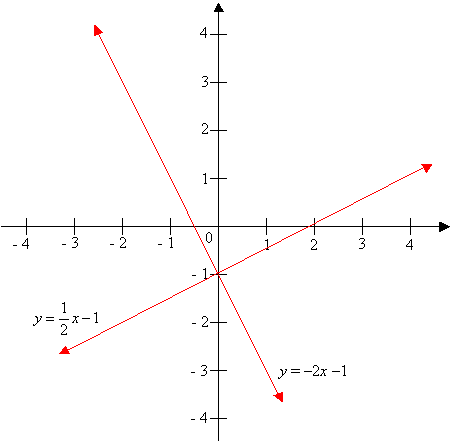
**HOW TO FIND GRADIENTS OF PERPENDICULAR STRAIGHT LINES?**

In the coordinate plane, two lines are [perpendicular](https://www.onlinemathlearning.com/pairs-of-lines.html#perpendicular) if the product of their gradients (*m*) is –1.

Or   
  
For example: The line y = ½ x - 1 is perpendicular to the line *y* = –2*x* – 1. The product of the two slopes is ½ × (-2) = -1.  
  
  
  
Example: Find the gradient of the straight line that is perpendicular to the line .

Solution: Using

Example: Find the gradient of the straight line that is perpendicular to the line

Solution: Rewrite the equation in the form

Hence:

Therefore:

**EXERCISE 5**

1. Find the gradient of a straight line perpendicular to **.**
2. Find the gradient of a straight line perpendicular to