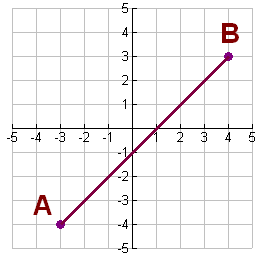
**EQUATIONS OF STRAIGHT LINES**

Remember in your grade 9 you look at straight line functions where the general equation of a straight line was given as**.** The **m** represents the gradient and the **c** represents the **y-intercept** where the line meets the y-axis.

**Example:** Consider the diagram below showing straight line AB, where A( -3; -4) and B(4 ; 3)



You can see that the line meets the y-axis at -1, hence **c = -1.**

**m=** gradient =

= = =

Hence: Equation of the straight-line becomes:

**m c**

**NB: can be written as, because of coefficient 1**

**FINDING THE EQUATION OF A STRAIGHT LINE GIVEN TWO POINTS.**

**Example:** Find the equation of a straight line given the points:

P(2;5) and Q(4;11)

Solution:

So, , then substitute any one of the two points above

ie P(2;5)

Therefore: The equation becomes;

**EXERCISE 5**

1. Write down the gradient and y-intercepts of the following lines:
2. Find the equation of a straight line TR, where(3;6) and R(-1;-6)