Next one in the series   P40593_en

Consider the series

$$0,\ 0+1,\ 0+1+2,\ 0+1+2+3,\ 0+1+2+3+4,\ \ldots \quad = \quad 0,\ 1,\ 3,\ 6,\ 10,\ \ldots$$

Write a program that, for every given natural number n, prints the first number of the series greater than or equal to n.

Input

Input consists of a sequence of natural numbers n.

Output

For every n, print the first number of the series $0, 1, 3, 6, \ldots$ that is greater than or equal to n.

Sample input

```
6
7
1
2
```

Sample output

```
6
10
1
3
```

Problem information

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