Arrays

Problem:
Given an array, A, of N integers, print A's elements in *reverse* order as a single line of space-separated numbers.

Example

$A = [1, 2, 3, 4]$

Print `4 3 2 1`. Each integer is separated by one space.

Input Format

The first line contains an integer, N (the size of our array).
The second line contains N space-separated integers that describe array A's elements.

Constraints

Constraints

- $1 \leq N \leq 1000$
- $1 \leq A[i] \leq 10000$, where $A[i]$ is the i^{th} integer in the array.

Output Format

Print the elements of array A in reverse order as a single line of space-separated numbers.

Sample Input

```
4
1 4 3 2
```

Sample Output

```
2 3 4 1
```

Interfaces

Problem

The `AdvancedArithmetic` interface and the method declaration for the abstract `divisorSum(n)` method are provided for you in the editor below.

Complete the implementation of `Calculator` class, which implements the `AdvancedArithmetic` interface. The implementation for the `divisorSum(n)` method must return the sum of all divisors of n.

Example

$n = 25$

The divisors of 25 are $1, 5, 25$. Their sum is 31.

$n = 20$

The divisors of 20 are $1, 2, 4, 5, 10, 20$ and their sum is 42.

Input Format

A single line with an integer, n.

Constraints

- $1 \leq n \leq 1000$

Output Format

You are not responsible for printing anything to stdout. The locked template code in the editor below will call your code and print the necessary output.

Sample Input

```
6
```

Sample Output

```
I implemented: AdvancedArithmetic
12
```

Explanation

The integer 6 is evenly divisible by 1, 2, 3 and 6. Our *divisorSum* method should return the sum of these numbers, $1 + 2 + 3 + 6 = 12$.

String:

Problem

Given two strings of lowercase English letters, A and B, perform the following operations:

Sum the lengths of A and B..
Determine if A is lexicographically larger than B (i.e.: does B come before A in the dictionary?).
Capitalize the first letter in A and B and print them on a single line, separated by a space.

Input Format

The first line contains a string A. The second line contains another string B. The strings are comprised of only lowercase English letters.

Output Format

There are three lines of output:
For the first line, sum the lengths of A and B.
For the second line, write Yes if A is lexicographically greater than B otherwise print No instead.
For the third line, capitalize the first letter in both A and B and print them on a single line, separated by a space.

Sample Input

hello
java

Sample Output

9
No
Hello Java

Explanation

String A is "hello" and B is "java".

A has a length of 5, and B has a length of 4; the sum of their lengths is 9.
When sorted alphabetically/lexicographically, "hello" precedes "java"; therefore, A is not greater than B and the answer is No.

When you capitalize the first letter of both A and B and then print them separated by a space, you get "Hello Java".

The compareTo method is used to lexicographically compare strings A and B. If A is lexicographically greater than B, "Yes" is printed. Otherwise, "No" is printed.