Introduction to Euclids geometry Ex 7.1 Q5

Answer :

(i) A line segment is a part of line defined by two end points. So in the given figure 7.17, five line segments are:

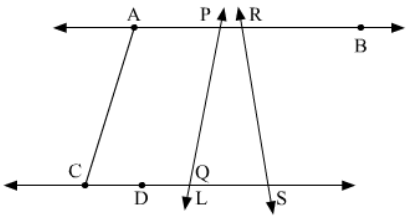

Fig. 7.17

(1) *AC*
(2) *CD*
(3) *AP*
(4) *PQ*
(5) *RS*

(ii) A ray is the part of line with one end point and one end which can be extended. So in the given figure 7.17, five rays are:

(1) Ray RB
(2) Ray RS
(3) Ray PQ
(4) Ray DS
(5) Ray AB

(iii) Collinear points are the points which are present on the same line. In the present figure 7.17, there are two sets of four collinear points.

(1) *A*, *P*, *R*, *B*
(2) C, *D*, *Q*, *S*

(iv) In the given figure 7.17, two pairs of non intersecting line segments are:

(1) *AB* and *CS*
(2) *AC* and *PQ*

Introduction to Euclids geometry Ex 7.1 Q6

Answer :

(i) Two distinct points in a plane determine a **unique** line.

(ii) Two distinct **lines** in a plane cannot have more than one point in common.

(iii) Given a line and a point, not on the line, there is one and only **perpendicular** line which passes through the given point and is **perpendicular** to the given line.

(iv) A line separates a plain into **three** parts namely the **two half planes** and the **line** itself.

********** END **********