int → -2^{31} to $2^{31}-1$

Integer.MIN_VALUE

```
int a[] = { 1, 5, 4, 7, 9 }
```

```
new int [5];
```

Ques $n \Rightarrow 6$

arr 1, 4, 6, 3, 2 $\Rightarrow 5$

(1) Bitwise $\wedge$

$1 \wedge 1 \Rightarrow 0$

$0 \wedge 0 \Rightarrow 0$

$1 \wedge 0 \Rightarrow 1$

$0 \wedge 1 \Rightarrow 1$

$$\begin{array}{r} 1001 \\ \wedge\ 1001 \\ \hline 0000 \end{array} \Rightarrow 0$$

$21 \wedge 21 \Rightarrow 0$

$a = 0 \wedge 1 \wedge 2 \wedge 3 \wedge 4 \wedge 5 \wedge 6$

$\wedge 1 \wedge 4 \wedge 6 \wedge 3 \wedge 2$

```
for(int i=1;i<=n, i++){
    a = a ^ i;
}
```

---

(2) 1 - n only 1 number is missing

$1 \rightarrow n \Rightarrow \frac{n*(n+1)}{2}$

$n \Rightarrow 6 \Rightarrow$ Sum1 $\Rightarrow \frac{6 \times 7}{2} \Rightarrow 21$

arr 1, 4, 6, 3, 2

Sum2 $\Rightarrow$ 16

$21 - 16 \Rightarrow 5$

```
int s1 = (n*(n+1))/2;
int s2 = 0;
for(i=0; i<a.length; i++) {
    s2 += a[i];
}
sysO(s1 - s2);
```

Ques Subarray → Continuous parts of array

1 2 3 4 5

1	2	3	4	5
1 2	2 3	3 4	4 5	
1 2 3	2 3 4	3 4 5		
1 2 3 4	2 3 4 5			
1 2 3 4 5				

$n + (n-1) + (n-2) \cdots 3 + 2 + 1$

$\Rightarrow 1 + 2 + \cdots n$

$\Rightarrow \frac{n \times (n+1)}{2}$

---

2 4 4 5 3 6 7 9 1

i

i = 0

~~true~~ ~~false~~

~~true~~

Last Odd = ~~false~~

Count = ~~0~~ 1 ~~2~~ ~~0~~ 1 ~~2~~ 3

total = 3 + 6 ⇒ 9

① is last odd

② Curr is odd
increase count

Curr

Last

0 2 4 1

① Curr → odd Last → even → Start

start my new sequence ⇒ count = 1
Lastodd = true

0 2 4 1 7

↑

(2)

curr → odd last → odd → Continue

count curr nuber in seq → count ++,

0 2 4 1 7 6

↑

(3) last → odd curr → even

⇒ calculate result → end

last odd ⇒ false