

Round A APAC Test 2016

[A. Googol String](#)

[B. gCube](#)

C. gCampus

[D. gSnake](#)

[Questions asked](#)

Submissions

Googol String

7pt Not attempted
2083/5209 users
correct (40%)

12pt Not attempted
957/1730 users
correct (55%)

gCube

8pt Not attempted
1557/2234 users
correct (70%)

16pt Not attempted
855/1488 users
correct (57%)

gCampus

10pt Not attempted
493/1232 users
correct (40%)

15pt Not attempted
227/482 users
correct (47%)

gSnake

13pt Not attempted
121/629 users
correct (19%)

19pt Not attempted
41/88 users correct
(47%)

Top Scores

cebrusfs	100
sgtlaugh	100
usaxena95	100
akovski	100
NAFIS	100
liuyibo1994	100
dtyfc	100
Legendks	100
Shaon	100
jki14	100

Problem C. gCampus

This contest is open for practice. You can try every problem as many times as you like, though we won't keep track of which problems you solve. Read the [Quick-Start Guide](#) to get started.

Small input
10 points

Solve C-small

Large input
15 points

Solve C-large

Problem

Company G has a main campus with **N** offices (numbered from 0 to **N** - 1) and **M** bidirectional roads (numbered from 0 to **M** - 1). The *i*th road connects a pair of offices (*U_i*, *V_i*), and it takes *C_i* minutes to travel on it (in either direction).

A path between two offices *X* and *Y* is a series of one or more roads that starts at *X* and ends at *Y*. The time taken to travel a path is the sum of the times needed to travel each of the roads that make up the path. (It's guaranteed that there is at least one path connecting any two offices.)

Company G specializes in efficient transport solutions, but the CEO has just realized that, embarrassingly enough, its own road network may be suboptimal! She wants to know which roads in the campus are *inefficient*. A road is inefficient if and only if it is not included in **any** shortest paths between **any** offices.

Given the graph of offices and roads, can you help the CEO find all of the inefficient roads?

Input

The first line of the input gives the number of test cases, **T**. **T** test cases follow. Each case begins with one line with two integers **N** and **M**, indicating the number of offices and roads. This is followed by **M** lines containing three integers each: **U_i**, **V_i** and **C_i**, indicating the *i*th road is between office **U_i** and office **V_i**, and it takes **C_i** minutes to travel on it.

Output

For each test case, output one line containing "Case #x:", where *x* is the test case number (starting from 1). Then output the road numbers of all of the inefficient roads, in increasing order, each on its own line. (Note that road 0 refers to the first road listed in a test case, road 1 refers to the second road, etc.)

Limits

$0 < C_i \leq 1000000$.

Small dataset

$1 \leq T \leq 10$.
 $1 \leq N = M \leq 100$.

Large dataset

$1 \leq T \leq 3$.
 $1 \leq N \leq 100$.
 $1 \leq M \leq 10000$.

Sample

Input	Output
2	Case #1:
3 3	0
0 1 10	Case #2:
1 2 3	
2 0 3	
3 3	
0 1 10	
1 2 3	
2 1 3	

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