

3 UNDEFINED Terms

Point, Line, and Plane

Def. **POINT**

A point is a figure that represents a **POSITION** in space.

The symbol for pt. is a ●

To name a pt., you use the symbol for pt. followed by a capital letter.

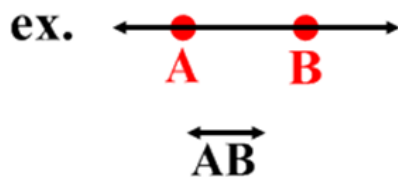
Def. of Line

A figure made up of an infinite number pts. that extend infinitely in both directions.

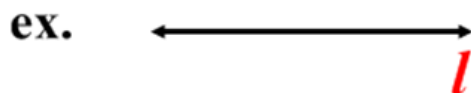
The symbol for line is 

To Name a line there are 2 options:

1. Use any 2 pts. on the line with the symbol for line above them.



2. Assign the entire line a lower case letter, then use that letter with the word **Line**.



Line *l*

Def. Collinear

Pts. that lie on the same line

Def. Noncollinear

Pts. that do not lie on the same line

Def. of Plane

A plane is a 2-dimensional surface that extends indefinitely in all directions.

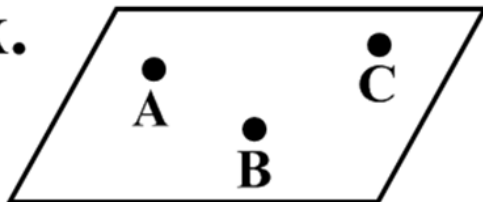
There is no symbol for plane, we only use a 4 sided figure to model a plane.



To name a plane there are 2 options:

1. Use the word **plane** followed by 3 noncollinear pts.

ex.



Plane ABC

2. Assign a capital letter to the entire plane, and use that letter after the word **plane**.

ex.



Plane $\mathcal{R}$

Def. Coplanar

All pts. that lie in the same plane

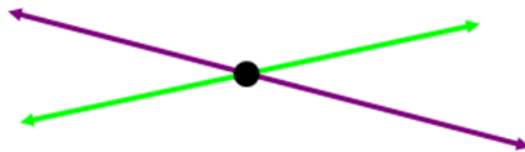
Def. Noncoplanar

Pts. that do not lie in the same plane.

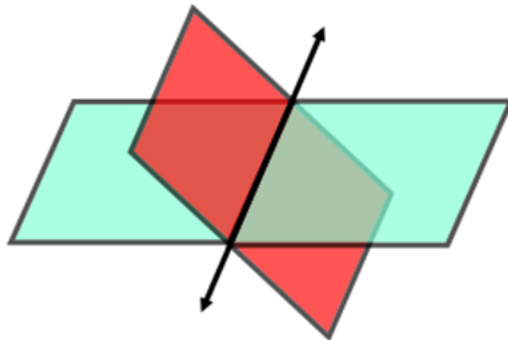
Intersection

The set of pts. that is contained in 2 or more figures.

What is the intersection of 2 lines?



What is the intersection of 2 planes?



What is the intersection of a line and a plane?

