8/23/19 - Warm Up Problem

Solve each equation.

1. $3x + 5 = 23$

$-5 \quad -5$

$\frac{3x}{3} = \frac{18}{3}$

$x = 6$

2. $19 = -7x - 2$

$+2 \quad +2$

$\frac{21}{-7} = \frac{-7x}{-7}$

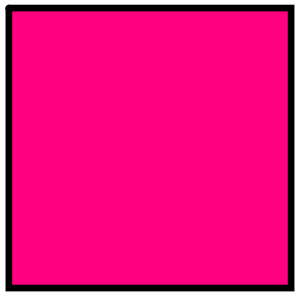
$-3 = x$

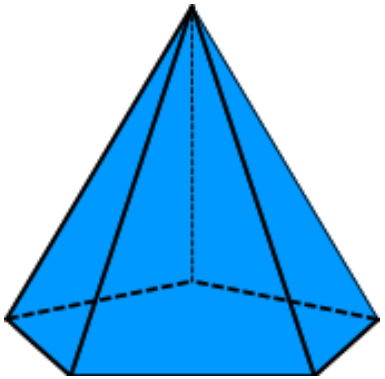
Concept 1 - Basic Geometric Figures

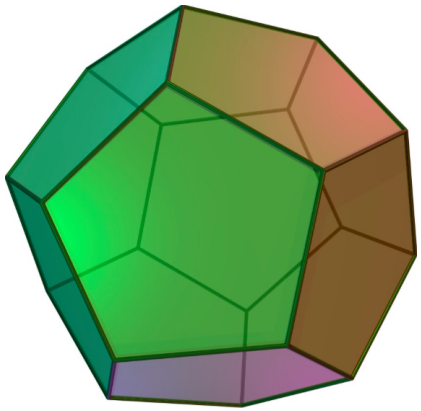
Goals

Identify and name points, lines, planes, segments, and rays

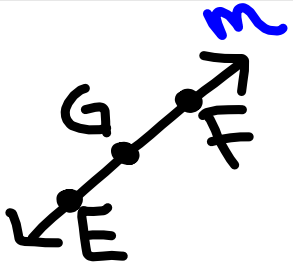
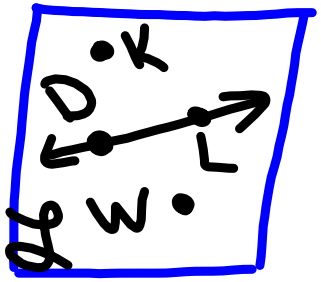
Determine if points are collinear or coplanar







Basic Geometric Shapes

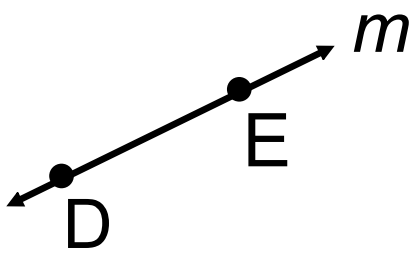
	Example	How to Name It	Description
POINT		Named with one capital letter	- a location - has no shape or size
LINE		Named by any two points on the line with the line symbol or by one lowercase letter $\overleftrightarrow{EF}$ line m	- straight path extending in opposite directions w/out end - has no thickness - contains infinite points
PLANE		Named by 3 or more points not from the same line or by a capital letter in one corner of the plane Plane DKL Plane W	- flat surface that extends without end - has no thickness - contains infinite lines

Collinear:

Coplanar:

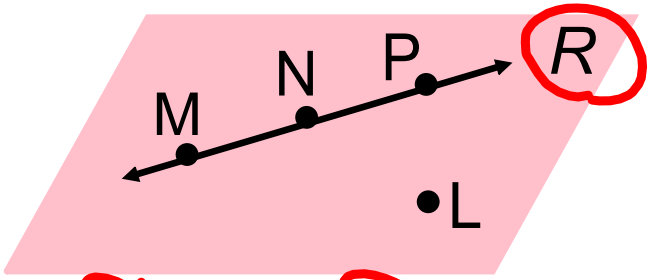
Name that geometric figure!

Write the name of each geometric figure in three different ways.



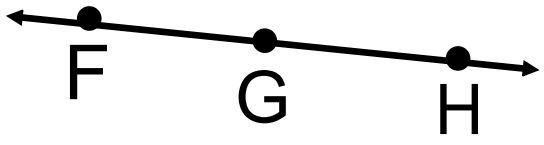
line m

$\overleftrightarrow{DE}$



Plane R

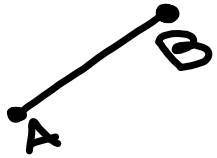
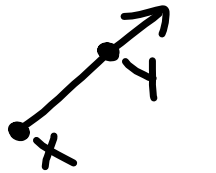
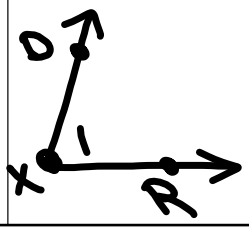
Plane MNL



