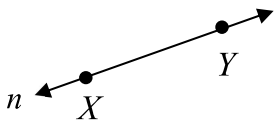
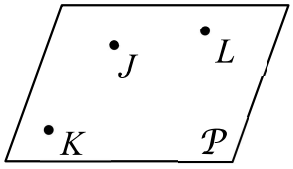
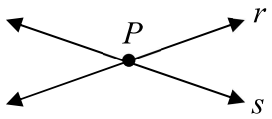
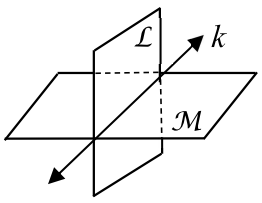
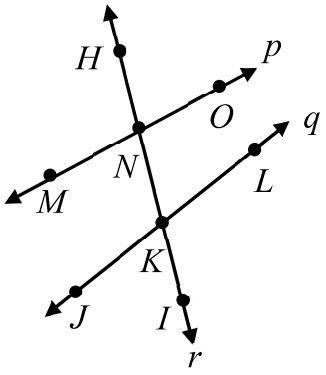
Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes
POINT  	• A point is a _____. • It has no _____ or _____. • Always use a CAPITAL LETTER to name a point. **Example:** _____
LINE  	• A line is made up of _____. • Any _____ points form a line. • A line has no _____ or _____. • Name a line by any two points on the line, or a lowercase script letter. **Example:** _____ • **COLLINEAR POINTS:** Points that lie on the same line. • **NON-COLLINEAR POINTS:** Points that do NOT lie on the same line. **(Must be at least three points!)**
PLANE  	• A plane is a _____ _____ made up of points. • Any _____ points make up a plane. • A plane extends indefinitely in all directions. • Name a plane by any three non-collinear points on the plane, or an uppercase script letter. **Example:** _____ • **COPLANAR POINTS:** Points that line on the same plane. • **NON-COPLANAR POINTS:** Points that do NOT lie on the same plane. **(Must be at least four points!)**
Intersecting LINES & PLANES	 **Two lines intersect at a _____!**  **Two planes intersect at a _____!**

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Naming Points, Lines, and Planes: Practice!

1. Use the diagram to the right to name the following.



a) Four collinear points. _____

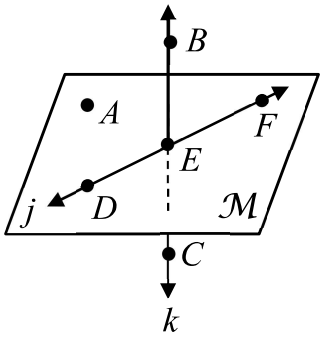
b) A line that contains point M. _____

c) A line that contains points H and K. _____

d) Another name for line q. _____

e) The intersection of lines p and r. _____

2. Use the diagram to the right to name the following.



a) A line containing point F. _____

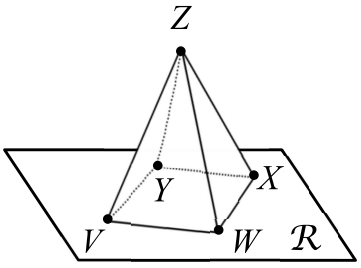
b) Another name for line k. _____

c) A plane containing point A. _____

d) An example of three non-collinear points. _____

e) The intersection of plane M and line k. _____

3. Use the diagram to the right to name the following.



a) Three coplanar points. _____

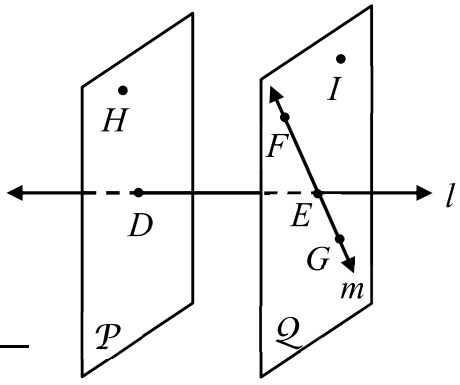
b) A plane containing point X. _____

c) The intersection of plane R and plane ZVY. _____

d) How many planes appear in the figure? _____

e) How many planes contain point W? _____

4. Use the diagram to the right to name the following.



a) The intersection of lines l and m. _____

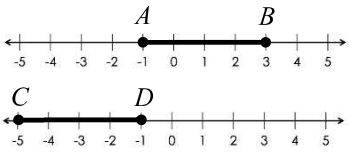
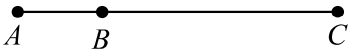
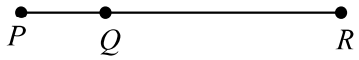
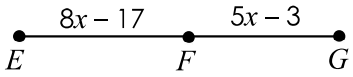
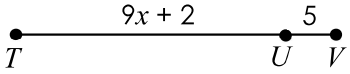
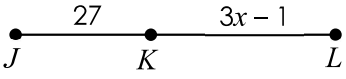
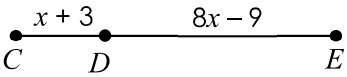
b) Another name for plane $\mathcal{Q}$. _____

c) Are points D and E collinear or coplanar? _____

d) How many times do planes $\mathcal{P}$ and $\mathcal{Q}$ intersect? _____

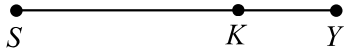
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Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes/Examples	
MEASURING SEGMENTS	The distance between two points A and B be written as _____ or _____.	 AB = _____
CONGRUENT SEGMENTS	If _____, then the segments are congruent. This is written as _____.	
SEGMENT ADDITION *Postulate*	If A, B, and C, are collinear points and B is between A and C, then _____	
Examples	**Use the diagram below for questions 1 and 2.** 	**1.** If PQ = 9 and QR = 28, find PR.
		2. If QR = 17 and PR = 21, find PQ.
	3. If EG = 71, find the value of x. 	**4.** If $TV = 14x - 8$, find TU. 
	5. If $JL = 5x + 2$, find JL. 	**6.** If $CE = 7x + 4$, find the value of x. 

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7. If $SK = 13x - 5$, $KY = 2x + 9$, and $SY = 36 - x$, find each value.



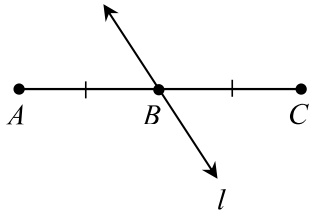
$x =$ _____

$SK =$ _____

$KY =$ _____

$SY =$ _____

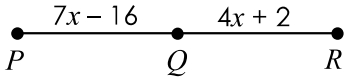
MIDPOINT *of a Segment*



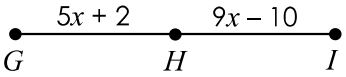
- The _____ of a segment is a point that divides the segment into _____ _____ _____.
- A line, ray, or segment that intersects a segment at its midpoint is said to _____ the segment and is called the _____ _____.
- In the diagram to the left, _____ is the midpoint of _____ and line _____ is a _____ _____ of _____.

Examples

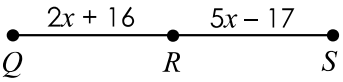
8. If Q is the midpoint of $\overline{PR}$, find the value of x.



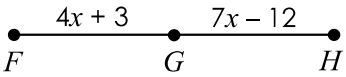
9. If H is the midpoint of $\overline{GI}$, find GH.



10. If R is the midpoint of $\overline{QS}$, find QS.



11. If G is the midpoint of $\overline{FH}$ and $FH = 6y - 2$, find y.



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