# Problem C – Connecting cities

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New government decided to build new roads to improve connections between the cities in the state. After some research, a set of roads were proposed and approved for construction.

Governor of the state wants to make possible to reach any city from another using only the new roads. Years after the construction, inhabitants started to complain that it was not possible to reach their destination without using old roads that are in a very bad shape. Worried about the complaints the inhabitants have brought, the governor decided to hire a new team to solve the problem, they suggested to build more roads. They assure that the new roads will help him to achieve his purpose of connecting all cities with new roads, but the governor is in doubt, the first team assured the same thing and today inhabitants are not happy. Governor has already spent a lot of money building roads and advertising them, so they have a low budget to build all the roads in the new plan. You were hired to help government to find what roads from the new team proposal should be built in order that all cities can be reached using the roads in the state spending the less amount of money.

## Input

The first line of the input contains a single integer $T$ ($1 \leq T \leq 10$), the number of test cases. Each test case starts with a line that contains a single integer $N$ ($1 \leq N \leq 10^4$), representing the number of cities in the state. The next line contains a number $C$ ($1 \leq C \leq 10^5$), the number of roads that are currently built in the state. Each of the next $C$ lines contain three integer numbers separated by space $a_i$, $b_i$, and $v_i$, indicating that a road exists between cities $a_i$ and $b_i$ ($1 \leq a_i, b_i \leq N, a_i \neq b_i$) and the cost when it was built was $v_i$ ($1 \leq v_i \leq 10^6$). The next line contains an integer $P$ ($1 \leq P \leq 10^5$), representing the number of roads in the new proposal, the next $P$ lines contain three integer numbers separated by a space $c_j$, $d_j$, $u_j$, representing that there is a proposal to build a road between cities $c_j$ and $d_j$ ($1 \leq c_j, d_j \leq N, c_j \neq d_j$) with a cost of $u_j$ ($1 \leq u_j \leq 10^6$).

## Output

For each test case in the input, print a line with a single integer, the amount of money that needs to be spent in order to connect all the cities if such way exists. If there is no way to connect all the cities with the given proposal, print a line with the text "You better hire someone else". If not a single road needs to be built to connect the cities print a line with the text "Thank you, Goodbye".

| **Sample input 1** | **Sample output 1** |
|---|---|
| 1<br>5<br>4<br>1 2 5<br>2 3 5<br>3 1 1<br>4 5 1<br>4<br>5 1 1<br>5 2 1<br>3 4 1<br>5 2 2 | 1 |