

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:

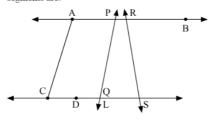


Fig. 7.17

- (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 <u>unique</u> line.
- (ii) Two distinct <u>lines</u> 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 $\underline{\text{three}}$ parts namely the $\underline{\text{two half planes}}$ and the $\underline{\text{line}}$ itself.