

PROBLEM STATEMENT

Find the Second Largest Element in an Array Write a program to find the second-largest element in an array of integers without using any sorting algorithms or built-in array functions.

Instructions: Traverse the array manually to find both the largest and second-largest elements.

SOLUTION :

```
const arr=[100,100,100,99,99,80];
let max=0;
for(var i=0;i<arr.length;i++)
{
    if(max<arr[i])
    {
        max=arr[i];
    }
}
let max1=0;
for(var i=0;i<arr.length;i++)
{
    if(arr[i]!==max)
    {
        if(max1<arr[i])
        {
            max1=arr[i];
        }
    }
}
console.log("Largest number in the Array : "+max);
console.log("Second-largest number in the Array : "+max1);
```

Test case 1:

Input:

arr = [100,100,89,99,77,64,79,99]

Output:

Largest number in the Array : 100

Second-largest number in the Array : 99

Test case 2:

Input:

arr = [11,17,31,5,19,33,57]

Output:

Largest number in the Array : 57

Second-largest number in the Array : 33

Test case 3:

Input:

arr = [1,2,3,4,5,6,7,8,9,10]

Output:

Largest number in the Array : 10

Second-largest number in the Array : 9