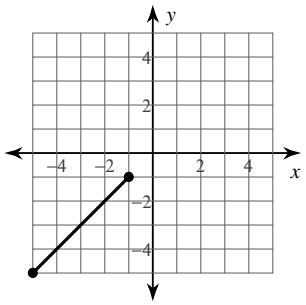
Kuta Software - Infinite Geometry Name_____

The Midpoint Formula

Date_____ Period____

Find the midpoint of each line segment.

1)



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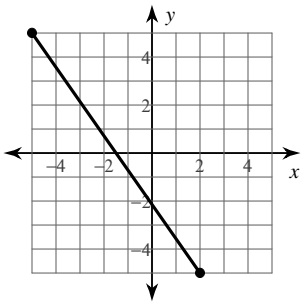

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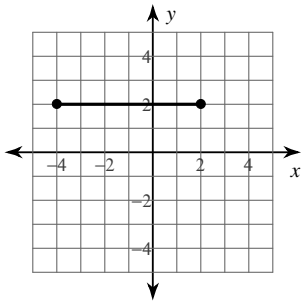

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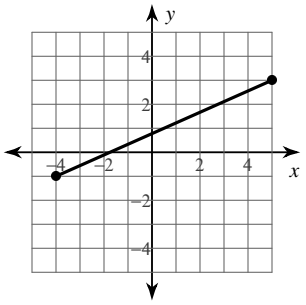

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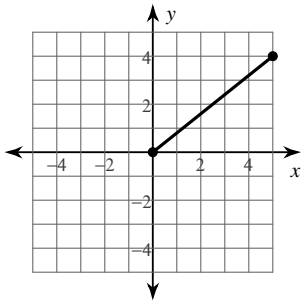

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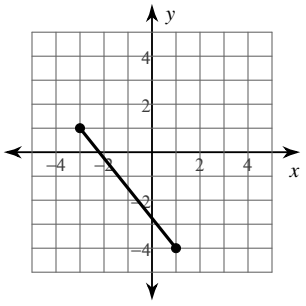
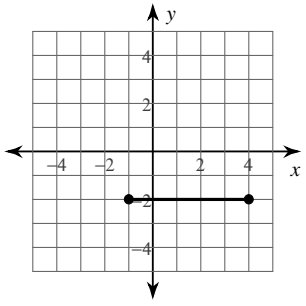
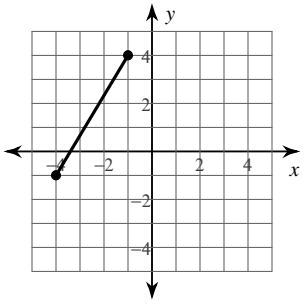


7)



8)



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

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

10) $(-1, -6), (-6, 5)$

11) $(2, 4), (1, -3)$

12) $(-4, 4), (-2, 2)$

13) $(5, 2), (-4, -3)$

14) $(-1, 1), (5, -5)$

15) $(2, -1), (-6, 0)$

16) $(-3.1, -2.8), (-4.92, -3.3)$

17) $(-5.1, -2), (1.4, 1.7)$

18) $(4.9, -1.3), (-5.2, -0.6)$

19) $(5.1, 5.71), (6, 3.6)$

20) $(3.1, -2.1), (-0.52, -0.6)$

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

21) Endpoint: $(-1, 9)$, midpoint: $(-9, -10)$

22) Endpoint: $(2, 5)$, midpoint: $(5, 1)$

23) Endpoint: $(5, 2)$, midpoint: $(-10, -2)$

24) Endpoint: $(9, -10)$, midpoint: $(4, 8)$

25) Endpoint: $(-9, 7)$, midpoint: $(10, -3)$

26) Endpoint: $(-6, 4)$, midpoint: $(4, 8)$

Critical thinking questions:

27) Find the point that is one-fourth of the way from $(2, 4)$ to $(10, 8)$.

28) One endpoint of a line segment is $(8, -1)$. The point $(5, -2)$ is one-third of the way from that endpoint to the other endpoint. Find the other endpoint.

Kuta Software - Infinite Geometry

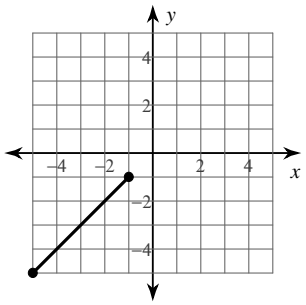
Name_____

The Midpoint Formula

Date_____ Period____

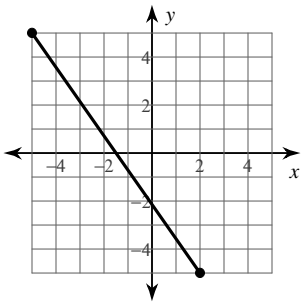
Find the midpoint of each line segment.

