

Ready, Set, Go!



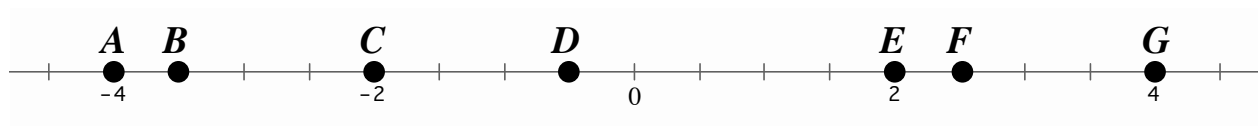
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Ready

Topic: Finding the distance between two points

Use the number line to find the distance between the given points. (The notation AB means the distance between points A and B.)

1. AE 2. CF 3. GB 4. CA 5. BF 6. EG



7. Describe a way to find the distance between two points on a number line without counting the spaces.

8. a. Find AB
b. Find BC
c. Find AC

9. Why is it easier to find the distance between points A and B and points B and C than it is to find the distance between A and C?

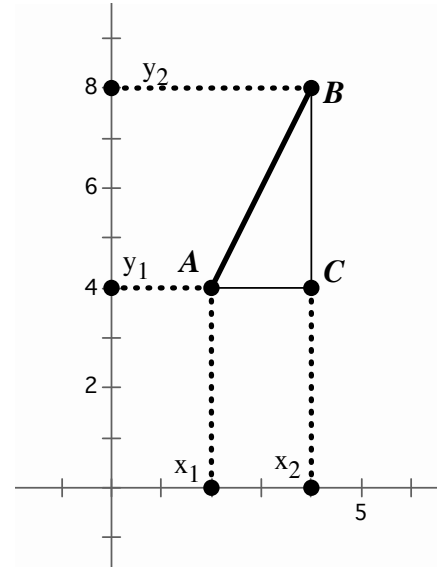
10. Explain how to find the distance between points A and C.



Set

Topic: Slope triangles and the distance formula.

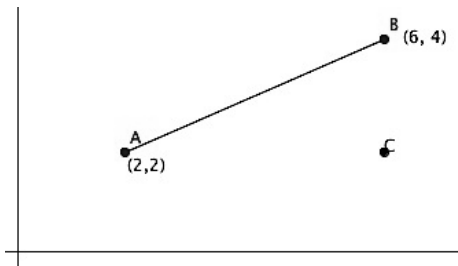
Triangle ABC is a slope triangle for the line segment AB where BC is the rise and AC is the run. Notice that the length of segment BC has a corresponding length on the y -axis and the length of AC has a corresponding length on the x -axis. The slope formula is written as $m = \frac{y_2 - y_1}{x_2 - x_1}$ where m is the slope.



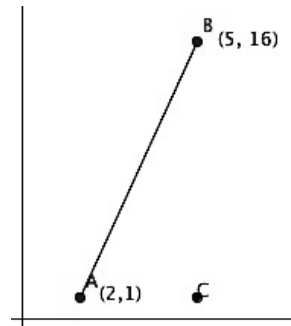
- 11a. What does the value $(y_2 - y_1)$ tell you?
- b. What does the value $(x_2 - x_1)$ tell you?

In the previous unit you found the length of a slanted line segment by drawing the slope triangle and performing the Pythagorean Theorem. In this exercise try to develop a more efficient method of finding the length of a line segment by using the meaning of $(y_2 - y_1)$ and $(x_2 - x_1)$ combined with the Pythagorean Theorem.

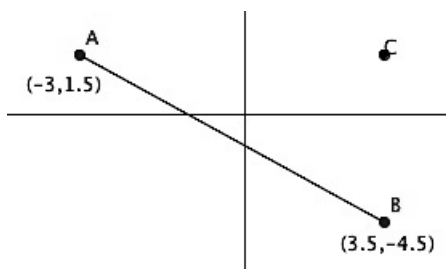
12. Find AB .



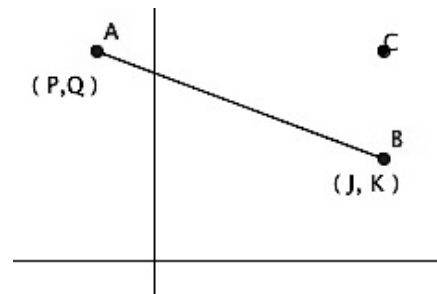
13. Find AB .



14. Find AB .



15. Find AB .

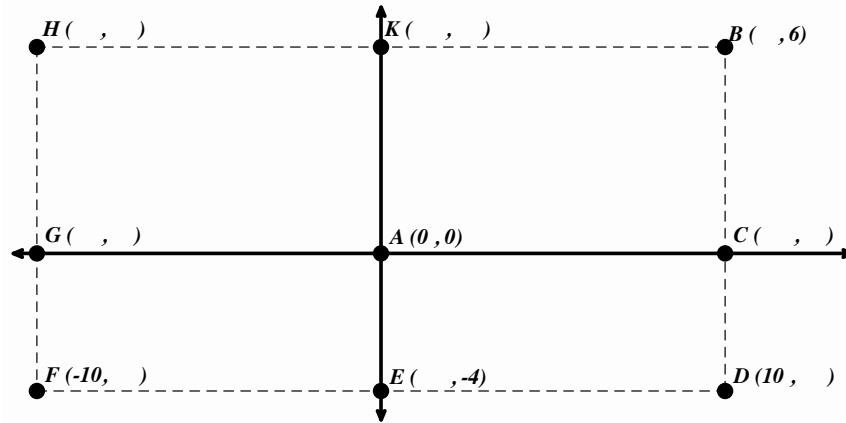


Go Topic: Rectangular coordinates

Use the given information to fill in the missing coordinates. Then find the length of the indicated line segment.

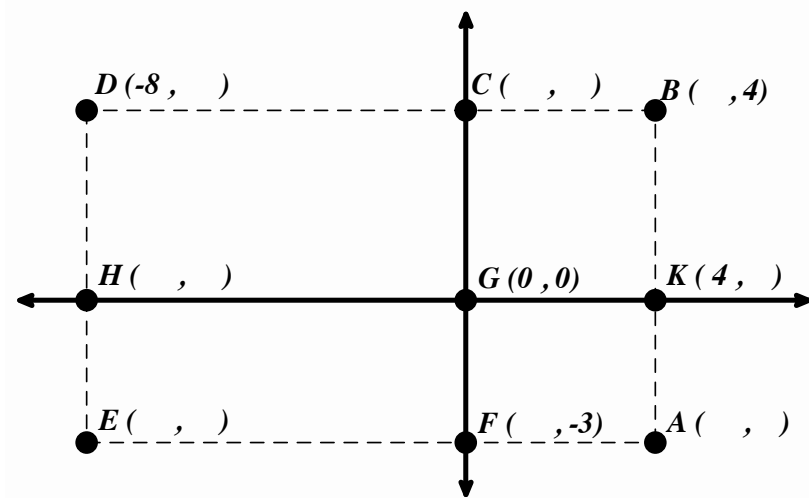
16a. Find HB

b. Find BD



17a. Find DB

b. Find CF



Need Help? Check out these related videos:

<http://www.khanacademy.org/math/algebra/ck12-algebra-1/v/the-coordinate-plane>

<http://www.khanacademy.org/math/algebra/ck12-algebra-1/v/distance-formula>

