

Exercise 1.3.25 Graph the line that contains point  $P = (x_1, y_1) = (1, 2)$  and has slope  $m = 3$ .

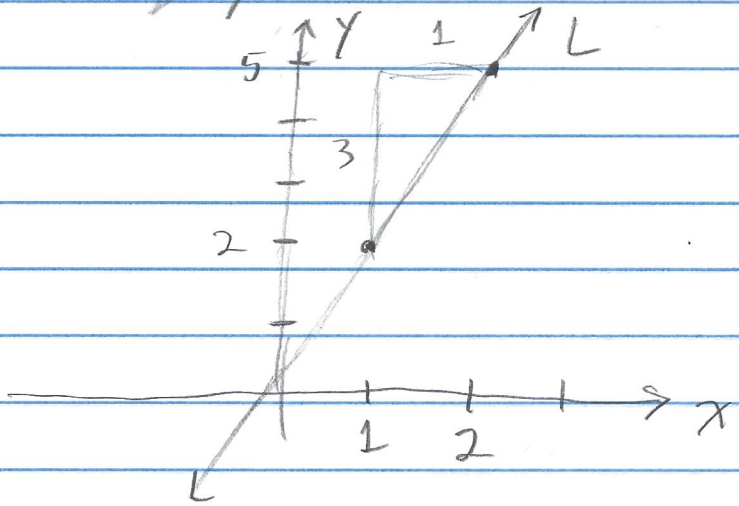
Solution

Well, let's find a second point on the line. Recall that the slope of line is  $m = \frac{\text{rise}}{\text{run}} = \frac{\Delta y}{\Delta x}$ .

In this case,  $m = 3 = 3/1$  and we can take  $\Delta y = 3$  and  $\Delta x = 1$ . So, another point on the line is

$$(x_1 + \Delta x, y_1 + \Delta y) = ((1) + (1), (2) + (3)) = (2, 5).$$

So the graph is:



□