Name_____ Date_____ Pd_____

CYU 2.3 Diagrams & Postulates

☑ Use when you get it right all by yourself

S Use when you did it all by yourself, but made a silly mistake

H Use when you could do it alone with a little help from teacher or peer

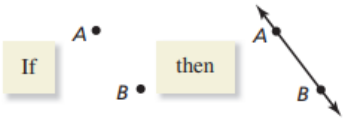
G Use when you completed the problem in a group

X Use when a question was attempted but wrong (get help)

N Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Two Point Postulate	1	8	7
Line Point Postulate	2a		
Line Intersection Postulate	2b		
Three Point Postulate	2c	8	
Plane Line Postulate	2d		
Plane Intersection Postulate	9	9	9
Creating Diagrams		3	
Assumptions from Diagrams	4, 5a, 6	4, 5b, 6	4, 6

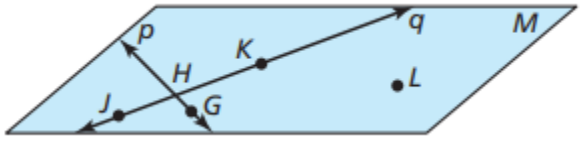
1. State the postulate illustrated by the diagram.



2. Use the diagram to write an example of the postulate.
   a. Line- Point Postulate

   b. Line Intersection Postulate

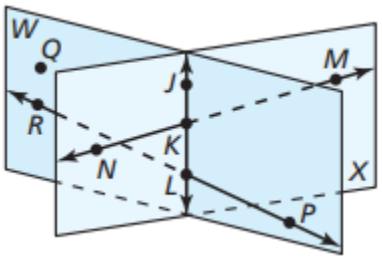
   c. Three Point Postulate



   d. Plane Line Postulate

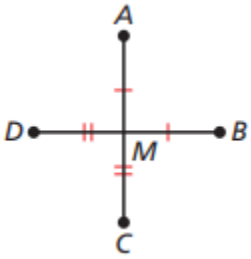
3. Sketch a diagram of the description:
   $\overline{AB}, \overline{CD}, \& \overline{EF}$ *are all in plane* P*, and point* X *is the midpoint of all three segments.*

4. Use the diagram to determine whether you can assume the statement.



   a. Planes W & X intersect at $\overleftrightarrow{KL}$.
   b. Points K, L, M, and N are coplanar.
   c. Points Q, J, & M are collinear.
   d. $\overleftrightarrow{MN}$ *and* $\overleftrightarrow{RP}$ *intersect.*
   e. $\overleftrightarrow{JK}$ *lies in plane X.*
   f. $\angle PLK$ *is a right angle.*
   g. $\angle NKL$ & $\angle JKM$ *are vertical angles.*
   h. $\angle NKJ$ & $\angle JKM$ *are supplementary angles.*

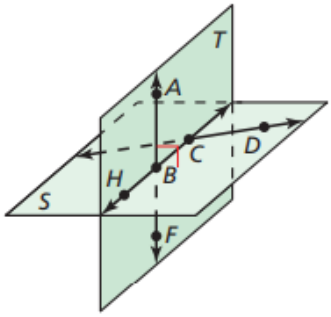
5. Describe & Correct the error in the statement made about the diagram.



   a. M is the midpoint of $\overline{AC}$ & $\overline{BD}$.

   b. $\overline{AC}$ *intersects* $\overline{BD}$ *at a* 90^o *angle, so* $\overline{AC} \perp \overline{BD}$.

6. Select all the statements about the diagram that you ***cannot*** conclude.



   a. A, B, & C are coplanar.
   b. Plane T intersects plane S in $\overleftrightarrow{BC}$.
   c. $\overleftrightarrow{AB}$ *intersects* $\overleftrightarrow{CD}$.
   d. $H, F, \&\ D$ *are coplanar.*
   e. *Plane T* $\perp$ *plane S.*
   f. *Point B bisects* $\overline{HC}$.
   g. $\angle ABH$ & $\angle HBF$ *are a linear pair.*
   h. $\overleftrightarrow{AF} \perp \overleftrightarrow{CD}$.

7. One way to graph a linear equation is to plot two points whose coordinates satisfy the equation and then connect them with a line. Which postulate guarantees this process works for any linear equation?

8. Choose the correct symbol (<. ≤, =, ≥, >) to go between these two statements: ***number of points to determine a line _____ number of points to determine a plane.***

9. Your friend claims that by the Plane Intersection Postulate, any two planes intersect in a line. Is your friend's interpretation of the Plane Intersection Postulate correct? Explain your reasoning.

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.