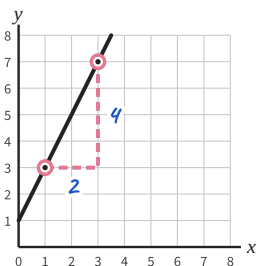


Gradient of a Line

ANSWERS

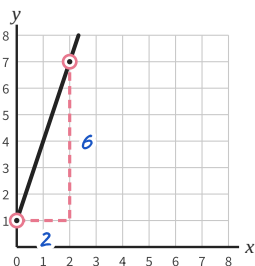
1 Across first, then up or down.

Work out the gradient of the line.



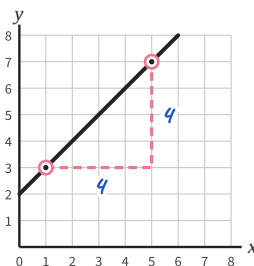
$$\frac{\text{change in } y}{\text{change in } x} = \frac{4}{2} = 2$$

2 Work out the gradient of the line.



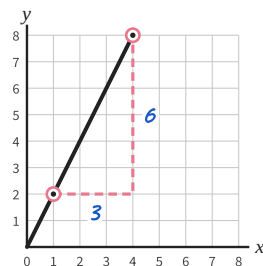
$$\frac{\text{change in } y}{\text{change in } x} = \frac{6}{2} = 3$$

3 Work out the gradient of the line.



$$\frac{\text{change in } y}{\text{change in } x} = \frac{4}{4} = 1$$

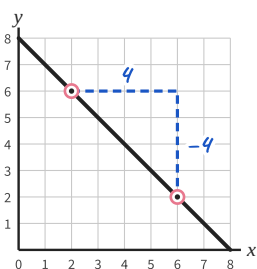
4 Work out the gradient of the line.



$$\frac{\text{change in } y}{\text{change in } x} = \frac{6}{3} = 2$$

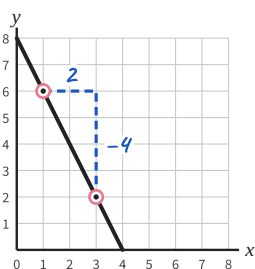
5 Notice the change!

Work out the gradient of the line.



$$\frac{\text{change in } y}{\text{change in } x} = \frac{-4}{4} = -1$$

6 Work out the gradient of the line.



$$\frac{\text{change in } y}{\text{change in } x} = \frac{-4}{2} = -2$$

7 A line passes through (1, 2) and (3, 8).
Work out its gradient.

up 6, across 2
Answer 3

8 A line passes through (0, 5) and (2, 1).
Work out its gradient.

down 4, across 2
Answer -2

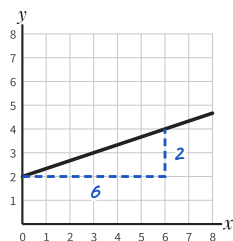
Gradient of a Line further practice

ANSWERS

9 A line passes through (2, 1) and (5, 7).
Work out its gradient.

up 6, across 3
Gradient 2

10 Work out the gradient of the line.

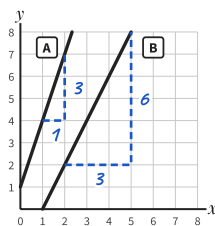


Gradient 1/3

11 A line passes through (-2, 3) and (2, -5). Work out its gradient.

down 8, across 4
Gradient -2

12 Which line is steeper, A or B?
Show how you know.



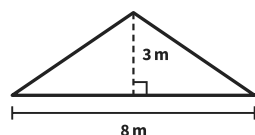
A: 3 B: 2
Answer Line A

13 A ramp rises 40 cm over a horizontal distance of 480 cm. Work out the gradient of the ramp.

$$\frac{40}{480} = \frac{1}{12}$$

Gradient 1/12

14 The diagram shows the end of a roof. Work out the gradient of the left side of the roof.



up 3, across 4
Gradient 3/4

15 A path up a hill has a gradient of 1/5. The path covers a horizontal distance of 150 m. How many metres does it climb?

150 ÷ 5
Answer 30 m

16 Priya says the gradient of the line through (1, 6) and (4, 0) is 2. Is she right? Explain.

the line goes down: down 6, across 3
No, it is -2