Problem C- Missing Number

Bored bored bored. You are so bored that you sum up from 1 to N on a somewhat ancient pocket calculator, one number at a time. That is, you type "1", then press the "+" button, then type "2", then press the "+" button, then type "3", and so on. But you are so bored that you may have skipped one number less than N.

Given the final sum S, can you determine what was the missing number?

Input Specification:

You will be presented with several thousand test cases composed only of nonnegative integers, one per line. Each integer is the final sum S, where $S < 2^{56}$. (Java peeps will need to use the `long` data type, and C/C++ peeps will need the `long long`.)

The input ends when $S = 0$. This is not a test case and should not be processed.

Output Specification:

For each test case, output the missing number on a line by itself. If no number was missing, instead output "`Not bored enough!`".

Sample Input:

```
44
45
46
0
```

Sample Output:

```
1
Not bored enough!
9
```