

Buy computers

Piccolo is a gaming enthusiast so Piccolo decided to save some money so that by the end of the year he could buy a high-spec computer that could play all of his favorite games.

Every month, Piccolo deposits savings in the bank and the interest rate on the bank each month is fixed.

Piccolo is good at calculating but because it is near the end of the year, Piccolo wants to know how much money he will have to buy the machine.

Input

The first line is a non-negative real number X , which is the bank rate per month that Piccolo sends.

The next line is a sequence of 12 non-negative integers ($\leq 10^9$) separated by a space, which corresponds to Piccolo's 12-month deposit.

Output

A single line is the amount of money that Piccolo receives at the end of the year.

Example

Input	Output
0.054	52181154
2000000 2500000 4500000 3500000 3000000 3200000 2400000 4000000 3100000 1800000 2700000 3900000	