

January
2015

23
Friday

023-342

wk - 4

Left Rotate Array By D Element
Places.

For example

arr = [2, 7, 1, 3, 4]

Left Rotate the array by 2 elements

So what it does is it

for the first round
it takes first
element & puts
it last

Notice a pattern
Here.

like

[2, 7, 1, 3, 4]
0 1 2 3 4

7, 1, 3, 4, 2

For the 2nd round it

takes the current
1st element & puts it last

like

1, 3, 4, 2, 7

First
Step

[7, 1, 3, 4, 2]

2nd Step

[1, 3, 4, 2, 7]

3.

5th = Total Length of array
[2, 7, 1, 3, 4]

Returns same

position

24
Saturday

024-341

Appointments

if $(k/d > \text{length of an array})$ for array

for example - 10 cycles [2, 7, 1, 3, 4]

then it returns to same place

↓

5 cycles + 5 cycles

↓

In 5 cycles it returns to same

if they give a bigger no. than
length of the array itself

we can exclude the
redundant cycles

by putting the condition $[K = K \% \text{size}]$

For ex - $K = 10 \% 5 = 0$ so we can return
to start of array

Pseudocode

for (int i = 0; i < K

if $(K > \text{size})$

{ $K = K \% \text{size};$ }

for (int i = K; i < size; i++)

{ $a2[i] = a1[i]$
j++ }

for (int i = 0; i < size

for (int i = 0; i < K; i++)

{ j++

$a2[j] = a1[i];$ }

New array a2

Original array a1

int j = 0

This pushes the remaining
elements other than
the elements to be rotated
forward

This makes
swap

January
2015

wk - 4

25

Sunday

025-340

wk - 4