

### Ques 1 Span of array

difference b/w max and min  
 $\text{span} = \text{max} - \text{min};$   
 $\text{syso}(\text{span})$

### Ques 2 Alternate Sum

2	1	5	7	3	4
0	1	2	3	4	5

Sum Odd = 12

Sum Even = 10

Even

$(i \% 2 == 0)$

Odd

$(i \% 2 == 1)$

### Ques 3 Is element Repeated

a = Input

$\hookrightarrow$  a is present more than once

$a = 1 \parallel a = 0 \parallel$  not repeated

1	2	3	2	4	2
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$a = 2$

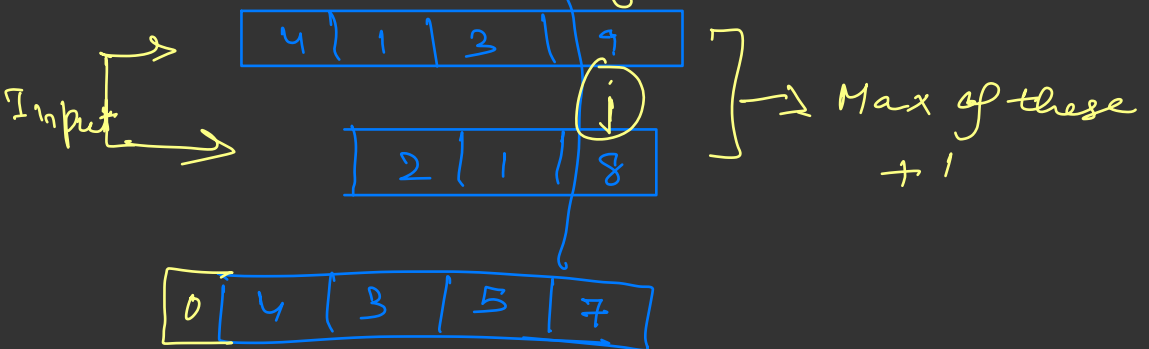
count = ~~0~~ 3

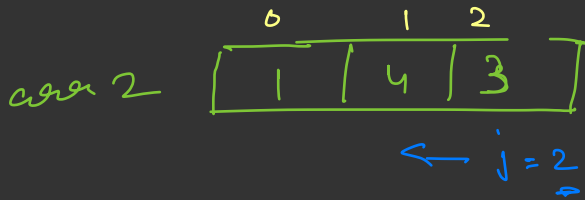
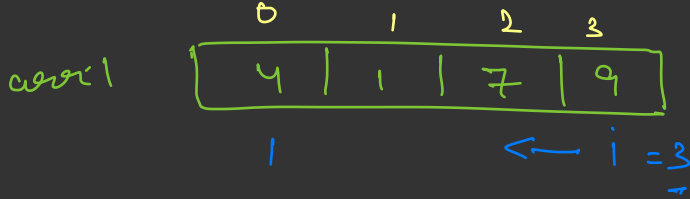
$> 1$

$a \geq 2$  // repeated  
 $\rightarrow$  count = 0  
 for ( $i = 0$ ;  $i < \text{arr.length}$ ;  $i++$ )  
   if ( $\text{arr}[i] == a$ )  
     { count++;  
       }

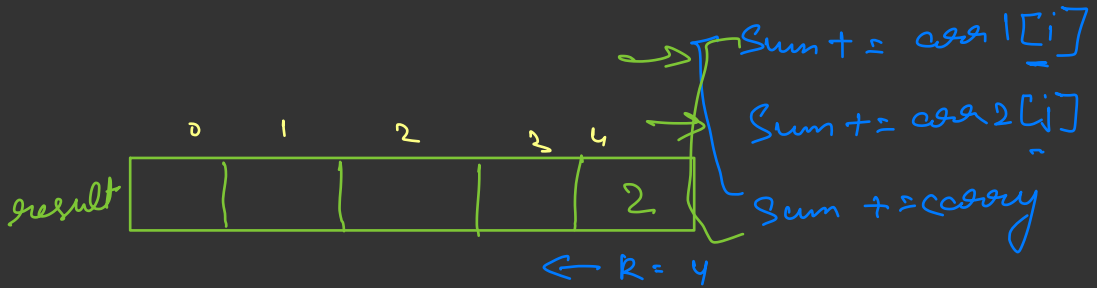
if (count  $\geq 2$ ) syso("repeated");  
 else syso("not repeated");

Ques 4 Sum of 2 Arrays





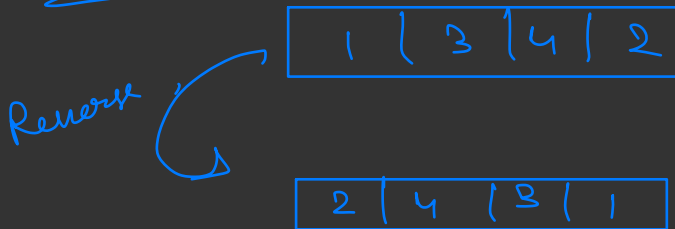
carry = 01  
Sum = 09(12)

