Problem A - Apple Balloons

It's nearing the end of 490, so its time to celebrate! Daniel has bought a whole lot of balloons in the shape of apples to put on the wall to liven things up. The balloons are red blue and green.

David is helping Daniel stick the balloons all in a row along the wall, and was wondering how many different ways there are of putting all of Daniel's balloons all in a row. Two ways of putting up balloons are considered different if they differ in colour at some position.

Since this number can be very big, output it modulo 1000000007.

Input

The first line contains a single integer T denoting the number of test cases.

Each test case consists of two integers R, B, G ($0 \leq R, B, G \leq 100,000$) denoting the number of red blue and green balloons respectively.

Output

For each test case, output the number of different ways to put up the balloons.

Sample Input

```
5
0 1 0
1 0 1
3 3 3
3 1 4
4 9 0
```

Sample Output

```
1
2
1680
280
715
```