

TCS_Coding_Practice_Day10

1. You are given a string S, and a number K. Write a c code to find all K length substrings which are palindrome. Take input from command line.

Constraint:

$2 \leq K \leq \text{Length}(S)$

Example:

Input:

academy

3

Output:

aca

Test Cases:

1. VALID INPUT:

a) Only two arguments will be given as input.

2. INVALID inputs:

a) No argument

b) One or more than two arguments.

c) Non-integer second argument

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.

2. Consider the given series: 1, 1, 1, 2, 2, 3, 3, 4, 5, 5, 8, 6, 13, 8, ... This series is a mixture of 2 series – all the odd terms in this series form a Fibonacci series and all the even terms are the Ugly numbers in ascending order.

Fibonacci numbers is defined by the following relation:

$F_n = F_{n-1} + F_{n-2}$, with seed values $F_0 = 0$ and $F_1 = 1$.

Ugly numbers are numbers whose only prime factors are 2, 3 or 5. By convention, 1 is included.

Given a number n, the task is to find n^{th} number of the series.

Take input from STDIN and display output to STDOUT without any additional text.

Examples:

Input:

n = 7

Output:

3

Input:

n = 10

Output:

5

3. Given two arrays, print all elements in sorted order that are not common of these arrays. Take input from STDIN and display output to STDOUT without any additional text.

Example:

Input:

```
arr1[] = {3, 1, 5, 6, 11}
arr2[] = {5, 3, 7, 8}
```

Output:

```
{1, 6, 7, 8, 11}
```

4. Write a program to count the number of prime numbers formed by removing digits from that number from the back. (Including the number itself) Take input from STDIN and display output to STDOUT without any additional text.

Example:

Input:

```
135
```

Output:

```
1
```

Explanation: 135 is not prime, 13 (by removing 5 from last) is prime, but 1 is not prime

5. You are given a list of n-1 integers and these integers are in the range of 1 to n. There are no duplicates in list. One of the integers is missing in the list. Write an efficient code to find the missing integer. Take input from STDIN and display output to STDOUT without any additional text.

Example:

Input:

```
{1, 2, 5, 6, 3, 4, 8}
```

Output:

```
7
```