

Problem BLOQUES: Bloques

Little Joan has N blocks, all of them of different sizes. He is playing to build cities in the beach. A city is just a collection of buildings.

A single block over the sand can be considered as a building. Then he can construct higher buildings by putting a block above any other block. At most one block can be put immediately above any other block. However he can stack several blocks together to construct a building. However, it's not allowed to put bigger blocks on top of smaller ones, since the stack of blocks may fall. A block can be specified by a natural number that represents its size.

It doesn't matter the order among buildings. That is:

```
1 3
2 4
```

is the same configuration as:

```
3 1
4 2
```

Your problem is to compute the number of possible different cities with M buildings using N blocks. We say that $\#(N, M)$ gives the number of different cities of size M with N blocks. If $N=3$ and $M=2$, for instance, there are only three possible cities:

```
City #1:
1
2 3
```

In this city the blocks of size 1 is over the block 2. Block 2 and 3 are over the sand.

```
City #2:
1
3 2
```

In this city the blocks of size 1 is over the block 3. Block 2 and 3 are over the sand.

```
City #3:
2
3 1
```

In this city the blocks of size 2 is over the block 3. Block 1 and 3 are over the sand.

Input

The input contains several test cases. Each test case is given in one line, containing N and M ($0 < M \leq N \leq 25$). Input is ended with $N = 0$ and $M = 0$.

Output

For every test case a line with the number of possible cities C . You may safely assume that C is less than 2^{63} .

Sample Input 1

```
3 2
4 2
0 0
```

Sample Output 1

```
3
7
```