PRACTICE (/PROBLEMS/SCHOOL)   COMPETE (/CONTESTS)   DISCUSS (HTTP://DISCUSS.CODECHEF.COM/)

COMMUNITY (/COMMUNITY)   HELP (/HELP)   ABOUT (/ABOUTUS)

Costly Visit   Problem Code: **CGRID**

Tweet   Like   Share   Be the first of your friends to like this.

You have a grid of size N x M. Rows of the grid are numbered from 1 to N from top to bottom and columns of the grid are numbered from 1 to M from left to right. So, top-left corner is indexed as (1,1) and bottom-right corner is indexed as (N,M).

Cost of visiting a cell at index (i,j) is denoted by C[i][j]. Cost of changing the direction of your facing at index (i,j) is denoted by P[i][j].

You have to start from cell (1,1) and reach to cell (N,M) with minimum cost. At cell (1,1), you can either face towards 'Right' or face towards 'Down'. At any point of time, you can either face 'Right' or face 'Down'.

There are 2-types of moves allowed:
1. Move one cell towards the facing direction i.e. if you are facing 'Right', you can move one cell 'Right' or if you are facing 'Down', you can move one cell 'Down'. The cost of visiting cell (i,j) will be C[i][j].
2. Change the direction of facing i.e. if you are facing 'Right', you can now face 'Down' or if you are facing 'Down', you can now face 'Right'. The cost of changing the facing direction at cell (i,j) will be P[i][j].

Find the minimum cost to reach (N,M) after starting from (1,1).

Constraints:
1 <= T <= 3
1 <= N,M <= 1000
1 <= C[i][j], P[i][j] <= 1000

Input Format:
First line of each testfile contains T, the number of test cases.
In each testcase, First line contains two inetgers N and M denoting the dimensions of the grid.
Next N lines contains M integers each denoting the cost matrix C.
Next N lines contains M integers each denoting the cost matrix P.

Output Format:
For each test case, output a single line containing the minimum cost of reaching (N,M) from (1,1).

Example:

Input:
2
2 2
1 2
3 4
5 6
7 8
2 2
1 2
3 4
5 6
1 8

Output:
13
9

Author: directi_campus (/users/directi_campus)

Tags: directi_campus (/tags/problems/directi_campus)

Date Added: 30-09-2016

Time Limit:	1 secs
Source Limit:	50000 Bytes
Languages:	C, CPP 4.3.2, CPP 6.3, CPP14, JAVA, PYTH, PYTH 3.5

Comments ▸

Directi (http://directi.com)
Intelligent People. Uncommon Ideas.
The time now is: 10:50:05 PM
Your IP: 123.201.210.10

CodeChef (http://www.codechef.com) - A Platform for Aspiring Programmers
CodeChef was created as a platform to help programmers make it big in the world of algorithms, **computer programming** and **programming contests**. At CodeChef we work hard to revive the geek in you by hosting a **programming contest** at the start of the month and another smaller programming challenge in the middle of the month. We also aim to have training sessions and discussions related to **algorithms**, **binary search**, technicalities like **array size** and the likes. Apart from providing a platform for **programming competitions**, CodeChef also has various algorithm tutorials and forum discussions to help those who are new to the world of **computer programming**.

Practice Section (https://www.codechef.com/problems/easy) - A Place to hone your 'Computer Programming Skills'
Try your hand at one of our many practice problems and submit your solution in a language of your choice. Our **programming contest** judge accepts solutions in over 35+ programming languages. Preparing for coding contests were never this much fun! Receive points, and move up through the CodeChef ranks. Use our practice section to better prepare yourself for the multiple **programming challenges** that take place through-out the month on CodeChef.

Compete (https://www.codechef.com/problems/easy) - Monthly Programming Contests and Cook-offs
Here is where you can show off your **computer programming skills**. Take part in our 10 day long monthly coding contest and the shorter format Cook-off **coding contest**. Put yourself up for recognition and win great prizes. Our **programming contests** have prizes worth up to INR 20,000 (for Indian Community), $700 (for Global Community) and lots more CodeChef goodies up for grabs.

Programming Tools	**Practice Problems**
Online IDE (https://www.codechef.com/ide)	Easy (https://www.codechef.com/problems/easy)
Upcoming Coding Contests (http://www.codechef.com/contests#FurtureContests)	Medium (https://www.codechef.com/problems/medium)
Contest Hosting (http://www.codechef.com/hostyourcontest)	Hard (https://www.codechef.com/problems/Hard)
Problem Setting (http://www.codechef.com/problemsetting)	Challenge (https://www.codechef.com/problems/challenge)
CodeChef Tutorials (http://www.codechef.com/wiki/tutorials)	Peer (https://www.codechef.com/problems/extcontest)
CodeChef Wiki (https://www.codechef.com/wiki)	School (https://www.codechef.com/problems/school)
	FAQ's (https://www.codechef.com/wiki/faq)

Initiatives

Go for Gold (http://www.codechef.com/goforgold)

CodeChef for Schools (http://www.codechef.com/school)

Campus Chapters (http://www.codechef.com/campus_chapter/about)

Domain Registration in India (http://www.bigrock.in/) and Web Hosting (http://www.bigrock.com/web-hosting/) powered by BigRock