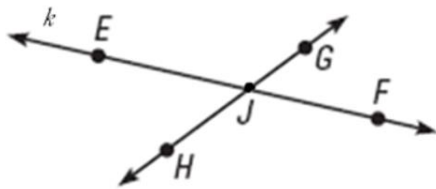


Using the symbols and vocabulary

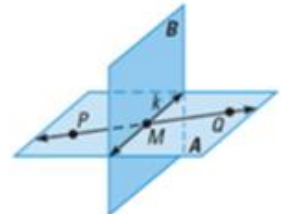


1. Are \overrightarrow{HJ} and \overrightarrow{JH} the same ray? Explain.
2. Are \overrightarrow{HJ} and \overrightarrow{HG} the same ray? Explain.
3. How many different ways can you name line EF?

4. Sketch two different lines that intersect a plane at the same point.

Use the diagram at the right.

5. Name the intersection of \overleftrightarrow{PQ} and line k .
6. Name the intersection of plane A and plane B.
7. Name the intersection of line k and plane A.

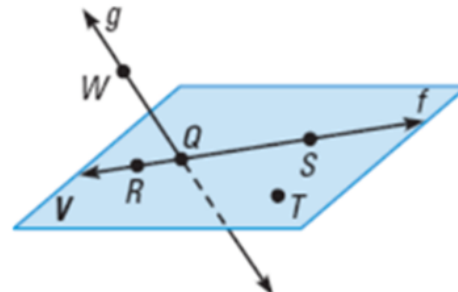


1. Write in words what each symbol represents.

- a. Q
- b. \overline{MN}
- c. \overleftrightarrow{ST}
- d. \overrightarrow{FG}

use the picture below to answer #2-5

2. Give two other names for \overleftrightarrow{WQ} .
3. Give another name for plane V
4. Name three collinear points and a point which is not collinear with it.
5. Name a point which is not coplanar with R, S, and T.



Ruler postulate and segment addition postulate



1. How far is it from Lubbock TX to St. Louis MO?

2. a. How did you determine your answer?

b. Rule:

3. a. Find GH and explain how you got your answer.

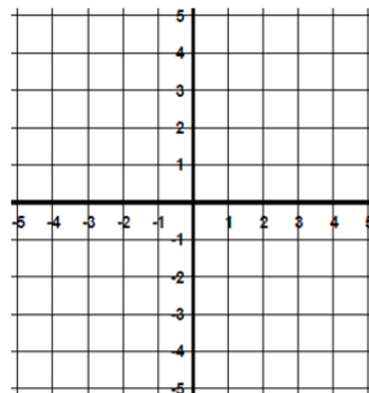


b. Rule:

4. a. Plot the points $F(-3,5)$, $G(2,5)$, $H(3,1)$, $J(3,-3)$ in the coordinate plane. Are \overline{FG} and \overline{HJ} congruent? _____

b. Explain how you got your answer

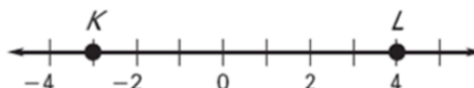
c. Rule:



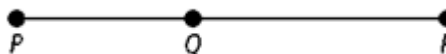
5. a. Find KL _____

b. Explain how you got your answer.

c. Rule:



For Exercises 1 - 4, use the figure at the right.



1. If $PQ = 7$ and $QR = 10$, then $PR =$ _____.

2. If $PQ = 20$ and $QR = 22$, then $PR =$ _____.

3. If $PR = 25$ and $PQ = 12$, then $QR =$ _____.

4. If $PR = 19$ and $QR = 12$, then $PQ =$ _____.

5. **Reasoning** Points A, Q, and O are collinear. $AO = 10$, $AQ = 15$, and $OQ = 5$. What must be true about their positions on the line?

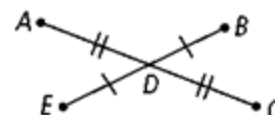
6. Given: $ST = 3x + 3$ and $TU = 2x + 9$.

a. What is the value of ST ?

b. What is the value of TU ?



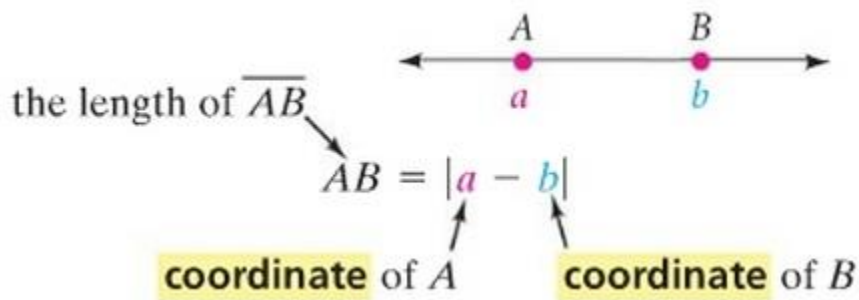
7. If $DC = 6x$ and $DA = 4x + 18$, find the value of x . Then find AD , DC , and AC .



Ruler Postulate:

Every point on a line can be paired with a real number. This makes a one to one correspondence between the points on the line and the real numbers. The real number that corresponds to point is called the coordinate of the point.

The distance between two points is the absolute value of the difference of their coordinates.



Segment addition:

If three points A, B and C are collinear and B is between A and C, Then $AB + BC = AC$

Segment Addition Postulate



$$AB + BC = AC$$
$$4\text{cm} + 10\text{cm} = 14\text{cm}$$