## Problem 4 – Winning Numbers

We are given a string **S** consisting of **capital** and **non-capital** **letters**. Every letter has a value equal to its position in the English alphabet (**a=1, b=2, …, z=26**). First you have to calculate the **sum** of all letters **letSum**. Then, find all **6-digits numbers** in range [**000 000** … **999 999**] called **winning numbers** for which the following is true: the **product of** the **first** **three** digits is **equal** to the product of the **second** **three** digits, and both of those are equal to **letSum**. Your task is to print on the console all **winning numbers**.

### Input

The input data should be read from the console. It consists of 1 line:

* On the **first** line you will be given a **string** **S** which will only consist of **lower** and **capital** case letters.

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

### Output

The output should be printed on the console as a sequence of **winning numbers** in **format abc-def** in **ascending order**. Each winning number should stay alone on a separate line. In case there are no winning numbers, print “**No**”.

### Constraints

* The **string S** will have maximal length of 150 characters.
* Allowed working time: 0.2 seconds. Allowed memory: 16 MB.

### Examples

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Input** | **Output** | **Comments** |  | **Input** | **Output** |  | **Input** | **Output** |
| aa | 112-112  112-121  112-211  121-112  121-121  121-211  211-112  211-121  211-211 | The sum of aa = **2**.  The first output has product of the first 3 digits 1\*1\*2 = 2 and second 3 digits have product 1\*1\*2 = 2.  The same product 2 is obtained in all other outputs. | xz | 255-255  255-525  255-552  525-255  525-525  525-552  552-255  552-525  552-552 |  | cobazaa | 177-177  177-717  177-771  717-177  717-717  717-771  771-177  771-717  771-771 |