D: Combination Lock

You are trying to access a secret room in a high-security building, but the room's door is locked with a number of combination locks. Each lock has a number of wheels n, where each wheel has a highest digit d. The correct combination for each lock is a sequence of n digits consisting of the numbers 0 up to and including d. Write a program that outputs all possible combinations for each given lock, in numerically increasing order of the combinations.

Input

The first line in the test data file contains the number of test cases. Each test case consists of an integer n, the number of wheels ($1 \leq n \leq 5$), and the integer d, the highest digit on the wheel ($0 \leq d \leq 9$), separated by a space.

Output

For each test case, output all possible combinations for the lock in numerically increasing order. Each combination should be on a separate line.

Sample Input

```
2
1 6
2 1
```

Sample Output

```
0
1
2
3
4
5
6
00
01
10
11
```