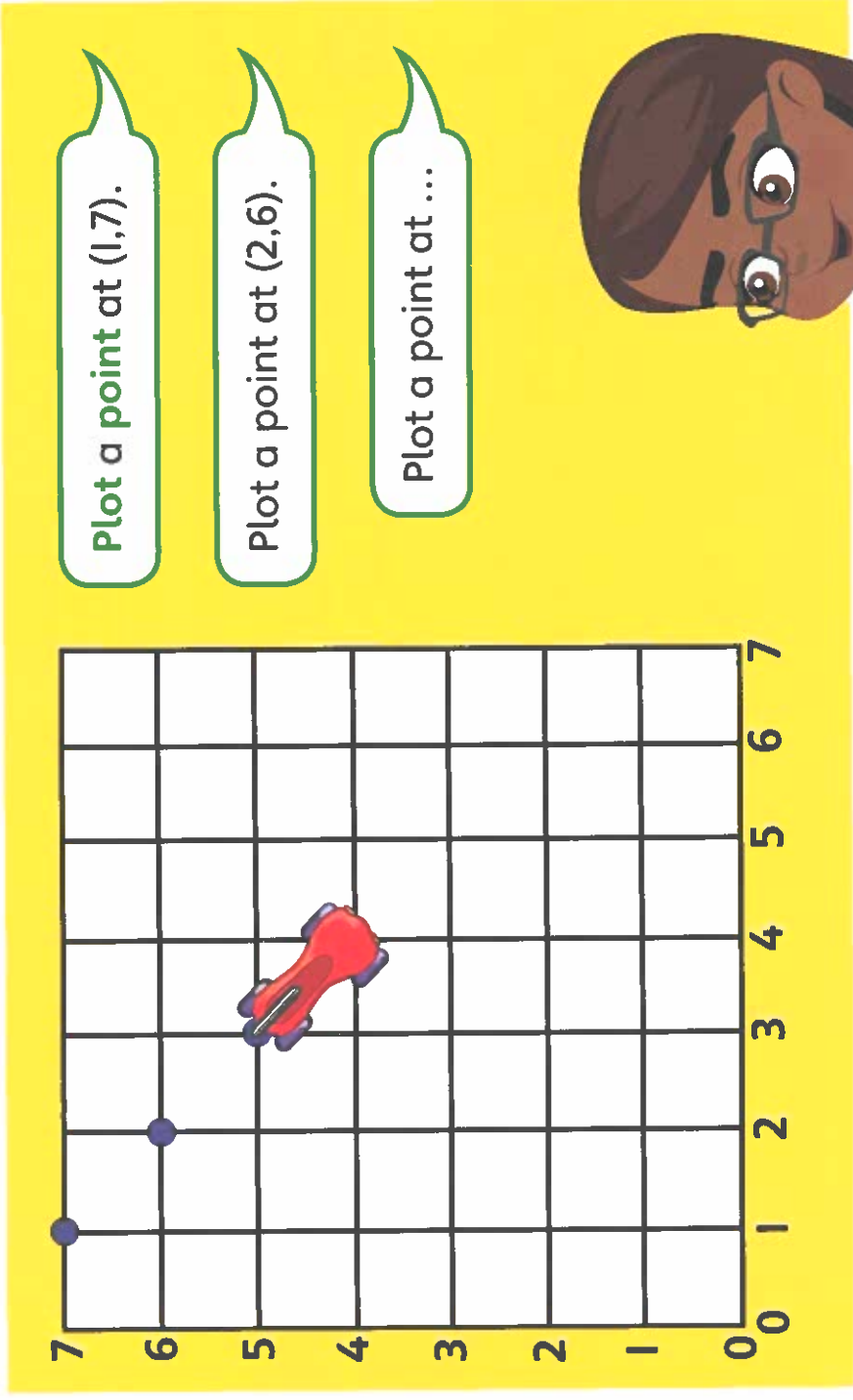


Drawing on a grid

Discover



Reena

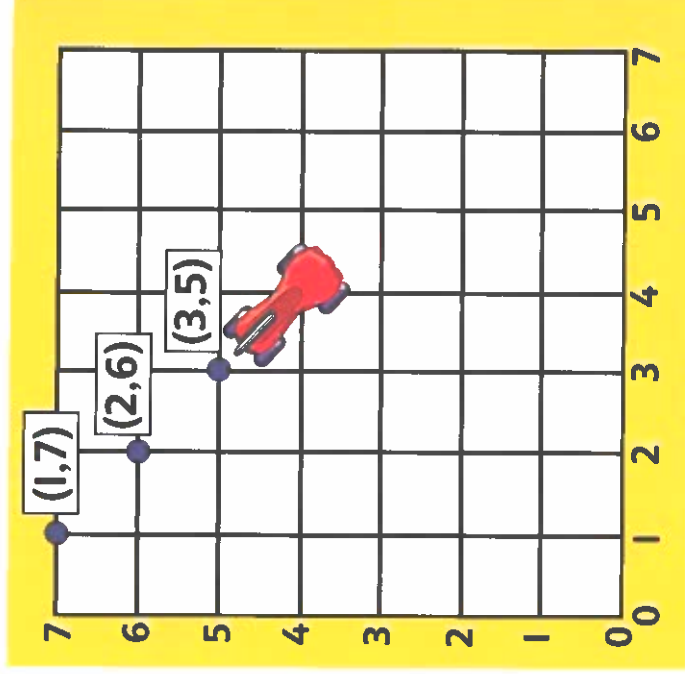
I can make this robot draw a straight line by giving it commands.

- a) What command did Reena use to plot the third dot?
- b) What points should Reena plot to continue the dots in a straight line?

