Polynomial evaluation (2)   P72986_en

Write a program that reads a number x and a polynomial $p(z) = c_0 z^0 + c_1 z^1 + \cdots + c_n z^n$, and computes $p(x)$.

Input

Input consists of a real number x followed by the description of the polynomial $p(z)$: the real coefficients c_n, c_{n-1}, ..., c_0 in this order. (The first sample input/output corresponds to the evaluation of $p(z) = 3 + 4z + 5z^2$ at $x = 2$.)

Output

Print $p(x)$ with 4 digits after the decimal point.

Hint

The expected solution uses Horner's rule.

Sample input 1	Sample output 1
2 5 4 3	31.0000

Sample input 2	Sample output 2
3 10 0 0	90.0000

Sample input 3	Sample output 3
−2.5 5.4 0 −2 1	−78.3750

Problem information

Author: Salvador Roura
Translator: Salvador Roura

Generation: 2026-01-25T11:43:39.888Z