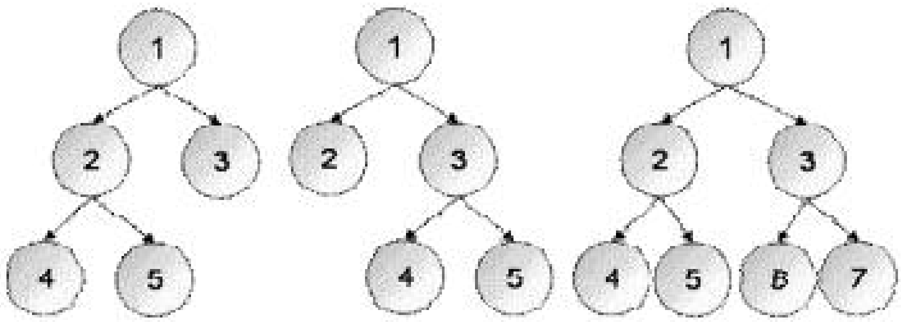
# 10516 Another Counting Problem

Tree is an important data structure in Computer Science. Of all trees we work with, Binary Tree is probably the most popular one. A Binary Tree is called *Strictly Binary Tree* if every nonleaf node in a binary tree has nonempty left and right subtrees. Let us define a *Strictly Binary Tree of depth* $d$, as a *Strictly Binary Tree* that has at least one root to leaf path of length $d$, and no root to leaf path in that tree is longer than $d$. So let us use a similar reasoning to define a generalized structure.

A $n$-ary Tree is called *Strictly* $n$*-ary Tree* if every nonleaf node in a $n$-ary tree has $n$ children each. A *Strictly* $n$*-ary Tree of depth* $d$, then can be defined as a *Strictly* $n$*-ary Tree* that has at least one root to leaf path of length $d$, and no root to leaf path in that tree is longer than $d$.

Given the value of $n$ and depth $d$, your task is to **find the number of different strictly** $n$**-ary trees of depth** $d$.

The figure below shows the 3 different strictly binary trees of depth 2.




## Input

Input consists of several test cases. Each test case consists of two integers $n$ ($0 < n \leq 32$), $d$ ($0 \leq d \leq 16$). Input is terminated a test case where $n = 0$ and $d = 0$, you must not process this test case.

## Output

For each test case, print three integers, $n$, $d$ and the number of different strictly $n$-ary trees of level $d$, in a single line. There will be a single space in between two integers of a line. You can assume that you would not be asked about cases where you had to consider trees that may have more than $2^{10}$ nodes in a level of the tree. You may also find it useful to know that the answer for each test case will always fit in a 200 digit integer.

## Sample Input

```
2 0
2 1
2 2
2 3
3 5
0 0
```

## Sample Output

```
2 0 1
2 1 1
2 2 3
2 3 21
3 5 58871587162270592645034001
```