

Objectives:

- Student will be able to identify and model points, lines, and planes.
- Student will be able to identify intersecting line and planes.

Example:

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

a. a line containing point X

\overleftrightarrow{YR} or line m

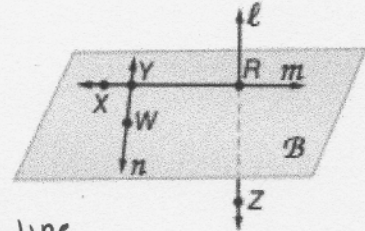
b. a line containing point Z

line l

* can we name the line w/ point R in it?

c. a plane containing points W and R

plane B, plane YWR, plane XWR, etc.



2. Refer to the figure to answer the following:

a. How many planes are shown in the figure?

5

b. Name three points that are collinear.

points A, H, B

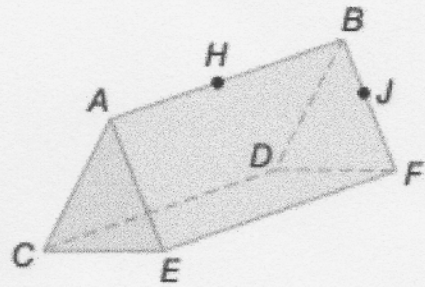
points B, J, F

c. Are points A, H, J, and D coplanar? Explain

no b/c A, H, and D are ^{in plane} and A, H, and J are in another

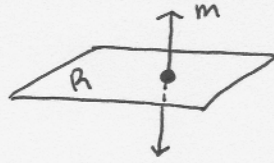
d. Are points B, D, and F coplanar? Explain

yes they lie in plane BDF



3. Draw and label a figure for each of the following relationships:

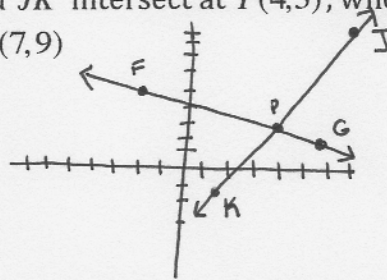
- a. Line m intersects plane R at a single point.



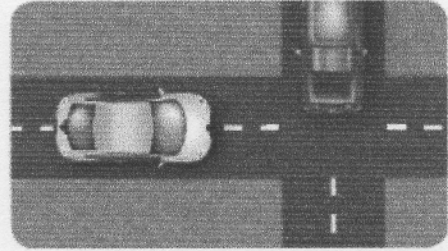
- b. Points X and Y lie on \overline{CD} .



- c. \overline{FG} and \overline{JK} intersect at $P(4,3)$, where point F is at $(-2,5)$ and point J is at $(7,9)$



4. When two cars enter an intersection at the same time on opposing paths, one of the cars must adjust its speed or direction to avoid a collision. Two airplanes, however, can cross paths while traveling in different directions without colliding. Explain how this is possible.



Cars travels on the same plane

planes can travel on different planes thus

not needing to turn or slow down

* parallel planes

