

# Finding the gradient from two points

Reminder: Determine point 1 (as the left most point).

Write out  $x_1=...$   $y_1=...$   $x_2=...$   $y_2=...$

Find the gradient using *gradient*  $m = \frac{\text{rise}}{\text{run}} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1} =$

Simplify the gradient if it goes into an integer. Don't simplify it to mixed numbers... leave it as improper fraction if that is the case.

Find the Gradient of the following:

- 1 (3,7) (9, 14)
- 2 (3,-7) (-9, 14)
- 3 (3,-7) (-5, 8)
- 4 (9, -14) (7, -12)
- 5 (12,16) (5, 72)
- 6 (-7,3) (-8, 14)
- 7 (3,-2) (2, 4)
- 8 (1,6) (5, 16)
- 9 (3,-12) (11, -1)
- 10 (25,4) (9, -4)

Copy out the following equations and then write:

"In the equation  $y=3x+12$ , the gradient is 3 and the intercept 12. This means that the graph runs from the bottom left to the top right and goes through the y-axis at the point, (0,12)."

From number 9 onwards, you will need to make sure that the equation is in the form  $y=mx+c$

- 1  $y = 5x + 12$
- 2  $y = 8x + 7$
- 3  $y = -x + 4$
- 4  $y = x - 17$
- 5  $y = -4x - 81$
- 6  $y = -7x + 4$
- 7  $y = \frac{3}{5}x + \frac{9}{5}$
- 8  $y = 7 - \frac{x}{3}$
- 9  $4y = 8x + 3$
- 10  $7y = 5x - 15$
- 11  $12 = 5x + y$
- 12  $15 = 5x - 3y$
- 13  $18 = x + 7y$
- 14  $y = \frac{x}{5} + 12$