Mathematics

(Chapter – 6) (The Triangle and its Properties)
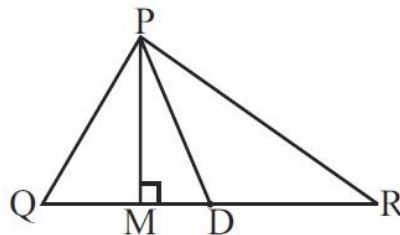### (Class – VII)

Exercise 6.1

Question 1:

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

$\overline{PM}$ is _____
PD is _____
Is QM = MR?

Answer 1:

Given: QD = DR
∴ $\overline{PM}$ is altitude.
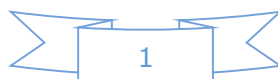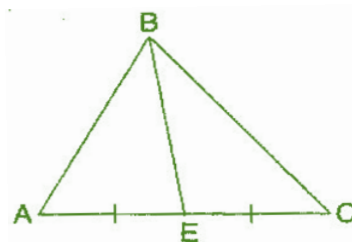PD is median.
No, QM ≠ MR as D is the mid-point of QR.

Question 2:

Draw rough sketches for the following:
(a) In $\triangle ABC$, BE is a median.
(b) In $\triangle PQR$, PQ and PR are altitudes of the triangle.
(c) In $\triangle XYZ$, YL is an altitude in the exterior of the triangle.

Answer 2:
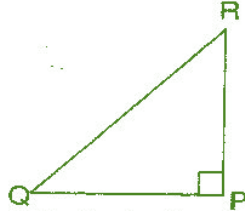
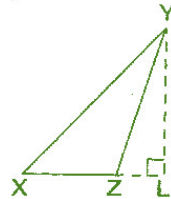(a) Here, BE is a median in $\triangle ABC$ and AE = EC.

(b) Here, PQ and PR are the altitudes of the $\triangle$ PQR and RP $\perp$ QP.

(c) YL is an altitude in the exterior of $\triangle$ XYZ.

Question 3:

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

Answer 3:

Isosceles triangle means any two sides are same.

Take ∆ABC and draw the median when AB = AC.

AL is the median and altitude of the given triangle.