Problem F: Finding Paths
Time Limit: 5 seconds

Description

Compute the number of paths in 3D caretesian space from *(0, 0, 0)* to *(n, m, k)*, where n, m, k are
positive integers, such that each step consist of going from *(x, y, z)* to one of
{(x+1, y+1, z+1), (x, y+1, z+1), (x+1, y, z+1), (x+1, y+1, z), (x+1, y, z), (x, y+1, z), (x, y, z+1)}.
Additionally, in at least one of the steps in each path, we end up going from *(x, y, z)* to one of
{(x+1, y+1, z+1), (x, y+1, z+1), (x+1, y, z+1), (x+1, y+1, z)}.

Input

A number of of inputs (≤**200**), with *n, m, k* on each line separated by a single space,
such that $0 < n, m, k \leq 1000$.

Output

For each input, output the number of paths modulo **1000000007**.

Sample Input
1 1 1
1 2 3

Sample Output
7
179