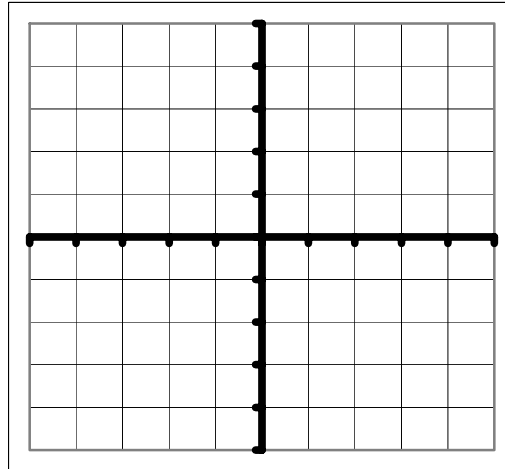


I. Finding the distance between two points



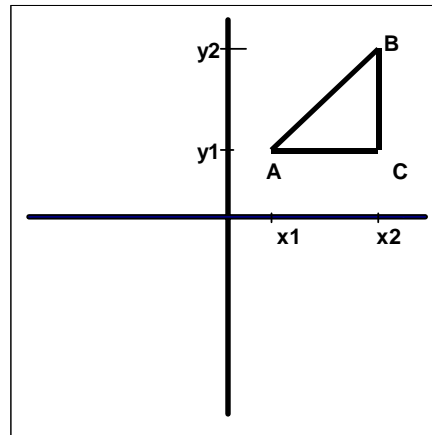
1. Using the grid above, plot and label the points $A(1,-2)$, and $B(4,2)$.
2. Connect these points with a straight line. Label this segment d .
3. Draw a horizontal line segment through A , and a vertical line segment through B , so that a right triangle is formed. Label the point C , which is the point of intersection of these two line segments.
4. Let b = length of AC , and a = length of BC .

b = _____ a = _____

Write these values on the graph.

5. Write an equation relating the three sides of the right triangle shown in the graph. Use this equation to find d , which is the length of side AB .

II. The Distance Formula in general



1. Now, in general, consider any two points $A(x_1, y_1)$, and $B(x_2, y_2)$. Again, let b = length of AC, and a = length of BC.

Write an expression for each of the following:

AC = b = _____ BC = a = _____

Write these expressions on the graph.

2. Write an equation relating the three sides of the right triangle shown in the graph. Use this equation to find a formula for finding d , which is the length of side AB.

AB = d = _____

HW for Friday, Sept. 3:

- Section 1.1: p. 10/ #21, 23, 25, 29, 35, 37, 65, 69
- Section 1.2: p. 19/ # 1, 3, 9, 13, 15, 21, 33, 35, 39
- Work on Pre-Test Problems