

## 10268 498-bis

Looking throw the “Online Judge’s Problem Set Archive” I found a very interesting problem number 498, titled “Polly the Polynomial”. Frankly speaking, I did not solve it, but I derived from it this problem.

Everything in this problem is a derivative of something from 498. In particular, 498 was “... *designed to help you remember ... basic algebra skills, make the world a better place, etc., etc.*”. This problem is designed to help you remember basic derivation algebra skills, increase the speed in which world becomes a better place, etc., etc.

In 498 you had to evaluate the values of polynomial

$$a_0x^n + a_1x^{n-1} + \dots + a_{n-1}x + a_n.$$

In this problem you should evaluate its derivative. Remember that derivative is defined as

$$a_0nx^{n-1} + a_1(n-1)x^{n-2} + \dots + a_{n-1}.$$

All the input and output data will fit into integer, i.e. its absolute value will be less than  $2^{31}$ .

### Input

Your program should accept an even number of lines of text. Each pair of lines will represent one problem. The first line will contain one integer - a value for  $x$ . The second line will contain a list of integers  $a_0, a_1, \dots, a_{n-1}, a_n$ , which represent a set of polynomial coefficients.

Input is terminated by <EOF>.

### Output

For each pair of lines, your program should evaluate the derivative of polynomial for the given value  $x$  and output it in a single line.

### Sample Input

```
7
1 -1
2
1 1 1
```

### Sample Output

```
1
5
```