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SPOJ Problem Set (classical)

7975. Tri graphs

Problem code: ACPC10D

👍 12

Here's a simple graph problem: Find the shortest path from the top-middle vertex to the bottom-middle vertex in a given tri-graph. A tri-graph is an acyclic graph of ($N \geq 2$) rows and exactly 3 columns. Unlike regular graphs, the costs in a tri-graph are associated with the vertices rather than the edges.
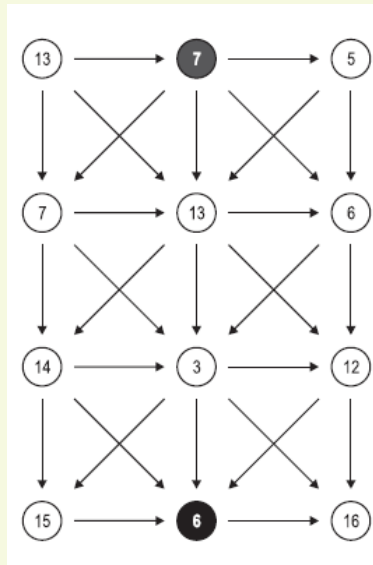
So, considering the example with N = 4, the cost of going straight down from the top to bottom along the middle vertices is 7 + 13 + 3 + 6 = 29. The layout of the directional edges in the graph are always the same as illustrated in the figure.

Input

Your p... **Time for a new job?**

Each test case is specified using N + 1 lines where the first line specifies a single integer ($2 \leq N \leq 100,000$) denoting the number of rows in the graph. N lines follow, each specifying three integers representing the cost of the vertices on the ith row from left to right. The square of each cost value is less than 1,000,000.
The last case is followed by a line with a single zero.

Output

For each test case, print the following line:
k. n
Where k is the test case number (starting at one,) and n is the least cost to go from the top-middle vertex to the bottom-middle vertex.

Example

```
Input:
4
13 7 5
7 13 6
14 3 12
15 6 16
0

Output:
1. 22
```

Added by:	Omar ElAzazy
Date:	2010-11-30
Time limit:	2s
Source limit:	50000B
Memory limit:	256MB
Cluster:	Pyramid (Intel Pentium III 733 MHz)
Languages:	All
Resource:	ACPC 2010

hide comments

2014-08-24 00:33:50 **akhil appana**
someone please help me,my program runs fine on my ide and passes all test cases.

2014-08-24 00:33:08 **akhil appana**
no matter how hard i try, can't get rid of the runtime error

2014-08-24 00:32:12 **akhil appana**
http://ideone.com/0TMFH7
i'm getting a runtime error

2014-08-23 16:16:39 **Shaktiman**
Just do MISERMAN before it and then try this. So simple

2014-08-06 03:42:36 **Darren Sun**
Additional testcases in the comments are useful.

2014-07-30 11:59:49 **Varun Gambhir**
Awesome question.Learnt something new!

2014-07-25 20:27:34 **Sudarshan K**
This output rule is stupid :P

2014-07-16 08:25:26 **Sachin Malhotra**
Guys take care of the -ve values..^^

2014-07-06 20:21:18 **WA/TLE**
i submitted my solution got TLE submit it again got AC :O

2014-06-25 18:51:24 **sobriquet**
Output format cost me 1 WA :-).
A simple dp problem, without any graph approach.

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