

10446 The Marriage Interview ;-)

Tanbir has recently got married with Nupa. But the steps prior to this event were not easy. He had to submit a novel like curriculum vitae and also he had to face a long interview. A senior computer engineer from the brides family took the interview. Just before the interview Tanbir solved a lot of problems from Valladolid Site and many packing problems of Erich Friedman and did well on most parts of the interview. But he had a tough time solving a different type of problem. It may be mentioned that Tanbir loved (!) to solve Geometric (Problem-setter of Problem H of this contest) and Parsing Problems. After the interview Tanbir went to one of his problem-setter friends to discuss about the problem. Tanbir and his so-called veteran problem-setter friend solved that problem correctly (hopefully) in seven days and thirteen nights (!). Now here is that problem for you (Who knows you may have to face a similar interview on a similar occasion in near future!!! Very few of you may arrange such an interview).

You can see a function named `trib()` below. This function is called with two-integer parameter from `main()` function.

```

/*
__int64 is a 64-bit integer data type in Visual C++. So the
following code was written in Visual C++.
*/
typedef unsigned __int64 datatype;
datatype count;

datatype trib(int n, unsigned int back)
{
    datatype sum=0;
    int i;
    count++;
    if(n<=0) return 0;
    if(n==1) return 1;
    for(i=1;i<=back;i++)
        sum+=trib(n-i,back);
    return sum;
}

void main(void)
{
    count=0;
    trib(5,5);
    printf(" %I64u\n" ,count);
}

```

If you test you will find that the function `trib()` is invoked 41 times when it is called from the main function as `trib(5, 5)`. You will have to determine the number of times the function is invoked for different values of n and $back$.

Input

The input file contains several lines of input. Each line contains two integers n ($n \leq 61$) and $back$ ($back \leq 60$)

Output

For each line of input produce one line of output. This line contains the case number and then an integer which denotes the number of times the `trib()` function is invoked for the corresponding input values of n and $back$. Input is terminated by a case where the value of n is greater than 60. This line should not be processed.

Sample Input

```
3 3
4 4
5 5
6 6
7 7
8 8
9 9
61 61
```

Sample Output

```
Case 1: 7
Case 2: 17
Case 3: 41
Case 4: 97
Case 5: 225
Case 6: 513
Case 7: 1153
```