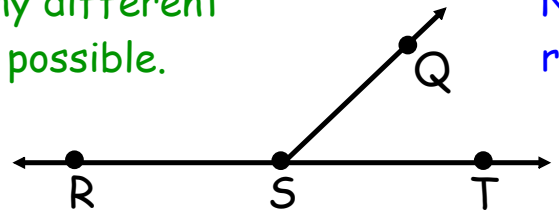
$\overleftrightarrow{FH}$

$\overleftrightarrow{FG}$

More Basic Geometric Figures

SEGMENT		Named by the letters of its endpoints - *must use segment symbol* $\overline{AB}$	A part of a line consisting of 2 endpoints and all the points in between.
RAY		Named by its endpoint followed by one other point on the ray - *must use ray symbol* $\overrightarrow{XY}$	A part of a line consisting of 1 endpoint and all the points that lie on one side.
ANGLE		Named by 3 points. - *must use angle symbol* - *vertex must be in the middle* $\angle DXR$ Also can be named with a number. $\angle 1$	2 rays that share an endpoint

Name as many different segments as possible.



Name as many different rays as possible.

Name as many different angles as possible.

Try it on your own...

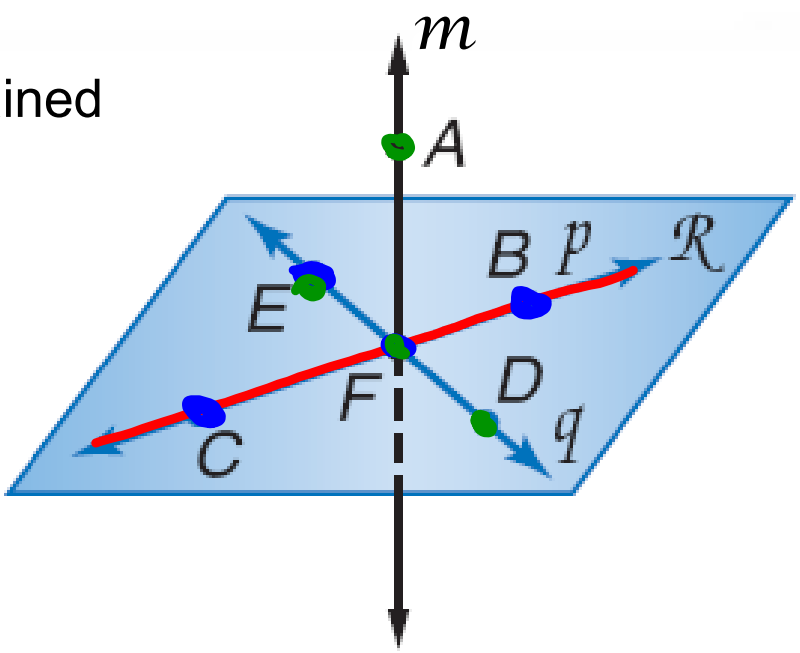
What is the name of the line not contained in plane R? line m

What is another name for line p? $\overleftrightarrow{BC}$

Name 3 points that are collinear. CFB

Are points C, F, E, and B coplanar? yes

Are points A, E, D, and F coplanar? No

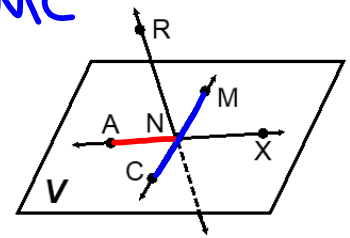


Assignment:

Concept 1 Worksheet (#1-13) - due Friday 8/30

POINTS, LINES, PLANES, SEGMENTS, AND RAYS

Use the figure below for Exercises 1–8. Note that $\overleftrightarrow{RN}$ goes through the plane at *N*.



1. Name two segments shown in the figure. $\overline{AN}$ $\overline{MC}$

2. What is the intersection of $\overline{CM}$ and $\overline{RN}$? N

3. Name three collinear points.

4. What is another way to name plane *V*?

5. What is another way to name $\overline{CM}$?

6. Name two rays that have the same endpoint.

7. Which point is not contained in Plane *V*?

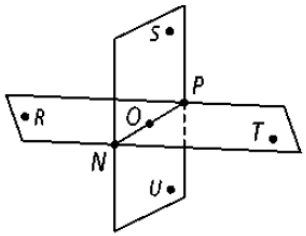
8. Name an angle that has N as its vertex.

9. Is it possible for one line to be shorter in length than another? Explain.

The first three points listed for each question are coplanar. Determine whether the fourth point is in the same plane. Write *coplanar* or *noncoplanar* to describe the points.

10. *P, T, R, N*

11. *P, O, S, N*



12. *T, R, N, U*

13. *P, O, R, S*