



## Pascal Triangle

Pascal triangle looks like this:

```
      1
     1 1
    1 2 1
   1 3 3 1
  1 4 6 4 1
 . . . . .
```

The first and the last element of each line are equal to 1, and the other elements are equal to the sum of the two numbers above them.

**Task.** There are given  $N$  matches, which must be distributed into heaps according to the numbers of Pascal triangle.

Write an algorithm to calculate the size of the largest Pascal triangle that can be made from the given matches. The size of triangle is determined by the number of its lines.

Assume that  $N = 13$ . Then the solution must be 3 (7 matches will be used to make 3 lines, and the 6 remaining matches are not enough for the fourth line).

**Examples.**

Input	Output
13	3

**Constraints.**  $1 \leq N \leq 32\,000$ .