Geometry – Unit 2

Test Review/Breakdown

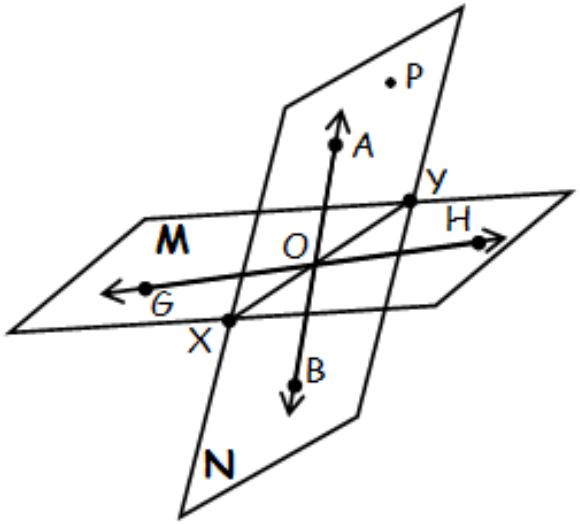
Identify By Notation – 4 Problems

You will be given the notation of an object (Line, Ray, Segment, etc.). All you have to do is identify what type of object is being described.

Object	Answer
$\overleftrightarrow{AB}$	Line
$< ABC$	Angle
AB	Segment Length
$m < ABC$	Angle Measure

Using A Diagram (First Set) – 7 Problems

You will be given a Diagram, along with a word bank. Use the words given to fill in statements regarding the diagram.



1.) A, O, H, and P are Non-Coplanar

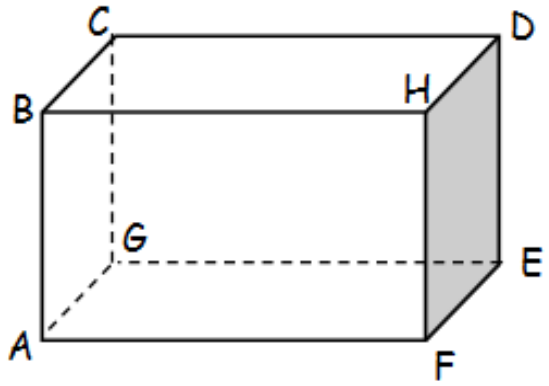
2.) Plane M contains $\overleftrightarrow{XY}$.

3.) H, O, and B, are Coplanar

Using A Diagram (Second Set) – 5 Problems

You will be given a second Diagram. You will have to identify and write correct terms based off of the diagram.

1.) Points E, G, F and __A__ are coplanar.

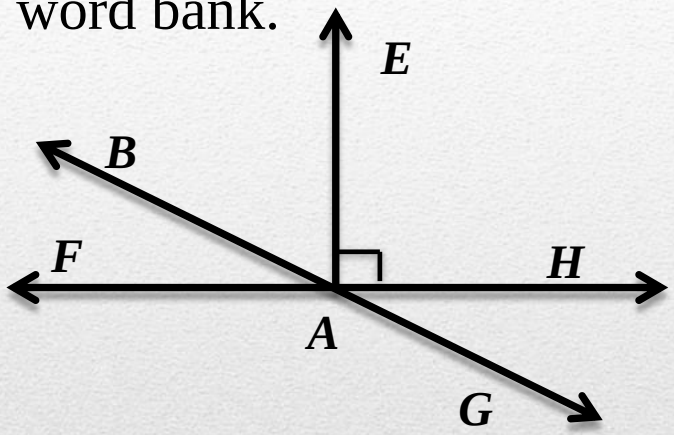


2.) Name two lines that intersect at point H. $\overleftrightarrow{DH}$ $\overleftrightarrow{BH}$.

3.) Name a plane that does not intersect with plane DEFH. __ABCG__.

Using A Diagram (Third Set) – 5 Problems

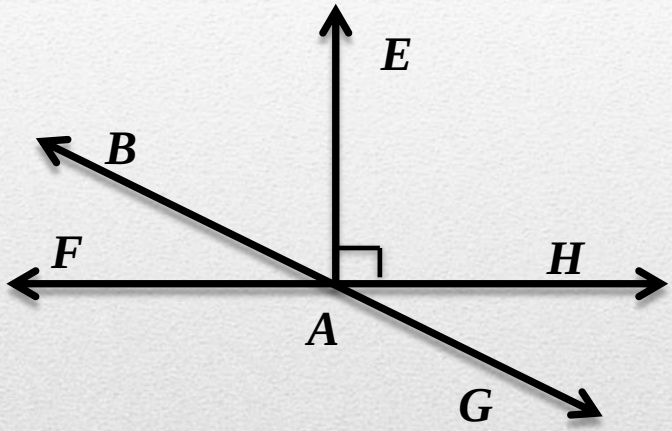
You will be given a third Diagram, along with a word bank. You will fill in statements using the words in the word bank.



