

# Geometry Basics

Lines

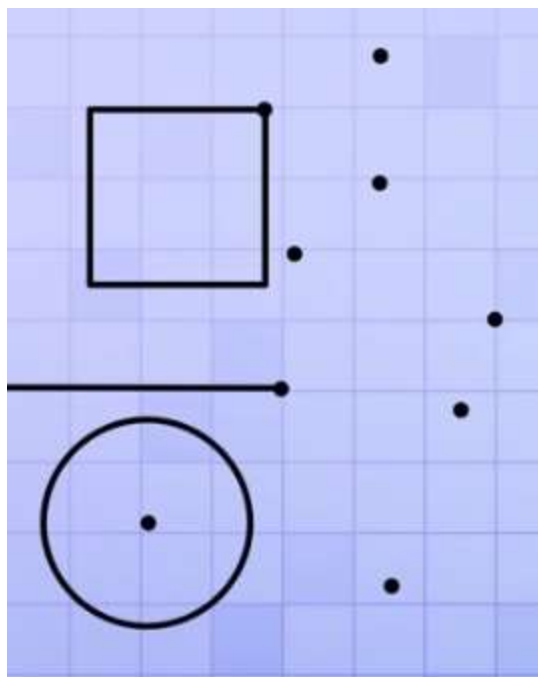
$\pi$

# Three Basic Elements of geometry

- › Points lines and planes
- › They are tiny dots in a space
- › They do important job in geometry
- › They help to specify locations in space
- › Like end of the line
- › Corner of square
- › Center of circle

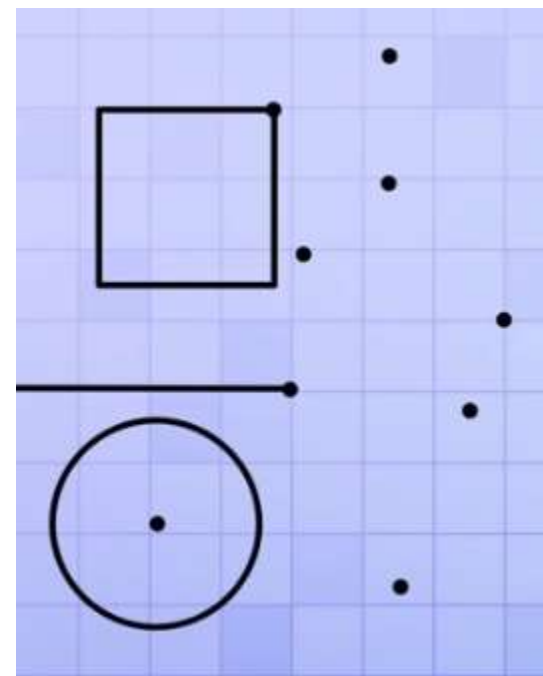
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# Diagrammatic Representation of dot

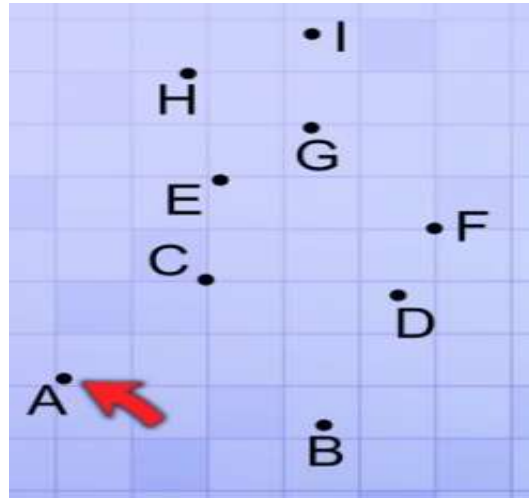


## Naming the dots

- › They won't help unless we name them
- › All dots look the same
- › Take a look at the point A and point B

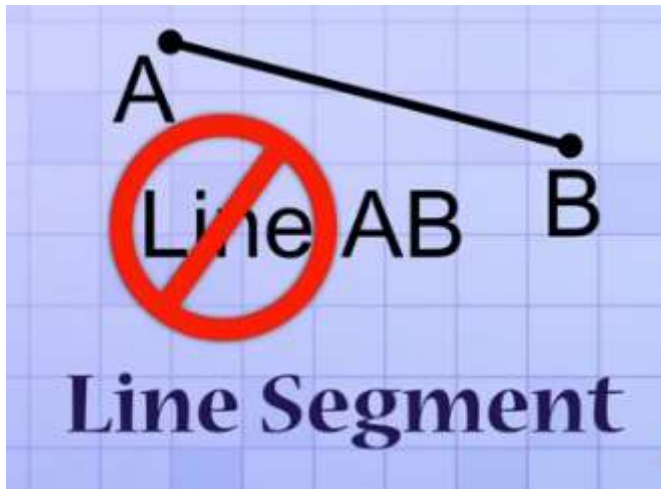
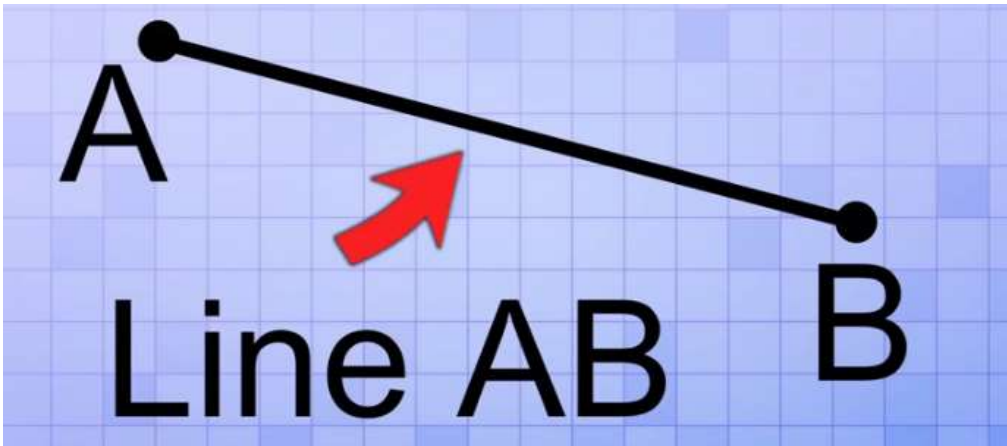


