

1.6 Homework

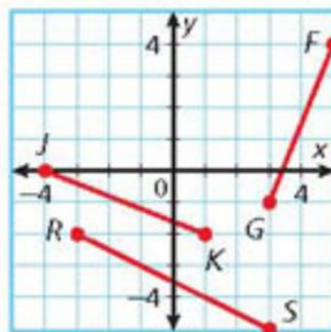
P: 47: 2, 4, 6, 22, 24, 29, 32, 35

Find the coordinates of the midpoint of each segment.

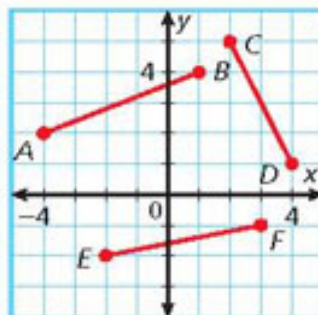
- $\overline{AB}$  with endpoints  $A(4, -6)$  and  $B(-4, 2)$
- $M$  is the midpoint of  $\overline{LN}$ .  $L$  has coordinates  $(-3, -1)$ , and  $M$  has coordinates  $(0, 1)$ . Find the coordinates of  $N$ .

**Multi-Step** Find the length of the given segments and determine if they are congruent.

- $\overline{JK}$  and  $\overline{FG}$




- Multi-Step** Use the Distance Formula to order  $\overline{AB}$ ,  $\overline{CD}$ , and  $\overline{EF}$  from shortest to longest.



24.  $X$  has coordinates  $(a, 3a)$ , and  $Y$  has coordinates  $(-5a, 0)$ . Find the coordinates of the midpoint of  $\overline{XY}$ .

29. **Critical Thinking** Give an example of a line segment with midpoint  $(0, 0)$ .

-  32. **Write About It** Explain why the Distance Formula is not needed to find the distance between two points that lie on a horizontal or a vertical line.

35. Find the distance, to the nearest tenth, between the midpoints of  $\overline{LM}$  and  $\overline{JK}$ .

- F 1.8                       H 4.0  
 G 3.6                       J 5.3

