

<https://course.acciojob.com/idle?question=e61a44c0-8e14-4d75-9250-efcb03e6acf1>

- EASY
- Max Score: 30 Points

## Sigma of Equation

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Given a number N, find the value of the below equation for the given number.

Equation

$$\sum_{x=1}^N \{ (x + 1)^2 - (3x + 1) + x \}$$

### Input Format

First line contains an integer n

### Output Format

Single line output representing the value.

### Example 1

Input

1

Output

1

### Example 2

Input

2

Output

5

Explanation

$$\{(1+1)^2 - (3 \times 1 + 1) + (1)\} + \{(2+1)^2 - (3 \times 2 + 1) + 2\} = 4 - 4 + 1 + 9 - 7 + 2 = 5$$

## Constraints

$$1 \leq n \leq 10^5$$

### Topic Tags

- **Loops**

# My code

```
// n java
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
    public static void main (String[] args) throws
java.lang.Exception
    {
        //System.out.println("Hello World");
    }
}
```

```
Scanner s=new Scanner(System.in);
long sum=0;
long n=s.nextInt();
for(long i=1;i<=n;i++){
long a=(i+1)*(i+1);
long b=(3*i)+1 ;
long c=(a+i)-b;
    sum+=c;}
System.out.print(sum);
}
```