7. In the figure, $\angle ABC = \angle ACB$, $\angle 3 = \angle 4$. Show that $\angle 1 = \angle 2$.



8. Point C is a midpoint of line segment AB. Prove that every line segment has one and only one midpoint.
9. Solve the equation $x - 35 = 75$ and state which axiom is used here.
10. If Q is a point between P and R such that $PQ = QR$, prove that Q is the midpoint of PR.
