Building Pyramid

After 3 years of university, Beo is still FA. So Beo decide to find a girlfriend before graduation. Beo knew that the first impression was very important. Therefore, Beo wants to have an impressive performance in the first meeting with a beautiful girl. Because of upcoming chirstmas, he want to build a pyramid to replace the Christmas tree:

- The top of the pyramid contains one brick.
- 2nd layer has 1 + 2 = 3 bricks.
- 3rd layer has 1 + 2 + 3 = 6 bricksh.
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- nth layer has 1 + 2 + ... + n bricks.

Given the number of bricks Beo has, calculate the maximum number of layers Beo can build.

Input

The first line contains the number n (1 \leq n \leq 10,000) which is the number of bricks

Output

The maximum number of layers that can be build

Example

Input:

1 Output:

1

Input:

25

Output:

4