**Collinear, Midpoint, Lines, Rays, etc…**  name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
class\_\_\_\_\_ date\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A. If it is given that and bisect each other at M, draw a possible image below. Be sure to include proper notation to show that the segments are congruent ( ).

B. Fill in the blanks that make the following statements true

*A – M – \_\_?\_\_* *\_\_?\_\_ – M – C \_\_?\_\_ \_\_?\_\_*

1. The coordinate of an endpoint of a segment is 4, and the coordinate of its midpoint is 7. What is the coordinate of the other endpoint?
2. What symbol is missing over *AB* in the following statements?
   1. *AB* has no endpoints
   2. The endpoints of *AB* are A and B
   3. *AB* has one endpoint, A
3. Name the ray or segment that is the set of all points that satisfy each of the following:

R

M

S

* 1. All real numbers

1

-1

0



1. Find the coordinates for the midpoint of , if the endpoints of P and Q are…
   1. 5 and 11
   2. -9 and -2
   3. and
   4. -3 and 7
2. Use the diagram below to supply the missing details
   1. is the set of all points of line l having coordinates *\_\_?\_\_*
   2. If *B* is on , then its coordinate is *\_\_?\_\_* 3
   3. If *E – A – B*, then what is a possible value for E? E C A B D

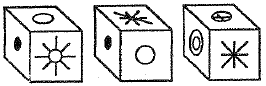
k

3 5

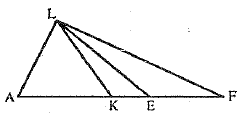
1. Using the following diagram, give a combined, simpler name for the unions and intersections of the indicated sets. (Points, lines, segments, rays, etc…)  
    A B C D E F G   
     
     
   a. c. e. g.   
     
     
   b. d. f. h.

j

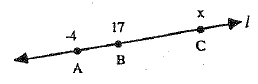
1. A, B, and C are three points on a number line with coordinates 3, 14, and 82 respectively.   
   Verify that NOTE: This is known as the segment addition postulate.
2. If X is between Y and Z, then which of the following is true?  
   a. b. c. d.
3. Two points are 7 units apart on a number line. The coordinate of one point is -8. John thinks that the other point is -1. Sam thinks the other point is -15. Who do you agree with? Explain your reasoning.
4. Given four collinear points A, K, O and Y; K is between O and A; the length of added to the length of is equal to the length of ; A is to the right of O. Show a correct diagram.
5. Three views of the same cube are given. Which symbols are on opposite faces of the cube?



1. = 16, = 8, = 24 inches. Which point is between the other two? Explain your reasoning.
2. F is between A and E; F is also between R and S; A, E, R, and S are NOT collinear. Show one correct diagram.
3. In the figure to the right, K is between A and E. E is between K and F.   
   a. If = 10, = 12 and = 19.6 feet, find .  
     
     
   b. If = 15x, = 19x and = 30x inches, find .



1. In the number line at the right, B is between A and C.



* 1. If = 100 units, find x.
  2. If = , find x.