**FINDING THE EQUATION OF A STRAIGHT LINE GIVEN A POINT AND THE GRADIENT**

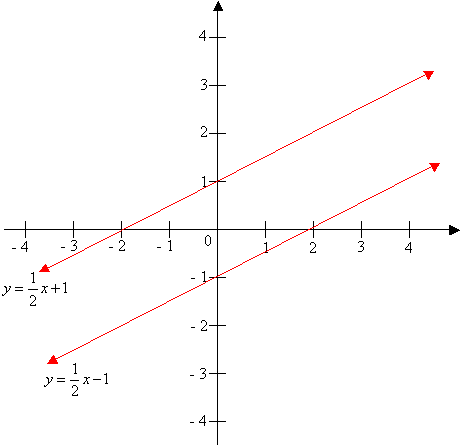
Example: Find the equation of a straight line through (3 ; -2) with a gradient of 2.

Solution; Substitute into

Therefore:

**How to find the gradients Of Parallel Lines?**

In coordinate geometry, two lines are [parallel](https://www.onlinemathlearning.com/pairs-of-lines.html#parallel) if their gradients (*m*) are equal.



For example: The line y = ½ x - 1 is parallel to the line y = ½ x + 1 because their gradients are both the same ()  
  
**How to find the equation of a line parallel to a given line and passing through a given point?**  
Example: Write the equation of a line that is parallel to the line and goes through the point (3, 0).

Solution: and point (3 ;0)

Hence:

Therefore:

**Exercise 4**

1. Find the equation of a straight line given gradient -1 and a point ( 4 ; -2).
2. Find the equation of a straight parallel to the line and passing through the point ( 5 ; 1).