UVa Online Judge

11090 Going in Cycle!!

You are given a weighted directed graph with n vertices and m edges. Each cycle in the graph has a weight, which equals to sum of its edges. There are so many cycles in the graph with different weights. In this problem we want to find a cycle with the minimum mean.

Input

The first line of input gives the number of cases, N. N test cases follow. Each one starts with two numbers n and m. m lines follow, each has three positive number a, b, c which means there is an edge from vertex a to b with weight of c.

Output

For each test case output one line containing `Case #`x`:` followed by a number that is the lowest mean cycle in graph with 2 digits after decimal place, if there is a cycle. Otherwise print `No cycle found.`.

Constraints

- $n \leq 50$
- $a, b \leq n$
- $c \leq 10000000$

Sample Input

```
2
2 1
1 2 1
2 2
1 2 2
2 1 3
```

Sample Output

```
Case #1: No cycle found.
Case #2: 2.50
```