

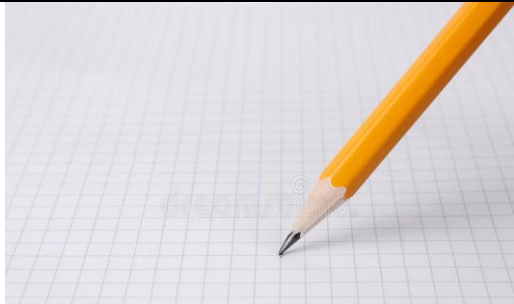



CLASS	VI
SUBJECT	MATHS
TOPIC	BASIC GEOMETRICAL IDEAS
SUBTOPIC	BASIC TERMINOLOGIES OF GEOMETRY
NO. OF SESSIONS	1

Point:

<ul style="list-style-type: none"> We have seen this picture a number of times while using Google Maps. It represents a particular location. 	
<ul style="list-style-type: none"> This is an archery target board. When an arrow hits the target, it represents a location that tells how many points had the person scored. 	
<ul style="list-style-type: none"> When we place the tip of a sharpened pencil on the paper, it represents a small dot. 	
<ul style="list-style-type: none"> The injection needle leaves a small dot on our skin whenever blood is taken out. 	

So, a **point** is actually a location. It has no size i.e. no length, no width and no depth. It is named by a single capital letter like A, B, C etc.

A

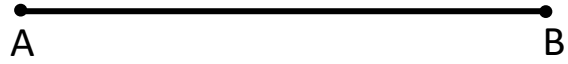
B

C

Line Segment:



If we trace the edge of a scale with a pencil, that would give us a definite length which has a starting point and an ending point. Such length, which has two end points, is known as a **line segment**.



We represent a line segment as above and we name it as \overline{AB} or \overline{BA} .

Line:



Let us take two points on a road. Here, we cannot say the road starts from one point and end at other. We can extend it beyond any two points taken. There are no end points of a road. So, a road represents a line.

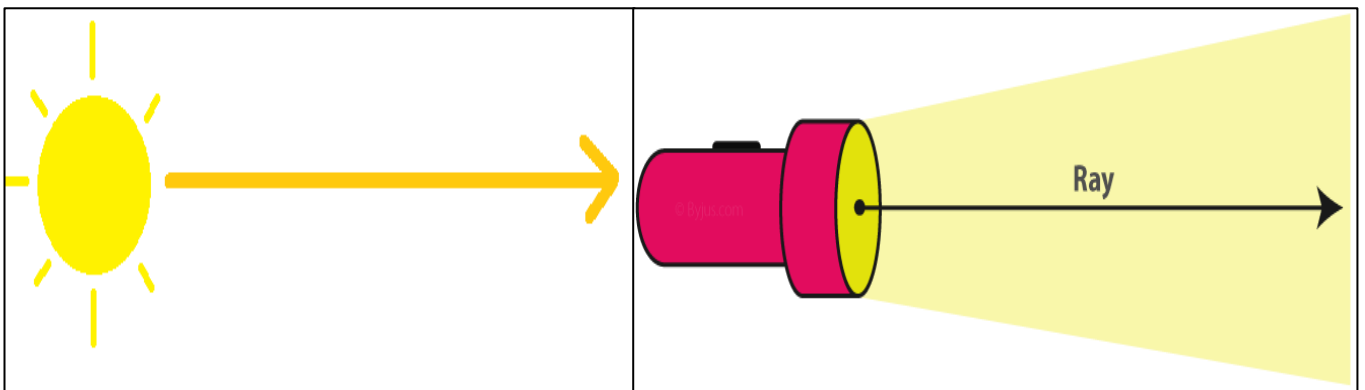
That means **line** is a straight figure that extends endlessly in both the directions.



We represent a line as above and we name it as \overleftrightarrow{AB} or by single small letter like l, m, n etc.

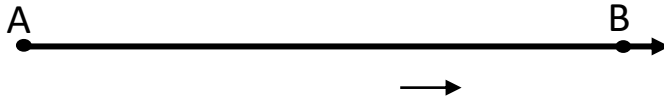
Three or more points are said to be collinear if they lie on a single straight line.

