
Just Dijkstra

P30288_en

Examen final d'Algorísmia, FME (2013-01-15)

Write a program to compute the minimum cost to go from one vertex to each of the vertices of a given directed graph with positive costs at the arcs.

Input

Input consists of several cases. Every case begins with the number of vertices n and the number of arcs m , followed by m triples $x y c$, to indicate an arc from x to y with cost c . Assume $2 \leq n \leq 10^4$, $0 \leq m \leq 5n$, that vertices are numbered from 0 to $n - 1$, $x \neq y$, that for every pair $x y$ there is at most one arc in each direction, and that all costs c are natural numbers between 1 and 10^4 .

Output

For every case, print the minimum cost to go from vertex 0 to the rest of vertices, in order from 1 to $n - 1$. If there is no path to some vertex, print "no". Print a line with 10 dashes at the end of every case.

Sample input

```
4 3
0 1 100
0 3 200
1 3 50

2 1
1 0 10000
```

Sample output

```
100
no
150
-----
no
-----
```

Problem information

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