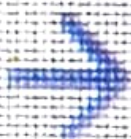
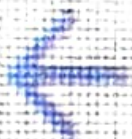


JS binarysearch.js > ...

```
1
2 function binarySearch(array,item)
3 {
4     let left=0;
5     let right=array.length-1;
6     while(left<=right){
7         let mid=Math.floor((left+right)/2)
8         if(array[mid]===item){
9             return mid;
10        }
11        if(array[mid]<=item){
12            left=mid+1;
13        }
14        else{
15            right=mid-1;
16        }
17    }
18
19    return -1;
20 }
21 let array=[10,20,30,40,50,60,70,80,90]
22 item=70;
23 let index=binarySearch(array,item);
24 document.write("Index of item 70 is: "+index);
```

Index of item 70 is: 6



Algorithm

Step 1: Start

Step 2: Initialize Array, take input $\text{left}=0, \text{right}=\text{array.length}-1, \text{item}$

Step 3: Decision making ($\text{left} \leq \text{right}$)

Step 4: Set value of $\text{mid} = \text{Math.floor}((\text{left} + \text{right}) / 2)$

Step 5: Decision making ($\text{array}[\text{mid}] == \text{item}$)

 print value of mid

 perform step 8

Step 6: Decision making ($\text{array}[\text{mid}] < \text{item}$)

$\text{left} = \text{mid} + 1$

Step 7: $\text{right} = \text{mid} - 1$

Step 8: Stop

