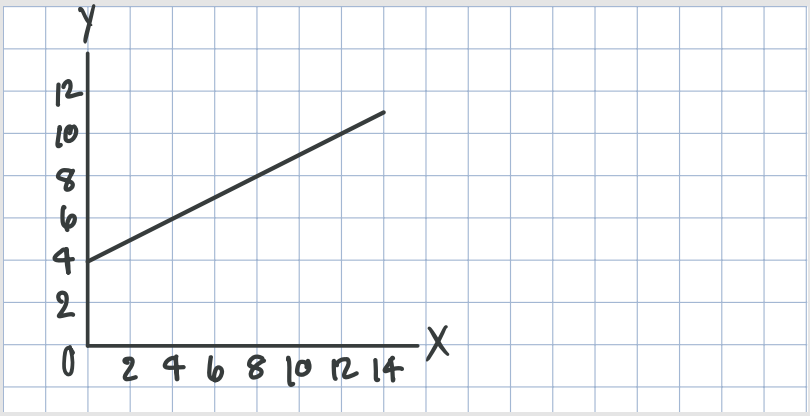
Topics to review:

- Slope-intercept equation from two points
- Worked example: slope from two points

Problem 6

The graph of a straight line is shown in the coordinate plane. Use the graph to answer the question. The graph of the line continues infinitely in opposite directions.



Questions and statements to attempt (or at least read and think about). Yes, I know there are a lot. We will talk about each one together.

(1) Which points can we SEE on the graph of the line? Hint: We can see that the point (4,6) is located on the graph of the line. Find more points.

(2) What is the equation of ANY straight line in slope-intercept form?

(3) Choose two points from (1) and find the slope of the line (i.e., m=?).

(4) What is the y-intercept of the line? (i.e., b=?)

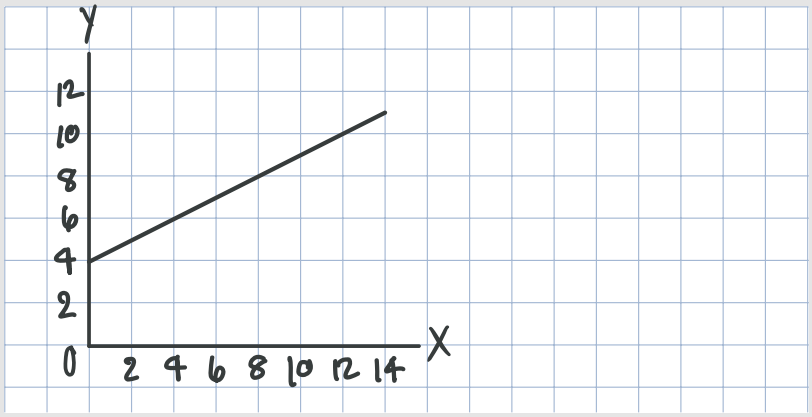
(5) What is the equation of the line in our original problem?

(6) Take a point from (1) and plug the x and y values into the equation from (5) to check if the equation is true. Hint: The point (4,6) represents x=4 and y=6.

Topics to review:

- How to determine if a point lies on a line or not using the point and the equation

Problem 6



(7) If we plug the x and y coordinate of a point into the equation for a line, and the equation is true, then that point (x,y) is located on the graph of the line (whether we can see it or not).

(8) Is the point (8,10) on the graph of the line? Use the equation from (5) to check. What about (6,7)?

(9) Which of the points below are located on the graph of the line?

(A) (22, 18)

(B) (24, 16)

(C) (18, 12)

(D) (10, 10)