

# Project Euler #181: Investigating in how many ways objects of two different colours can be grouped.

This problem is a programming version of [Problem 181](#) from [projecteuler.net](#)

Having three black objects  $B$  and one white object  $W$  they can be grouped in 7 ways like this:  $\{(BBBW), (B, BBW), (B, B, BW), (B, B, B, W), (B, BB, W), (BBB, W), (BB, BW)\}$ .

In how many ways can  $n$  black objects  $B$  and  $m$  white objects  $W$  be thus grouped?  
Print the answer after taking modulo by  $(10^9 + 7)$ .

## Input Format

The first line of each testcase contains an integer  $q$ . Each of following  $q$  lines contain two integers  $n$  and  $m$  which is the number of black and white objects respectively.

## Constraints

- $1 \leq q \leq 30000$
- $0 \leq n, m \leq 160$
- $1 \leq n + m$

## Output Format

Print exactly  $q$  lines, each containing a single integer which is the answer to the corresponding test modulo  $10^9 + 7$ .

## Sample Input 0

```
1
3 1
```

## Sample Output 0

```
7
```