Ray:



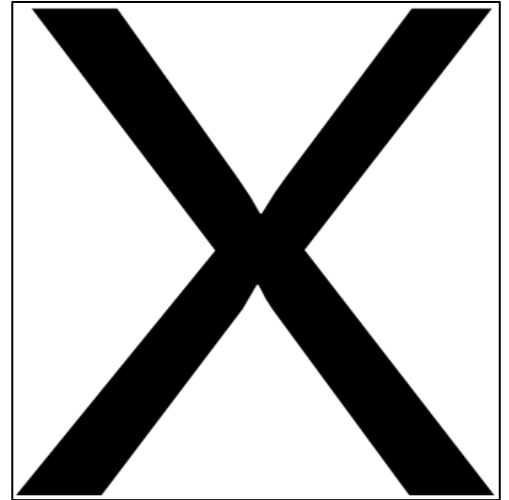
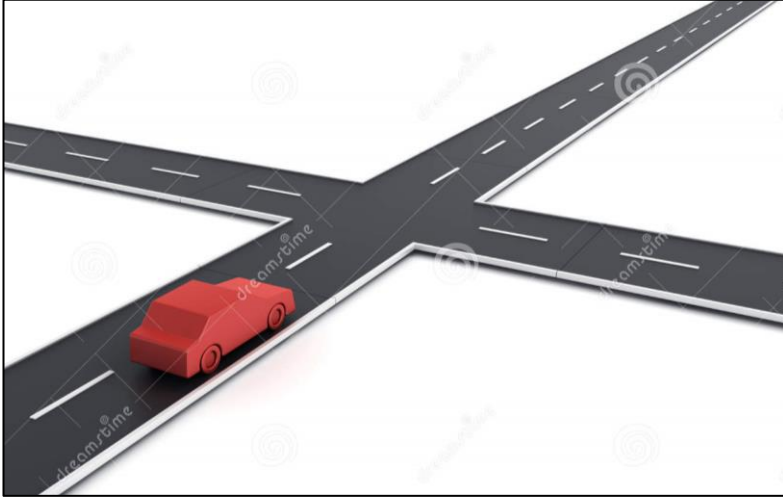
Light from the Sun starts from the Sun and there is no end to it. Similarly, light from a torch also has a starting point but no ending point. This is called as ray. That is why we call light from the sun as sun rays.

So, a **ray** is a portion of line that starts from a point but goes endlessly in another direction.

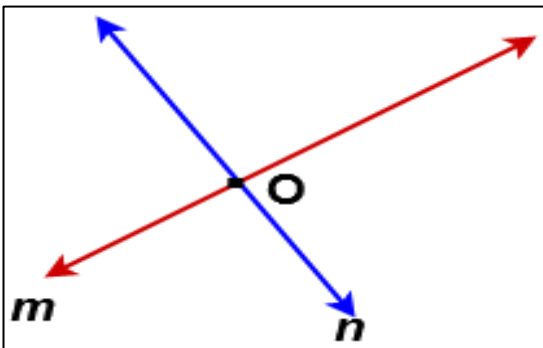


We represent a ray as above and is named as \overrightarrow{AB} .

Intersecting Lines:



We see such roads in our routine life that cross each other. Similarly, letter X of English alphabet also has two lines that cross each other. Such lines that cross each other and have one common point are known as **intersecting lines**.

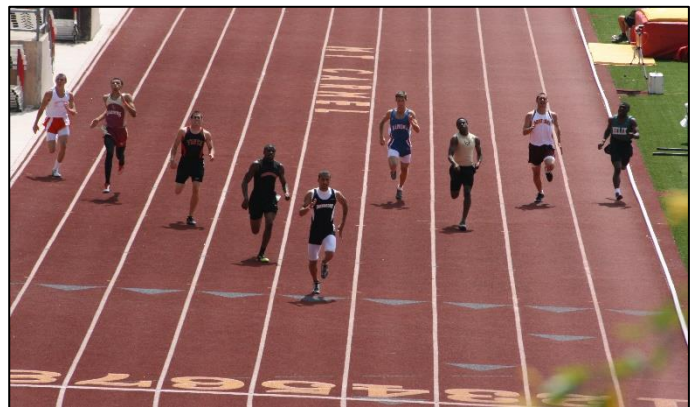


Here, m and n represent two intersecting lines which have a common point 'O' or we can say that they intersect at point 'O'.

