K. Pyramids

Program:	pyramids.(cpp|java|py)
Input:	pyramids.in
Balloon Color:	Pink

Description

A pyramids are discovered, each has a triangular base with equal sides. An *n* meters high pyramid is constructed by forming *n* layers of triangles using $1m^3$ cubical stones. Then layers are stacked on top of each other. The first layer is the triangle with *n* meters base, on top, *n*-1 meters base, until the top level which has only 1 stone. You are asked to calculate the number of stones needed to build a pyramid with the height *n*. WAIT!! We just discovered that some pyramids have a secret room inside. This room is also of the same shape and structure as the pyramid with *m* layers of stones removed. In order for the room to be secret, $m < n - 2$.

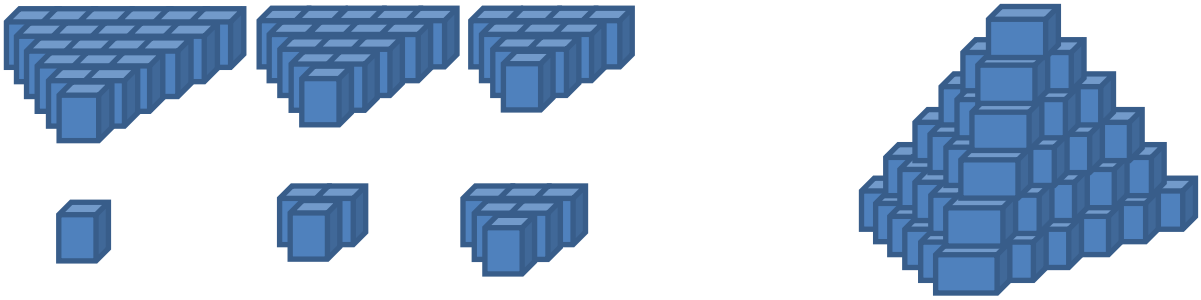

Figure 1. (a) 6 layers of stones, and (b) 6 meters high pyramid.

Example

The total number of stones needed to build a *6* meters high pyramid is = 21 + 15 + 10 + 6 + 3 + 1 = 56. If this pyramid has a *2* meters high secret room, then the total number of stones needed is 56 – 4 = 52.

Input

Each input has two integers, the first represents the pyramid height *n*, and second represents the secret room height *m*. Input is terminated by a sequence having $n = 0$, $m = 0$ which should not be processed.

$1 \le n \le 2000000000$, $0 \le m < n - 2$

Output

For each sequence, you are to output one line, containing the number of stones needed.

Sample Input / Output

rocket.in

```
6 0
6 1
6 2
6 4
100 1
0 0
```

OUTPUT

```
56
55
52
36
46120
```