Linear functions: coefficients, graphs and determination — Further practice

Year 8, lower volume • text pp. 59–66 • textbook lessons 30–33

Further practice 11

As x increases, does y increase or decrease? Explain using k.

$$y = -x + 2$$

Further practice 12

For the given relation, find y when $x = 0$.

$$y = 2x - 4$$

Further practice 13

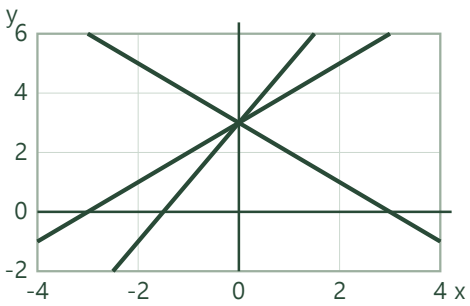
Find the linear function through $(0, 0)$ and $(2, 6)$. Show the equations used to find k and b.

Further practice 14

Find the linear function through $(-1, 4)$ and $(2, -2)$. Show the equations used to find k and b.

Extension 15

The lines y=x+3, y=2x+3 and y=−x+3 have different slopes. Find their common point and explain why the coefficient of x disappears there.



Use the stated conditions and the labelled scales.

Extension 16

A learner says every straight line is the graph of $y=kx+b$. Use the two listed points on $x=2$ to explain the missing exception.

x	y
2	0
2	3

Use the stated conditions and the labelled scales.