Parallel Lines:



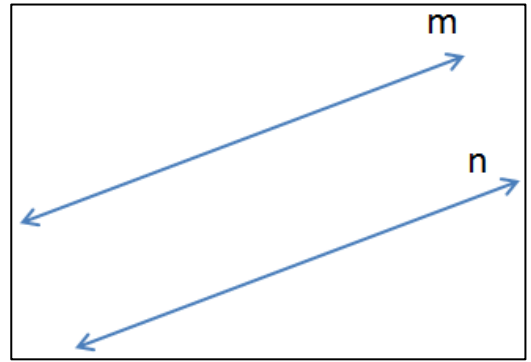
These train tracks do not meet each other ever.



The track lines of an athletic event do not cross each other.

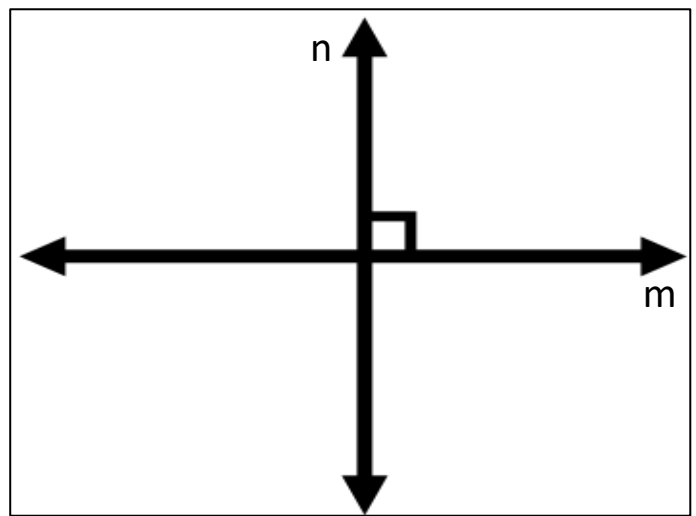
So, the lines that do not intersect each other or cross each other, even if we extend them, are known as **parallel lines**.

If two lines are parallel to one another, then we write as $m \parallel n$.



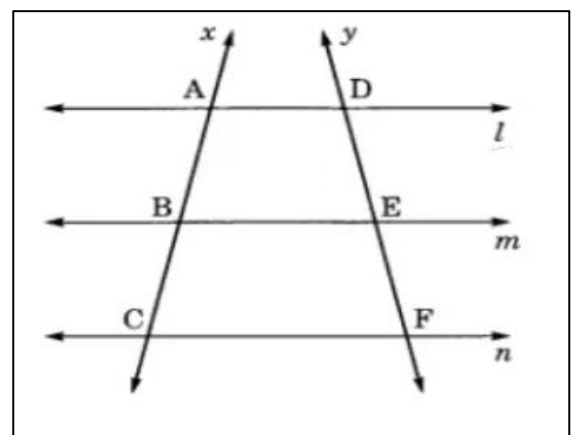
Perpendicular Lines:

There are some vertical and some horizontal lines in a badminton track. The horizontal ones are at 90° to the vertical ones. Such lines that are at 90° to each other are known as **perpendicular lines** and we write that $m \perp n$.



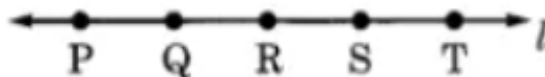
Assignment:

- Q1: i) Name the points lying on line x .
 ii) Name the three collinear points on line y .
 iii) Name two pairs of intersecting lines.
 iv) Name one pair of parallel lines.
 v) Name the lines passing through three points.



Q2: How many lines pass through a single point?

Q3: On the given line, some points are marked. Write down the names of all the line segments.



Homework:

Solve Ex-4.1 from maths NCERT book.