

You've seen how software for spreadsheets label their columns, right? They start with, A, B, C... up to X, Y, Z and move on to AA, AB, AC... then BA, BB, BC... until ZZ. Follow AAA, AAB... until ZZZ and so on. Your task is to find out how a given number would be written in this "spreadsheet" form.

Input

From the first line of the input file `excel.in` the column number is entered. It is a whole positive number with value at most 10^{18} .

Output

In the output file `excel.out` print the the answer.

Time limit: 0.1 seconds

Memory limit: 256 MB

Example

Input (<code>excel.in</code>)	Output (<code>excel.out</code>)
1	A
2	B
26	Z
27	AA
676	YZ
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