

Unit 6.3 Midpoint and Distance Formula EXAMPLES

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

1) $(9, 7), (3, 8)$

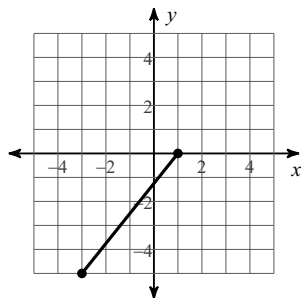
2) $(2, 8), (1, -9)$

3) $(4.9, 9.7), (-3.37, -0.245)$

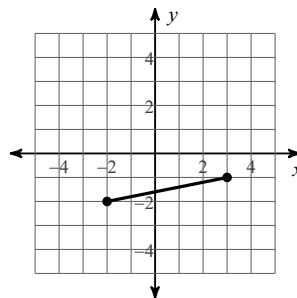
4) $(-2.1, -7.707), (3.6, 1.6)$

Find the midpoint of each line segment. Give answer in reduced fraction form.

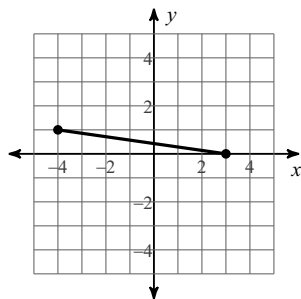
5)



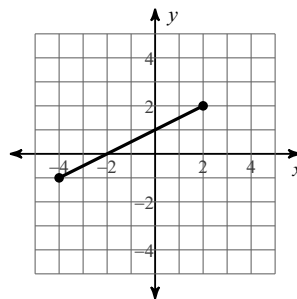
6)



7)



8)



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

9) Endpoint: $(-5.2, 1.52)$, midpoint: $(8.2, 5.1)$

10) Endpoint: $(7.7, -9.2)$, midpoint: $(5.3, -5)$

11) Endpoint: $(-5, 6)$, midpoint: $(-4, 1)$

12) Endpoint: $(-6, 5)$, midpoint: $(0, 3)$

Find the distance between each pair of points. Give answer in simplified radical form.

13) $(-1, 7), (5, 4)$

14) $(-2, -7), (8, 7)$

15) $(-6, 3), (-8, -3)$

16) $(-7, 6), (8, -4)$

17) $(-4, 8), (2, 4)$

18) $(1, -2), (6, 8)$

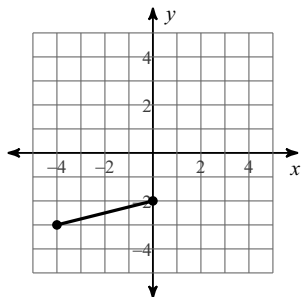
Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

19) $(-6.3, -0.2), (4.4, -1.3)$

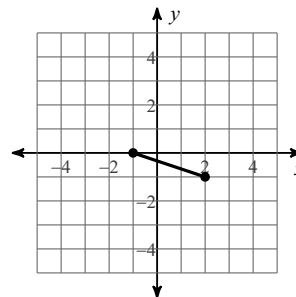
20) $(-5.6, 2.5), (-6.1, -7.9)$

Find the distance between each pair of points. Give answer in simplified radical form.

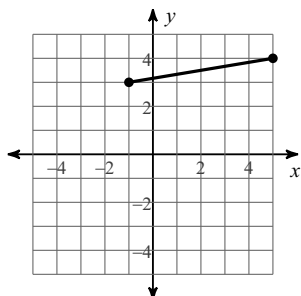
21)



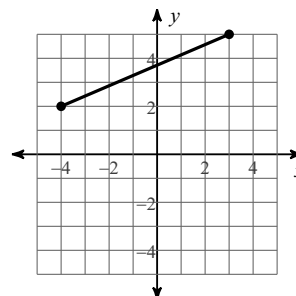
22)



23)



24)



