



OOM 2019 Assignment 1

Oct 05, 2019, 07:10 PM IST - Oct 29, 2019, 07:10 PM IST

INSTRUCTIONS

PROBLEMS

SUBMISSIONS

LEADERBOARD

ANALYTICS

JUDGE

[← Problems](#) / Travellers

Travellers

Max. Marks: 5

This problem is no longer available for practice. Apology for any inconvenience!

A traveller has a name and may be of the following types. The cost of using a particular edge (if possible, for the traveller) is the length of road upon the effective speed times the weight mentioned in each category. The effective speed will be the minimum of the one used in Q1 and the speed limit of the traveller.

- Motorist, who can only use motorways. The weight of motorways is 1.
- Swimmers, who can use all types of roads. The weight associated with motor road is 3, pedestrian is 2, cyclist is 2, swamps is 3 and lakes is 1.
- Cyclists, who can use motorways, pedestrian roads and cyclist roads. The weight associated with motor road is 2, pedestrian is 3 and cyclist is 1.
- Old walkers, who are old people and therefore walk cautiously. They can only take pedestrian roads and motorways. The weight of pedestrian ways is 1 and motorways is 5.
- New walkers. They can use all types of roads but lakes. The weight associated with motor road is 3, pedestrian is 1, cyclist is 2, and swamps is 4.

RECENT SUBMISSIONS



DEVELOPERS	RESULT	LANGUAGE
Akhil		Java 8
Ananya Mohanty		Java 8
Ankit Kumar		Java 8
Ankit Kumar		Java 8
Om1621		Java 8
Om1621		Java 8
Ajay Kumar Rahul...		Java 8

[View All](#)





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Given a traveller, print all the roads that the traveller can take.

Input Format: Followed from question 1. Every test case additionally has q , the number of queries. Every query specifies a traveller name, maximum traveller speed and traveller type.

Output Format: For every traveller, print all the edges in the order explained in $q1$, except the tie breaker. The sorting will be as per the new cost (primary criterion) and edge name (secondary criterion).

Two costs (a and b) are stated as equal based on a precision till the 4th place of decimal, i.e. $a=b$ iff $\text{abs}(a-b)<0.0001$

SAMPLE INPUT  	SAMPLE OUTPUT  
1	5iqa2 f277m 4w53p 17 5 9
6	f277m 19rvd d9o84 16 29 205 2 5
f277m 19rvd motorway d9o84 16	118
29 205 2 5 118	f277m 5iqa2 4w53p 17 5 9
19rvd f277m cyclistRoad mrejo	f277m 19rvd mrejo 29 5 6
29 5 6	19rvd f277m d9o84 16 29 205 2 5
f277m 19rvd lakes voldp 86 1 5	118
1 15	19rvd f277m mrejo 29 5 6
19rvd 5iqa2 swamps gvwey 42 6 3	f277m 19rvd d9o84 16 29 205 2 5
5iqa2 f277m cyclistRoad 4w53p	118
17 5 9	19rvd f277m d9o84 16 29 205 2 5
5iqa2 19rvd swamps m8ig7 29 6 3	118
3	f277m 19rvd d9o84 16 29 205 2 5
e0hjp 6 cyclist	118
0h2yg 25 motorist	19rvd f277m d9o84 16 29 205 2 5
enhnd 2 oldWalker	118

Time Limit:	5.0 sec(s) for each input file.
Memory Limit:	256 MB
Source Limit:	1024 KB
Marking Scheme:	Marks are awarded if any testcase passes.
Allowed Languages:	Java 8

CODE EDITOR

Enter your code or [Upload your code](#) as file.

Java 8 (oracle 1.8.0_131)



Save

```
--
66     this.type = type;
67 }
68
69 int getLengthOfRoad() {
70     return LengthOfRoad;
71 }
72
73 void setLengthOfRoad(int lengthOfRoad) {
74     LengthOfRoad = lengthOfRoad;
75 }
76
77 int getSpeedOfRoad() {
78     return SpeedOfRoad;
79 }
80
81 void setSpeedOfRoad(int speedOfRoad) {
82     SpeedOfRoad = speedOfRoad;
83 }
84
85 double getCost() {
86     return cost;
87 }
88
89 }
```

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1:1

💡 *Press Ctrl-space for autocomplete suggestions (accuracy dependent on connection stability).*

☒ Provide custom input

COMPILE & TEST

SUBMIT

Your Rating: ★★★★★

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Site Language: English

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