

Draw your own axes from -6 to 6 on both axes. Use a scale of 1 cm for each unit.

Using the table below, draw the line  $y = x$  on your grid.

x	0	1	2	3	4
y					

Using the below tables, draw the following lines on the same grid.

$$y = x + 2$$

x	0	1	2	3	4
y					

$$y = x + 5$$

x	-4	-2	-1	0	1
y					

$$y = x - 3$$

x	-2	0	1	3	6
y					

$$y = x - 6$$

x	0	1	3	5	6
y					

$$y = x + 4$$

x	-6	-3	-1	1	2
y					

What do you notice about where the lines cross the y axis?

Why is this true? (think about the equation of the y axis)

Without drawing the line, where do you think  $y = x - 4$  will cross the y axis?

### Extension

Use a table to calculate five coordinates that lie on the line  $y = -x$ .  
Draw this line onto a new grid.

Draw the line  $y = -x + 1$  onto the same grid.

What do you notice?

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