

Problem H

{sum+=i++} to Reach N

Input: standard input

Output: standard output

Time Limit: 100 seconds

Memory Limit: 32 MB

All the positive numbers can be expressed as a sum of one, two or more consecutive positive integers. For example **9** can be expressed in three such ways, **2+3+4**, **4+5** or **9**. Given an integer less than $(9*10^{14}+1)$ or $(9E14 + 1)$ or $(9*10^{14} + 1)$ you will have to determine in how many ways that number can be expressed as summation of consecutive numbers.

Input

The input file contains less than **1100** lines of input. Each line contains a single integer **N** ($0 \leq N \leq 9E14$). Input is terminated by end of file.

Output

For each line of input produce one line of output. This line contains an integer which tells in how many ways **N** can be expressed as summation of consecutive integers.

Sample Input

9
11
12

Sample Output

3
2
2

(Math Lovers' Contest, Problem Setter: Shahriar Manzoor)