March 18, 2020

**Graphing linear equations.**

When graphing linear equations, we use a Cartesian Co-ordinate system.

“X” is considered the independent variable and is always on the horizontal axis.

“Y” is considered the dependent variable and is always on the vertical axis.

In a linear equation, a constant change in 1 quantity ie the variable “x”, produces a constant change in the related quantity “y”.

*Example:*

For the linear equation: 2x + 3 = y, as the value of “X” changes from 1,2,3, etc. the value of “Y” also changes. The changes are constant in relation to the formula.

(x) | 1 | 2 | 3 | 4 | 5 |

(y) | 5 | 7 | 9 | | |

Values of “x” can be plugged into the equation to solve for values of “y”.

For x = 4, 4 is multiplied by 2 and then increased by 3 to yield the correct corresponding value of “y”, which should equal 11.

**Ordered pairs:**

Values for x and y are often graphed. Each pair of variables from the above t-chart are known as “Ordered Pairs”. The “x” value always comes first, followed by the “y” as the second value.

For instance, the first ordered pair in the pattern (x, y) is: (1, 5). The second ordered pair is: (2, 7), the third ordered pair should be (3, 9), etc.

Please stay tuned for assigned work relating to the above outcome.