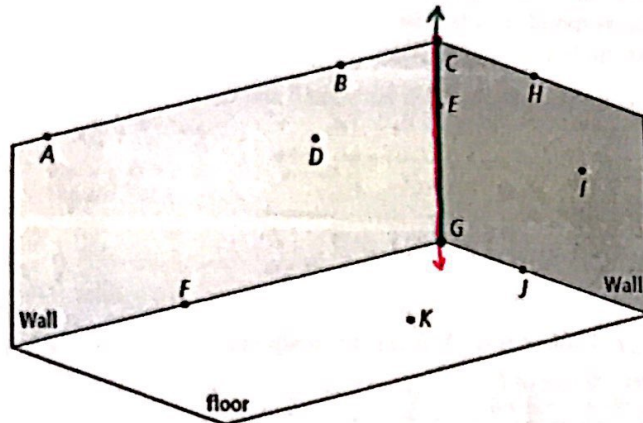


Day 1 Practice: Points Around the Room

Points, Lines, and Planes



Use the picture above to answer the following questions. Assume each plane extends infinitely.

1. What is another name for plane FGK ? $\text{Plane } KJG$ (or any combo of F, K, G, J)

2. What is the intersection of plane ABF and plane HIG ? \overleftrightarrow{CG} (or any combo of C, G, E)

3. What point is collinear with points E and C ? G

4. What point is coplanar with points $H, E,$ and C ? $G, I,$ or J

5. What is another way to name \overrightarrow{GE} ? \overrightarrow{GC}

6. Are points K and J collinear? yes (2 points are always collinear)

7. What is the intersection of \overline{GE} and \overline{AB} ? C

8. What line is coplanar with \overline{FG} and \overline{GJ} ? \overleftrightarrow{FK} or \overleftrightarrow{KJ} or \overleftrightarrow{FJ}

9. What is the intersection of \overline{GE} and \overline{CE} ? \overline{GC}

10. What point is collinear with A ? $\text{any other points on the planes.}$
 $\text{Two points are always collinear}$

Day 2 Puzzle: What Is a Line's Favorite Kind of Fruit?

Measuring Segments

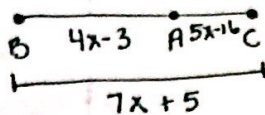
Look for your answer in the key at the right and put the corresponding letter in the answer blank at the bottom of the page.

1. Points A, B, and C are collinear and A is between B and C.

$AB = 4x - 3$, $BC = 7x + 5$, and $AC = 5x - 16$.

Find each value.

- a. $BC = 7(12) + 5 = 89$
 b. $AB = 4(12) - 3 = 45$
 c. $AC = 5(12) - 16 = 44$



$$4x - 3 + 5x - 16 = 7x + 5$$

$$9x - 19 = 7x + 5$$

$$+19 \quad +19$$

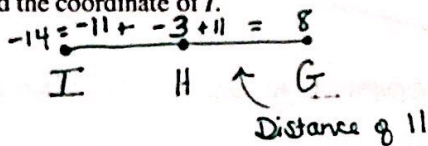
$$9x = 7x + 24$$

$$-7x \quad -7x$$

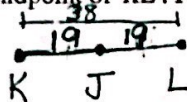
$$2x = 24$$

$$x = 12$$

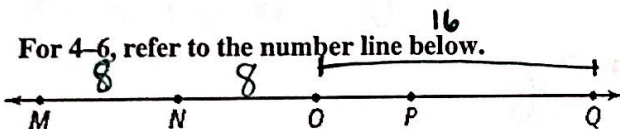
2. On a number line, $G = 8$ and $H = -3$. If H is the midpoint of \overline{GI} , find the coordinate of I.



3. J is the midpoint of \overline{KL} . Find KJ if $KL = 38$.



For 4-6, refer to the number line below.

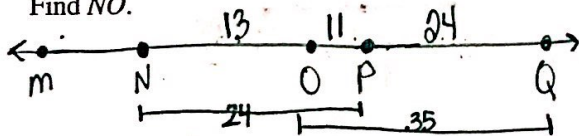


4. Suppose O is the midpoint of \overline{MQ} and N is the midpoint of \overline{MO} . If $NO = 8$, find MQ .

$$8 + 8 + 16 = 32$$

5. Suppose P is the midpoint of \overline{NQ} , $OP = 11$, and $OQ = 35$.

Find NO .

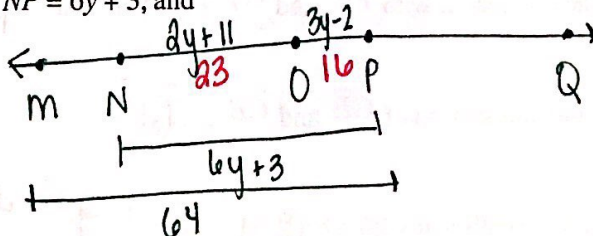


$\overline{NP} \cong \overline{PQ}$
 $24 - 11 = 13$ (NO)

6. If $NO = 2y + 11$, $OP = 3y - 2$, $NP = 6y + 3$, and

$MP = 64$, find each value.

- a. $NO = 23$
 b. $MN = 64 - 23 - 16 = 25$



$$2y + 11 + 3y - 2 = 6y + 3$$

$$5y + 9 = 6y + 3$$

$$-5y \quad -5y$$

$$-3 \quad -3$$

$$6 = y$$

$$NO = 2(6) + 11 = 23$$

$$OP = 3(6) - 2 = 16$$

An D R a n a e because it is made of S e a m e n t s.
 Ic 3 2 1a 6a 4 1b 4 6a 5 4 1a 6b 1b

2	a	-14
	b	20
	c	-18
	d	-13
4	e	32
	f	3
6	g	23
	h	39
	i	16
	j	41
	k	-11
	l	12
5	m	13
1a	n	89
1c	o	44
	p	-26
	q	6
3	r	19
1b	s	45
6	t	25
	u	42
	v	10
	w	-7
	x	16
	y	27
	z	50