Chess coins (2) X89253_en

Consider a square chess board with n rows and n columns, where every square contains a number of coins. Write a program such that, given a chess board, computes the total number of coins on the diagonals. The first square in the board (top left) is always white.

Input

The input is a natural number $n > 0$, followed by n rows, each with n non-negative integers, separated by whitespaces.

Output

The ouput is the total number of coins in the board diagonals.

Sample input 1

```
8
0 1 0 1 0 1 0 0
1 0 1 0 1 0 0 0
0 1 0 1 0 0 0 1
1 0 1 0 0 0 1 0
0 1 0 0 0 1 0 1
1 0 0 0 1 0 1 0
0 0 0 1 0 1 0 1
0 0 1 0 1 0 1 0
```

Sample output 1

```
0
```

Sample input 2

```
6
2 0 0 0 0 1
0 2 0 0 1 0
0 0 2 1 0 0
0 0 1 2 0 0
0 1 0 0 2 0
1 0 0 0 0 2
```

Sample output 2

```
18
```

Sample input 3

```
5
 2 38 91 10  0
21  4 12  9 14
 3  6 77 22 21
20  4 18  6  3
 5 61  7  2 19
```

Sample output 3

```
126
```

Problem information

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