## Problem1 – 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 **xenomorphic** 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), you 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 Rarrmeans **5** in 15th 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 15th 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 15th based numeral system. Message is **EDC**. After converting it to decimal – the answer is **3357**. |