

**RD Sharma Solutions Class 9 Maths Chapter 7:** This RD Sharma Solutions for Class 9 Maths Chapter 7, you'll find everything you need to understand Euclid's Geometry easily. This chapter introduces basic ideas like points, lines, and angles according to Euclid's rules.

The solutions provided here make it simple to grasp these concepts. With clear explanations and easy-to-follow steps, you can understand the key theorems and ideas of Euclidean geometry without any hassle. These solutions help you build a strong foundation in geometry, which is important for your math learning journey.

## **RD Sharma Solutions Class 9 Maths Chapter 7 Introduction to Euclid's Geometry PDF**

You can download the PDF for RD Sharma Solutions Class 9 Maths Chapter 7 on Introduction to Euclid's Geometry by clicking the link provided below.

This PDF contains detailed solutions to all the exercises in the chapter, helping students understand the concept of Introduction to Euclid's Geometry better and improve their problem-solving skills.

Accessing the PDF is convenient and allows students to study the solutions at their own pace, reinforcing their learning and preparation for exams.

[RD Sharma Solutions Class 9 Maths Chapter 7 Introduction to Euclid's Geometry PDF](#)

## **RD Sharma Solutions Class 9 Maths Chapter 7 Introduction to Euclid's Geometry**

Below, you'll find solutions to RD Sharma Class 9 Maths Chapter 7, which covers Introduction to Euclid's Geometry. These solutions are designed to help you grasp the concepts effectively and excel in your studies.

By going through these solutions, you'll gain a deeper understanding of Euclid's Geometry, which is essential for building a strong foundation in mathematics.

### **RD Sharma Solutions Class 9 Maths Chapter 7 Introduction to Euclid's Geometry Exercise 7.1 Page No: 7.8**

**Question 1:** Define the following terms.

(i) Line segment

(ii) Collinear points

(iii) Parallel lines

(iv) Intersecting lines

(v) Concurrent lines

(vi) Ray

(vii) Half-line

**Solution:**

(i) **Line segment:** A line segment is a part of a line that connects two points, serving as the shortest distance between them. Essentially, it's a one-dimensional shape.



Here AB is a line segment.

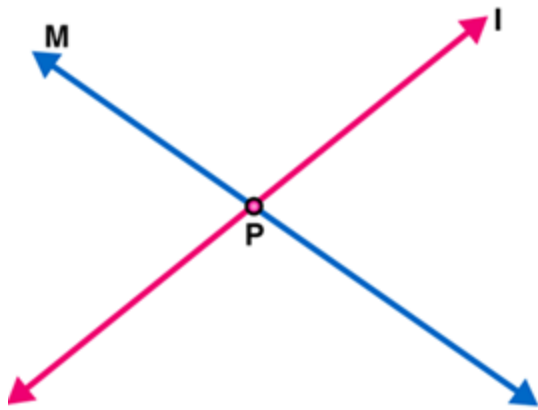
(ii) **Collinear points:** When two or more points lie on the same line, we say that they are collinear.

(iii) **Parallel lines :** Parallel lines in a plane are lines that don't intersect each other.



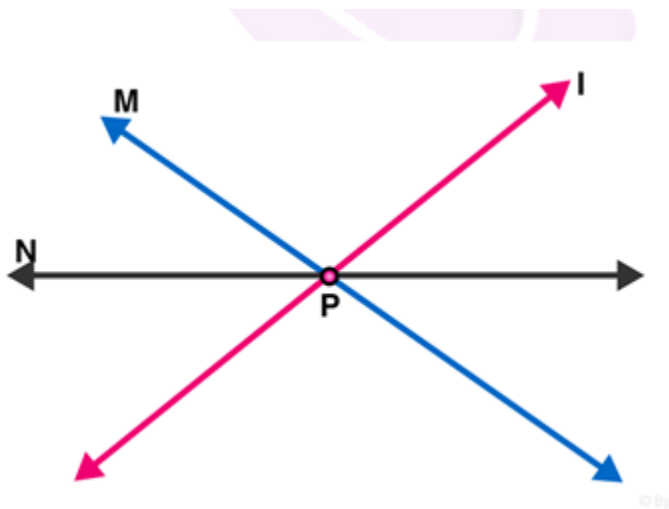
Here l and m are parallel lines.

