Warehouse

100points | 10sec

Standard API: C++, C, Java, Python3

You plan to build a warehouse in one of the N factories that produce the products to manage the products. The closer the factory is to the warehouse, the better, because the products must be moved quickly to the warehouse. You are going to build a warehouse in a place where the distance between the warehouse and the farthest factory is as close as possible.

[Requirements]

There can be up to one road between factories, and it would be a two-way road. The products can be moved only by road and they are moved to the shortest distance. Where, the shortest distance is when traveling from Factory A to Factory B, if it is shorter to go to A□C□B than to A□B directly, then they travel through Factory C.

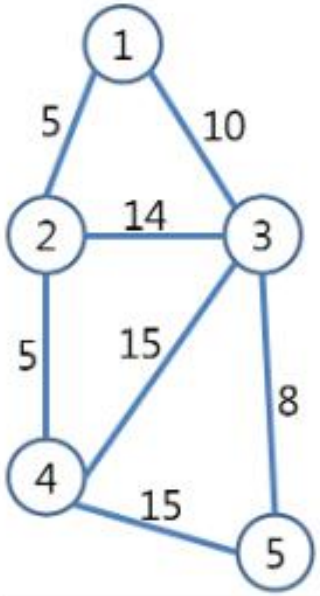
Value range

Number of factories N (N = natural number, $5 \leq N \leq 100$)

Number of road information M (M = natural number, $5 \leq M \leq N * (N - 1) / 2$)

Distance from Factory A to Factory B D (A and B = natural numbers, $1 \leq A,B \leq N$), (D = natural number, $1 \leq D \leq 100$)

For example, if N = 5, M = 7, and the road information is as shown below:



Location of the warehouse	1	2	3	4	5
1	0	5	10	10	18
2	5	0	14	5	20
3	10	14	0	15	8
4	10	5	15	0	15
5	18	20	8	15	0

The parts shown in red are the factories that are the farthest when building a warehouse in each location. A row represents a location of the warehouse and a column represents the distance between the warehouse and the factory.

If the warehouse is built in Location 1, the distance from Factory 5 is the longest at 18. distance from Factory 5 is the longest at 20. If the warehouse is built in Location 2, the If the warehouse is built in Location 5, the distance from Factory 2 is the longest at 20.

If the warehouse is built in Locations 3 or 4, the distance from the farthest factory is 15, which is shorter than building it in another location.

Output the number of factories N, the number of road information M and the distance from the farthest factory when the warehouse is built in the best location with M number of road information given.

[Input format]

In the first line, enter the number of factories N (N = natural number, $5 \leq N \leq 100$) and the number of road information M (M = natural number, $5 \leq M \leq N * (N-1) / 2$) separated by spaces.

From line 2 to line M, enter the distance D (D = natural number, $1 \leq D \leq 100$) between Factory A (A = natural number, $1 \leq A \leq N$) and Factory B (B = natural number, $1 \leq B \leq N$) separated by spaces.
(It is a two way road, and ensure all factories are connected).

[Output format]

Output the distance from the farthest factory when the warehouse is built in the best location.

Input/Output Example

␣ : Blank ↲ : Line Break ⇆ : Tab

Example 1

Input

```
5␣7↲
1␣2␣5↲
3␣2␣14↲
2␣4␣5↲
1␣3␣10↲
4␣3␣15↲
5␣4␣15↲
3␣5␣8
```

Output

```
15↲
```

※ Please keep the input and output formats carefully