H - Soldier and Bananas

A soldier wants to buy *w* bananas in the shop. He has to pay *k* dollars for the first banana, 2*k* dollars for the second one and so on (in other words, he has to pay *i*·*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  ≤  *k*, *w*  ≤  1000, 0 ≤ *n* ≤ 109), 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**

3 17 4

**Output**

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#include <iostream>

using namespace *std*;

int main(void)

{

long long int n;

long long int sum=0;

int k, w;

*cin* >> k >> n >> w;

for (int i = 1; i <= w; i++) {

sum = sum + (i\*k);

}

if (sum <= n) {

*cout* << 0 << "\n";

}

else

*cout* << sum - n << "\n";

return 0;

}