

Problem 3 – Excel Columns

Columns are a fundamental part of any spreadsheet program such as Microsoft Excel. Columns run vertically in a worksheet. Each column is identified by a capital Latin letters in the column header starting with column with **identifier** A and running through to column with identifier Z. After Z you get AA, AB, AC etc. until you get to AZ. Then it is BA, BB, BC, ..., ZY, ZZ, AAA, AAB, ..., AAZ, ABA, ..., ZZY, ZZZ, AAAA, AAAB and so on... The last column is ZZZZZZZZZ.

A	B	...	Y	Z	AA	...	AZ	BA	...	ZY	ZZ	AAA	AAB

Recently Todor has learned how to work with Excel. Since then all that he do is giving **integer indices** to every possible column. Starting from the first column A (with index 1), through Z (with index 26), AA (with index 27), and so on. Of course this is a very, very hard and time-wasting job. You, as programmer, know that this can be solved easily with a computer program.

Help Todor by writing a program that converts excel column identifier to a column index.

Input

The input data should be read from the console.

On the first line of the input there will be an integer **N** – column identifier length.

On each of the next **N** lines there will be a single character. All characters together construct a column identifier.

The input data will always be valid and in the format described. There is no need to check it explicitly.

Output

The output data should be printed on the console.

On the only output line print the column index.

Constraints

- **N** will be between 1 and 10, inclusive.
- Each column character in the input will be capital Latin letter ('A' – 'Z')
- Allowed work time for your program: 0.1 seconds. Allowed memory: 16 MB.

Examples

Example input	Example output
1 Z	26

Example input	Example output
2 A A	27

Example input	Example output
4 C E C A	56187

Example input	Example output
4 B E A R	38576