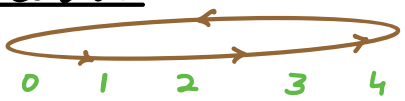
1) Read questions carefully
2) Read all question (in first 10 min)
3) Use examples to understand better.
4) Use constraints to understand expected TC.

Re-attempt → over the weekend (23 to 24 Sept)

Q → **Array Rotation**



A = [1 2 3 4 5]

B = 2

$B <= 10^9$

$N <= 10^5$

5 1 2 3 4

4 5 1 2 3 (Ans)

3 4 5 1 2

2 3 4 5 1

1 2 3 4 5

Solution →

1) B = B % N
2) reverse (A, 0, N-1)
3) reverse (A, 0, B-1)
4) reverse (A, B, N-1)

TC = O(N)

SC = O(1)

Q → **Positive in a Range**

0 1 2 3 4 5 6

A = [5 -2 8 3 0 -1 7]

$B = \begin{bmatrix} 1 & 3 \\ 4 & 6 \\ 0 & 2 \end{bmatrix}$ → 2, 2, 2

Find count of non-negative profit in a range B[i][0] to B[i][1].

Ans = [2 2 2]

Bruteforce → ∀ query iterate the array from B[i][0] to B[i][1].

TC = O(N*Q) → TLE (N, Q <= 10^5) SC = O(1)

Sol →

	0	1	2	3	4	5	6
A = [	S	-2	8	3	0	-1	7]
(A[i] >= 0) ←		1	0	1	1	1	0	1
P = [		1	1	2	3	4	4	5]

```
P[0] = (A[0] >= 0) ? 1 : 0
for i → 1 to (N-1) {
    if (A[i] < 0)     P[i] = P[i-1]
    else              P[i] = P[i-1] + 1
}

q = B.length
// ans[B]
for i → 0 to (q-1) {
    l = B[i][0]
    r = B[i][1]
    if (l == 0)   ans[i] = P[r]
    else          ans[i] = P[r] - P[l-1]
}
```

TC = O(N+Q)

SC = O(N) → O(1) (using A[])

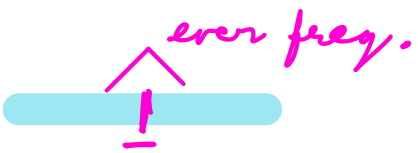
return ans

Q → Kiry & Palindromes

Eg → "banana" → anbna Ans = 5

"race" → 'a' Ans = 1

"abcabc" → "abccba" Ans = 6



banana

Frequency

b → 1

a → 3 ✓

n = 2 ✓

b

a n n a

⇒ anbna

```
ans = 0
for i → 0 to (N-1) {
    mp.put(A[i], mp.get(A[i]) + 1)
}
for (key : mp.getKeys()) {
    ans += mp.get(key) / 2      // freq = 2 ↔ 1
}
ans *= 2;
if (ans == N) return ans
else ans + 1
```

TC = O(N)

SC = O(N)

racecar r = 2 ans = 2

a = 1

c = 1 raqaqr

p = 1 Ans = 5

q = 2

---

aabb → ab / ab → abba

```
ans = 0
for i → 0 to (N-1) {
    if (hs.contains(A[i])) {
        ans += 2
        hs.remove(A[i])
    } else {
        hs.add(A[i])
    }
}
if (ans == N) return ans
else ans + 1
```