Unit 6.3 Midpoint and Distance Formula EXAMPLES

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

1) $(9, 7), (3, 8)$

$$\left(6, 7\frac{1}{2}\right)$$

2) $(2, 8), (1, -9)$

$$\left(1\frac{1}{2}, -\frac{1}{2}\right)$$

3) $(4.9, 9.7), (-3.37, -0.245)$

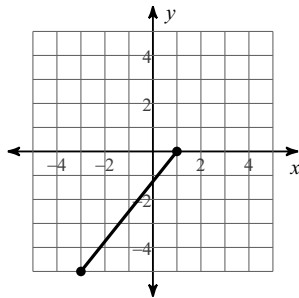
$$(0.765, 4.728)$$

4) $(-2.1, -7.707), (3.6, 1.6)$

$$(0.75, -3.054)$$

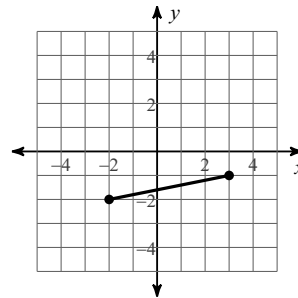
Find the midpoint of each line segment. Give answer in reduced fraction form.

5)



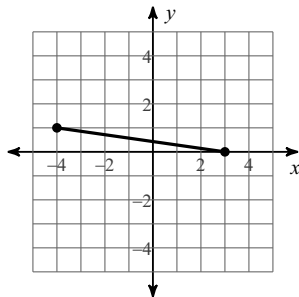
$$\left(-1, -2\frac{1}{2}\right)$$

6)



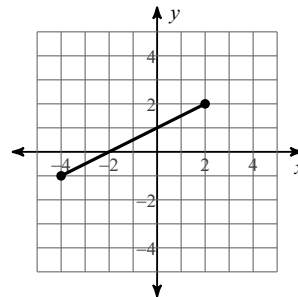
$$\left(\frac{1}{2}, -1\frac{1}{2}\right)$$

7)



$$\left(-\frac{1}{2}, \frac{1}{2}\right)$$

8)



$$\left(-1, \frac{1}{2}\right)$$

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

9) Endpoint: $(-5.2, 1.52)$, midpoint: $(8.2, 5.1)$

$$(21.6, 8.68)$$

10) Endpoint: $(7.7, -9.2)$, midpoint: $(5.3, -5)$

$$(2.9, -0.8)$$

11) Endpoint: $(-5, 6)$, midpoint: $(-4, 1)$

$$(-3, -4)$$

12) Endpoint: $(-6, 5)$, midpoint: $(0, 3)$

$$(6, 1)$$

Find the distance between each pair of points. Give answer in simplified radical form.

13) $(-1, 7), (5, 4)$

$3\sqrt{5}$

14) $(-2, -7), (8, 7)$

$2\sqrt{74}$

15) $(-6, 3), (-8, -3)$

$2\sqrt{10}$

16) $(-7, 6), (8, -4)$

$5\sqrt{13}$

17) $(-4, 8), (2, 4)$

$2\sqrt{13}$

18) $(1, -2), (6, 8)$

$5\sqrt{5}$

Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

19) $(-6.3, -0.2), (4.4, -1.3)$

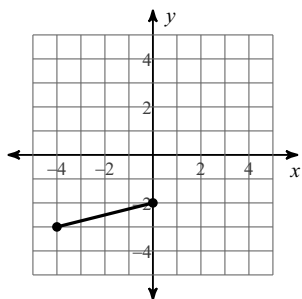
10.8

20) $(-5.6, 2.5), (-6.1, -7.9)$

10.4

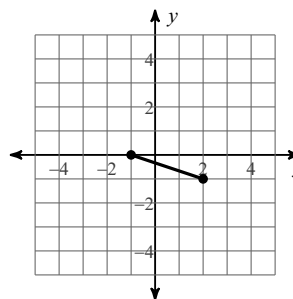
Find the distance between each pair of points. Give answer in simplified radical form.

21)



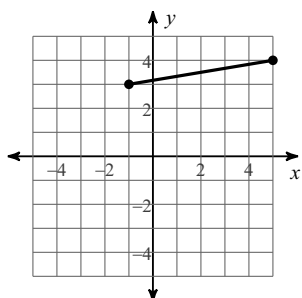
$\sqrt{17}$

22)



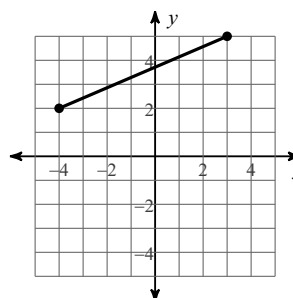
$\sqrt{10}$

23)



$\sqrt{37}$

24)



$\sqrt{58}$