The equation of a line through two points

1

Find the gradient of the line through (1, 5) and (3, 11).

$m = \frac{11-5}{3-1}$

Gradient _____

2

Find the gradient of the line through (2, 3) and (6, 11).

Gradient _____

3 *Notice the change!*

Find the gradient of the line through (1, 9) and (4, 3).

Gradient _____

4

Find the equation of the line through (1, 4) and (3, 10).

$m = \frac{10-4}{3-1} = \frac{6}{2} = 3$

$4 = 3 \times 1 + c$

Answer _____

5

Find the equation of the line through (2, 7) and (4, 15).

$m = \frac{15-7}{4-2} = \frac{8}{2} = 4$

Answer _____

6

Find the equation of the line through (2, 3) and (5, 12).

Answer _____

7 *Notice the change!*

Find the equation of the line through (1, 8) and (3, 2).

Answer _____

8

Leo says the gradient of the line through (2, 1) and (6, 9) is $\frac{1}{2}$. Explain his mistake and find the equation of the line.

Answer _____

The equation of a line through two points *further practice*

9

Find the equation of the line through (2, 7) and (5, 1).

Answer _____

10

Find the equation of the line through (0, 5) and (3, 11).

Answer _____

11

Find the equation of the line through (2, 3) and (6, 5).

Answer _____

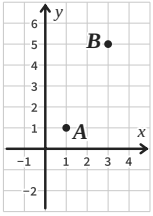
12

Find the equation of the line through (−1, −4) and (2, 5).

Answer _____

13

Find the equation of the line through A and B.



Answer _____

14

A candle burns down at a steady rate.
After 2 hours it is 16 cm tall.
After 5 hours it is 10 cm tall.
How tall was the candle before it was lit?

Answer _____

15

A line passes through (1, −2) and (4, 4). Where does it cross the x axis?

Answer _____

16

Do the points (0, 1), (2, 7) and (5, 15) lie on one straight line?
Show how you know.

Answer _____