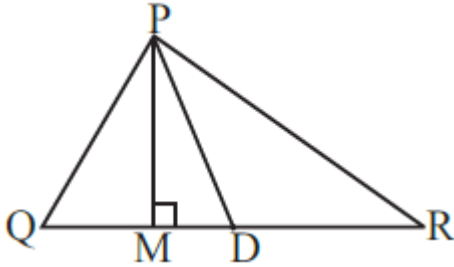


EXERCISE 6.1

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1. In ΔPQR , D is the mid-point of \overline{QR} .



(i) \overline{PM} is _____.

Solution:-

Altitude

An altitude has one end point at a vertex of the triangle and other on the line containing the opposite side.

(ii) PD is _____.

Solution:-

Median

A median connects a vertex of a triangle to the mid-point of the opposite side.

(iii) Is $QM = MR$?

Solution:-

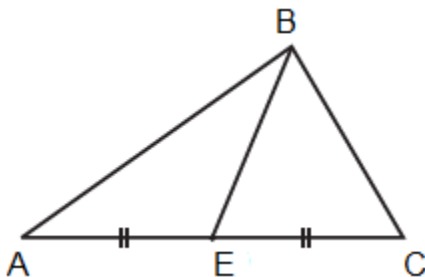
No, $QM \neq MR$ because, D is the mid-point of QR.

2. Draw rough sketches for the following:

(a) In ΔABC , BE is a median.

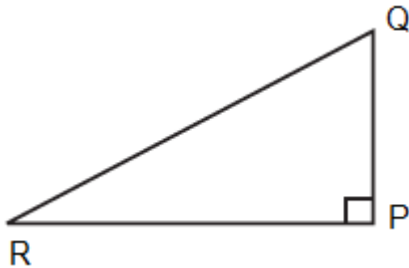
Solution:-

A median connects a vertex of a triangle to the mid-point of the opposite side.



(b) In ΔPQR , PQ and PR are altitudes of the triangle.

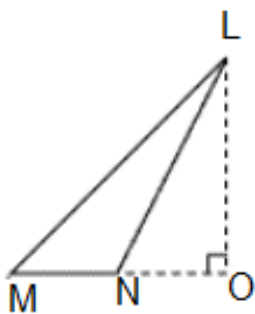
Solution:-



An altitude has one end point at a vertex of the triangle and other on the line containing the opposite side.

(c) In ΔXYZ , YL is an altitude in the exterior of the triangle.

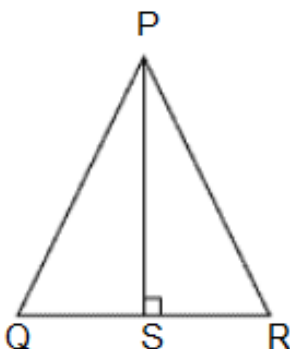
Solution:-



In the figure we may observe that for ΔLMN , LO is an altitude drawn exteriorly to side LN which is extended up to point L .

3. Verify by drawing a diagram if the median and altitude of an isosceles triangle can be same.

Solution:-



Draw a Line segment $PS \perp BC$. It is an altitude for this triangle. Here we observe that length of QS and SR is also same. So PS is also a median of this triangle.

