Next permutation Algorithm

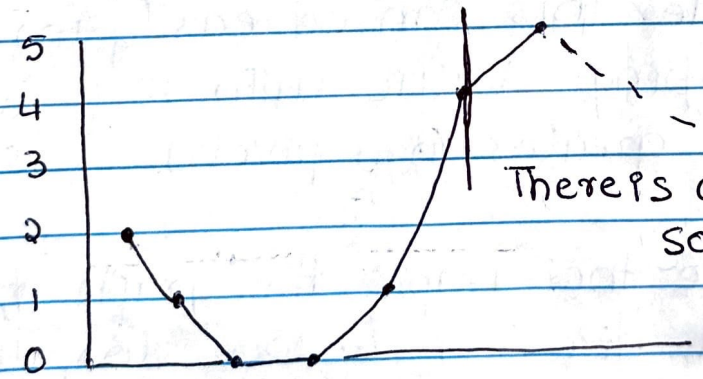
Steps :

① Find the break point from the graph
② Find a number that is
   a) Greater than break point
   b) Smaller among other number, from the remaining set of values

③ Sort the remaining portion of the array

Graph

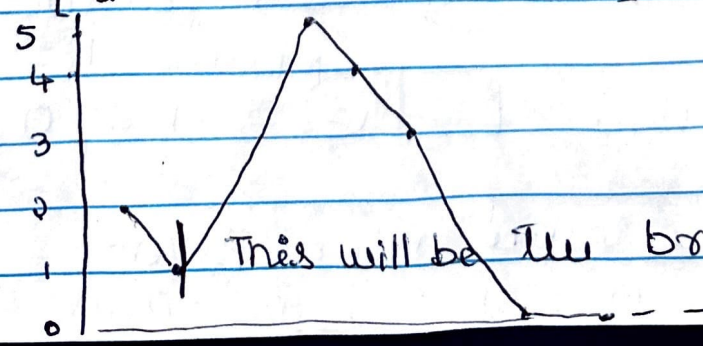
Eg:1 [2 1 0 0 1 4 5]



a b a c
a b a d
a c a a

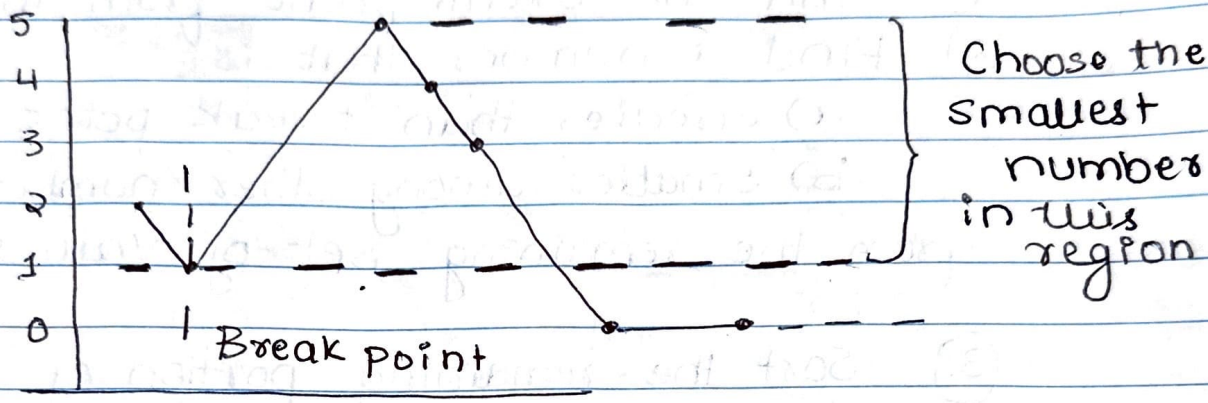
We usually match From back.

Eg 2: [2 1 5 4 3 0 0]



Working Solution:

Eg: [2 1 5 4 3 0 0]



Pivot

Step 1: [2 (1) 5 4 3 0 0] → Step (1)

Step 2: [2 (1) 5 4 (3) 0 0] → Step (2)

In code this can be easily impleted by swapping value with pivot [values that are greater than pivot]

If we see the graph, the graph moves in downward direction → so loop through [5 4 3 0 0] → swap with pivot value >= pivot ↪ so here we will have 3

Pivot

After swap [2 (3) 5 4 1 0 0]

Step 3 Sort the value after pivot

[2 3 0 0 1 4 5] # Final Answer.