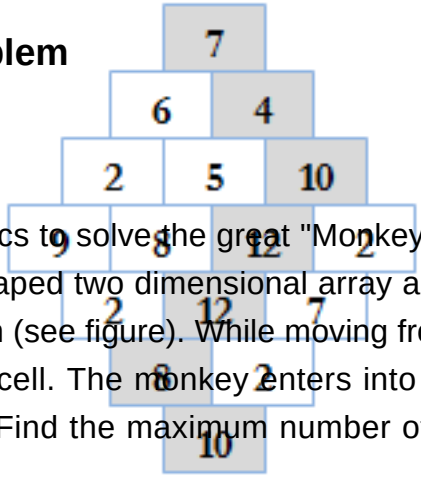
1861 - Monkey Banana Problem



Description

You are in the world of mathematics to solve the great "Monkey Banana Problem". It states that, a monkey enters into a diamond shaped two dimensional array and can jump in any of the adjacent cells down from its current position (see figure). While moving from one cell to another, the monkey eats all the bananas kept in that cell. The monkey enters into the array from the upper part and goes out through the lower part. Find the maximum number of bananas the monkey can eat.

Input specification

Input starts with an integer **T (1 <= T <= 50)**, denoting the number of test cases.
Every case starts with an integer **N (1 <= N <= 100)**. It denotes that, there will be **2*N - 1** rows. The **ith (1 <= i <= N**) line of next **N** lines contains exactly **i** numbers. Then there will be **N - 1** lines. The **jth (1 <= j < N)** line contains **N - j** integers. Each number is greater than zero and less than **2^15**.

Output specification

For each case, print the case number and maximum number of bananas eaten by the monkey.

Sample input

```
2
4
7
6 4
2 5 10
9 8 12 2
2 12 7
8 2
10
2
1
2 3
1
```

Sample output

```
Case 1: 63
Case 2: 5
```

Hint(s)

Source	LightOJ Online Judge
Added by	**ymondelo20**
Addition date	2012-06-01
Time limit (ms)	3000
Test limit (ms)	3000
Memory limit (kb)	130000
Output limit (mb)	64
Size limit (bytes)	30000
Enabled languages	Bash C C# C++ Java Pascal Perl PHP Python Ruby Text