- 1. $< BAF \cong$ $\underline{< HAG}$ because they are $\underline{\text{Vertical}}$ angles.
- 2. $BA + AG =$ $\underline{BG}$ by the $\underline{\text{Segment Addition}}$ Postulate.
- 3. $< BAF$ and $< BAH$ are $\underline{\text{Supplementary}}$ angles because they add up to $\underline{180°}$.
- 4. $m < EAH +$ $\underline{< HAG}$ $= m < EAG$ by the $\underline{\text{Angle Addition}}$ Postulate.

Using A Diagram (Fourth Set) – 2 Problems

You will be given a fourth Diagram, which will be the same diagrams as the one in the previous set. You will complete statements (similar to the warm-ups).



1.) $\overrightarrow{BG}$ is the segment Bisector of $\overline{FH}$ passing through Midpoint A creating Congruent segments AF and AH.

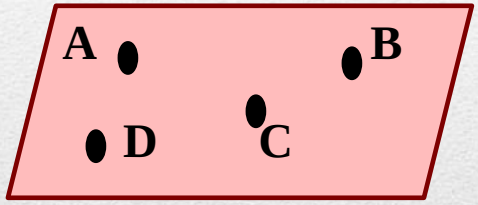
2.) If $\overrightarrow{AB}$ was the angle Bisector of $< EAF$, then $< EAB$ and $< BAF$ would be Congruent angles.

Correcting the Statement – 3 Problems

You will be given a statement that is given to be **False**. You will have to correct the statement using a complete sentence, as well as sketch a diagram of what the correct statement should be.

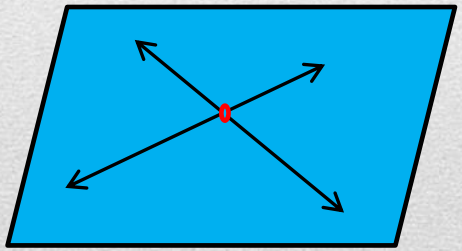
1.) A plain is made up of exactly 3 points.

A plane is made up of AT LEAST 3 points (There could be more)



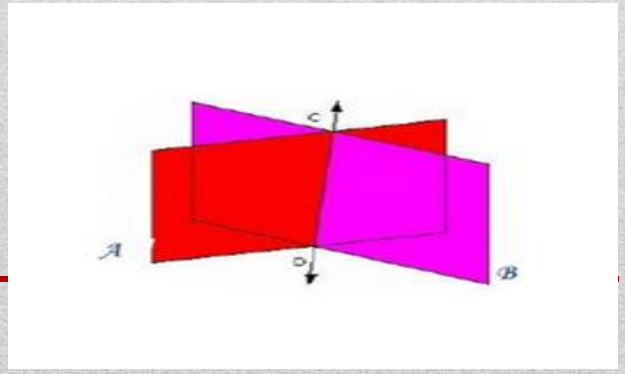
2.) If two lines intersect, then at least one plane contains the lines.

Exactly one plane contains the lines (Theorem 1-3).



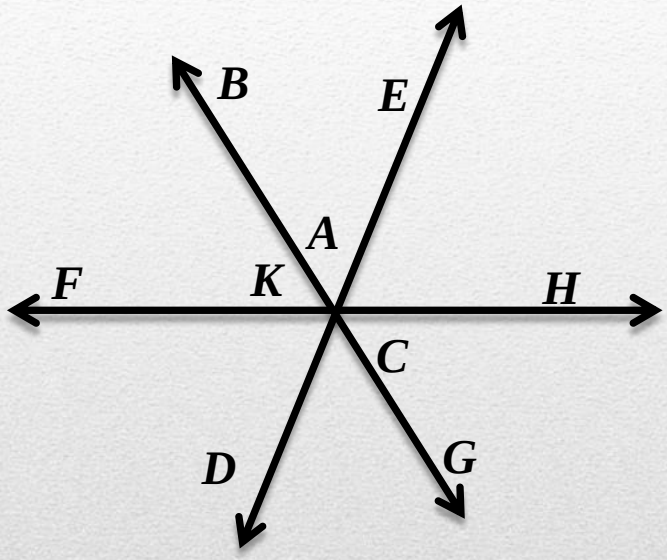
3.) If two planes intersect, then their intersection is a line segment.

The intersection of two planes is a line (Postulate 9)



Using A Diagram (Final Set) – 4 Problems

You will be given one last Diagram. You will use the diagram to set up equations and solve for x.



1.) $< BKF = 5x + 12$ and $< HCG = 4x + 22$

$$5x + 12 = 4x + 22$$

$$x = 10$$

2.) $DA = 3x + 20$, $AE = 6x - 17$, and $DE = 48$

$$3x + 20 + 6x - 17 = 48$$

$$9x + 3 = 48$$

$$9x = 45$$

$$x = 5$$

Main Idea: Use any combination of Segment Addition, Angle Addition, Complementary, Supplementary, and Vertical Angles to set up equations.