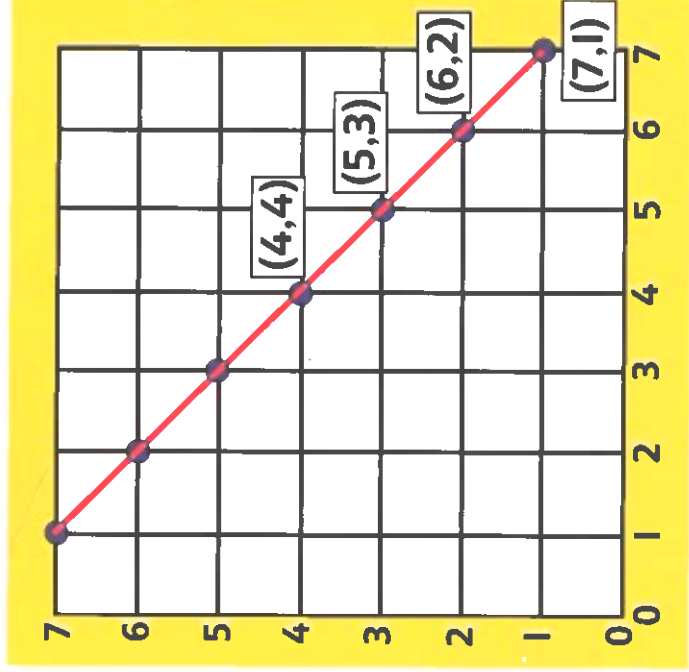
Share

- a) The command Reena used to plot the third dot is:
Plot a point at (3,5).

I am going to start from zero. I will count across (horizontally), then up (vertically) to find the coordinates.



b)



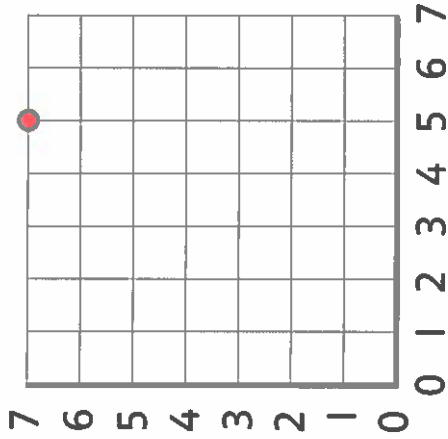
I can draw a straight line through the dots to find the new points.



Reena should plot the points (4,4), (5,3), (6,2) and (7,1) to continue the dots in a straight line.

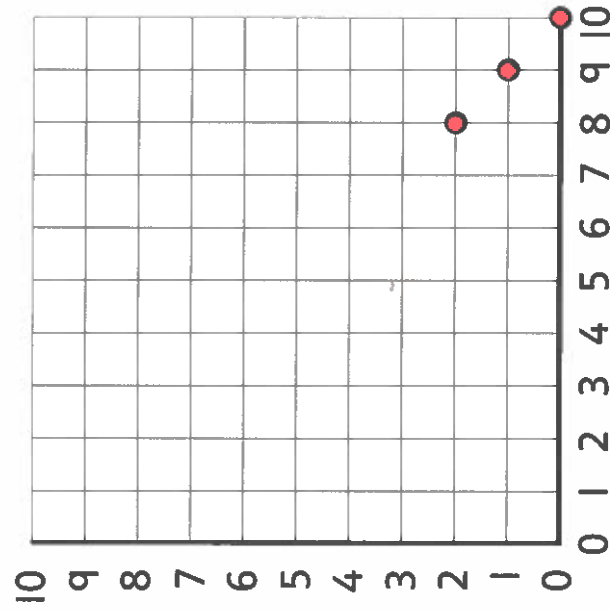
Think together

- 1 Plot these points on a grid.
What pattern do the points make?
(5,7), (4,6), (3,5), (2,4), (1,3), (0,2)



- 2 a) What are the coordinates of these points?
b) Plot the points that continue the same line.
List their coordinates.

Look at the list of coordinates.
Could you have predicted what they were without plotting all the points?



Think together

- 3 Emma used a robot to plot the points on the outline of a capital 'E'.

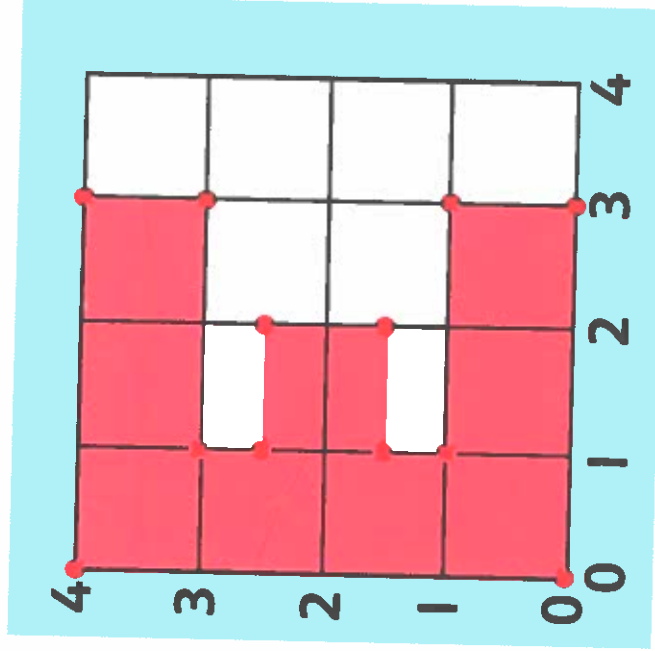


Emma

Plot a point at (0,4).

Plot a point at (3,4).

What were the rest of the commands that she used?



Some of the coordinates are not whole numbers. I will need to use fractions.

