

## Problem C. Soldier and Bananas

**Time Limit** 1000 ms

**Mem Limit** 262144 kB

A soldier wants to buy  $w$  bananas in the shop. He has to pay  $k$  dollars for the first banana,  $2k$  dollars for the second one and so on (in other words, he has to pay  $i \cdot k$  dollars for the  $i$ -th banana).

He has  $n$  dollars. How many dollars does he have to borrow from his friend soldier to buy  $w$  bananas?

### Input

The first line contains three positive integers  $k, n, w$  ( $1 \leq k, w \leq 1000$ ,  $0 \leq n \leq 10^9$ ), the cost of the first banana, initial number of dollars the soldier has and number of bananas he wants.

### Output

Output one integer — the amount of dollars that the soldier must borrow from his friend. If he doesn't have to borrow money, output 0.

### Examples

Input	Output
3 17 4	13