30-Nov-2021

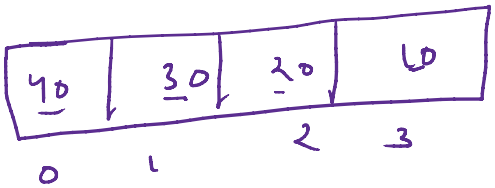
30 November 2021 20:59

Reverse an Array :

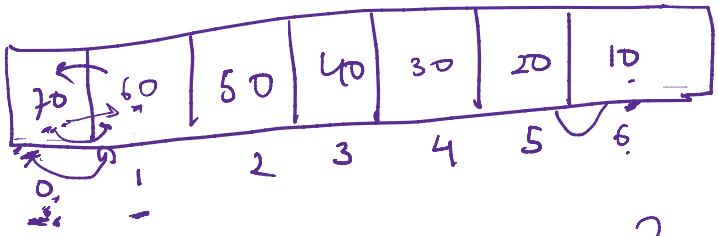
5, 4, 3, 2, 1 => 1, 2, 3, 4, 5

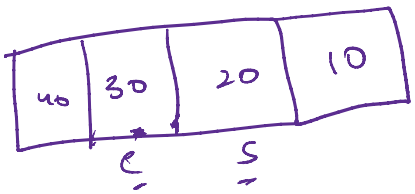
10, 20, 30, 40 => 40, 30, 20, 10

0 1 2 3 — 0 1 2 3



= new array






```
{ int temp = arr[i];
  arr[j] = arr[i];
  arr[i] = temp;
}
```
swapping

Rotate an Array :- https://leetcode.com/problems/rotate-array/

[1, 2, 3, 4, 5, 6, 7], k = 3

(7, 1, 2, 3, 4, 5, 6) 1 rotations

(6, 7, 1, 2, 3, 4, 5) 2 rotation

(5, 6, 7, 1, 2, 3, 4) 3 rotation

(1, 2, 3, 4, 5) =>

5, 1, 2, 3, 4 -> 1

. . 1 2 3 => 2

$K <= 10^5$

5) 73 (14

5

23

20

5, 1, -1 ...

4, 5, 1, 2, 3 =) 2

3, 4, 5, 1, 2 =) 3

2, 3, 4, 5, 1 =) 4

1, 2, 3, 4, 5 =) 5

0 1 2 3 4

5, 1, 2, 3 . .

2 0

3

k = 4

temp = 5

0 1 2 3 4

1, 2, 3, 4, 5

2, 1, 5, 4, 3

3 4 5 1 2

1 2 3 4 5 k=3

k = 3

k = 4

10, 20, 30, 40, 50, 60

0 1 2 3 4 5

20, 10, 60, 50, 40, 30

30, 40, 50, 60, 10, 20

Sum of two arrays

https://practice.geeksforgeeks.org/problems/add-two-numbers-represented-by-two-arrays2408/1#

A[] = [9 5 4 9]

B[] = [2 1 4]

9 7 6 3

A = [9 7]

B = [4] 11

= 101

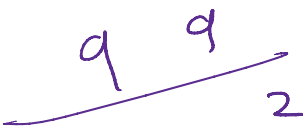
0 - 9

Carry = 1

1 9

1

1 2 3



A 1 2 3
B 9 9

ai: 2 + 0 - 1

bi: 1 0 -1

sum = 2 2 2

carry = 0 + 1

currSum = 12 12

```
int ai = a.length - 1;
int bi = b.length - 1;
String sum = "";
int carry = 0;
while (ai >= 0 && bi >= 0) {
    int currSum = a[ai] + b[bi] + carry;
    carry = currSum / 10;
    sum = (currSum % 10) + sum;
    ai--;
    bi--;
}
```

A: 0 1 2 3 4
9 9 9 9 9
B: 1 1
1 0 0 0 1 0

ai = 4 3 2 1 0 -1
bi: 1 0 -1
carry: 1 1 1
currSum: 10
sum: 10010

0 2 2
2 1
0 4 3

as = 1
bs = 0

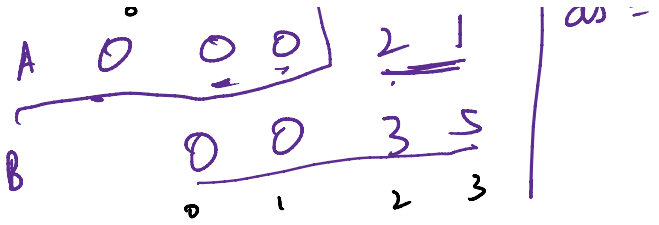
```
while (ai >= 0 && bi >= 0) {
    int currSum = a[ai] + b[bi] + carry;
    carry = currSum / 10;
    sum = (currSum % 10) + sum;
    ai--;
    bi--;
}
while (ai >= 0) {
    int currSum = a[ai] + carry;
    carry = currSum / 10;
    sum = (currSum % 10) + sum;
    ai--;
}
while (bi >= 0) {
    int currSum = b[bi] + carry;
    carry = currSum / 10;
    sum = (currSum % 10) + sum;
    bi--;
}
if (carry != 0) sum = carry + sum;
```

A 0 0 0 2 1
B 0 0 3 5

as = 3

```
int as=0;
for(int i=0;i<a.length;i++){
    if(a[as]!=0){break;}
    as++;
}

int bs=0;
for(int i=0;i<b.length;i++){
    if(b[bs]!=0){break;}
    bs++;
}
```




```
int as=0;
for(int i=0;i<a.length;i++){
    if(a[as]!=0){break;}
    as++;
}

int bs=0;
for(int i=0;i<b.length;i++){
    if(b[bs]!=0){break;}
    bs++;
}
```