

# Ones and Twos

You are using at most **A** number of 1s and at most **B** number of 2s. How many different evaluation results are possible when they are formed in an expression containing only addition `+` sign and multiplication `*` sign are allowed?

Note that, multiplication takes precedence over addition.

For example, if **A=2** and **B=2**, then we have the following expressions:

- `1` , `1*1` = 1
- `2` , `1*2` , `1*1*2` , `1+1` = 2
- `1+2` , `1+1*2` = 3
- `2+2` , `2*2` , `1+1+2` , `1*2*2` , `1*1*2*2` , `1*2+1*2` , `1*1*2+2` , `1*2+2` = 4
- `1+2+2` , `1+1*2+2` = 5
- `1+1+2+2` , `1+1+2*2` = 6

So there are 6 unique results that can be formed if A = 2 and B = 2.

## Input Format

The first line contains the number of test cases T, T testcases follow each in a newline. Each testcase contains 2 integers A and B separated by a single space.

## Constraints

$1 \leq T \leq 10^5$   
 $0 \leq A \leq 10000000000$   
 $0 \leq B \leq 1000$

## Output Format

Print the number of different evaluations modulo (%) ( $10^9+7$ .)

## Sample Input

```
4
0 0
2 2
0 2
2 0
```

## Sample Output

```
0
6
```

**Explanation**

- When  $A = 0$ ,  $B = 0$ , there are no expressions, hence 0.
- When  $A = 2$ ,  $B = 2$ , as explained in the problem statement above, expressions leads to 6 possible solutions.
- When  $A = 0$ ,  $B = 2$ , we have  $2$ ,  $2+2$  or  $2*2$ , hence 2.
- When  $A = 2$ ,  $B = 0$ , we have  $1$  or  $1*1$ ,  $1+1$  hence 2.