- **EASY**
- **Max Score: 30 Points**

Evens Vs Odds

Given a number n, return the difference of the sum of even numbers until n and the sum of odd numbers until n.

Input Format

The first line of input contains the integer n.

Output Format

The output should contain the difference of the sum of even numbers to the sum of odd numbers.

Example 1

Input

1

Output

-1

Explanation

The sum is: $0 - 1 = -1$

Example 2

Input

`4`

Output

`2`

Explanation

The sum is: `2 + 4 - 1 - 3 = 2`

Example 3

Input

`7`

Output

`-4`

Explanation

The sum is: `2 + 4 + 6 - 1 - 3 - 5 - 7 = -4`

Constraints

1 <= n <= 10^9

- **Math**

My code

```java
// in java
import java.util.*;

public class Main {
    public static void main(String[] args) throws Throwable {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        System.out.println(Solution.evensVsOdds(n));
    }
}
class Solution {
    static int evensVsOdds(int n) {
            int sum=0;
            for(int i=1;i<=n;i++)
                {
                    if(i%2==1)
                        sum=sum-i;
                    else sum=sum+i;
                }
        return sum;
    }
}
```