

Problem Statement: Sum of First N Integers

Description:

Write a program that reads a single integer N from standard input and calculates the sum of the first N integers, where N can be any integer (positive, negative, or zero). The sequence of the first N integers starts from 1 and goes up to N if N is positive, or starts from -1 and goes down to N if N is negative. If N is 0 , the sum is considered 0 .

Input:

The input consists of a single line containing a single integer N ($-1000 \leq N \leq 1000$).

Output:

The output should be a single line containing a single integer, the sum of the first N integers.

Example Input 1:

5

Example Output 1:

15

Explanation 1:

The sum of the first 5 integers ($1 + 2 + 3 + 4 + 5$) is 15.

Example Input 2:

-3

Example Output 2:

-6

Explanation 2:

The sum of the first -3 integers ($-1 + -2 + -3$) is -6.