Amusement Park 1

In a amusement park at Looney's amusement, there is a "Weighted Maze" challenge. This consists of a set of east west roads(referred to as left to right roads) and north south roads(referred to as up down roads) each intersection has a block of iron bar, the weight of which is given. You enter the maze at top left corner with 1kg in a cart the exit from the maze is at bottom right corner. Movement at any intersection is to the right or down provided a road exist in that direction.

At each intersection you pass through, you must exchange the weight in your cart with weight of the bar at the intersection if it is heavier than the weight you have in the cart.

The objective is to determine the path through the maze along the roads so that one can exit the maze with the minimum weight in the cart.

Input Format

The first line consists of a positive integer N which is the number of intersection in any up down or left right road. The next N lines each consists of N positive integer representing the weights at intersection in the corresponding left right road.

Constraints

0<=N<=10 0<=weight<=1000

Output Format

A positive integer that represent the number of minimum weight possible in the cart when exiting the maze.

Sample Input 0

```
4
1 8 21 7
19 17 10 20
2 18 23 22
14 25 4 13
```

Sample Output 0

```
22
```