

## D. Inversion Value of a Permutation

time limit per test: 3 seconds

memory limit per test: 512 megabytes

A permutation of length  $n$  is an array of  $n$  integers, where each number from 1 to  $n$  appears exactly once. An *inversion* in a permutation  $p$  is a pair of indices  $(i, j)$  such that  $i < j$  and  $p_i > p_j$ .

For a permutation  $p$ , we define its *inversion value* as the number of its subsegments that contain at least one inversion. Formally, this is the number of pairs of integers  $(l, r)$  ( $1 \leq l < r \leq n$ ) for which there exists a pair of indices  $(i, j)$  satisfying the following conditions:  $l \leq i < j \leq r$  and  $p_i > p_j$ .

For example, for the permutation  $[3, 1, 4, 2]$ , the inversion value is 5.

You are given two integers  $n$  and  $k$ . Your task is to construct a permutation of length  $n$  with an **inversion value equal to exactly  $k$** .

### Input

The first line contains one integer  $t$  ( $1 \leq t \leq 500$ ) — the number of test cases.

Each test case consists of a single line containing two integers  $n$  and  $k$  ( $2 \leq n \leq 30$ ;

$$0 \leq k \leq \frac{n(n-1)}{2}).$$

### Output

For each test case, output the answer as follows:

- if the desired permutation does not exist, output a single integer 0;
- otherwise, output  $n$  distinct integers from 1 to  $n$  — the desired permutation. If there are multiple such permutations, you may output any of them.

### Example

input	Copy
5 4 5 5 10 5 0 6 8 3 1	
output	Copy
3 1 4 2 5 4 3 2 1 1 2 3 4 5 2 3 5 6 1 4 0	


### **Educational Codeforces Round 183 (Rated for Div. 2)**

**Contest is running**

01:39:33

Contestant


 → **Submit?**

 Language: GNU G++20 13.2 (64 bit, v )

 Choose file:  

