In a parallel universe, GUTS holds BFCO, where 10^{16} problems are given at once.

The IDs of the problems are as follows, from the first problem in order:

A, B, ..., Z, AA, AB, ..., ZZ, AAA, ...

In this universe numbering problems with digits is considered old school.

In other words, the IDs are given in the following order:

- The strings of length 1 consisting of uppercase English letters, in lexicographical order;

- The strings of length 2 consisting of uppercase English letters, in lexicographical order;

- The strings of length 3 consisting of uppercase English letters, in lexicographical order;

- and so on...

Given a string *S* that is an ID of a problem given in this contest, find the index of the problem so that everyone in our universe can find it.

Input Format

A standard input string *S*, consisting of uppercase English letters.

1<=len(S)<=13

Constraints

S is a valid ID of a problem given in BFCO.

Output Format

Print the answer as an integer.

Sample Input 0

AB

Sample Output 0

28

Explanation 0

The problem whose ID is AB is the 28th problem of BFCO, so 28 should be printed.

Sample Input 1

C

Sample Output 1

3

Explanation 1

The problem whose ID is C is the 3rd problem of BFCO, so 3 should be printed.

Sample Input 2

BFCO

Sample Output 2

39301

Explanation 2

The problem whose ID is BFCO is the 39301st problem of BFCO, so 39301 should be printed.