

2756 - Gifts for Jerry

Description

GusGus wants to give Jerry a new coat able to withstand a temperature of at most t ($0 \leq t \leq 10^9$) degrees, so he can go through the tunnels that have been built under the house of Tom. The tunnels always connect two ladders, which allow to go up to ground level. The tunnels may be traversed in either direction and each has a set temperature T_i ($1 \leq T_i \leq 10^9$) due to the depth to which it is, ensures that all the tunnels will have different temperatures. Travelling through a tunnel with a temperature higher than supported by the protective coat can cause death.

Jerry when moving through the tunnels always travels along a path in which the maximum temperature of the road is as small as possible, so he asks for help from you. He wants to know the number of different ways in which you can travel avoiding death. To simplify matters, the task takes into account only the beginning and the end of a road.

Input specification

The input consists of a number of cases, each case starts with an integer M ($1 \leq M \leq 10^5$) representing the number of tunnels that exist, the following M lines contain three integers X, Y, T_i the description of a tunnel between the ladders X and Y with a temperature of T_i degrees, $1 \leq X, Y \leq 2^{15}$. The next line contains a number Q ($1 \leq Q \leq 10^5$), the number of coats in the closet of GusGus, followed by Q lines with the temperature each coat can protect from.

Output specification

For each coat S answer how many pairs $\langle A, B \rangle$ ($A < B$) of ladders Jerry can select such that there is a path from the ladder A to the ladder B that Jerry can take if GusGus gives him the layer S .

Sample input

5
1 2 1
1 3 5
1 4 4
2 3 2
3 4 3
3
10
2
1

Sample output

6
3
1

Hint(s)

Source	José Carlos González Fernández
Added by	jcfernandez
Addition date	2014-03-13
Time limit (ms)	60000
Test limit (ms)	6000
Memory limit (kb)	65536000
Output limit (mb)	64
Size limit (bytes)	15000
Enabled languages	Bash C C# C++ C++11 Java JavaScript-NodeJS Pascal Perl PHP Prolog Python Ruby Text