Polynomials

poly

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

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

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

polyint

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

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

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

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

polyfit

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]
```

The functions polyadd, polysub, polymul, and polydiv also handle proper addition, subtraction, multiplication, and division of polynomial coefficients, respectively.

Task

You are given the coefficients of a polynomial P.

Your task is to find the value of P at point x.

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Difficulty Easy

Max Score 20

Submitted By 7904

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Input Format

The first line contains the space separated value of the coefficients in P.

The second line contains the value of x.

Output Format

Print the desired value.

Sample Input

```
1.1 2 3
0
```

Sample Output

```
3.0
```

Current Buffer (saved locally, editable) Python 3

```
1 import numpy
2 p=[float(i) for i in input().split()]
3 x=int(input())
4 print(numpy.polyval(p,x))
5
6
7
```

Line: 1 Col: 1

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