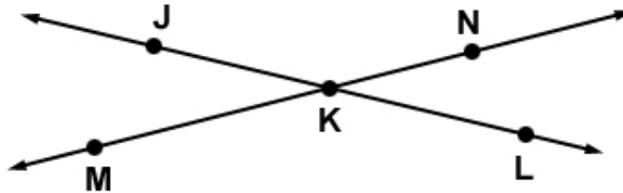


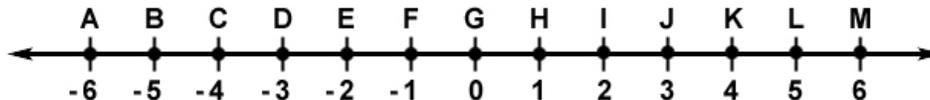
Basic Figures - Segments, Rays, & Length

For questions 1 – 10, use the diagram shown to determine if each of the given statements is true or false.



1. K is between J and N.
2. \overrightarrow{MK} and \overrightarrow{KM} are opposite rays.
3. \overrightarrow{KL} and \overrightarrow{KJ} are opposite rays.
4. \overrightarrow{KN} and \overrightarrow{NK} mean the same thing.
5. L is the endpoint of \overrightarrow{KL} .
6. \overrightarrow{JK} and \overrightarrow{KJ} mean the same thing.
7. $JL = LJ$.
8. J is an endpoint of \overrightarrow{JL} .
9. $MK = KN$.
10. K is between J and L.

Use the number line shown to answer questions 11 – 20:



11. Find the coordinate of the endpoint of \overrightarrow{JF} .
12. Find the coordinate of the point that lies between B and D.
13. Find the coordinates of the endpoints of \overrightarrow{EL} .
14. Find CK.
15. Find AE.

16. Find two segments that have the same length as \overline{BL} .
17. Find the ray opposite to \overline{BC} .
18. Find the coordinate of the point that lies between H and J.
19. Given that J is the endpoint of a segment and the length of the segment is 4, name the segment.
20. Given that C is the endpoint of a segment and the length of the segment is 10, name the segment.

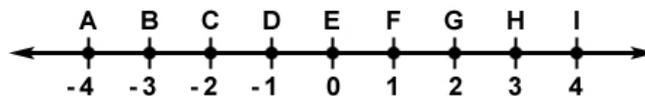
In each of the following problems, the given numbers represent the coordinates of the endpoints of a segment. Find the length of the segment.

21. 5 and -2
22. 75 and 62
23. -24 and -16
24. $-\frac{1}{4}$ and $\frac{3}{4}$

In each of the following problems, you are given the length of a segment and the coordinate of one of the two endpoints. Find the coordinate of the other endpoint.

25. Length = 6; coordinate of one endpoint is 20.
26. Length = 12; coordinate of one endpoint is 5.

In each of the following problems, name the solution to each compound inequality using the number line shown. *Hint: read each inequality carefully!*



- | | |
|--------------------------------|--------------------------------|
| 27. $x \geq -1$ and $x \leq 2$ | 28. $x \geq -3$ and $x \leq 3$ |
| 29. $x \geq 1$ and $x \leq 1$ | 30. $x \geq 0$ and $x \geq -4$ |
| 31. $x \geq 2$ and $x \leq -2$ | 32. $x \leq 1$ and $x \leq 3$ |