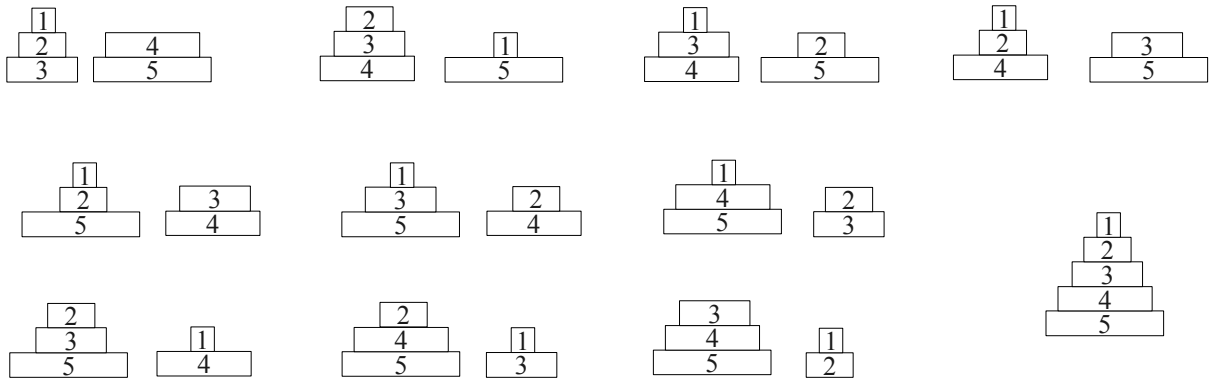
Problem C
Piles

Time Limit: 1 second.

You have **N** dishes. They are all in different sizes. For **1 <= i <= N**, dish **i** has diameter **i** inches. You want to stack them into piles. Clearly larger dishes cannot be put on top of smaller ones. You don't want piles with too few dishes, so you want each pile to have at least **K** dishes.

How many ways can you do that?

Consider an example when you have 5 dishes, and you want each piles to have at least 2 dishes. The figure below show all 11 possible ways to do that.



Note that piles are not distinguishable. (For example, if you look at the above combinations, swapping the first and the second piles of each combination does not produce a new combination.)

Input
The first line of the input denotes an integer **T**, the number of test cases (**1 <= T <= 20**). Then **T** test cases follow.

Each test case contains only one line of the input. In that line, there are two integers **N** and **K** (**1 <= N <= 100; 1 <= K <= N**).

Output
For each test case, your program should output the number of ways you can stack the dishes **modulo** 9871.

(Please turn for an example.)

Example

Input	Output
5 5 3 5 2 6 2 20 10 30 5	1 11 41 3540 8903

Remark: In case 4, the number of ways to stack the dishes is 92379. 3540 is 92379 modulo 9871.