

WS 1.3B Midpoint Formula

Find the midpoint of the line segment with the given endpoints.

1)  $(-5, -4), (-9, 10)$

2)  $(6, 1), (7, 0)$

3)  $(-2, -6), (1, 6)$

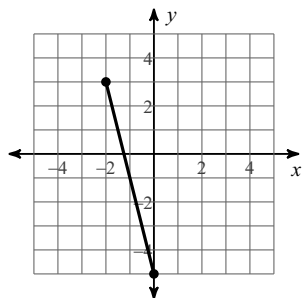
4)  $(-2, -8), (5, 7)$

5)  $(3, -7), (5, 0)$

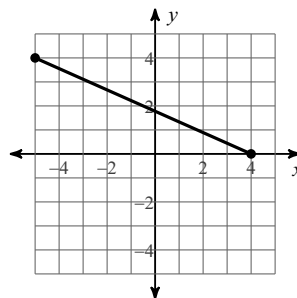
6)  $\left(-1\frac{2}{7}, -\frac{1}{5}\right), \left(\frac{3}{4}, \frac{4}{5}\right)$

Find the midpoint of each line segment.

7)



8)



**Find the other endpoint of the line segment with the given endpoint and midpoint.**

9) Endpoint:  $(-7, 2)$ , midpoint:  $(-6, -10)$

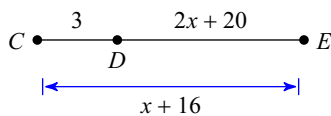
10) Endpoint:  $(-6, 4)$ , midpoint:  $(5, 0)$

11) Endpoint:  $(7, 10)$ , midpoint:  $(4, -7)$

12) Endpoint:  $(1, -7)$ , midpoint:  $(-3, -10)$

**Find the length indicated.**

13) Find  $DE$



14)  $B$  is the midpoint of segment  $AC$ .  $AB = 2x + 3$  and  $BC = 4x - 7$ . Find the length of  $AC$ .

15)  $B$  is the midpoint of segment  $AC$ .  
 $AB = 3x + 3$  and  $AC = 8x - 8$ . Find the length of  $BC$ .