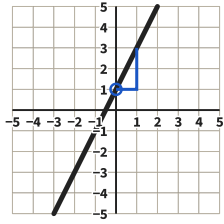


The Equation of a Line from its Graph

ANSWERS

1

Find the equation of the line.

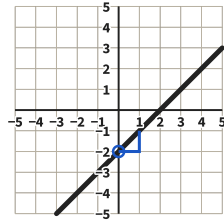


where it crosses the y-axis $c = 1$ gradient: up or down for every 1 across $m = 2$

Answer $y = 2x + 1$

2

Find the equation of the line.

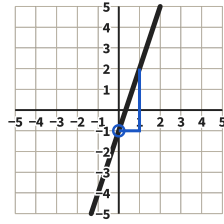


where it crosses the y-axis $c = -2$ gradient: up or down for every 1 across $m = 1$

Answer $y = x - 2$

3

Find the equation of the line.

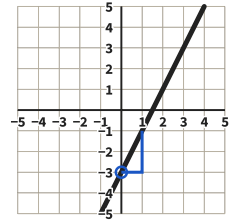


where it crosses the y-axis $c = -1$ gradient: up or down for every 1 across $m = 3$

Answer $y = 3x - 1$

4

Find the equation of the line.

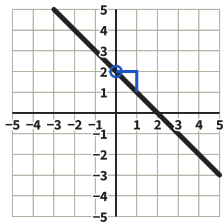


where it crosses the y-axis $c = -3$ gradient: up or down for every 1 across $m = 2$

Answer $y = 2x - 3$

5

Find the equation of the line.

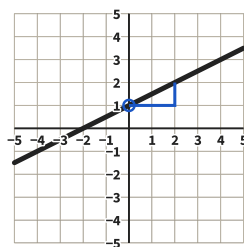


where it crosses the y-axis $c = 2$ gradient: up or down for every 1 across $m = -1$

Answer $y = -x + 2$

6

Find the equation of the line.

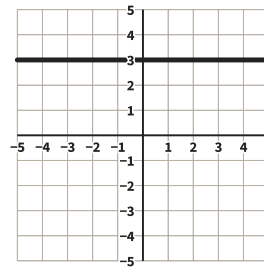


$c = 1$ $m = \frac{1}{2}$

Answer $y = \frac{1}{2}x + 1$

7

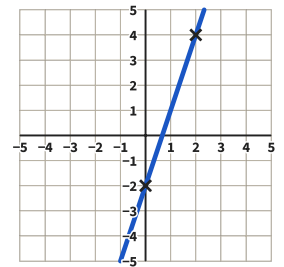
Find the equation of the line.



Answer $y = 3$

8

A line passes through (0, -2) and (2, 4). Find its equation.



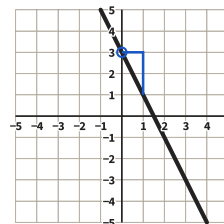
Answer $y = 3x - 2$

The Equation of a Line from its Graph *further practice*

ANSWERS

9

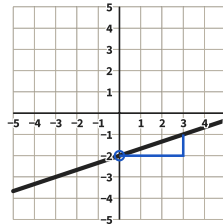
Find the equation of the line.



Answer $y = -2x + 3$

10

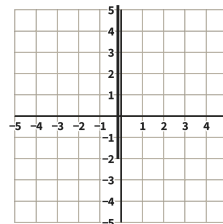
Find the equation of the line.



Answer $y = \frac{1}{3}x - 2$

11

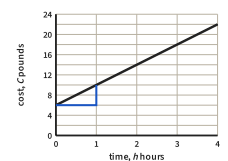
Find the equation of the line.



Answer $x = 2$

12

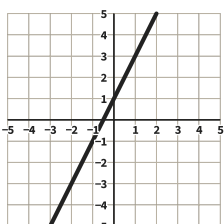
The graph shows the cost of hiring a kayak. Write an equation for the cost C pounds of hiring it for h hours.



Answer $C = 4h + 4$

13

Does the point (6, 13) lie on this line? Show how you know.

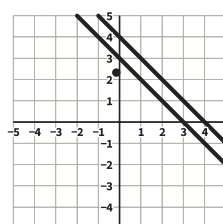


$y = 2x + 1$, and $2 \times 6 + 1 = 13$

Answer Yes

14

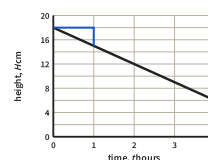
Find the equation of the line parallel to this one that passes through (2, 1).



Answer $y = -x + 3$

15

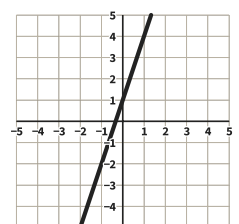
The graph shows the height of a candle as it burns. Write an equation for its height H cm after t hours.



Answer $H = 18 - 3t$

16

Kofi says the equation of this line is $y = x + 3$. Is Kofi right? Explain.



it crosses the y-axis at 1 and the gradient is 3

Answer No, it is $y = 3x + 1$