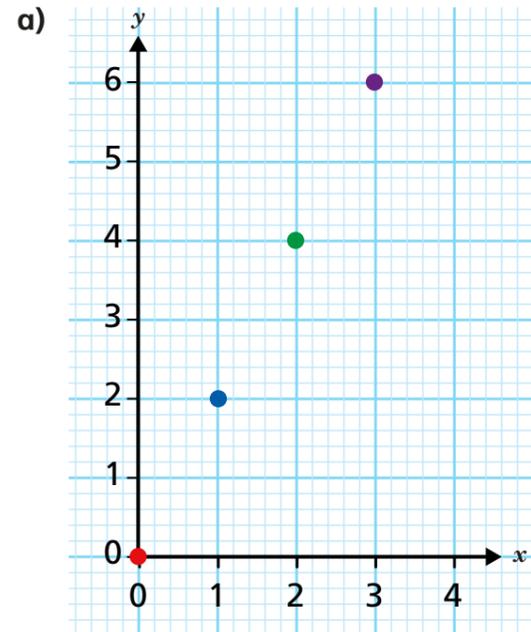


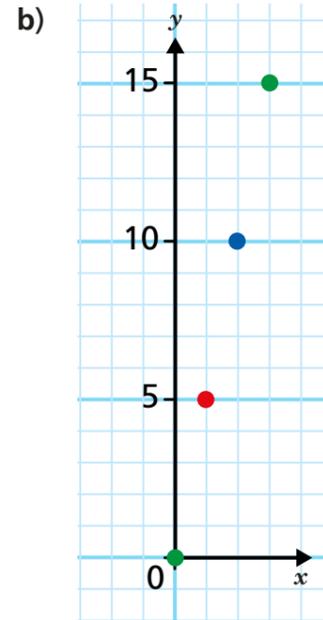
# Recognise and use lines of the form $y = kx$



1 Which times-tables do the graphs show?



times-table



times-table

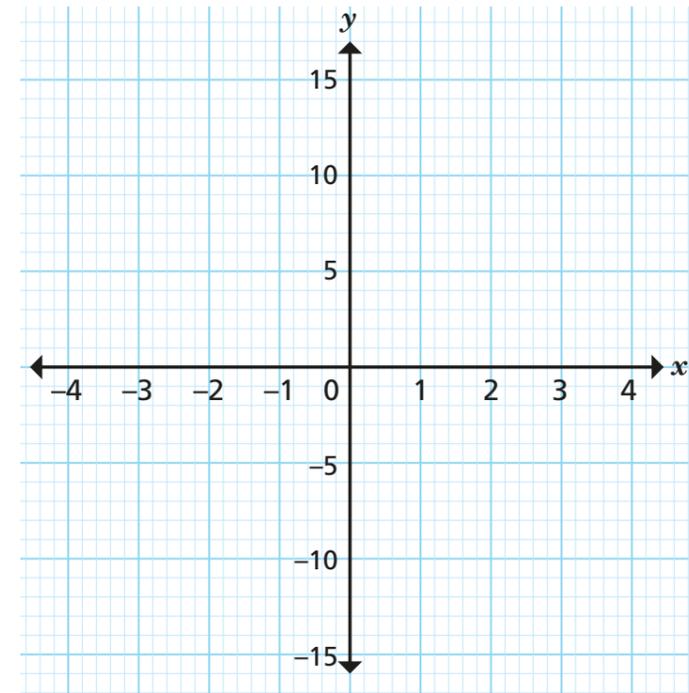
2 a) Complete the table of values for  $y = 4x$ .

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

b) Write the values in the table as coordinates.

$(-2, -8)$ , (, ), (, ), (, ),  
, )

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



d) Complete the sentence.

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

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

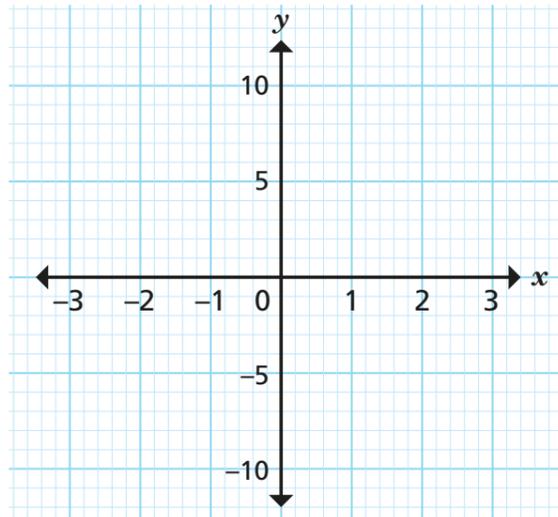
Use values of  $x$  from  $-2$  to  $2$

$x$					
$y$					

b) Write the values in the table as coordinates.

