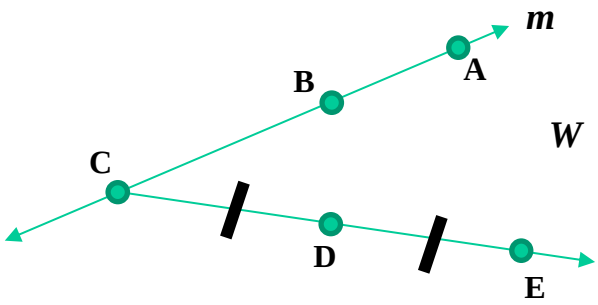
Geometric Items Information and Identification

Point

To name a point we use a Capital Letter.
It represents a location in space.



The picture to the right has the following points:
A, B, C, D, E

Line Segments

To name a line segment we use its two endpoints and draw a bar over them, $\overline{AB}$
A line segment can be measured (distance or length)
All polygons have line segments for sides
The picture to the right has the following line segments: $\overline{AB}$, $\overline{AC}$, $\overline{BC}$, $\overline{CD}$, $\overline{DE}$, and $\overline{CE}$

The line segments $\overline{CD}$ and $\overline{DE}$ are marked congruent (equal in measure) by the lines
The measures of segments CD and DE can be set equal to each other and solved.

If CD = 4x – 18 and DE = 2x + 12, then 4x – 18 = 2x + 12
2x = 30
x = 15 and CD = DE = 42

Sum of parts = the whole

The measures of CB and BA add together to form the measure of CA

If CB = 4x – 18, BA = 12 and CA = 30, then CB + BA = CA and 4x – 18 + 12 = 30
4x – 6 = 30
4x = 36
x = 9

and CB = 4(9) – 18 = 18

Lines

It takes two points to name a line $\overleftrightarrow{AC}$, or a line maybe named by one small italics letter, *m*
A line can not be measured, it goes on in both directions forever
Points A, B, and C are collinear on line m and points C, D, and E are collinear on ray $\overrightarrow{CE}$

Rays

A ray is named by an endpoint and any other point on it, $\overrightarrow{CE}$
It only goes on forever in one direction, but cannot be measured either

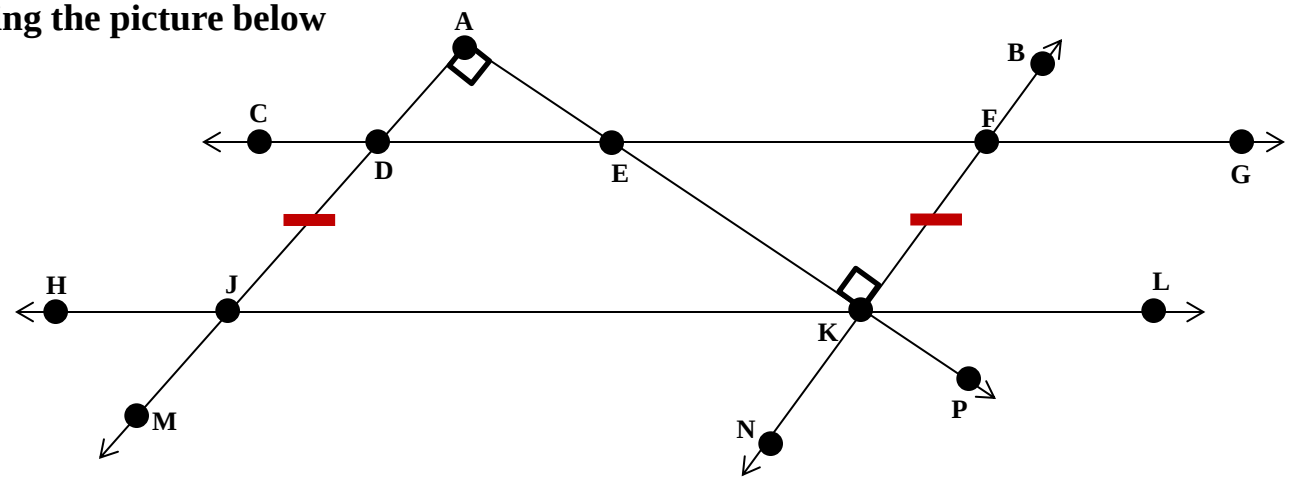
Planes

Formed by two intersecting lines, or three non-collinear points, A,B and E for example
It named with one capital italic letter, *W*, or by three points in the plane, ABE

Naming Geometric "Things" Worksheet

Name: _____

Using the picture below



Answer the following:

1) Name 3 collinear points:

2) Name 3 non-collinear points:

3) Name 3 lines:

4) Name 2 rays:

5) Name two triangles:

6) Name two congruent line segments:

7) Name two line segments that are *not* congruent:

8) If JD and KF are congruent and JD = 2x + 12 and KF = 5x – 3, find x and JD

9) If DF = 56, DE = 2x – 6 and EF = 3x + 12, find x and EF

10) If JK = 4x + 4, KL=16 and JL = 7x – 7, find x and JL