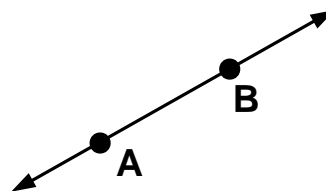


Section 1.2 Points, Lines, and Planes

Points have no area. They can be named by a single capital letter or by their coordinates. A point in the x-y coordinate plane is named by its x and y coordinates. A point in three dimensional space is named by the x, y, and z coordinates.

A **line** has no thickness and infinite length. A line can be named by two points it passes through. For example, line AB, \overleftrightarrow{AB} , line BA, or \overleftrightarrow{BA} . The arrows are drawn on each end of the line to indicate that the line goes on forever. Lines can also be named by a lowercase script letter. The line AB can also be named l.



A third basic geometric figure is a plane. A plane is a surface that goes on forever in all directions but has no thickness. You could use a stiff piece of card stock to represent a plane. Just remember that it is infinitely long and infinitely wide. Planes are often named by a capital script letter or by three points that lie on the plane. The plane shown is called plane R or plane PQS.

