How Many Trees?

Time Limit: 1 Second      Memory Limit: 32768 KB

The balanced binary tree is defined recursively as follows:  
  
1. The difference in the depth of its left child tree and right child tree is at most 1.  
  
2. Its left child tree is a balanced binary tree.  
  
3. Its right child tree is also a balanced binary tree.

Now it is your job to calculate the number of balanced binary trees with given number of nodes and leaves.

**Input**  
  
The input consists of multiple tests. Each test consists of 2 numbers n and m in a single line, the number of the nodes and the number of leaves. (0 < m <= n <= 20)

**Output**  
  
The number of balanced binary trees which have exactly n nodes and m leaves.

**Sample Input**  
  
5 2  
15 9

**Sample Output**  
  
4  
0

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