

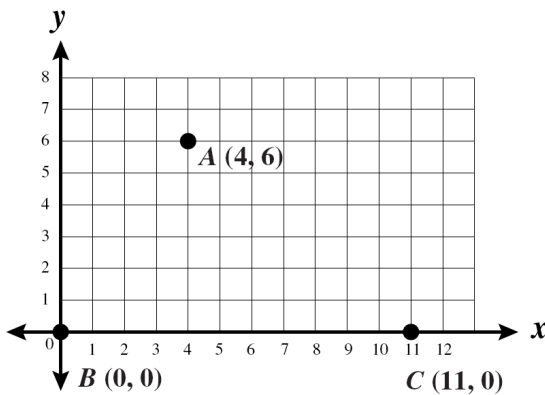
- 1** What is the midpoint of the line segment joining points $(3, 5)$ and $(-6, 1)$?
- A. $(-4.5, 3)$
 - B. $(-3, 6)$
 - C. $(-1.5, 3)$
 - D. $(1.5, 2)$

Mark your answer here: 1. A B C D

- 2** The coordinates for three vertices of trapezoid $ABCD$ are
- $A(4, 6)$
 - $B(0, 0)$
 - $C(11, 0)$

Mark your answer here: 2. A B C D

The area of the trapezoid is 48 square units.



Which of the following could be the coordinates of point D ?

- A. $(5, 6)$
- B. $(9, 6)$
- C. $(11, 5)$
- D. $(11, 6)$



3 What is the midpoint of a line segment with endpoints at $(-3.5, -2.1)$ and $(5.7, 3.3)$?

- A. $(-3.5, 3.3)$
- B. $(1.1, 0.6)$
- C. $(2.2, 1.2)$
- D. $(1.1, 2.7)$

Mark your answer here: 3. A B C D

4 On the coordinate plane, what is the distance between the points $(3, 4)$ and $(11, 10)$?

- A. 10
- B. 7
- C. 5
- D. 14

Mark your answer here: 4. A B C D



5 Which of the following describes the slope of a horizontal line on the coordinate plane?

- A. zero
- B. positive
- C. negative
- D. undefined

Mark your answer here: 5. A B C D

6 \overline{AB} has one endpoint at $A(2, 5)$, and its midpoint is at $(4, 0)$. What are the coordinates of B , the other endpoint of \overline{AB} ?

- A. $(2, -5)$
- B. $(3, 2.5)$
- C. $(6, -5)$
- D. $(6, 2.5)$

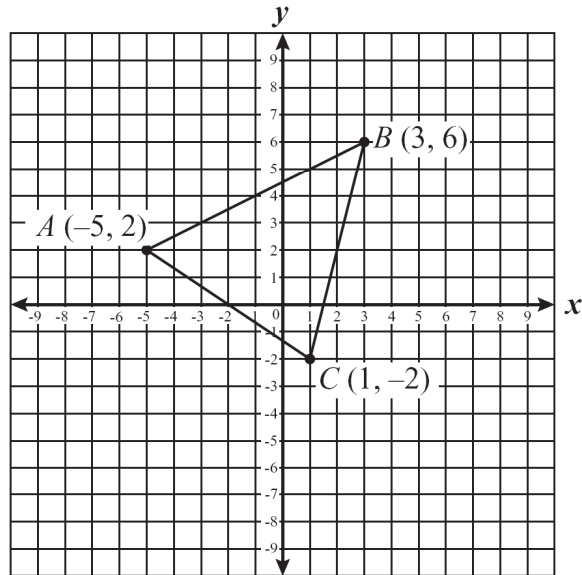
Mark your answer here: 6. A B C D



Directions: For the problem below, use a separate piece of paper to write your answers. Your teacher will not count anything you write on this page.

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Triangle ABC and the coordinates of each vertex of the triangle are shown on the coordinate grid below.



- a. Let M be the midpoint of \overline{AC} . What are the coordinates of M ? Show your work.
- b. Let N be the midpoint of \overline{BC} . What are the coordinates of N ? Show your work.
- c. What is the length of \overline{MN} ? Show your work. (You may leave your answer as a square root of a number.)
- d. What is the slope of the line that contains both point M and point N ? Show your work.
- e. Write an equation representing the line that contains both point M and point N . Show your work.

