Example:

Given two points (2,5) and (-2,2). Find the equation of the line through these two points.
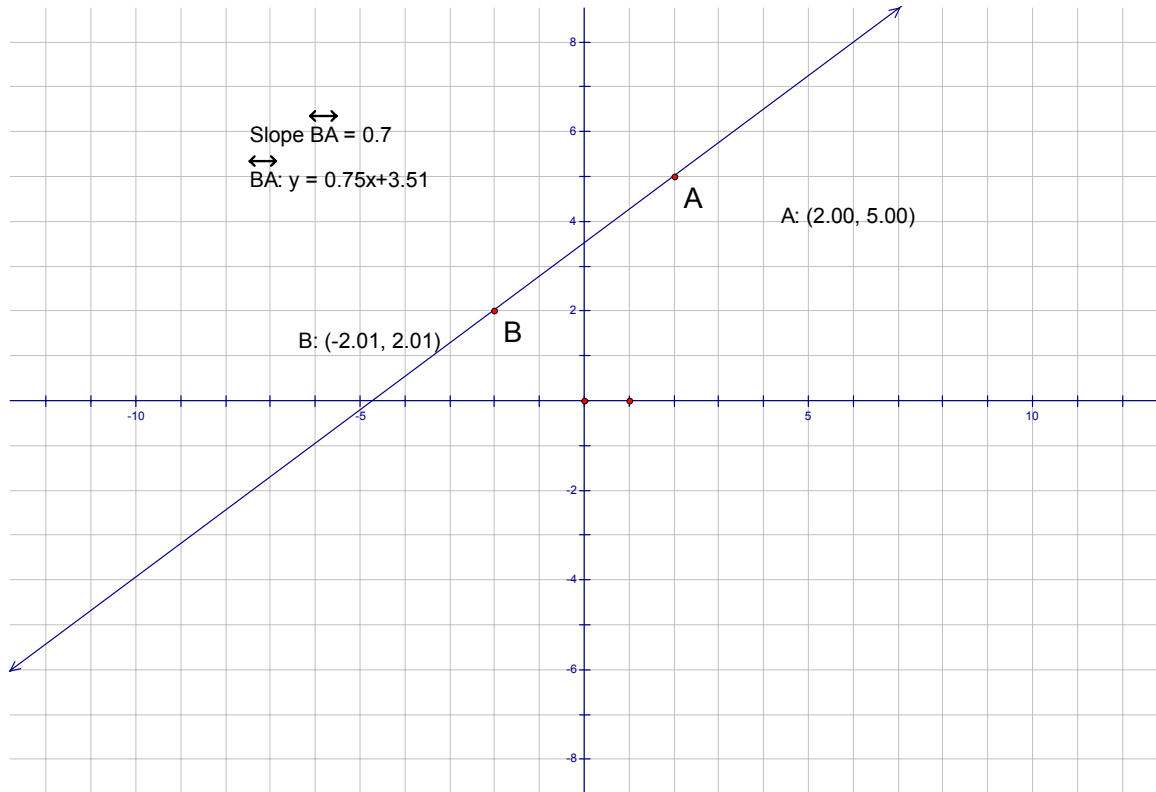Use GSP, but you must show how the slope was obtained as well as the equation. Copy the graph onto a single word document and save in your file. Define what the slope means.

Solution:

Slope is change in y over the change in x.

(2-5)/(-2-2) = ¾   This means for every "1" change in x, y goes up ¾.

y= ¾ x + b   5=3/4 x + b   b=19/4   y=3/4 x + 19/4

Slope $\overleftrightarrow{BA}$ = 0.7
$\overleftrightarrow{BA}$: y = 0.75x+3.51

A

A: (2.00, 5.00)

B: (-2.01, 2.01)   B

Now try these:

1. m = -2, through point (1,3)
2. m = -1, through point (2,4)
3. m = -5, through point (-8,1)
4. m = 3/4, through point (-4,3)
5. m = -3/2, through point (-5,4)
6. through points (-1,3) and (3,4)
7. through points (8,-1) and (4,3)
8. through points (3,0) and (0,2)
9. through points (-6,5) and (1,5)
10. through points (3,2) and (2,3)