

NAME: _____

1. 080910ge, P.I. G.G.66

The endpoints of \overline{CD} are $C(-2,-4)$ and $D(6,2)$. What are the coordinates of the midpoint of \overline{CD} ?

- [A] $(2,-1)$ [B] $(2,3)$
 [C] $(4,3)$ [D] $(4,-2)$

2. 080624a, P.I. G.G.66

The coordinates of A are $(-9, 2)$ and the coordinates of G are $(3, 14)$. What are the coordinates of the midpoint of \overline{AG} ?

- [A] $(-6,6)$ [B] $(-3,8)$
 [C] $(-21,-10)$ [D] $(-6,16)$

3. fall0813ge, P.I. G.G.66

Line segment \overline{AB} has endpoints $A(2,-3)$ and $B(-4,6)$. What are the coordinates of the midpoint of \overline{AB} ?

- [A] $(-1,3)$ [B] $(3,4\frac{1}{2})$
 [C] $(-1,1\frac{1}{2})$ [D] $(-2,3)$

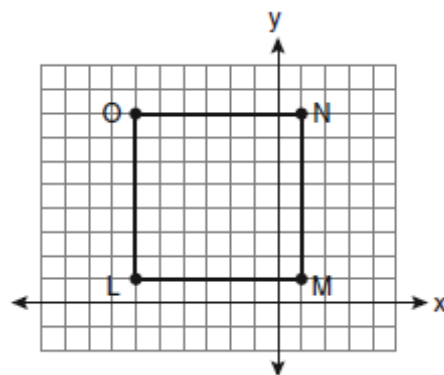
4. 060822a, P.I. G.G.66

What is the midpoint of the line segment that joins points $(4,-2)$ and $(-2,5)$?

- [A] $(1,\frac{3}{2})$ [B] $(2,\frac{3}{2})$
 [C] $(1,\frac{7}{2})$ [D] $(\frac{3}{2},3)$

5. 060919ge, P.I. G.G.66

Square $LMNO$ is shown in the diagram below.



What are the coordinates of the midpoint of diagonal \overline{LN} ?

- [A] $(-2\frac{1}{2}, 3\frac{1}{2})$ [B] $(-2\frac{1}{2}, 4\frac{1}{2})$
 [C] $(-3\frac{1}{2}, 3\frac{1}{2})$ [D] $(4\frac{1}{2}, -2\frac{1}{2})$

6. 080515a, P.I. G.G.66

A line segment on the coordinate plane has endpoints $(2,4)$ and $(4,y)$. The midpoint of the segment is point $(3,7)$. What is the value of y ?

- [A] -2 [B] 11 [C] 5 [D] 10

7. 080217a, P.I. G.G.66

M is the midpoint of \overline{AB} . If the coordinates of A are $(-1,5)$ and the coordinates of M are $(3,3)$, what are the coordinates of B ?

- [A] $(7,1)$ [B] $(1,4)$
 [C] $(-5,7)$ [D] $(2,8)$

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8. 010914a, P.I. G.G.66

The midpoint of \overline{AB} has coordinates of (5,-1). If the coordinates of A are (2,-3), what are the coordinates of B ?

- [A] (3.5,-2) [B] (8,1)
 [C] (8,-5) [D] (7,0)

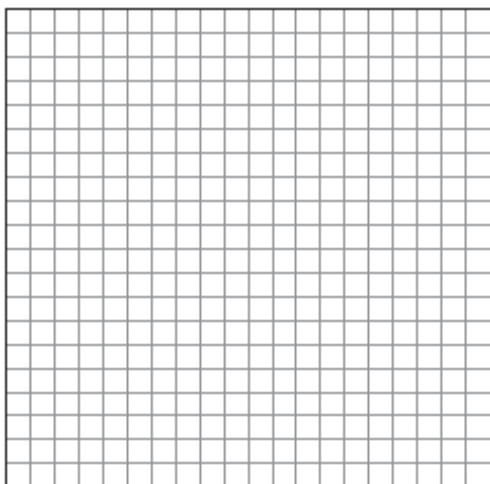
9. 010718a, P.I. G.G.66

The midpoint of \overline{AB} is (-1,5) and the coordinates of point A are (-3,2). What are the coordinates of point B ?

