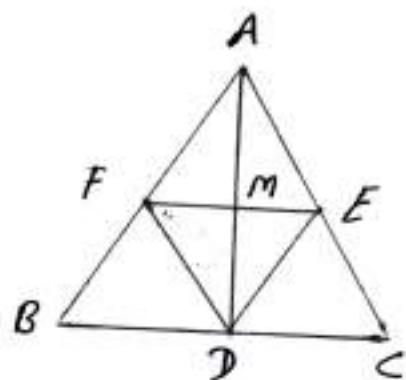
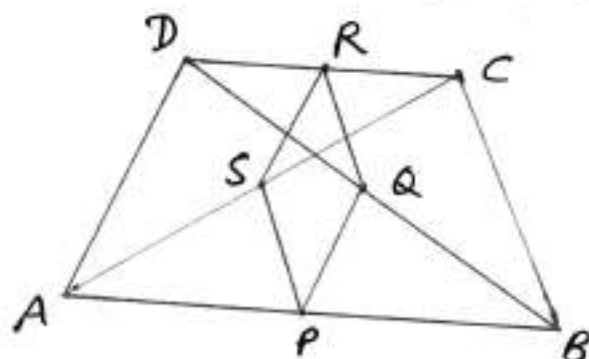


G. N. National Public School, Gorakhpur, G.K.P.
 Class-IX Maths Chapter-8 Quadrilaterals
 Assignment Part-6

Q.19- In the adjoining figure, $\triangle ABC$ is an isosceles triangle in which $AB = AC$ and D, E, F are the midpoints of BC, CA and AB respectively. Show that $AD \perp FE$ and AD is bisected by FE .

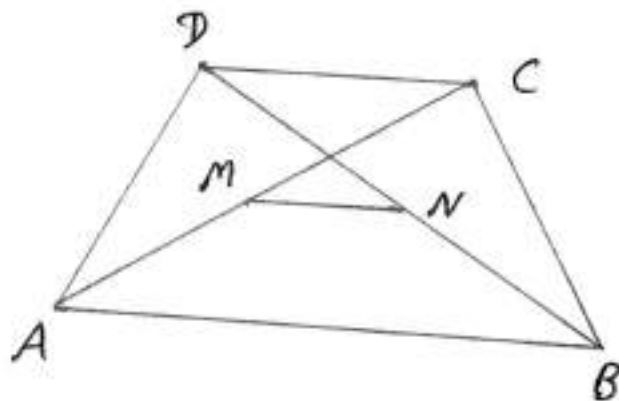


Q.20- In the adjoining figure, $ABCD$ is a trapezium in which $AB \parallel DC$ and $AD = BC$.



If P, Q, R, S be respectively the midpoints of BA, AD, DC, CA then show that $PQRS$ is a rhombus.

Q.21- Prove that the line segment joining the midpoints of the diagonals of a trapezium is parallel to the parallel sides and equal to half their difference.



Q.22- The diagonals of a quadrilateral $ABCD$ are perpendicular to each other. Prove that the quadrilateral formed by joining the midpoints of its sides is a rectangle.