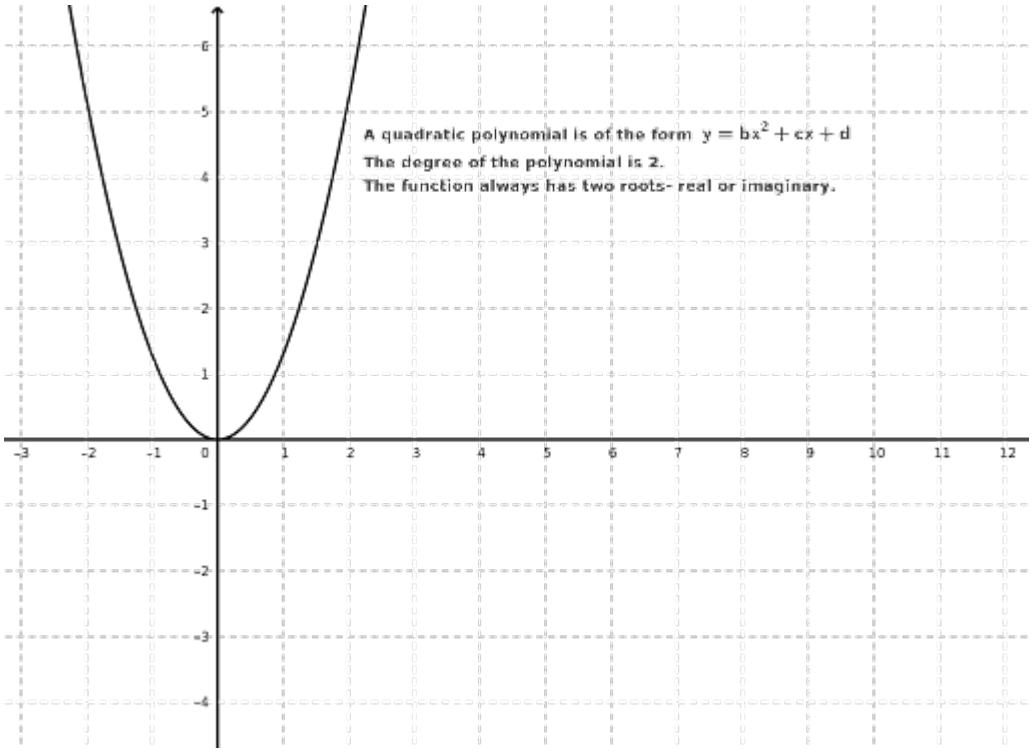
Additional Reading Material for Curve Fitting

Quadratic polynomials

A quadratic polynomial is of the form **$y= bx^2 + cx+d$**, where **b**, **c** and **d** are numbers with **b** not equal to zero. The degree of the polynomial is 2.

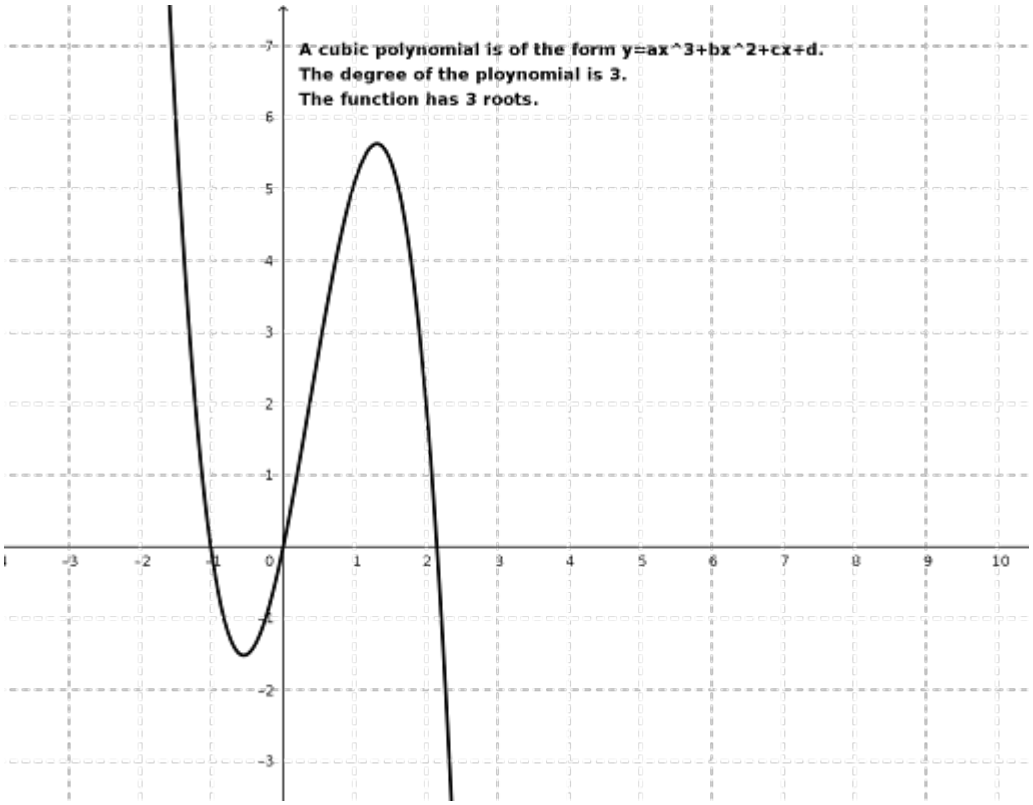
A quadratic polynomial always has 2 roots- real or imaginary.

The graph of a quadratic function is a parabola. This parabola is symmetric with respect to the axis of symmetry. Parabola intersects its axis of symmetry at the vertex of the parabola.



Cubic polynomials

A cubic polynomial is of the form **$y =ax^3+bx^2+cx+d$**, where **a** is not equal to zero and a, b, and c are coefficients and d is the constant. If the value of **a** becomes zero, the cubic polynomial converts to a quadratic polynomial. Both the coefficients and constant are real numbers. The degree of the polynomial is 3. Cubic polynomial has 3 roots.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The degree of the ploynomial is 3.
The function has 3 roots.