(, ), (, ), (, )  
, )

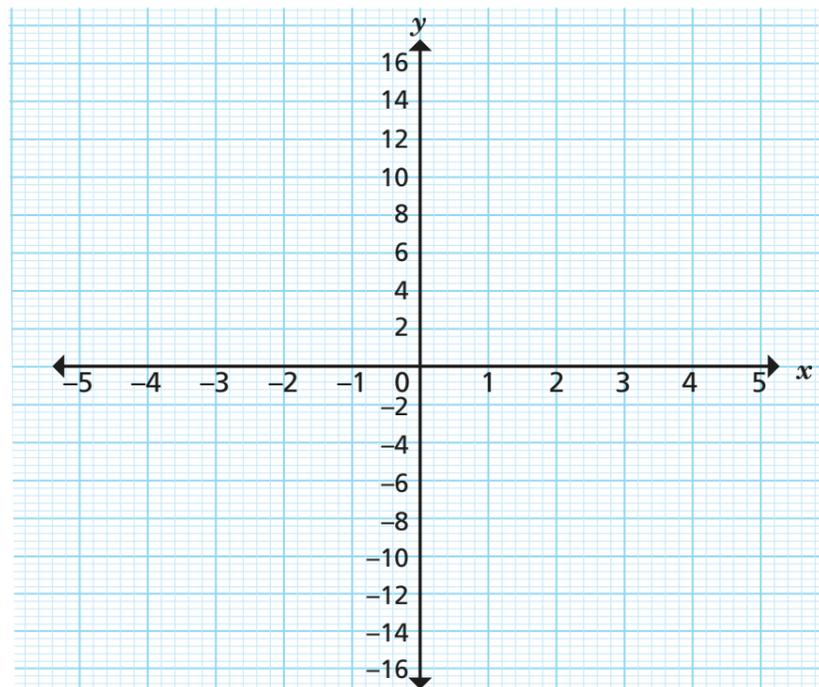
c) Plot the graph of  $y = 3x$ .



d) Complete the sentence.

On the graph  $y = 3x$ , the  $y$ -coordinate is always  times the \_\_\_\_\_-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 \_\_\_\_\_ the value of  $k$ , the \_\_\_\_\_ the line.

All lines will go through the point \_\_\_\_\_

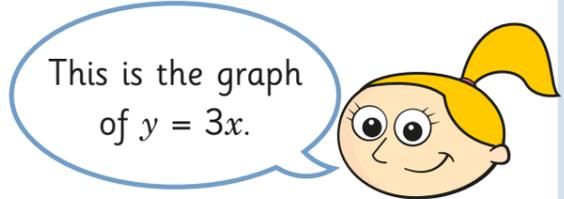


5



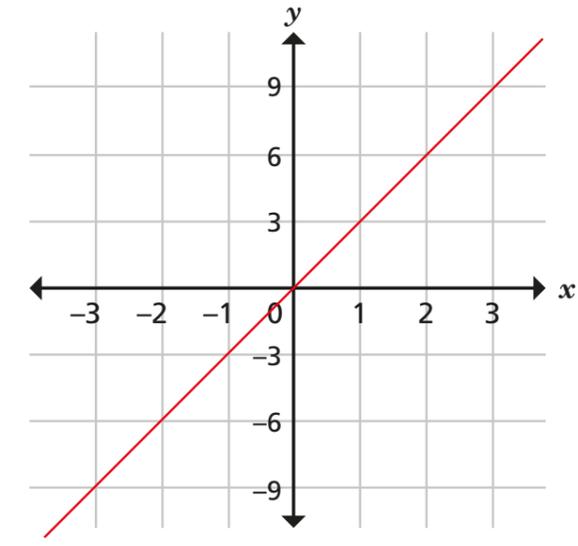
Amir

This is the graph of  $y = x$ .



Eva

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



Who is correct? \_\_\_\_\_

Explain your reasons.

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6

Put the graphs in order of steepness.

$y - 3x = 0$

$y = x$

$3y = x$

$x = 3$

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