//algoleague

Afra and the long word

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Problem

Submissions

Discussion   Coming S

Afra has a long word. She wants to divide this word into many pieces. She can divide the word into any number of pieces(even only one piece) and can divide from any part of the word. But she cannot change the letters' order. You are given the word that Afra has. Your task is to split the word from different places, and print all possible divisions that Afra can do.

Input Format

The first line contains the number of elements in the string,

The second line contains the string itself.

Output Format

Print all possible divisions that Afra can do.

Constraints

- $|S| \leq 17$

Sample Input 1

```
4
abcd
```

Sample Output 1

```
a b c d
a b cd
a bc d
a bcd
ab c d
ab cd
abc d
abcd
```

C++ (GCC 9.2.0)   Bright   Memory Limit (kB) : 256000   Time Limit (s) : 1

```cpp
1   #include <iostream>
2   #include <string>
3
4   using namespace std;
5
6   void   printDivisions(string s, string out){
7       if(s.length() == 0){
8           cout << out << endl;
9           return;
10      }
11
12      for (int i = 1; i <= s.length(); i++){
13          string part = s.substr(0, i);
14          string remaining = s.substr(i);
15
16          if(!out.empty()){
17              part = " " + part;
18          }
19          printDivisions(remaining, out + part);
20      }
21  }
22  int main(){
23      int n;
```

```
24    string  s;
25    cin >> n >> s;
26
27    printDivisions(s, "");
28    return 0;
29 }
```

📤 Upload File   ☐ Test against custom test case   Run Code   Submit

✓ Sample Test Case 0

Accepted

Input(stdin)

```
1  4
2  abcd
```

Output(stdin)

```
1  a b c d
2  a b cd
3  a bc d
4  a bcd
5  ab c d
6  ab cd
7  abc d
8  abcd
9
```

Expected Output

```
1  a b c d
2  a b cd
3  a bc d
4  a bcd
5  ab c d
6  ab cd
7  abc d
8  abcd
```