# 13 A beautiful mind

*6 points*

## Introduction

The movie "A beautiful mind" (2001) is a biography of mathematician John Nash. In 1994 he won the Nobel prize in Economics. He also made contributions to game theory, differential geometry and partial differential equations.

As part of his obsession with numerology he focused on bijective base-26 system where latin alphabet letters "A" to "Z" are used to represent the 26-digit values one to twenty-six as A=1, B=2, C=3, ..., Z=26. And what is next to Z? Quite simple, just AA=27, AB=28, and so on. In short, each digit position represents a power of twenty-six. Accordingly, we have that ABCD represents $1 \cdot 26^3 + 2 \cdot 26^2 + 3 \cdot 26^1 + 4 \cdot 26^0 = 19010$.

This maybe sounds strange , but it is the same system that many spreadsheets use to assign labels to their columns.

Can you write code to convert inputs between positive numbers and base-26 system strings...or the reverse?

## Input

The input can be either a positive number or a base-26 system string.

## Output

When the input is a positive number convert it to its corresponding base-26 system string. In case the input is a base-26 system string then convert the output to the positive number.

### Example 1

#### Input

```
ABC
```

#### Output

```
731
```

### Example 2

#### Input

```
54
```

#### Output

```
BB
```