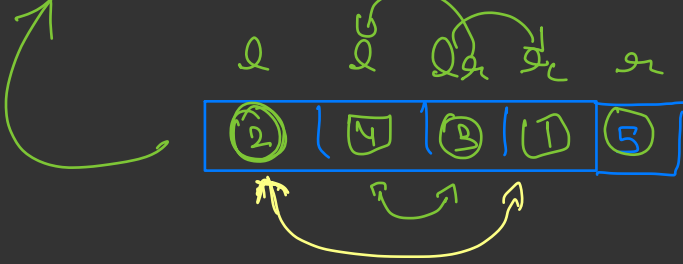


$$\text{result}[k] = \text{Sum} \% 10$$

$$\text{carry} = \text{Sum} / 10$$

Ques 5 Reverse an ARRAY





left = 0

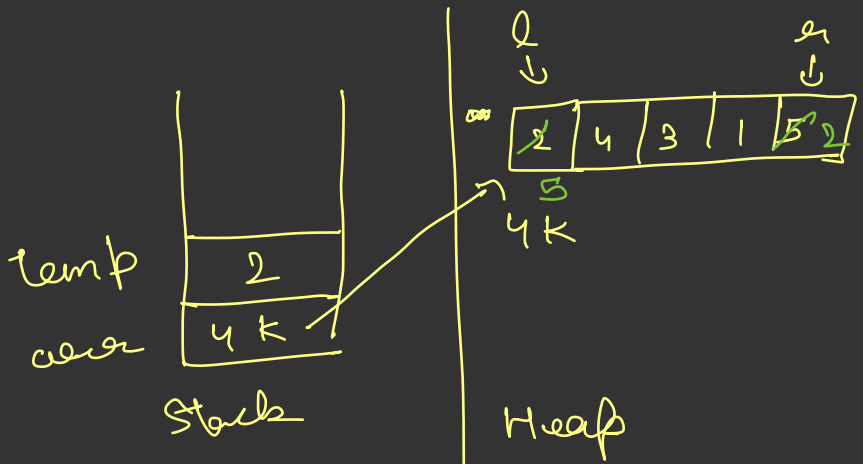
right = 4

Swap

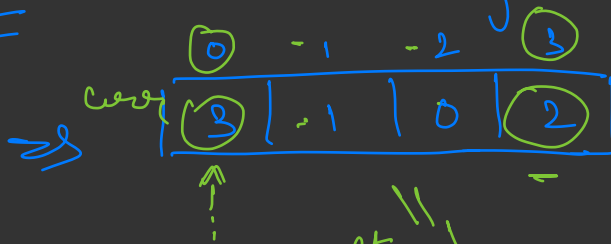
```

int temp = arr[left];
arr[left] = arr[right];
arr[right] = temp
  
```

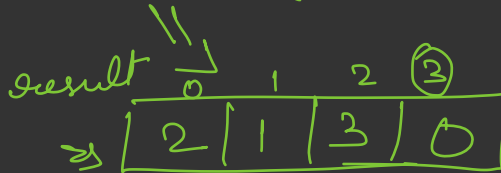
Memory



# Quest Inverse of array



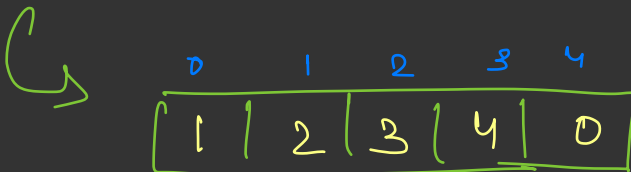
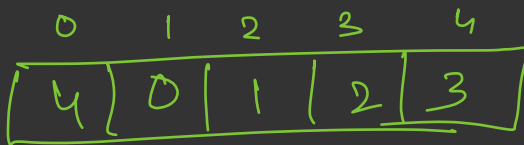
length = n



① 0 - (n-1)

② no repetition

⇒ for (i=0; i < arr.length; i++)  
{  
    result[arr[i]] = i;  
}



Ques Last Index of element

Element

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

(3)

idx = ~~4~~ ~~5~~ **6**

for (i=0; i < a.length; i++)

n Times [ if (a[i] == el) idx = i;

(3)

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

$\frac{5+9}{2}$

$\frac{11}{2} = 5$

idx = ~~-1~~ ~~4~~ ~~5~~ **6**

while (l <= r) {

mid = (l+r)/2;

if (arr[mid] == val) {

idx = mid;

l = mid + 1;

else if (val > arr[mid])

{ l = mid + 1;

} else {

r = mid - 1;

}

↑  
mid

mid = ~~4~~ ~~5~~ **6**