MATHEMATICS

Class-7th

Chapter-6

The Triangle and its properties

Solution of Exercise-6.1

-By:-A.K.Jha

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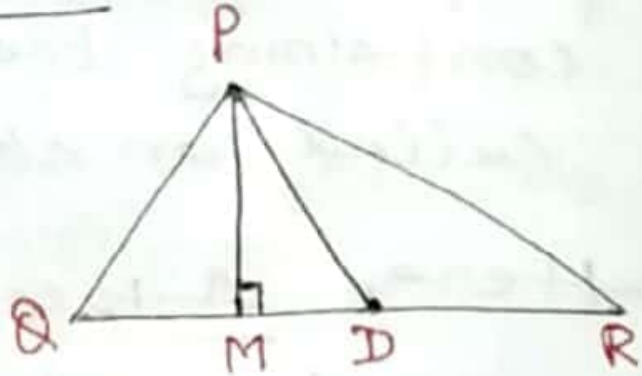
'Mathematics'

Class - VII Ch - 06. Triangle and Properties

Ex - 6.1

Q.1.

In $\triangle PQR$, D is the mid-point of $\overline{QR}$.



$\overline{PM}$ is _____

$\overline{PD}$ is _____

Is $\overline{QM} = \overline{MR}$?

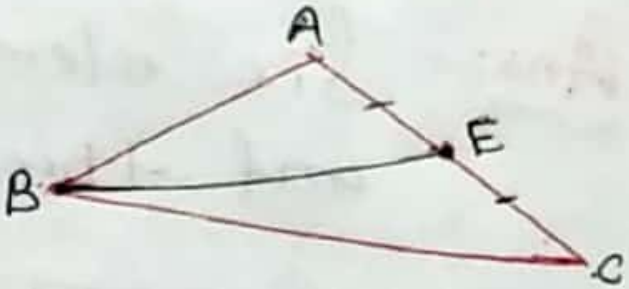
Sol. $\overline{PM}$ is an altitude to $\overline{QR}$.

$\overline{PD}$ is median from P to $\overline{QR}$

No, $\overline{QM} \neq \overline{MR}$; because M is not the mid-point of $\overline{QR}$.

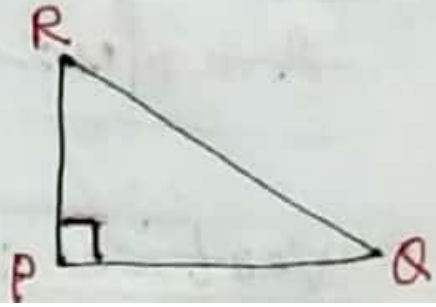
Q.2. Sol.

(a). Here, ABC is a triangle.



$\overline{BE}$ is a median. It is B to AC.

(b). Here, PQR is a triangle. $\overline{PQ}$ and $\overline{PR}$ are altitudes of it.



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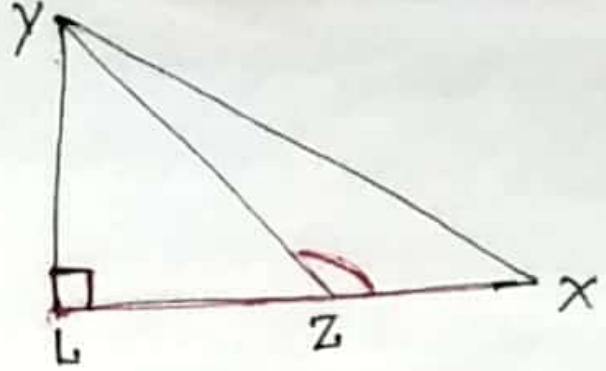
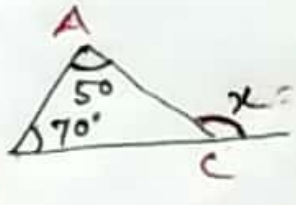
(c) In the adjoining fig. we have an obtuse angled triangle XYZ in which $\overline{YL}$ is an altitude drawn from Y to produced $\overline{XZ}$.



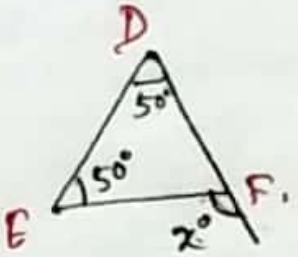
Such altitude lies in the exterior of the triangle.

Q.3. Find the value of x in the following diagram.

(i)



(ii)



= ?

Sol. (i) Exterior angle = Sum of interior opp. angles.

$\therefore x = 50° + 70°$

$= 120°$.

Hence, 'Exterior angle' = 120°.

(ii) Exterior angle = Sum of interior opp. angles.

$\therefore x = 50° + 50°$

$= 100°$.

Hence, 'Exterior angle' = 100°.

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