

**Program1:**

Given a number n. Find the 2<sup>nd</sup> largest number using the same set of digits of n. Take input from STDIN and display output to STDOUT without any additional text.

Example:

Input:

54614

Output:

65414

Input:

4444

Output:

2nd largest not possible

Input:

5464

Output:

6454

**Program2:**

Given a number n and a set of digits between 2 to 9, generate a sequence using any combination of given digits whose sum is n. The given digits may be used any number of times to get the sum. Take input from STDIN and display output “Yes” or “No” to STDOUT without any additional text.

Example:

Input:

11

2, 3

Output:

Yes

Input:

47

3, 4, 5

Output:

Yes

**Program3:**

Given a string “academy”, find minimum number of deletion that can make the string palindrome.

Examples:

Input:

academy

Output:

4

Test Cases:

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1. VALID INPUT:

a) Only one argument will be given as input.

2. INVALID inputs:

a) No argument

b) Two or more than two arguments.

3. You should generate output as follows:

a) Print to the STDOUT without any additional text.

b) If error print 'ERROR' to the STDOUT without any additional text.

#### **Program4:**

Given a number (of length <50 digits), generate a number taking the digits at all positions that are multiple of 7 and another with digits at all positions that are multiple of 5. Find the one which is the largest. Display -1 if max position value is less than 5. Take input from STDIN and display output to STDOUT without any additional text.

Example:

Input:

2456892

Output:

8

Input:

24563

Output:

3

Input:

2456

Output:

-1

#### **Program5:**

Remove duplicates from an array

Given an array, the task is to remove the duplicate elements from the array. Display the array in sorted order. Take input from STDIN and display output to STDOUT without any additional text.

Examples:

Input: arr[] = {2, 2, 2, 2, 2}

Output: arr[] = {2}

Input: arr[] = { 1, 6, 3, 4, 4, 4, 5, 5 }

Output: arr[] = { 1, 3, 4, 5, 6 }