

## A. Soldier and Bananas

time limit per test: 1 second  
 memory limit per test: 256 megabytes  
 input: standard input  
 output: standard output

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

<b>input</b>	<a href="#">Copy</a>
3 17 4	
<b>output</b>	<a href="#">Copy</a>
13	

### Codeforces Round #304 (Div. 2).

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### → Virtual participation

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You can clone this contest to a mashup.

[Clone Contest](#)

### → Submit?

Language: Python 3.8.10   
 Almost always, if you send a solution on PyPy, it works much faster

Choose file: [Choose File](#) No file chosen


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### → Problem tags

[brute force](#) [implementation](#) [math](#)  
[\\*800](#)

No tag edit access

### → Contest materials

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