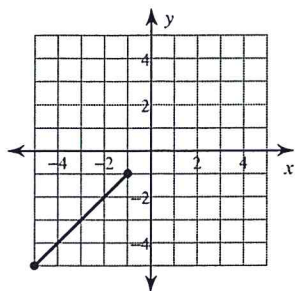


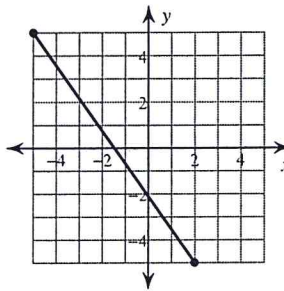
The Midpoint Formula

Find the midpoint of each line segment.

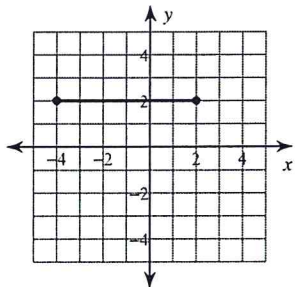
1)



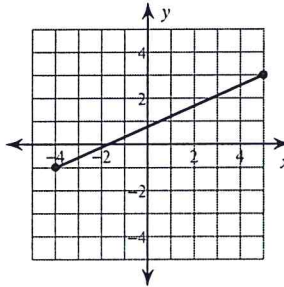
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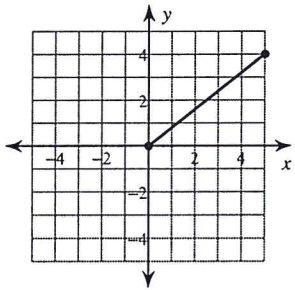
3)



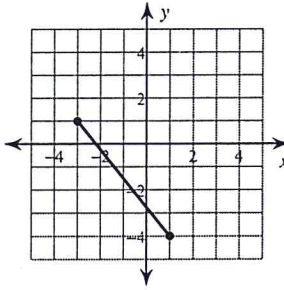
4)



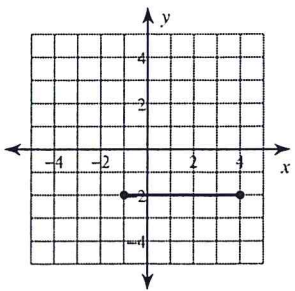
5)



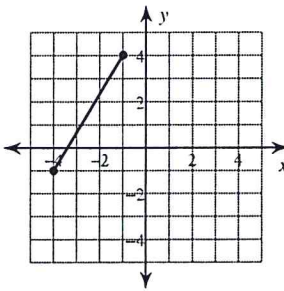
6)



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.