

**RD SHARMA**

**Solutions**

**Class 9 Maths**

**Chapter 7**

**Ex 7.1**

1) Define the following terms.

(i) Line segment

(v) Concurrent lines

(ii) Collinear points

(vi) Ray

(iii) Parallel lines

(vii) Half-line

(iv) Intersecting lines

**Solution**

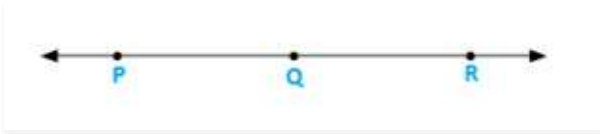
(i) Line-segment:

Give two points A and B on a line l. the connected part (segment) of the line with end points at A and B is called the line segment AB.



(ii) Collinear points:

Three or more points are said to be collinear if there is a line which contains all of them.



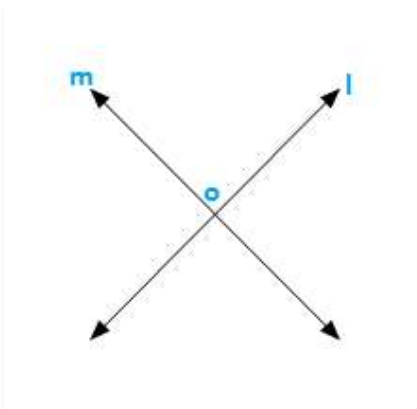
(iii) Parallel lines:

Two lines l and m in a plane are said to be parallel lines if they do not intersect each other.



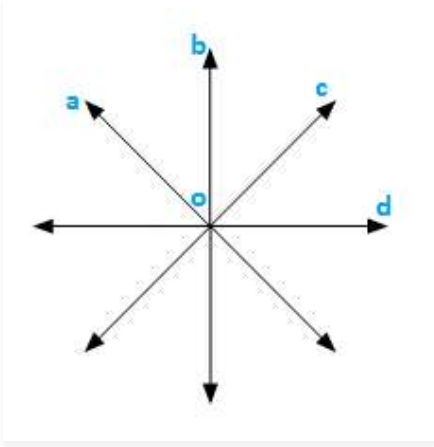
(iv) Intersecting lines:

Two lines are intersecting if they have a common point. The common point is called point of intersection.



(v) Concurrent lines:

Three or more lines are said to be concurrent if there is a point which lies on all of them.



(vi) Ray:

A line in which one end point is fixed and the other part can be extended endlessly.



(vii) Half-line:

If A, B, C be the points on a line l, such that A lies between B and C, and we delete the point A from line l, the two parts of l that remain are each called half-line.



2) (i) **How many lines can pass through a given point?**

(ii) **In how many points can two distinct lines at the most intersect?**

**Solution**

(i) Infinitely many

(ii) One

3) (i) **Given two points P and Q. Find how many line segments do they determine.**

(ii) **Name the line segments determined by the three collinear points P, Q and R.**

**Solution**

(i) One

(ii) PQ, QR, PR

4) **Write the truth value (T/F) of each of the following statements:**

(i) **Two lines intersect in a point.**

(ii) **Two lines may intersect in two points**

(iii) **A segment has no length.**



**Solution**

(i) Unique

(ii) Lines

(iii) Perpendicular, perpendicular

(iv) Three, two half planes, line.