

* 1929. Concatenation of array:-

nums = [1, 2, 1]

0/p = [1, 2, 1, 1, 2, 1]

→ We need to create a new array & return it.

* Brute force:-

→ Create result array of size $2 \times \text{nums.length}$.

→ Loop once to add the elements once.

→ Create another loop having starting index as nums.length & then again add the elements to the result array.

Time complexity :- $O(N)$

Space complexity :- $O(1)$

* Cleaner code:-

```
int n = nums.length;
int[] result = new int[2 * n];
for (int i = 0; i < n; i++) {
    result[i] = nums[i];
    result[i + n] = nums[i];
}
```

Time complexity :- $O(N)$
Space complexity :- $O(1)$

* Mathematical approach (Only smart coders can come up with this)

$\text{result}[i] = \text{nums}[i \% n];$

Time complexity :- $O(N)$

Space complexity :- $O(1)$