**[poly](http://docs.scipy.org/doc/numpy/reference/generated/numpy.poly.html)**

The *poly* tool returns the coefficients of a polynomial with the given sequence of roots.

print numpy.poly([-1, 1, 1, 10]) #Output : [ 1 -11 9 11 -10]

[**roots**](http://docs.scipy.org/doc/numpy/reference/generated/numpy.roots.html)

The *roots* tool returns the roots of a polynomial with the given coefficients.

print numpy.roots([1, 0, -1]) #Output : [-1. 1.]

[**polyint**](http://docs.scipy.org/doc/numpy/reference/generated/numpy.polyint.html)

The *polyint* tool returns an antiderivative (indefinite integral) of a polynomial.

print numpy.polyint([1, 1, 1]) #Output : [ 0.33333333 0.5 1. 0. ]

[**polyder**](http://docs.scipy.org/doc/numpy/reference/generated/numpy.polyder.html#numpy.polyder)

The *polyder* tool returns the derivative of the specified order of a polynomial.

print numpy.polyder([1, 1, 1, 1]) #Output : [3 2 1]

[**polyval**](http://docs.scipy.org/doc/numpy/reference/generated/numpy.polyval.html#numpy.polyval)

The *polyval* tool evaluates the polynomial at specific value.

print numpy.polyval([1, -2, 0, 2], 4) #Output : 34

[**polyfit**](http://docs.scipy.org/doc/numpy/reference/generated/numpy.polyfit.html)

The *polyfit* tool fits a polynomial of a specified order to a set of data using a least-squares approach.

print numpy.polyfit([0,1,-1, 2, -2], [0,1,1, 4, 4], 2)

#Output : [ 1.00000000e+00 0.00000000e+00 -3.97205465e-16]