ENG RUS	Timus Online Judge			
-	Online Judge	Problems	Authors	Online contests
征	About Online Judge Frequently asked questions Site news Webboard Links	Problem set Submit solution Judge status Guide	Register Update your info Authors ranklist  Author's name  Search	Current contest Scheduled contests Past contests Rules

## 1073. Square Country

Time limit: 1.0 second Memory limit: 64 MB

There live square people in a square country. Everything in this country is square also. Thus, the Square Parliament has passed a law about a land. According to the law each citizen of the country has a right to buy land. A land is sold in squares, surely. Moreover, a length of a square side must be a positive integer amount of meters. Buying a square of land with a side a one pays  $a^2$  quadrics (a local currency) and gets a square certificate of a landowner.

One citizen of the country has decided to invest all of his N quadrics into the land. He can, surely, do it, buying square pieces  $1 \times 1$  meters. At the same time the citizen has requested to minimize an amount of pieces he buys: "It will be easier for me to pay taxes," — he has said. He has bought the land successfully.

Your task is to find out a number of certificates he has gotten.

## Input

The only line contains a positive integer  $N \le 60~000$ , that is a number of quadrics that the citizen has invested.

## Output

The only line contains a number of certificates that he has gotten.

## **Sample**

input	output
344	3

**Problem Author:** Stanislav Vasilyev

Problem Source: Ural State University Personal Contest Online February'2001 Students Session

Tags: dynamic programming (hide tags for unsolved problems)

Difficulty: 147 Printable version Submit solution Discussion (53)

All submissions (34571) All accepted submissions (11580) Solutions rating (8747)

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