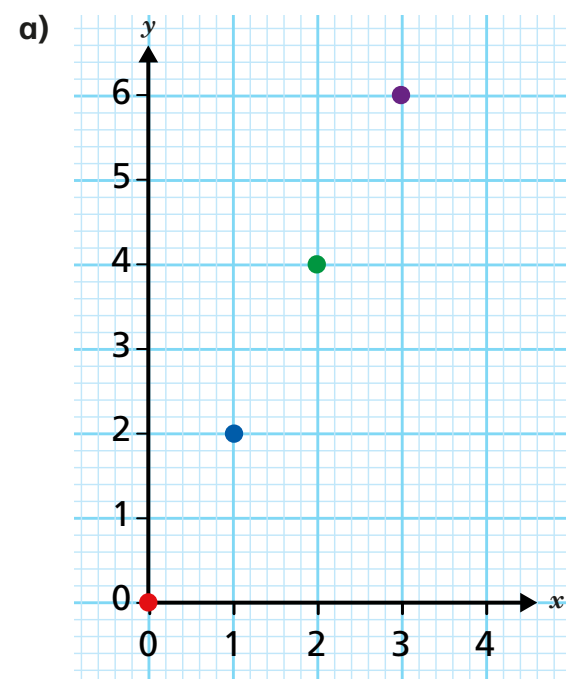


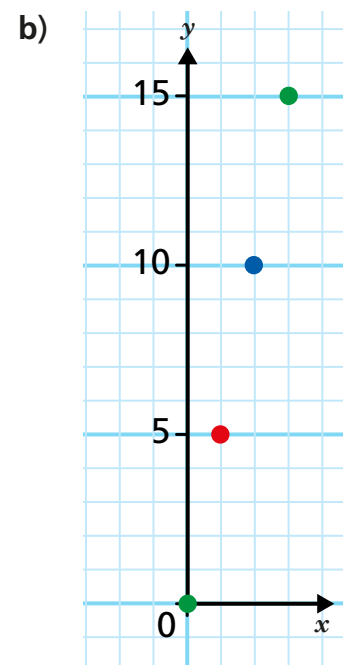
Recognise and use lines of the form $y = kx$



1 Which times-tables do the graphs show?



2 times-table



5 times-table

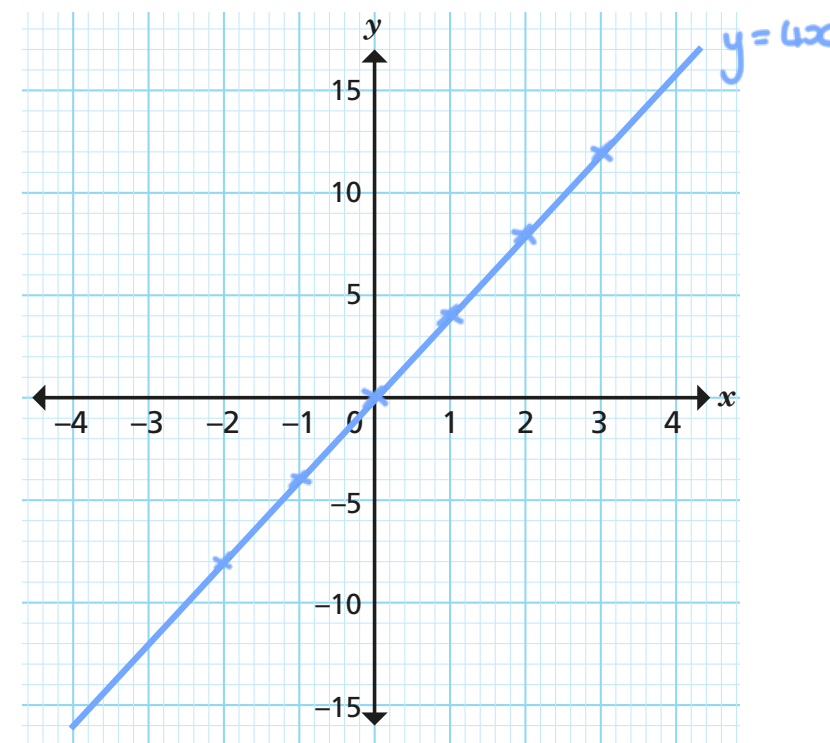
2 a) Complete the table of values for $y = 4x$.

x	-2	-1	0	1	2	3
y	-8	-4	0	4	8	12

b) Write the values in the table as coordinates.

$(-2, -8), (-1, -4), (0, 0), (1, 4),$
 $(2, 8), (3, 12)$

c) Plot the graph of $y = 4x$.



d) Complete the sentence.

On the graph $y = 4x$, the y -coordinate is always 4 times the x -coordinate.

3 a) Complete the table of values for $y = 3x$.

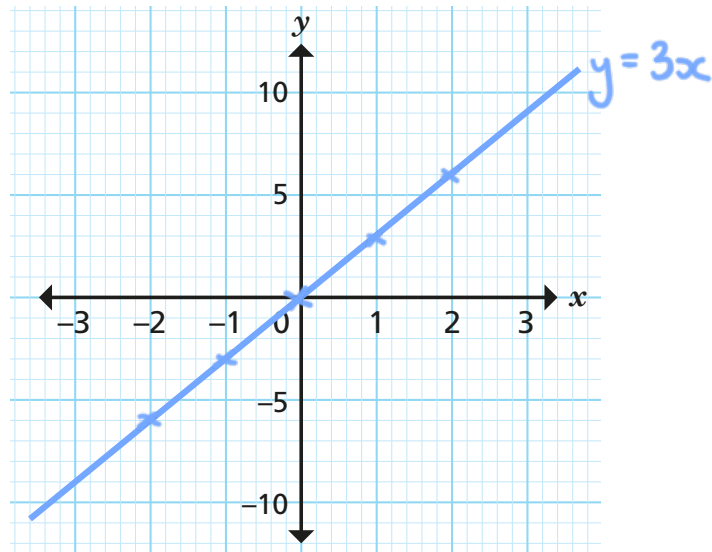
Use values of x from -2 to 2

x	-2	-1	0	1	2
y	-6	-3	0	3	6

b) Write the values in the table as coordinates.

