CLASS - IX

MATHS ASSIGNMENT

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(Ch-5) Introduction to Euclid's Geometry

Ques 1. How many line segments can be determined by three collinear points? (Three)

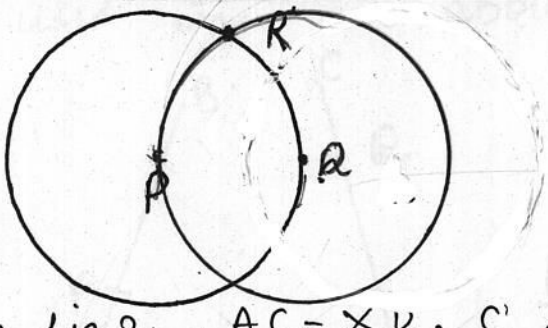
Ques 2. How many line segments can be determined by three given non-collinear points? (Three)

Ques 3. In a triangle PQR, X and Y are the mid points of the sides PR and QR respectively, such that PX = RY. Show that PR = QR.

Ques 4. Solve the equation $x + 4 = 10$ and state Euclid's axiom used.

Ques 5. P and Q are centres of the two intersecting circles which intersect at R. Prove that PQ = QR = PR. [Fig 1.]

Fig 1.



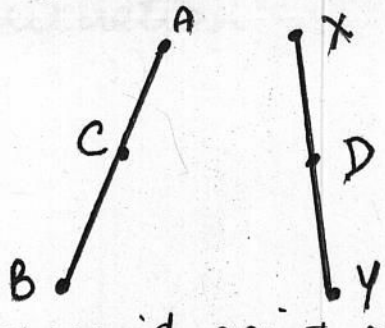


Fig 2

Ques 6. In fig 2., AC = XD, C is the mid point of AB and D is the mid point of XY. Using an Euclid's axiom, show that AB = XY.

Ques 7. In the fig. 3, if $OX = \frac{1}{2}XY$, $PX = \frac{1}{2}XZ$ and OX = PX, then using Euclid's axioms, show that XY = XZ.

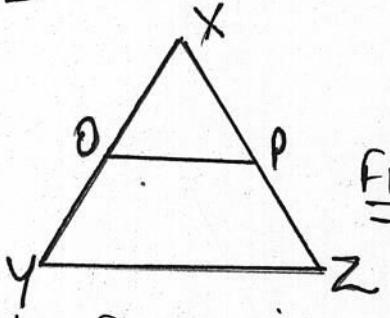
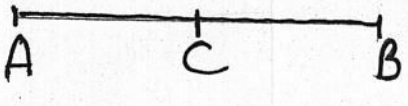


Fig 3

Fig 4



Ques 8. In Fig 4., if pt. C lies b/w A and B, then prove that AB > AC. which axiom is applied?

Ques 9. In fig 5., we have $AB = BC$ and $BX = BY$. Show that $AX = CY$. State which axiom you use here. Also give two more axioms other than the axiom used in the above situation.

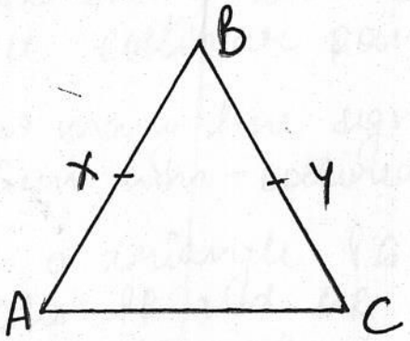


Fig 5.

Ques 10. In fig 6., $AB = CD$, P and Q are points on AB and CD such that $AP = \frac{1}{3} AB$ and $CQ = \frac{1}{3} CD$. Show that $AP = CQ$. State which axiom you used. Also give 2 more axioms other than the axiom used in the above situation.

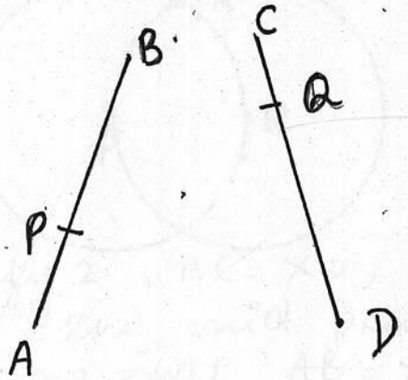


Fig. 6