

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.

Output Format

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

Constraints

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

Sample Input

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

Sample Output

```
0
6
2
2
```

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.