Name:_____ Teacher:_____ Date:_____

Points, Lines, and Planes CHEAT SHEET

Vocabulary –

Space is _____

	Diagram	Named by:
Point		
Line		
Plane		

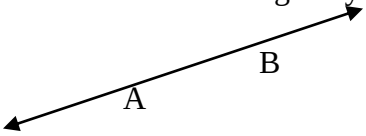
Collinear points are_____.

Two points or lines are coplanar if_____
_____.

A postulate or axiom is _____.

Key concepts:

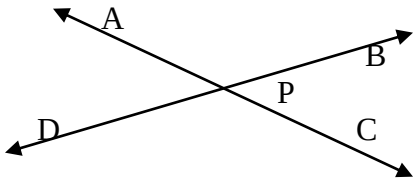
Postulate 1-1: Through any two points there is _____.



Line t is the only line that passes through A and _____.

Postulate 1-2: If two lines intersect, then they intersect in _____.

AC and BD intersect in point _____.



Postulate 1-3: If two planes intersect , they intersect in _____.

Plane RST and STW intersect in _____.

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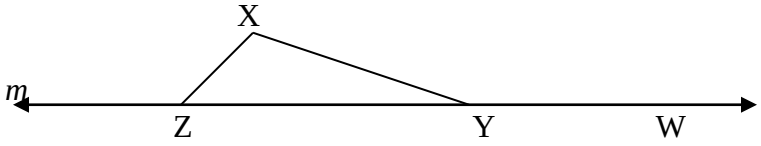
Example 1: In the figure at the right, name three collinear points and three non collinear points.



Points _____, _____, and _____ lie on a line, so they are _____.

Any other set of 3 points in the figure do not lie on a line so they are _____.
For example points X, Y, and Z form a _____, so they are _____ collinear.

You Try…..

a) Are points W, Y, and X collinear? _____

b) Name line ***m*** in three different ways: _____, _____, _____.

c) Why do you think arrowheads are used when drawing a line or naming a line such as ZW?

Example 2: Name the plane at the right in two different ways.

You can name a plane using three _____ points.

Therefore we could name the plane as _____ or _____.

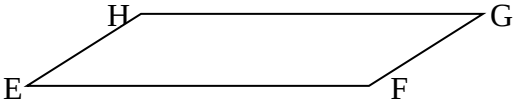
You Try…..

Name the plane in three different ways.

_____

_____

_____



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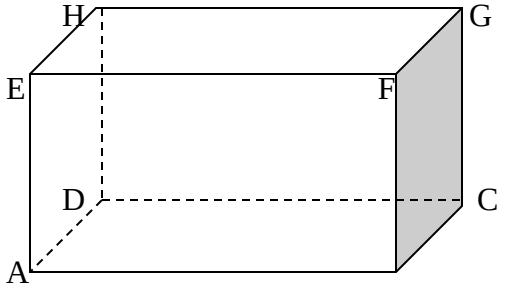
Example 3: What is the intersection of plane HGC and plane AED?



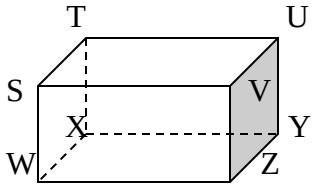
Hint: Look for what the planes have in common.

They intersect in _____.

You Try…..

Name two planes that intersect in BC

_____ and _____



Shade plane VWX. Name a point that is coplanar with V, W, and X.