

*Indian Institute of Technology Delhi*  
**COL 100 - Introduction to Computers and Programming**  
**II Semester 2014-2015**  
**Assignment 5: Arrays**

**Question 1 is graded.**

**Question 2 is not graded.**

**Question 1.** Write a C++ program to print out the longest pattern of consecutive primes in an array.

The program takes 2 user inputs - N and array.

N : Number of elements in the array ( $N < 100$ )  
array[]: Input Array (non negative integers) entered by the user

The output of the program is:

len : Length of the longest pattern of consecutive primes in the array  
start : Start of the longest pattern of consecutive primes in the array

0 or 1 are treated as non-primes.

In case of invalid input data, the program should output "INVALID INPUT".

In case there are multiple sequences that match the condition, print the first one in the array.

**Example 1:**

N = 10

array = 1 2 6 4 5 3 7 2 11 13

The prime numbers are shown in green:

1 2 6 4 5 3 7 2 11 13

The trailing pattern of consecutive primes is longer, and  
array[4] = 5.

So, the output is:

5 3 7 2 11 13

Start = 4

Length = 6

**Question 2 [Non Graded].** Write a menu based C++ program to implement the following options :

1. Enter an input array of size 5
2. Insert an element at a user-specified position
3. Remove an element at a user-specified position
4. Print the differences between consecutive elements of the array
5. Display the array

**Hint:** Menu-based programs are usually implemented using the switch/case statement.