(iv) **Intersecting lines:** Two lines intersect when they meet at a common point, known as the point of intersection.



Here I and M are intersecting lines. And P is point of intersection.

(v) Concurrent lines: Two or more lines are said to be concurrent if there is a point which lies on all of them.



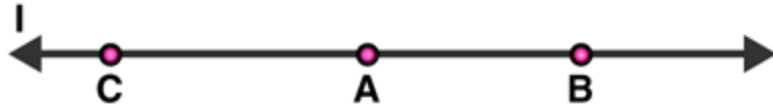
Here I, m and n are concurrent lines.

(vi) Ray: A straight line extending from a point indefinitely in one direction only.



Here OA is a ray.

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



**Question 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**

**Question 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**

**Question 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.**
- (iv) Two distinct points always determine a line.**
- (v) Every ray has a finite length.**
- (vi) A ray has one end-point only.**
- (vii) A segment has one end-point only.**
- (viii) The ray AB is same as ray BA.**
- (ix) Only a single line may pass through a given point.**

(x) Two lines are coincident if they have only one point in common

**Solution:**

(i) False

(ii) False

(iii) False

(iv) True

(v) False

(vi) True

(vii) False

(viii) False

(ix) False

(x) False

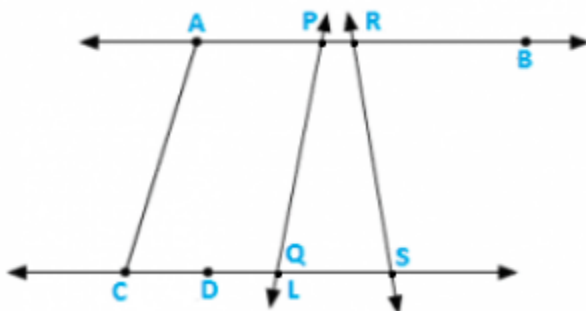
**Question 5: In the below figure, name the following:**

(i) Five line segments

(ii) Five rays

(iii) Four collinear points

(iv) Two pairs of non-intersecting line segments



**Solution:**

(i) Five line segments AB, CD, AC, PQ, DS

(ii) Five rays :

$\overrightarrow{PA}$ ,  $\overrightarrow{RB}$ ,  $\overrightarrow{DC}$ ,  $\overrightarrow{QS}$ ,  $\overrightarrow{DS}$

(iii) Four collinear points. C, D, Q, S

(iv) Two pairs of non-intersecting line segments AB and CD, PB and LS.

Question 6: Fill in the blanks so as to make the following statements true:

(i) Two distinct points in a plane determine a \_\_\_\_\_ line.

(ii) Two distinct \_\_\_\_\_ 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 \_\_\_\_\_ line which passes through the given point and is \_\_\_\_\_ to the given line.

(iv) A line separates a plane into \_\_\_\_\_ parts namely the \_\_\_\_\_ and the \_\_\_\_\_ itself.

Solution:

(i) unique

(ii) lines

(iii) perpendicular, perpendicular

(iv) three, two half planes, line.

### RD Sharma Solutions Class 9 Maths Chapter 7 Introduction to Euclid's Geometry Exercise VSAQs Page No: 7.9

Question 1: How many least number of distinct points determine a unique line?

Solution: Two

Question 2: How many lines can be drawn through both the given points?

Solution: One

Question 3: How many lines can be drawn through a given point?

Solution: Infinite

Question 4: In how many points two distinct lines can intersect?

**Solution: One**

**Question 5: In how many points a line, not in a plane, can intersect the plane?**

**Solution: One**

**Question 6: In how many points two distinct planes can intersect?**

**Solution: Infinite**