

Runtime < 0.5 sec, Mem limit < 200MB

At **RGB Village**, there are N houses.

Suppose we have to color each house in the village with Red, Green or Blue.

Each house can be colored with only one color and all houses have to be colored.

Provided the varying costs of coloring one house with 3 different options for each house(in each row in the input below) , your task is to compute the minimum total cost of coloring all houses in the **RGB Village**.

There are three rules that you must follow in coloring each house:

1. The first house and the second cannot be colored with the same color.
2. i-th house and i-1th house may not have the same color.
3. The color of the i-th house, where  $(2 \leq i \leq N-1)$ , cannot be the same as that of the i-1th and/or i+1th house.

You may assume that  $0 \leq N \leq 1000$ .

```
3
25 40 83
49 60 57
13 89 99
```

(95)

```
3
1 10 10
10 1 10
10 10 1
```

(3)

```
3
1 10 10
10 10 10
1 10 10
```

(12)

```
6
30 19 5
64 77 64
15 19 97
4 71 57
90 86 84
```

93 32 91

(208)