

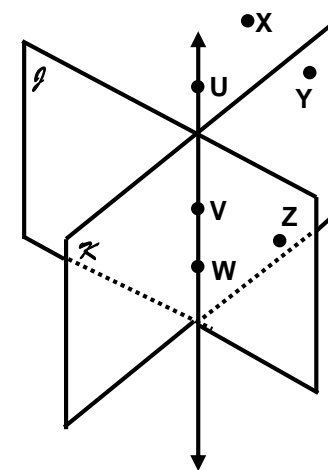
NOTES 1.1: POINTS, LINES & PLANES

Objective: _____

TERM	DESCRIPTION	SKETCH	HOW TO NAME IT
POINT			
LINE			
PLANE			
COLLINEAR			
COPLANAR			

EXAMPLES:

1. Name three points that determine plane \mathcal{J} .	2. Name the intersection of planes \mathcal{J} and \mathcal{K} .
3. Name a set of collinear points, and a set of non-collinear points. Collinear Points: Non-Collinear Points:	4. Name a set of points, other than those in EXAMPLE 1 that are coplanar.



Postulates are statements that are assumed to be TRUE.

The following are postulates concerning the three basic elements in geometry.

- A line contains:
- Through any two points there is:
- A plane contains at least:
- Through any three points there is _____ one plane, and through any three **NON-COLLINEAR** points there is _____ one plane.
- If two points are in a plane, then the _____ that contains the points is also in the plane.
- If two planes intersect, then their intersection is a _____.

Theorems are important statements that must be proven.

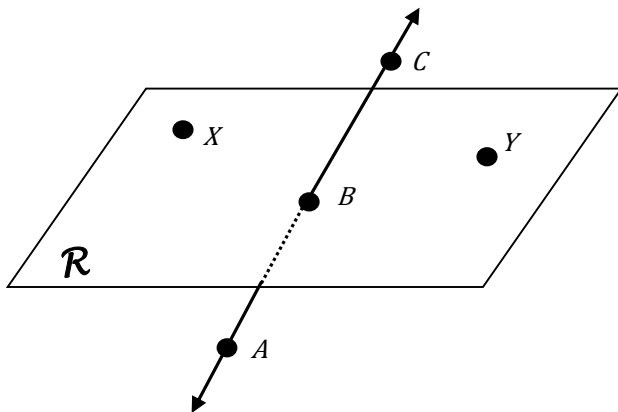
The following are theorems about these basic elements in geometry.

- If two lines intersect, then they intersect at:
- If two lines intersect, then:

Notes 1.1 (Continued)

TERM	DESCRIPTION	SKETCH	HOW TO NAME IT
Line Segment			
Ray			
Opposite Rays			

EXAMPLES:

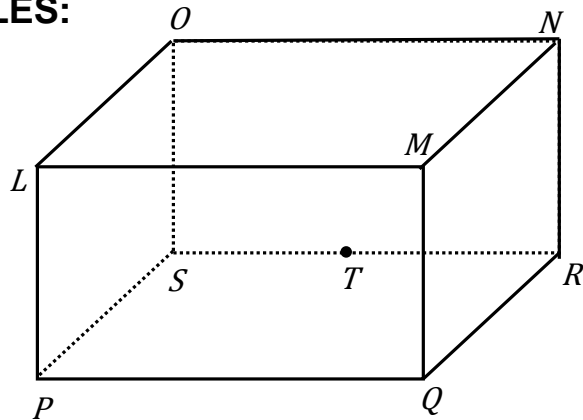


1. Name all line segments.

2. Name all rays.

3. Name a pair of opposite rays.

EXAMPLES:



1. Are points S , O , and M coplanar?
Why or why not?

2. How many “planes” are shown?

3. Name the intersection of planes LON and PQM :
Explain:

4. Name the intersection of plane MQR and \overleftrightarrow{ON} . _____ Explain.

5. Do S and M determine a line? _____ Why or why not?

6. How many lines are there through points N and Q ? _____ Explain.

7. How many planes are there through points S , T , and R ? _____ Explain.

8. Name the intersection of \overleftrightarrow{PS} and \overleftrightarrow{OS} . _____ Explain.

9. How many planes contain \overleftrightarrow{LO} and \overleftrightarrow{OS} ? _____ Explain.

10. Is \overleftrightarrow{OM} in plane LMN ? _____ Why or why not?