



## Why

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### Definition

The *closed line segment between* two points in  $n$ -dimensional space is the set of points which can be expressed as the sum of the first point and a scalar multiple of the difference between the second point and the first; where the scalar is in the interval  $[0, 1]$ . Thus, the closed line segment between two points is a subset of the line through the two points. The *open line segment* between  $x$  and  $y$  is the closed line segment with the points  $x$  and  $y$ .

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<sup>1</sup>Future editions will include.