# Diagrammatic Representation of points

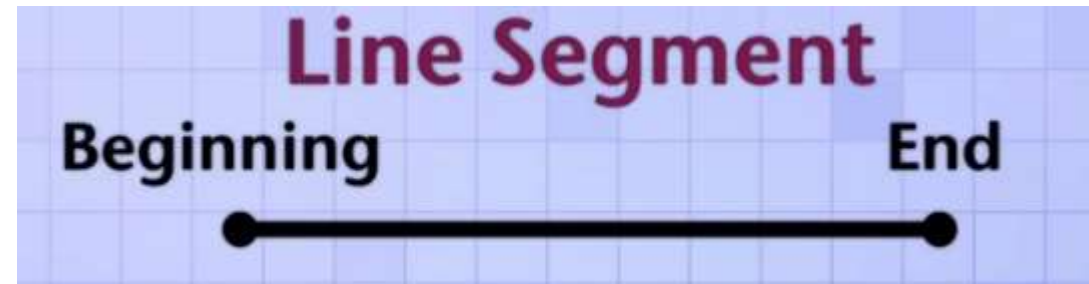


- › Look at point a and point B
- › You can go from point A to point B taking the shortest distance
- › You would have drawn a straight line
- › Line is a basic point of geometry

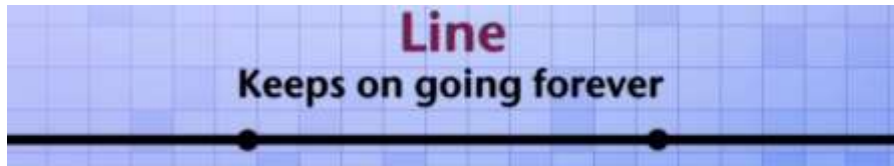
# Diagrammatic Representation of Lines



- › Will call this line AB
- › Its start and stop points are A and B
- › Technically is a line segment not a line
- › Line segment has beginning and end

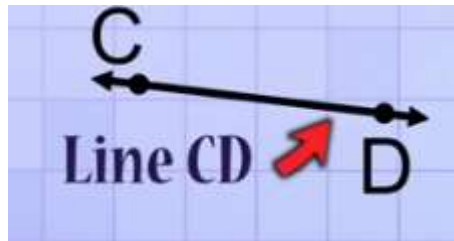


# Diagrammatic Representation of lines



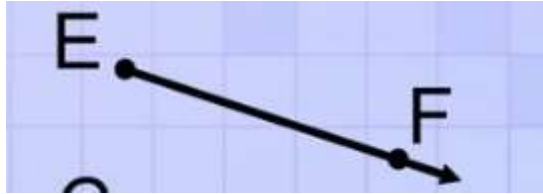
- › It starts in one point and ends in another point
- › Line just keeps on going, in either direction forever

## Diagrammatic Representation of lines



- › Draw a line instead of line segment
- › Pass the end point little bit
- › Put arrow on both ends of the line to show keeps on ongoing
- › This is a line CD

# Diagrammatic Representation of lines



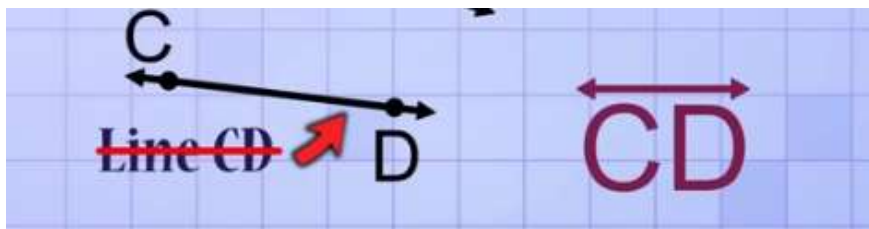
- › Special types of line
- › It's combination of line-segment and line
- › It is known as rays
- › Rays have beginning point but no end point
- › Keep on going in one direction
- › Put arrow at the end that keeps going
- › We call it as ray EF

# Diagrammatic Representation of lines



- › Short way of writing lines
- › Instead of writing line segment AB
- › Just write AB with line on the top

# Diagrammatic Representation of lines



- › Instead of writing line CD
- › Write CD with double arrow line over them

# Diagrammatic Representation of lines



- › Instead of writing ray EF
- › Just write EF with single line arrow over them