

Exclusion

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 512 megabytes

Given a positive integer a , find how many pairs of positive integers (x, y) satisfy $x^2 + y \leq a$.

Input

The input contains only one positive integer a ($1 \leq a \leq 10^{12}$).

Output

Output one integer on a single line, representing the answer.

Examples

standard input	standard output
2	1
293	3196