Problem: Encryption

An English text needs to be encrypted using the following encryption scheme.   
First, the spaces are removed from the text. Let  be the length of this text.   
Then, characters are written into a grid, whose rows and columns have the following constraints:

* , where  is floor function and  is ceil function

For example, the sentence if man was meant to stay on the ground god would have given us rootsafter removing spaces is  characters long, so it is written in the form of a grid with 7 rows and 8 columns.

ifmanwas

meanttos

tayonthe

groundgo

dwouldha

vegivenu

sroots

* Ensure that
* If multiple grids satisfy the above conditions, choose the one with the minimum area, i.e. .

The encoded message is obtained by displaying the characters in a column, inserting a space, and then displaying the next column and inserting a space, and so on. For example, the encoded message for the above rectangle is:

imtgdvs fearwer mayoogo anouuio ntnnlvt wttddes aohghn sseoau

You will be given a message in English with no spaces between the words. The maximum message length can be characters. Print the encoded message.

Here are some more examples:

**Sample Input:**

haveaniceday

**Sample Output:**

hae and via ecy

**Sample Input:**

feedthedog

**Sample Output:**

fto ehg ee dd

**Sample Input:**

chillout

**Sample Output:**

clu hlt io

Solution

int main()

{

string str;

cin>>str;

int row=floor(sqrt(str.length()));

int col=ceil(sqrt(str.length()));

for(int i=0; i<col; i++)

{ int j=i;

while(j<str.length())

{cout<<str[j]; j+=col;}

cout<<" ";

}

return 0;

}

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