

## LITERACY

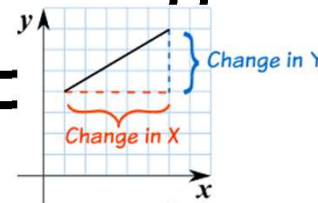
Gradient, Line,  
Perpendicular, Parallel,  
Midpoint, Bisector

## RESEARCH

What is the origin of  
the word gradient?

## MEMORY

Can you recall the formulas  
for gradient and midpoint?



## SKILL PRACTICE

- 1) Find the equations of the lines through the following points
  - a. (2, 1) and (3, 4)
  - b. (3, -2) and (-3, 4)
- 2) Find the equation of the line parallel to the line joining A (4, -1) and B (1, -2) that passes through the point C (7, 5).
- 3) Points R and S have co-ordinates (6, 1) and (2,5).
  - Find the gradient of the line RS.
  - Find the co-ordinates of the midpoint of the line RS
  - Determine the equation of the perpendicular bisector of the line RS.

## STRETCH

The point A has coordinates (2,3) and O is the origin

Find the equation of the line OA.

Show that the line which has equation  $4x + 6y = 13$  is

- a) Perpendicular to OA
- b) Passes through the midpoint of OA.