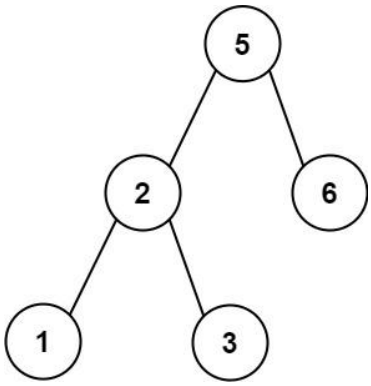
CSE 4304-Data Structures Lab. Winter 2022
Date: October 20, 2022.
Target Group: 1B

Instructions:

- Task naming format: fullID_T01L05_1B.c/CPP
- **Getting any kind of help from the internet is strictly forbidden for this particular lab.**
- **Solutions with any less efficient approach will be considered for partial marks.**

Task 1

Given an array of unique integers, find out whether the array is a valid preorder traversal sequence of a Binary Search Tree.

Sample Input	**Sample Output**	**Examplanation**
[5,2,1,3,6]	Valid Preorder Sequence	
[5,2,6,1,3]	Invalid Preorder Sequence	No valid BST can exist with the given array as a preorder sequence.

Constraints:

- $10^{-5} \leq X \leq 10^{5}$, *where* $X = Any\ element\ of\ the\ array.$
- $1 \leq N \leq 10^{5}$, *where* $N = Total\ Size\ of\ the\ array$.
- ALl the elements of the array is unique.
- Time Complexity: $O(N)$

Note: Solutions with less efficient approaches will be considered for partial marks.