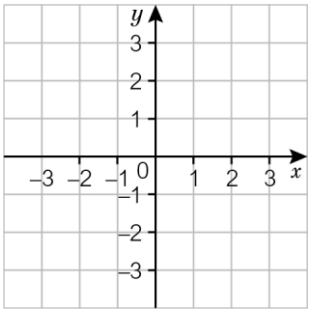
Name:

Recognise and plot lines $y = kx$ and $y = -kx$

Support

1 **a** Plot these coordinates on the grid.
(3, 3), (1, 1), (0, 0), (−3, −3)



b Use a ruler to join these points with a straight line.

c Look at the x-coordinate and y-coordinate of each point.
Copy and complete:

y = ...

d Write the coordinates of another point on your straight line.

.....

Core

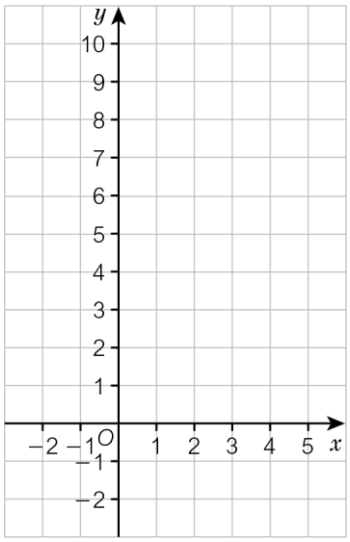
2 **a** Complete this table of values for the equation $y = 2x$.

x	0	1	2	3	4
y					

b Write down the coordinates from the table.

.....

c Plot the coordinates on the grid. Draw and label your graph.



d What is the value of y when $x = 6$? .....

3 Write down the equation of each graph labelled A, B and C.

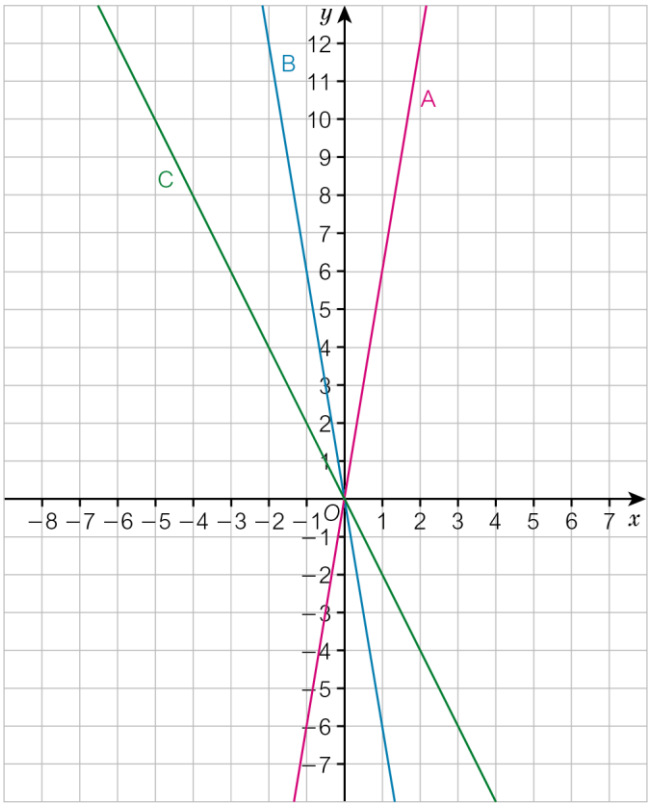
You could use a table like this to help.

x	−2	−1	1	2	3
y					

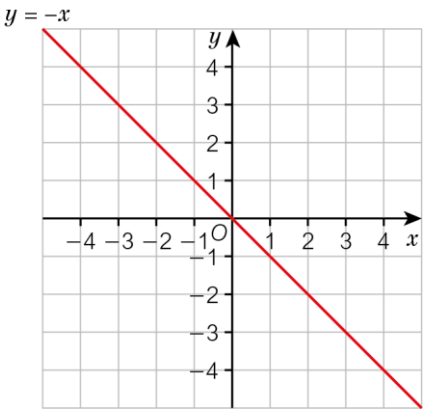
A .....

B .....

C .....



4 This is the graph of $y = -x$



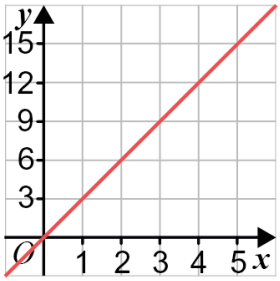
a Write down three pairs of coordinates that lie on the line $y = -x$.

.....

b Write down three pairs of coordinates you know will *not* lie on the line $y = -x$.

.....

5 **a** Copy and complete this table of values for the graph.



x	0	1	2	3	4	5
y						

b Copy and complete the sentence.

The y-values go up by ……..... each time.

c Will the point (8, 24) lie on the line? Explain why or why not?

……

Depth

6 What is the angle between the graphs of $y = x$ and $y = -x$? .....