

## 4967 Tri graphs

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 on the right 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 program will be tested on one or more test cases. 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  $i$ th 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:

$k.\lfloor n$

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.

### Sample Input

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

### Sample Output

```
1. 22
```

