

Geometry Honors Chapter 1-1

Three undefined terms: **POINT, LINE, PLANE**

TERM	DEFINITION
POINT	NO DIMENSION
LINE	ONE DIMENSIONAL, ALWAYS use only two letters used for notating a line
PLANE	TWO DIMENSIONAL, always three NONCOLLINEAR letters used for plane notations

Collinear points – points lie on the same line

Coplanar points – points that lie on the same plane

Opposite rays – if point  $C$  lies on  $AB$  then  $CA$  and  $CB$  are opposite rays

Two or more geometric figures intersect if they have one or more points in common

The intersection of the figures is the set of points that they have in common

Two lines intersect at a point

Two planes intersect at a line

Aug 25-2:32 PM

**EXAMPLE 1** Name points, lines, planes, segments, and rays

- Give two other names for  $\overleftrightarrow{EF}$ .  
Give another name for plane  $A$ .
- Name three points that are collinear.  
Name four points that are coplanar.
- Give another name for  $\overleftrightarrow{EF}$ .
- Name a ray with endpoint  $E$  that is an opposite ray of  $\overrightarrow{EC}$ .

Aug 25-2:55 PM

**Solution**

- Other names for  $\overleftrightarrow{EF}$  are  $\overleftrightarrow{FE}$  and line  $m$ . Other names for plane  $A$  are plane  $BCD$  and plane  $CDE$ .
- Points  $C$ ,  $E$ , and  $D$  lie on the same line, so they are collinear.  
Points  $B$ ,  $C$ ,  $E$ , and  $D$  lie in the same plane, so they are coplanar.
- Another name for  $\overleftrightarrow{EF}$  is  $\overleftrightarrow{FE}$ .
- $\overrightarrow{ED}$  is a ray with endpoint  $E$  that is an opposite ray of  $\overrightarrow{EC}$ .

Aug 25-2:55 PM