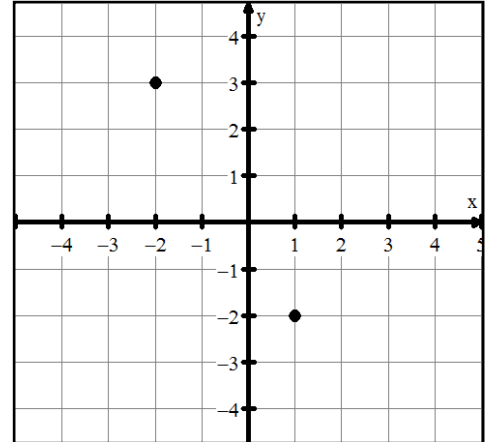


1. You will work with the points $A(-2,3)$ and $B(1,-2)$ as illustrated on the graph included. In all solutions to this question, show necessary work to clearly communicate your solution.

- a. Determine the equation of the line that passes through these points. The final equation may be presented in ANY form. **(K3, C1)**



- b. Write the equation in standard form. **(K2)**

- c. Write the equation using function notation (HINT: $f(x) = \dots$). **(K2)**

- d. Evaluate $f(4)$. **(A2)**

- e. Solve $f(x) = -12$. **(A2)**

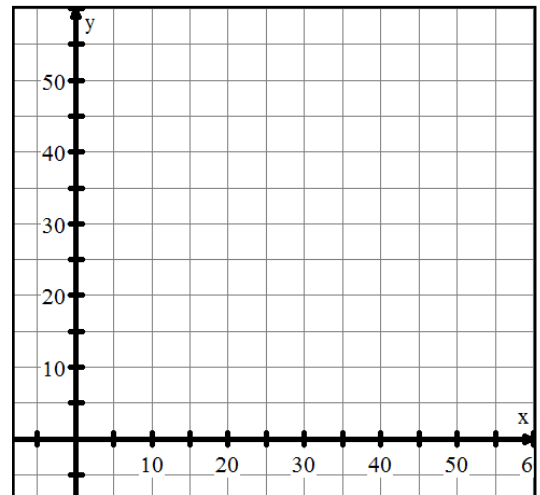
- f. Solve $f(x) > 6$. **(A2)**

2. Joseph worked two part-time jobs in the summer; one as a math tutor for elementary students and a second job as a piano teacher. He makes \$15 per hour as a math tutor and \$25 per hour as a piano teacher. In order to save money for a trip to Boracay in October, Joseph would like to earn a total of \$750 in one month of the summer.

- a) Let x represent the hours he tutors math and let y represent the hours he teaches piano. On the table provided, determine 4 combinations of hours worked at his 2 jobs that will earn him \$750. **(K3)**

Hours of math tutoring (x)	0			
Hours of piano teaching (y)		0		

- b) Graph this linear function on the grid provided. Make sure your graph is PROPERLY presented! **(C2)**



- c) Write the equation of this linear function in slope-intercept form. **(K2)**
- d) What is meaning of the slope in this context? **(T1,C1)**
- e) What do the x- and y-intercepts mean in this context? **(A2)**

- f) Evaluate $f(19)$. **(A2)**

- g) Joseph wants to work AT MOST 25 total hours per month. Can he earn enough money to take his trip? If not, why not? If yes, how? **(T2)**