$(-2, -6), (-1, -3), (0, 0),$
 $(1, 3), (2, 6)$

c) Plot the graph of $y = 3x$.

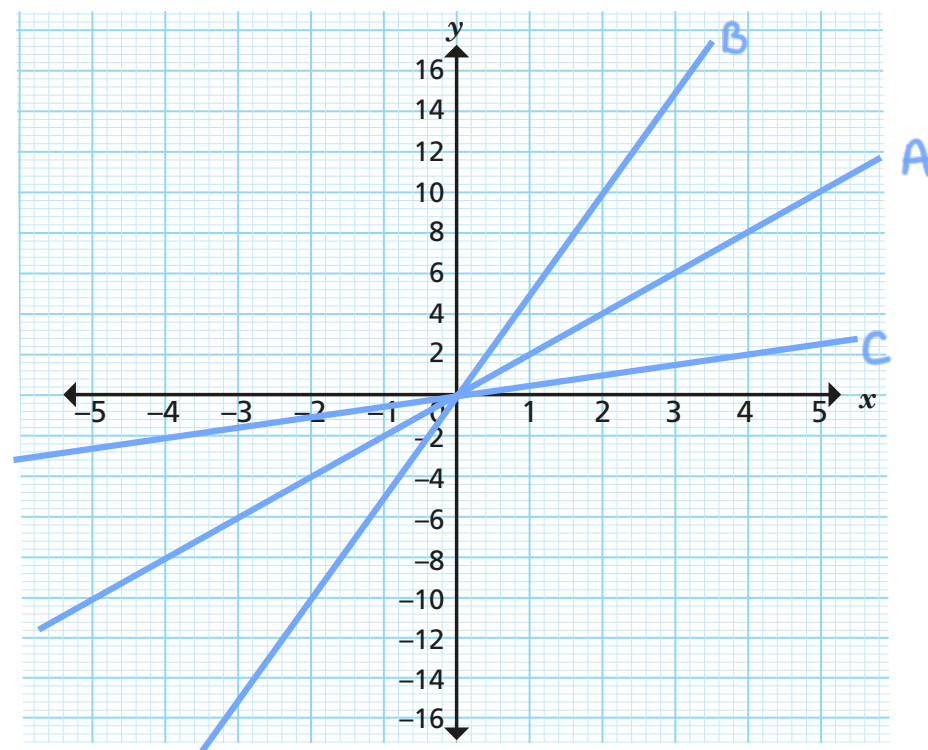


d) Complete the sentence.

On the graph $y = 3x$, the y -coordinate is always 3 times the x -coordinate.

4

Here is a blank coordinate grid.



a) Plot the graphs on the same grid. Label each graph.

A $y = 2x$ B $y = 5x$ C $y = \frac{1}{2}x$

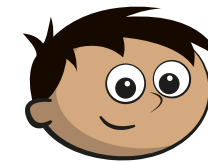
b) What do you notice?

c) Complete the sentences to describe lines of the form $y = kx$

The greater the value of k , the steeper the line.

All lines will go through the point (0, 0).

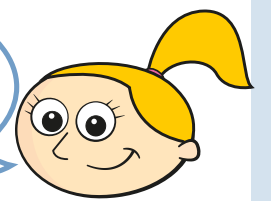
5



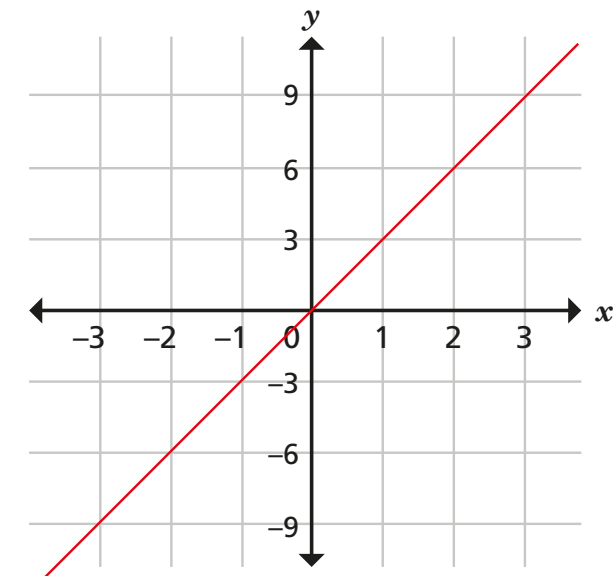
Amir

This is the graph of $y = x$.

This is the graph of $y = 3x$.



Eva



Who is correct? Eva

Explain your reasons.

The y -coordinate at each point is three times the x -coordinate.

6

Put the graphs in order of steepness.

$$y - 3x = 0$$

$$y = x$$

$$3y = x$$

$$x = 3$$

$x = 3$, $3y = x$, $y = x$, $y - 3x = 0$

