

1566 - Cannon Balls

Description

When visiting an ancient castle two friends saw cannon. At the foot of it, the bullets spherical shaped bullets are displayed, which are arranged next to each other, forming a regular pyramid with a square base, with a single bullet at the apex (top floor). One of the friends shows that the pyramid is formed by N floors, while the other responds by saying the number of bullets that make it. Can you compute that number?

Input specification

Input consists of several test cases, each one described by a line with a single integer N ($1 \leq N \leq 500$) denoting the number of floors. Input ends with line containing 0.

Output specification

For each test case, output the total number of balls the pyramid consists of.

Sample input

```
1
2
0
```

Sample output

```
1
5
```

Hint(s)

Source

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