

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
```