

Black and White beads

Well its now time for some serious task . There are lots of beads available and in two colours , namely white and black . So there are many beads of both the colours . One has to make a string of beads by joining beads with end to end . But there are some constraint , and you have to follow that constraint. While making beads , you have to make sure that there should not be K beads of black colour consecutively and also there should not be any bead string which has black bead in front ,i.e it must have white bead in front . So the task is quite simple , find all possible ways of making a string of bead of length N which satisfies the above constraint .

Input:

The first line of the input contains an integer T denoting the number of test cases. The description of T test cases follows.

Output:

Next T lines contains 2 integers N and K.

Print a line for each test case containing the required answer modulo 1000000007.

Constraints :

$$1 \leq T \leq 1000000$$

$$1 \leq N \leq 10000$$

$$1 \leq K \leq 100$$

Sample Input :

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3
2 3
2 1
3 4
2
1
4
```

Explanation :

For Sample test case 1 , N=2 and K=3 , so as 3 beads of black colour should not present we have white-white , white-black.

Note black-white is not the valid one so in this case the answer is 2.