Problem J. Jimp Numbers

Input file:	*standard input*
Output file:	*standard output*
Time limit:	2 seconds
Memory limit:	512 mebibytes

A positive integer k is called a *jimp number* if there is exactly one triple of positive integers (a, b, c) such that a, b, and c are consecutive terms of an arithmetic progression (exactly in that order) and $a^2 + b^2 + k = c^2$.

Count the jimp numbers which are not greater than the given number n.

Input

The only line contains a single integer n ($1 \le n \le 10^{11}$).

Output

Print a single integer: the answer to the problem.

Examples

standard input	standard output
5	2
100	25