

DMOPC '14 Contest 7 P4 - Sand Triangle

Time limit: 0.3s **Memory limit:** 64M

Bored out of his mind from being stranded on an island, Tusk has taken to writing down sequences of numbers in the sand. Today, he decided to write down a triangle of numbers, with each row r containing r numbers. When read from top to bottom, left to right, the triangle is made up of consecutive natural numbers starting from 1.

```
  1
 2 3
4 5 6
7 8 9 10
11 12 13 14 15
16 17 18 19 20 21
...
```

Being curious and having nothing better to do, Tusk wonders what the sum of all the numbers on the row that contains the number N is.

Unfortunately, his beach is too small for him to write down such a massive triangle!

Constraints

Subtask 1 [40%]

For 40% of the points, it will hold that $N \leq 10^3$.

Subtask 2 [60%]

For the remaining 60% of the points, it will hold that $N \leq 10^9$.

Input Specification

A single integer, N .

Output Specification

The sum of all the numbers on the row of the triangle containing N .

Sample Input

```
5
```

Sample Output

15

Explanation

Considering the example triangle, 5 is contained in row 3, which contains the numbers $4 + 5 + 6 = 15$.