Finite differences

x	-3	-2	-1	0	1	2	3
y	9	4	1	0	1	4	9

The degree *n* of a polynomial

Writing a polynomial function when given the *x* and *y*-intercepts...

Finding additional zeros for a polynomial:

Given: $1, -3 + \sqrt{5}$ Additional:

Given: $-2, 4 + i$ Additional:

A polynomial function with rational coefficients has the following zeros.
Find all additional zeros.

$-1, \quad -2 - i, \quad 2i$

A polynomial function with rational coefficients has the following zeros.
Find all additional zeros.

$-1, \quad -3 + \sqrt{7}, \quad 3 - 2i$

A polynomial function with rational coefficients has the following zeros.
Find all additional zeros.

$-5, \quad -4, \quad 3i$

A polynomial function with rational coefficients has the following zeros.
Find all additional zeros.

$2 + 2i, \quad -2 + \sqrt{10}$

Write a polynomial function of least degree with integral coefficients that has the given zeros.

$5, \quad -4, \quad 2$

Write a polynomial function of least degree with integral coefficients that has the given zeros.

2 mult. 3

Write a polynomial function of least degree with integral coefficients that has the given zeros.

$-\frac{1}{3}, \quad \sqrt{5}$

Write a polynomial function of least degree with integral coefficients that has the given zeros.

$5, \quad \frac{4}{3}, \quad -3, \quad -2$