11ᵗʰ Jan 2023

First :

Swap two numbers :: School

Swap given two numbers and print them. (Try to do it without a temporary variable.) and return it.

Example 1:

```
Input: a = 13, b = 9
Output: 9 13
Explanation: after swapping it
becomes 9 and 13.
```

Example 2:

```
Input: a = 15, b = 8
Output: 8 15
Explanation: after swapping it
becomes 8 and 15.
```

Your Task:

You don't need to read input or print anything. Your task is to complete the function **get()** which takes **a, b** as inputs and returns the list of integers contains the new value of a and b after swap.

Expected Time Complexity: O(1)
Expected Auxiliary Space: O(1)

CODE SECTION :-

```cpp
pair<int, int> get(int a, int b){
    //complete the function here
    a=a xor b;
    b=a xor b;
    a= a xor b;
    return { a,b };
}
```

Second :
Find XOR of numbers from L to R. :: Easy

You are given two integers L and R, your task is to find the XOR of elements of the range [L, R].

Example:

```
Input:
L = 4, R = 8
Output:
8
Explanation:
4 ^ 5 ^ 6 ^ 7 ^ 8 = 8
```

Your Task:

Your task is to complete the function **findXOR()** which takes two integers l and r and returns the XOR of numbers from l to r.

Expected Time Complexity: O(1).

Expected Auxiliary Space: O(1).

Constraints:

$1<=l,r<=10^9$

CODE SECTION :-

```cpp
class Solution {
  public:
    int find(int n){
        if(n%4==0){
            return n;
        }
        if(n%4==1){
            return 1;
        }
        if(n%4==2){
            return n+1;
        }
        if(n%4==3){
            return 0;
        }
    }
```

```
    int findXOR(int l, int r) {
        // complete the function here
        return find(r) xor find(l-1);


    }
};
```

<mark>THIRD :-</mark>

Odd or Even :: School

Given a positive integer N, determine whether it is odd or even.

Example 1:

```
Input:
N = 1
Output:
odd
Explanation:
The output is self-
explanatory.
```

CODE SECTION:-

```
string oddEven(int N){
        // code here
        if((N xor 1)<N){
            return "odd";
        }
        else return "even";


    }
```

-: DONE FOR THE DAY :-