- [A] (-5,8) [B] (0,7)
 [C] (1,10) [D] (1,8)

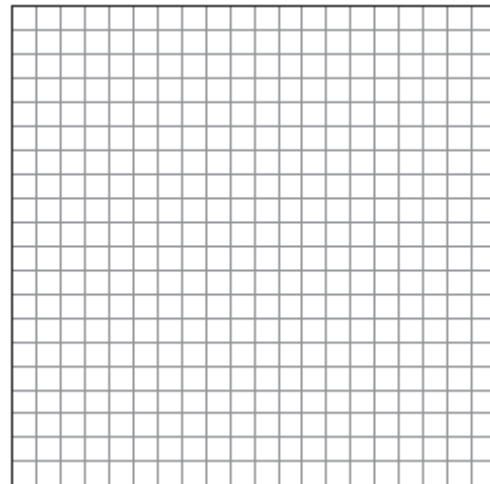
10. 060434a, P.I. G.G.66

The coordinates of the midpoint of \overline{AB} are (2,4), and the coordinates of point B are (3,7). What are the coordinates of point A ? [The use of the grid is optional.]



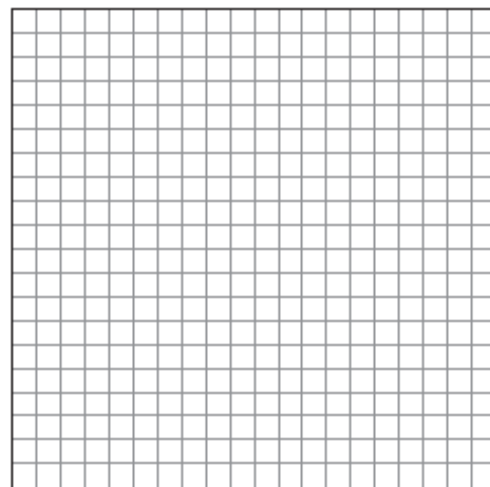
11. 010021a, P.I. G.G.66

The midpoint M of line segment AB has coordinates (-3,4). If point A is the origin, (0,0), what are the coordinates of point B ? [The use of the grid is optional.]



12. 080834a, P.I. G.G.66

One endpoint of a line segment is (6,2). The midpoint of the segment is (2,0). Find the coordinates of the other endpoint. [The use of the grid is optional.]



[1] A

[2] B

[3] C

[4] A

[5] B

[6] D

[7] A

[8] B

[9] D

[2] (1,1), and appropriate work is shown, such as a correct graph of \overline{AB} and an appropriate explanation of how point A is found or the use of the midpoint formula.

[1] Appropriate work is shown, but one computational or graphing error is made.

or [1] Appropriate work is shown, but one conceptual error is made, such as finding the midpoint of the given coordinates.

or [1] The midpoint and points A and B are graphed correctly, but the coordinates of point A are not stated or are stated incorrectly.

or [1] (1,1), but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[10] incorrect procedure.

[2] (-6,8) or -6,8 or $x = -6$ and $y = 8$ and an appropriate explanation is given, such as graphing the line or doubling the coordinates.

[1] One correct coordinate and one incorrect coordinate are found.

or [1] An appropriate method is shown, such as algebraic or graphing, but computational mistakes are made.

or [1] (-6,8) or -6,8 or $x = -6$ and $y = 8$ and no explanation is given.

or [1] Substitutions are correct for the midpoint formula, but computational mistakes are made.

or [1] The student properly locates point B on the graph but does not state its coordinates.

or [1] Point A and point M are reversed, resulting in B(3,-4), and an explanation is given.

[0] Only the midpoint of \overline{AM} $(-\frac{3}{2}, 2)$ is found.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

[11]

[2] (-2,-2), and appropriate work is shown, such as the use of the midpoint formula, a correct graph of the line segment showing the slope, or an appropriate explanation of how the missing endpoint is found.

[1] Appropriate work is shown, but one computational or graphing error is made.

or [1] Appropriate work is shown, but one conceptual error is made, such as finding (4,1), the midpoint of the given points.

or [1] A correct graph of the line segment is drawn, but the coordinates are not stated.

or [1] (-2,-2), but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[12] incorrect procedure.