The equation of a line through a point

1

Find the equation of the line with gradient **2** that passes through (3, 10).

$y = 2x + c$

$10 = 2 \times 3 + c$

Answer _____

2

Find the equation of the line with gradient **3** that passes through (2, 11).

$y = 3x + c$

Answer _____

3

Find the equation of the line with gradient **4** that passes through (3, 10).

Answer _____

4

Find the equation of the line with gradient **2** that passes through (5, 7).

Answer _____

5 *Notice the change!*

Find the equation of the line with gradient **−2** that passes through (3, 4).

Answer _____

6

Find the equation of the line with gradient **3** that passes through (−2, 1).

Answer _____

7

Find the equation of the line with gradient $\frac{1}{2}$ that passes through (4, 6).

Answer _____

8

Find the equation of the line with gradient **−4** that passes through (0, 3).

Answer _____

The equation of a line through a point *further practice*

9

Find the equation of the line with gradient −3 that passes through (2, −1).

Answer _____

10

A line with gradient 2 crosses the x axis at (4, 0). Find its equation.

Answer _____

11

Find the equation of the line parallel to $y = 3x - 7$ that passes through (2, 9).

Answer _____

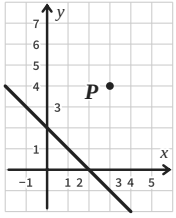
12

Find the equation of the line with gradient $\frac{2}{3}$ that passes through (6, 1).

Answer _____

13

The line through P is parallel to the line on the grid. Find its equation.



Answer _____

14

An electrician charges a call out fee plus £30 for each hour. A 2 hour job costs £95. Write a formula for the cost C in pounds of a job that takes h hours.

Answer _____

15

A line with gradient 2 passes through (5, 4). Where does it cross the x axis?

Answer _____

16

Ana finds the line with gradient 3 that passes through (2, 5).

She writes $y = 3x + 5$.

Explain her mistake and find the right equation.

Answer _____