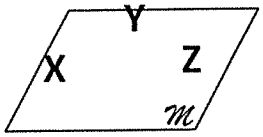
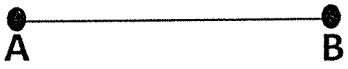
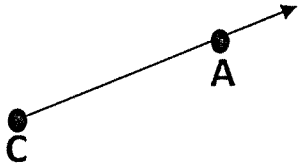
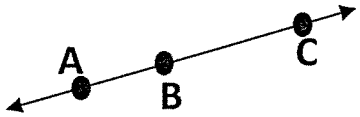
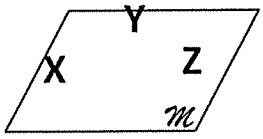
Geometry Essential Definitions

Definition	Diagram	Notation
1. Point No dimension		
2. Line One dimension; extends without end		
3. Plane Two dimensions; extends without end		
4. Line Segment Part of a line that contains two endpoints and all the points between them		
5. Ray Part of line that consists of the endpoint and all the points on the line that extend in one direction Initial point Beginning point of the ray		
6. Opposite Rays Rays with same initial point and extend to form a line		
7. Collinear points Points that lie on the same line		
8. Coplanar points Points that lie on the same plane		

Intersection:

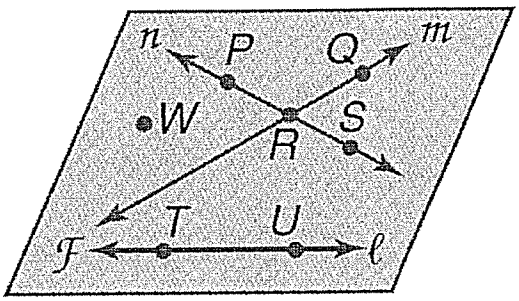
- The intersection of two lines is _____.
- The intersection of a line and a plane is _____.
- The intersection of two planes is _____.

Example #1: Use the figure to name each of the following.

a.) Name a line that contains point P.

b.) Name the plane that contains lines n and m.

c.) Name the intersection of lines n and m.



d.) Name a point not on a line.

e.) What is another name for line n.

f.) Does line l intersect line n or line m? Explain.

Example #2: Draw and label a figure for the following relationship.

a.) Point T lies on WR.

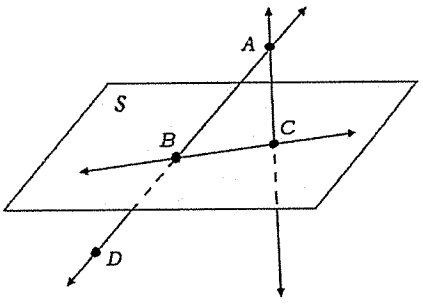
b.) AB intersects CD in plane Q at point P.

Example #3:

a.) How many planes appear in this figure?

b.) Name three points that are collinear.

c.) Are points A, B, C, and D coplanar? Explain.



d.) At what point do $\overline{DB}$ and $\overline{CA}$ intersect?