Secret Message

locked

Problem Submissions Discussions

After making his reputation as a rebel, Antonio is planning for a fight to stop President Ridge from putting him to jail. The President ordered his army to arrest Antonio. Holed up in a secret place, Antonio seeks the help of his allies to avoid being arrested. With this, he needed to send text messages to them. But doing this will be very risky. Thus, Antonio thought of using a transposition cipher to convert his text messages into code. For example, his intended text message: meet me after work behind the office is coded to as:

maoio efrnf etkdf tebti mrehc ewhee

The coded text message is generated by writing down the intended text message in square or rectangle form. For example, the intended text message is written in a six by five square (as shown below):

m	e	e	t	m	e
a	f	t	e	r	w
o	r	k	b	e	h
i	n	d	t	h	e
o	f	f	i	c	e

Then, the coded text message is generated by reading down the columns from left to right.

The size of the square or rectangle is determined by the length of the text message. If the length of the message resulted in a perfect square, that number is used as the number of columns. Otherwise, the number of columns is determined by smallest possible integer value which is greater than or equal to the number of characters in the intended message. For example: an intended text message of 5 characters long will have 3 columns while a message of 4 characters long will have 2 columns.

Input Format

The input contains one string S representing the message of Antonio

Constraints

S is composed of alphabetical characters only

1 <= S.length <= 100

Output Format

The output contains coded message

Sample Input 0

```
meetmeafterworkbehindtheoffice
```

Sample Output 0

```
maoio efrnf etkdf tebti mrehc ewhee
```

Sample Input 1

```
protectoursovereignty
```

Sample Output 1

```
pcsey rtoi oovg tuen errt
```

Submissions: 0
Max Score: 10
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C++

```
1  #include <cmath>
2  #include <cstdio>
3  #include <vector>
4  #include <iostream>
5  #include <algorithm>
6  using namespace std;
7
8
9  int main() {
10     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
11     return 0;
12 }
13
```

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