Pyramids

Remember the pyramid problem from PL1 where you need to print a pyramid with '*' characters? We got the same problem here with 2 types of pyramids. In the images below there are two types of pyramids with 4 steps. The first type is top to bottom and the second type is its reverse.

```
      *                    *******
     ***                    *****
    *****                    ***
   *******                    *
Type 1: top to bottom    Type 2: bottom to top
```

Now given the number of steps **N** and the type **T** print a type **T** pyramid with **N** steps.

Input

Input starts with an integer **X** (≤ 50), denoting the number of test cases.

Each case contains two integers **N** and **T** where N ($1 \leq N \leq 20$) denotes the number of steps and T ($1 \leq T \leq 2$) denotes the type of the pyramid.

Output

For each test case print N lines containing only '*' and required spaces to form the pyramid. Do not print extra unnecessary characters.

Example

Input:
```
2
3 2
4 1
```

Output:
```
*****
 ***
  *
   *
  ***
 *****
*******
```

P.S. Contest is going on. Problem will be moved to tutorial section after the contest.