Class - 6th

Subject - math

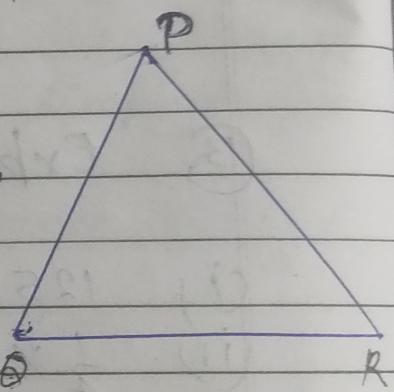
Date - 16/01/2024

Lesson - 11

(Triangles and Parallel Lines)

Triangle :- Consider any three non-collinear points P, Q and R. Join them as PQ, QR and RP. The figure formed by joining three non-collinear points by line segments is called a triangle.

(i) three points P, Q and R which are called its vertices.



(ii) three line segments PQ, QR and RP which are called its sides.

(iii) three angles $\angle QPR$ ($\angle P$), $\angle QRP$ ($\angle R$) and $\angle PQR$ ($\angle Q$) which are called its interior angles or simply angles.

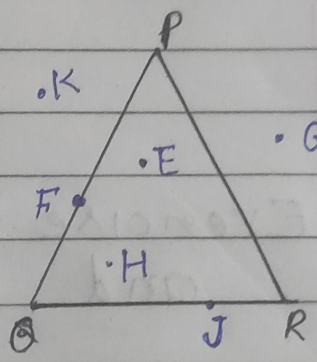
Note :- A Triangle is the polygon with the least number of sides.

16/01/2024 12:26

Interior and exterior of a Triangle:

The part of the plane enclosed by $\triangle PQR$ is called the interior of $\triangle PQR$.

In the $\triangle PQR$, E and H are the interior points of $\triangle PQR$



(i) The part of the plane not enclosed by $\triangle PQR$ is called exterior of $\triangle PQR$.

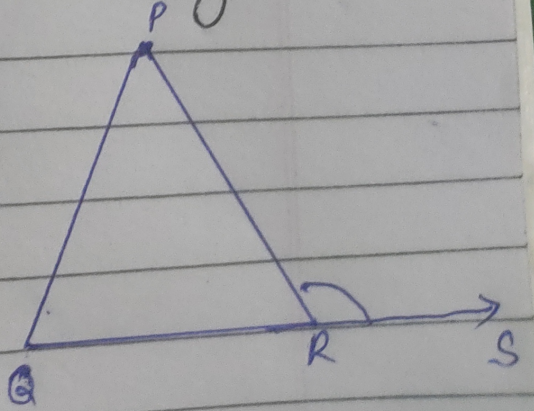
(ii) The point K and G are the exterior points of $\triangle PQR$.

(iii) The Points F and J lie on $\triangle PQR$.

(iv) The interior region along with the boundary is known as the triangular region.

Exterior Angle of a Triangle

Let PQR be a triangle. Produce one of its sides, Say QR to S. Then $\angle PRS$ is called an exterior angle at R.



16/01/2024 12:27

Since, QS is a straight line,

$$\angle QRP + \angle PRS = 180^\circ$$

The angles $\angle PQR$ and $\angle QPR$ are called interior opposite angles of the exterior $\angle PRS$.

Hint

Exercise 11.1 : Question No 1, 2, 3, 4 and 5 complete.

16/01/2024 12:27