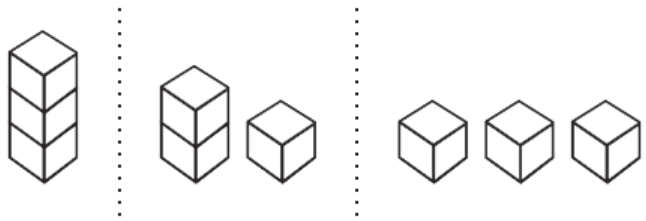
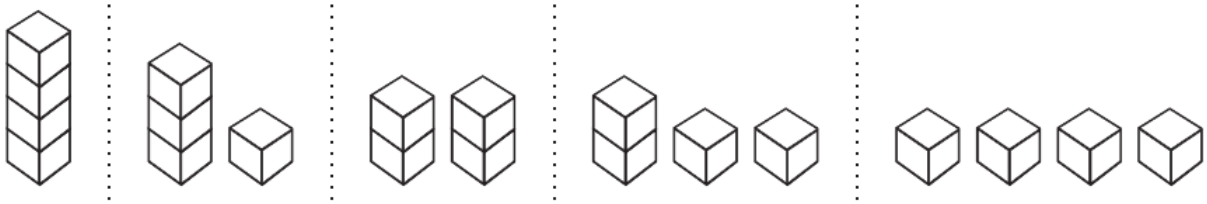
3247 Indistinguishable Blocks

In how many ways can you arrange N identical blocks (cubes) into piles. For example, for $N = 3$ there are three arrangements:



Remember, the blocks are identical. For $N = 4$ there are 5 arrangements:



Write a program that determines how many arrangements exist for a given N.

Input

Your program will be tested on one or more test cases. Each test case will be specified as a single natural number (denoting N, the number of indistinguishable blocks) on a separate line.

The end of the test cases is identified by a negative number (which is not part of the test cases).

Note that $0 \leq N \leq 120$.

Output

For each test case, your program should print the result using the following format:

N `=>` P

Where N is the number of indistinguishable blocks for the test case, and P is the result.

Sample Input

```
1
3
5
-1
```

Sample Input

```
1 => 1
3 => 3
5 => 7
```