

## Problem 1 – Zerg!!!

The Prelate **Zeratul** and the High Templar **Tassadar**, highly psionic alien life forms from the Protoss race, got together to understand the low-level basic **xenomorph** Zerg (in Bulgarian “дзверг”) communication. After years of energy **transformation**, deep meditation and thousands of Hydralisks cut into pieces, they finally found the answer – the awful creatures send each other **encrypted numeric messages** (like SMS but without mobile phones).

The messages are made of the following digits:

0	Rawr
1	Rrrr
2	Hsst
3	Ssst
4	Grrr
5	Rarr
6	Mrrr
7	Psst
8	Uaah
9	Uaha
10	Zzzz
11	Bauu
12	Djav
13	Myau
14	Gruh

Messages are written as a **sequence of digits**. The last digit of the number (the most right one) has a value as shown in the above table. The next digit on the left has a value **15** times bigger than the shown in the above table, the next digit on the left has **15\*15** times bigger value than the shown in the table and so on. Since our Protoss warriors are too advanced to calculate such easy expressions (and on Aiur they do not use C# too), your task is to **translate the message into its decimal representation**. With your help, our heroes can finally understand the Zerg logic and bring peace to the entire Koprulu sector.

### Input

The input data consists of a single line – the Zerg message.

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

### Output

The output data consists of a single line holding the calculated decimal representation of the given message number and should be printed at the console.

### Constraints

- The input number will have between 1 and 9 digits.
- Allowed working time for your program: 0.1 seconds.
- Allowed memory: 16 MB.

### Examples

Input	Output	Explanation
Rarr	5	From the table Rarr means 5 in 15 <sup>th</sup> based numeral system. Message is 5. After converting it to decimal – the answer is 5.

Input	Output	Explanation
HsstSsstSsst	498	From the table Hsst means 2, Ssst means 3 and Ssst means 3 in 15 <sup>th</sup> based numeral system. Message is 233. After converting it to decimal – the answer is 498.

Input	Output	Explanation
GruhMyauDjav	3357	From the table Gruh means (E) 14, Myau means (D) 13 and Djav means (C) 12 in 15 <sup>th</sup> based numeral system. Message is EDC. After converting it to decimal – the answer is 3357.