

Problem A. $2x + 2$

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

bobo has n integers $1, 2, \dots, n$ and uses them to play a game.

He would like to choose a subset S of $\{1, 2, \dots, n\}$ such that for all $x \in S$, $(2x + 2) \notin S$.

Now he is curious about the maximum size of S .

Input

The first line contains an integer n ($1 \leq n < 10^{100}$).

Output

A single integer denotes the maximum size.

Examples

standard input	standard output
4	3
100000000000	6666666667