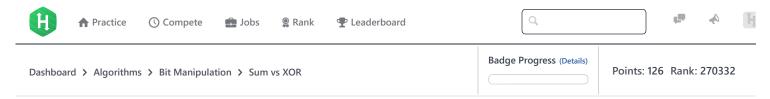
16/11/2017 HackerRank



Sum vs XOR **■**



Problem Submissions Leaderboard Discussions Editorial

Given an integer, n, find each x such that:

- $0 \le x \le n$
- $n+x=n\oplus x$

where \oplus denotes the bitwise XOR operator. Then print an integer denoting the total number of x's satisfying the criteria above.

Input Format

A single integer, **n**.

Constraints

• $0 \le n \le 10^{15}$

Subtasks

• $0 \le n \le 100$ for 60% of the maximum score.

Output Format

Print the total number of integer \boldsymbol{x} 's satisfying both of the conditions specified above.

Sample Input 0

5

Sample Output 0

2

Explanation 0

For n=5, the $oldsymbol{x}$ values $oldsymbol{0}$ and $oldsymbol{2}$ satisfy the conditions:

- $5+0=5 \oplus 0=5$
- $5+2=5\oplus 2=7$

Thus, we print 2 as our answer.

Sample Input 1

10

Sample Output 1

4

Explanation 1

For n=10, the $m{x}$ values $m{0}$, $m{1}$, $m{4}$, and $m{5}$ satisfy the conditions:

```
• 10 + 0 = 10 \oplus 0 = 10
```

•
$$10 + 1 = 10 \oplus 1 = 11$$

•
$$10 + 4 = 10 \oplus 4 = 14$$

•
$$10 + 5 = 10 \oplus 5 = 15$$

Thus, we print ${\bf 4}$ as our answer.

f in Submissions:<u>10572</u>
Max Score:25
Difficulty: Easy
Rate This Challenge:
☆☆☆☆☆

More

```
Current Buffer (saved locally, editable) &
                                                                                           Java 7
                                                                                                                             Ö
 1 ▼ import java.io.*;
 2 import java.util.*;
 3 import java.text.*;
    import java.math.*;
 5
    import java.util.regex.*;
 6
 7 ▼ public class Solution {
 8
         static long solve(long n) {
 9 ▼
10
             // Complete this function
11
12
13 ▼
         public static void main(String[] args) {
             Scanner in = new Scanner(System.in);
14
             long n = in.nextLong();
15
             long result = solve(n);
16
             System.out.println(result);
17
18
         }
19
    }
20
                                                                                                                     Line: 1 Col: 1
                                                                                                                      Submit Code
1 Upload Code as File
                       Test against custom input
                                                                                                        Run Code
```

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