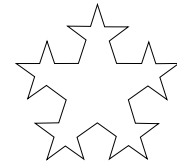


Maths Learning Service: Revision *Mathematics IA*
Polynomials



A polynomial of degree n is a function of the form

$$P(x) = a_n x^n + a_{n-1} x^{n-1} + a_{n-2} x^{n-2} + \dots + a_2 x^2 + a_1 x + a_0$$

where $a_n \neq 0$. Quadratics, for example, are polynomials of degree two.

A **zero** of a polynomial is a value of x which makes the polynomial equal to zero.

The solutions to a polynomial equation of the form $P(x)$

$$x - 3 \overline{) 2x + 1}$$

ANSWERS

1. (a) $x = 0, \pm \sqrt{5}$ (b) $x = -1$