AlphaBit Coding Challenge

Problem 1: Big sum

Statement

Remember solving the Small Sum problem ? This is him now, but **way bigger** !

Calculate the summation of the first **N** numbers 1 + 2 + 3 + ... + (n-1) + n.

Pay attention to the huge size of **N** !

We guarantee that the sum is $< 2^{63}$

Input

A single line that contains a positive integer number **N**.

Output

A single line that contains the summation of the first N numbers.

Example

Input	Output
4	10