

NAME: _____

P.I. G.G.66: Find the midpoint of a line segment, given its endpoints

1. Find the midpoint of $(3, -2)$ and $(-11, 12)$.

[A] $(-8, 10)$ [B] $(7, 7)$

[C] $(-4, 5)$ [D] $(14, 14)$

2. What is the midpoint of line segment with endpoints $(5, 6)$ and $(-2, -6)$?

[A] $(1.5, 6)$ [B] $(1.5, 0)$ [C] $(3.5, 0)$

[D] $(15, -6)$ [E] $(3.5, 6)$

3. Find the coordinates of the midpoint of the segment connecting $H(3, -2)$ and $K(-15, 16)$.

[A] $(-12, 14)$ [B] $(9, 9)$

[C] $(18, 18)$ [D] $(-6, 7)$

4. Find the midpoint of $(-2, -1)$ and $(-16, 13)$.

5. Find the coordinates of the midpoint of \overline{MN} with endpoints $M = (2, 3)$ and $N = (2, 9)$.

6. Write the coordinates of two points A and B such that the midpoint of \overline{AB} is $(-3, -8)$.

7. Give two sets of possible coordinates of endpoints of segments with $M(2, 4)$ as the midpoint.

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8. Compare the quantities in Column A and Column B.

Column A

the y -coordinate of the midpoint
of the segment between the
points $(1, 4)$ and $(-2, -5)$

Column B

the x -coordinate of the midpoint
of the segment between the
points $(-1, -4)$ and $(2, 5)$

[A] The quantity in Column A is greater.

[B] The quantity in Column B is greater.

[C] The quantities are equal.

[D] The relationship cannot be determined from the information given.

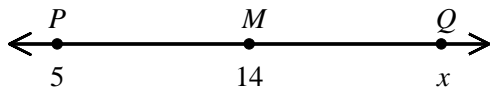
9. If M is the midpoint of \overline{PQ} , find the value of x .

[A] 24

[B] 22

[C] 25

[D] 23



10. Find the coordinates of B if A is the point $(-1, 4)$ and the midpoint of \overline{AB} is $M = (5, 4)$.

[1] C

[2] B

[3] D

[4] $(-9, 6)$

[5] $(2, 6)$

Answers may vary. Sample: $A(-4, -8)$, B

[6] $(-2, -8)$

Answers may vary. Sample: $(5, 6)$ and $(-1, 2)$

[7] $2)$

[8] B

[9] D

[10] $(11, 4)$