1)



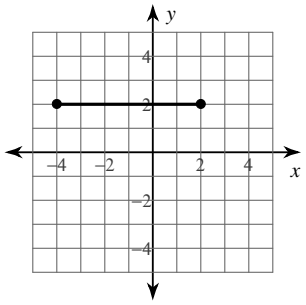
$(-3, -3)$

2)



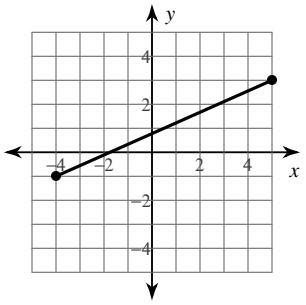
$\left(-1\frac{1}{2}, 0\right)$

3)



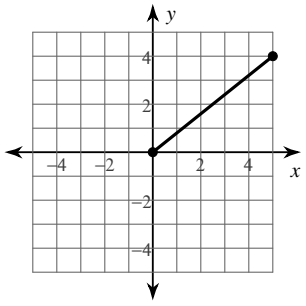
$(-1, 2)$

4)



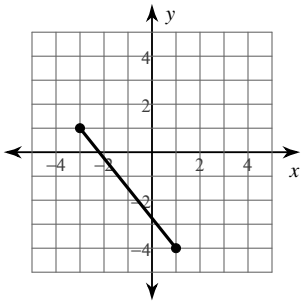
$\left(\frac{1}{2}, 1\right)$

5)



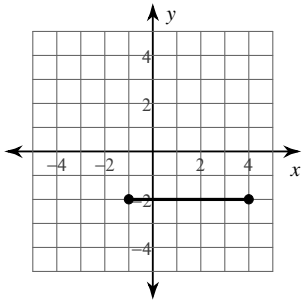
$\left(2\frac{1}{2}, 2\right)$

6)



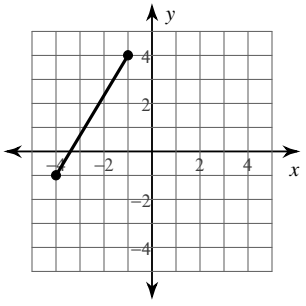
$\left(-1, -1\frac{1}{2}\right)$

7)



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

8)



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

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

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

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

10) $(-1, -6)$, $(-6, 5)$

$\left(-3\frac{1}{2}, -\frac{1}{2}\right)$

11) $(2, 4)$, $(1, -3)$

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

12) $(-4, 4)$, $(-2, 2)$

$(-3, 3)$

13) $(5, 2)$, $(-4, -3)$

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

14) $(-1, 1)$, $(5, -5)$

$(2, -2)$

15) $(2, -1)$, $(-6, 0)$

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

16) $(-3.1, -2.8)$, $(-4.92, -3.3)$

$(-4.01, -3.05)$

17) $(-5.1, -2)$, $(1.4, 1.7)$

$(-1.85, -0.15)$

18) $(4.9, -1.3)$, $(-5.2, -0.6)$

$(-0.15, -0.95)$

19) $(5.1, 5.71)$, $(6, 3.6)$

$(5.55, 4.655)$

20) $(3.1, -2.1)$, $(-0.52, -0.6)$

$(1.29, -1.35)$

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

21) Endpoint: $(-1, 9)$, midpoint: $(-9, -10)$

$(-17, -29)$

22) Endpoint: $(2, 5)$, midpoint: $(5, 1)$

$(8, -3)$

23) Endpoint: $(5, 2)$, midpoint: $(-10, -2)$

$(-25, -6)$

24) Endpoint: $(9, -10)$, midpoint: $(4, 8)$

$(-1, 26)$

25) Endpoint: $(-9, 7)$, midpoint: $(10, -3)$

$(29, -13)$

26) Endpoint: $(-6, 4)$, midpoint: $(4, 8)$

$(14, 12)$

Critical thinking questions:

27) Find the point that is one-fourth of the way from $(2, 4)$ to $(10, 8)$.

$(4, 5)$

28) One endpoint of a line segment is $(8, -1)$. The point $(5, -2)$ is one-third of the way from that endpoint to the other endpoint. Find the other endpoint.

$(-1, -4)$

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