

Date 10 Oct 2023

Page _____

Day - 23

Questions on Array

* Search Element:

	0	1	2	3	4	5
arr	10	20	7	11	8	4

=> We take the no. that the user want to search.

=> Then traverse the array and check with the elements.

=> If element equals to the num., print the index otherwise return -1.

Code

```
int arr[6];  
int index = -1; int x; (Find)  
for (int i = 0; i <= 5; i++)  
{  
    if (arr[i] == x){  
        index = i;  
        break;  
    }  
}  
cout << index;  
}
```

* Reverse Array:

	0	1	2	3	4	5
	6	11	7	4	8	9

Date _____

Page _____

- => Take a new array of the same size.
 => Then traverse the org. array from ^{start} last and start the new array from ^{start} last.
 => Now, element of that index of org. array goes in the new array.
 => Now copy this new array to the original array.

Another Method

$i=0$	9	3	11	14	8	6
$j=5$	6	8	14	11	3	9
	\uparrow		\uparrow	\uparrow		\uparrow
	i		j	j		j

- => Swap the elements
 => Condition to break the loop —
 while $(i < j)$

* Second Max:

- => First, we have to find the max element.
 => Then, we have to find the second max element by traversing every element and skipping the max element.

* Missing No.:

- => You will give an array of size n and the

1	3	4	5	6
---	---	---	---	---

1
2
3
4
5
6

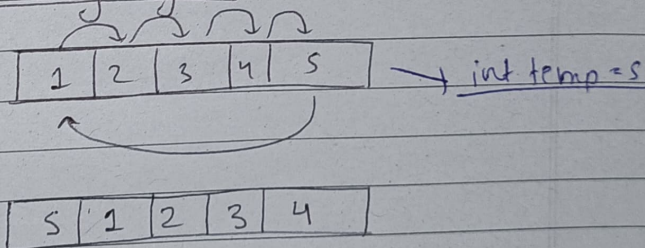
- =1 And there is a missing element.
- ⇒ So for solving this first, we calculate the sum till the size and sum of the elements of the array.
- =1 Then subtract, and we will get our desired number that is missing.

* Fibonacci Series:

	0	1	1	2	3	5	8	13
	0	1	2	3	4	5		
arr	0	1	1	2	3	5		arr[n-1]

$$\text{arr}[i] = \text{arr}[i-1] + \text{arr}[i-2]$$

* Rotate array by 1:



- ⇒ First we store the last element in a temp variable.
- =1 After that start from second last and copy the value of second last to the last and so on.

Date _____

Page _____

=>

Passing array in function: this is pointer
→ not array

```
int void fun(int a[], int n){  
    for(i=0; i<5; i++){  
        cout<< a[i];  
    }
```

```
int main(){  
    int arr[5] = {1, 2, 3, 4, 5};  
    fun(arr, 5);  
}
```