Problem Cube Milk

Time Limit 1 second

Problem

Nani is a 5 year old girl who likes playing with cubes, although since she doesn't know how to play with it all she does is throw them into a bucket full of milk. Nani has N cubes and each cube has a side length of an integer from 1, 2, 3, … ,N cm. When Nani's mom got home from work she found milk spilled all over her floor. Now assuming all cubes are unique and will definitely sink into the bottom of the bucket. Help Nani's mom figure out the amount of milk she lost in cm^3.

Input

The input has only a single integer N denoting the number of cubes Nani has.

1 <= N <= 10000

Output

Display the amount of milk spilled on the floor in cm^3.

Sample Input 1	Sample Output 1
4	100

Sample Input 2	Sample Output 2
100	25502500