Math 9   *Name:* _____

5.1 – Modelling Polynomials   *Date:* _____

There are different types of Polynomials, determined by the number of **TERMS** in the expression:

Monomials _____ term: _____

Binomials _____ terms: _____

Trinomials _____ terms: _____

Polynomials _____ terms: _____

The letter x is called a _____ and is used to represent the _____

The DEGREE of a Polynomial is equal to the _____ exponent in the whole polynomial.

Polynomial	Type	Variable(s)	Coefficient(s)	Constant	Degree
$x+4$					
$-2p-8$					
$-N^2+4N$					
$5y^2$					
$3x^2-2x+1$					
22					

Polynomials are used for representing math problems in Business, Engineering, Science, Medicine, etc.

e.g. The trinomial, $-t^2+10t+1$, gives the height of a soccer ball kicked in the air, at any time, t .

     when $t=0$, the height of the ball is:

     when $t=5$, the height of the ball is:

Modelling Polynomials using Algebra Tiles

Using Algebra Tiles can help us to understand how to **Add/Subtract** and **Multiply/Divide** Polynomials.

Red/Black Tiles will be considered as _____. All other colours will be considered as _____.
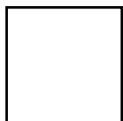
To model the trinomial, $t^2 + 3t - 2$ we need: **one "t^2" tile** **three "t" tiles** **two "-1" tiles**

The model is:

Sketch the *Algebra Tiles* model for: $-2x^2 - x + 3$

Sketch the *Algebra Tile* models for the following polynomials:

$3x^2 - 2x + 5$ $-5 + 6x + x^2$

$-5m + 6$ $2p^2 - 8p$

Determine the algebraic form of the polynomial represented by each of the following *Algebra Tile* models: