**/\* 27. Longest Bitonic Subsequence \*/**

Video

<https://www.geeksforgeeks.org/longest-bitonic-subsequence-dp-15/>

# /\*Find a sorted subsequence of size 3 in linear time\*/

Given an array of n integers, find the 3 elements such that a[i] < a[j] < a[k] and i < j < k in 0(n) time. If there are multiple such triplets, then print any one of them.

**/\***

**\* 29. Largest subarray with equal number of 0s and 1s 30. Maximum Product**

**\* Sub-array**

**\*/**

Given an array containing only 0s and 1s, find the largest subarray which contains equal no of 0s and 1s. The expected time complexity is O(n).

**Examples:**

**Input:** arr[] = {1, 0, 1, 1, 1, 0, 0}

**Output:** 1 to 6

(Starting and Ending indexes of output subarray)

**Input:** arr[] = {1, 1, 1, 1}

**Output:** No such subarray

**Input:** arr[] = {0, 0, 1, 1, 0}

**Output:** 0 to 3 Or 1 to 4

**/\*30. Maximum Product Sub-array\*/**

Given an array that contains both positive and negative integers, find the product of the maximum product subarray. Expected Time complexity is O(n) and only O(1) extra space can be used.