

Placing Coins on a Grid

In how many ways can R coins be placed on an $N * M$ grid such that each row and each column have atleast 1 coin ?

Input :

The first line contains the number of test cases T. T lines follow containing 3 integers: N,M and R.
($1 \leq T \leq 100$. $1 \leq N,M \leq 200$. $1 \leq R \leq N * M$)

Output :

Output T lines, one for each test case, containing the output for the corresponding test case.
Output all values modulo 1000000007

Sample Input :

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

Sample Output :

```
1
0
6
```