

Next Permutation

Eg: abc

ans = acb

Eg 13542

// algo

i) Find the first element from backside which is less than its prev here 3

↳ 3-13542 aesa hamika it perm 1 jura one

ii) now swap it to nearest greater element on its right side. Eg here 4 is nearest greater

14532

iv) rev from it to last i.e

14235

//code

O(n)

```
n = size; R11
do { k = n-2; k >= 0; k-- }
{ if (num[k] < num[k+1]) break;
}
if (k < 0)
    rev
else
{ l = n-1; l > k; l--
  if (A[l] > num[k]) break;
}
swap ( )
rev (k+1) end
```

next permutation (int A[])

{ if (A == null || A.length <= 1) return;

int i = A.length - 2;

while (i >= 0 & A[i] >= A[i+1]) i--;

if (i >= 0)

{ int j = A.length - 1;

while (A[j] <= A[i]) j--;

swap (A[j], A[i]);

}

reverse (A, i+1, A.length-1);