

**Geometry**

**Line-Segment, Ray and Line**

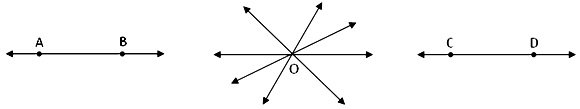
Definition of in Line-segment, ray and line geometry:

The part of a line is called a line-segment as shown below.



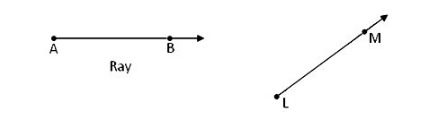
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Only one line can be drawn passing through any two points but a number of lines can be drawn through a point.



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| **Line AB** | |  |  | | --- | --- | | **Lines passing through a point O** | **Line segment CD** | |

**Ray:** We know about sun-rays. A sun-ray starts from the sun and goes on a direction up to endless space. Similarly a geometrical ray is considered a special kind of line which starts from a fixed point and goes to any distance to the other direction of the starting point.



Distinction between line-segment, ray and line:

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| **Line-segment**  **1.** It has two end points.  **2.** The length of a line-segment is definite. So, it can be measured.  **3.** The symbol of a line-segment is \_\_\_\_\_ | **Ray**  **1.** Ray has one starting point and another near the arrowhead.  **2.** It has a starting point but no other end point. So, its length cannot be measured.  **3.** The symbol of a ray is → | | **Line**  **1.** There are no end points in a line.  **2.** There are no end points. So, length of a line cannot be measured.  **3.** The symbol of a line is ↔ |