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(<http://www.techgig.com/codegladiators/cybage>)

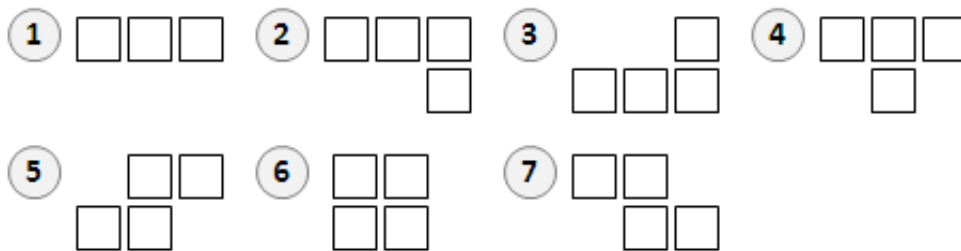
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to test end

Expert Level (<http://www.techgig.com/codegladiators/cybage/dashboard>)

Expert Level

Consider a Tetris game of rectangular shaped playing field consisting of $l \times b$ blocks in which certain blocks are already filled with few tetriminos and the rest being empty. A player is provided with a dashboard that contains images of different tetriminos that can be used in the game as shown below



So with few rotations of each tetriminos, a player can copy any figure from the dashboard and place it anywhere at the empty blocks of the playing field. A single tetriminos can be used as many times as needed.

A player aim is to fill the whole playing field in such a way that there are no empty cells left and all the tetriminos should be entirely inside the board.

One of the players hired you to **write a program that tells the minimum number of tetriminos required to fill the empty playing field.**

INPUT SPECIFICATION

Your function must read three arguments i.e **field_length**, **field_breadth** and **block_details**

where

- **field_length**(l) provides the length of each rectangular field in metres.
- **field_breadth**(b) provides the breadth of each rectangular field in metres.
- **field_details**(Integer array) provides the heights of l*b blocks row-wise.

Note: Empty blocks are represented by 0 and filled up blocks are represented by 1.

OUTPUT SPECIFICATION

The function must return the minimum number of tetriminos required to fill the empty playing field

Note: In case there is no possible solution, you need to return 0 as output.

EXAMPLES

Example 1:

Input:

field_length - 3

field_breadth - 3

block_details - {1,1,1,0,0,0,0,0,0}

Output:

2

Explanation:

Here you are given two test cases, in the first case the level of playing field is 3x3 means 3 rows and 3 columns. As per the given input the first row is completely filled and rest two rows are to be filled as shown in the below image

Case 1

3	0	0	0
2	0	0	0
1	1	1	1
	1	2	3

We have 7 different tetriminos that can be used to fill the empty blocks without going beyond the level of playing field.

By using the first tetriminos twice all the empty blocks can be filled without going beyond the level of playing field as shown in the below image. Hence the output is 2.

Solution

1	1	1
1	1	1
1	1	1

Example 2:

Input:

field_length - 3

field_breadth - 3

block_details - {1,1,1,0,1,0,0,0,0}

Output:

0

Explanation:

As per the given input the first row is completely filled, the middle block of the second row is filled but the other two blocks are empty and the third row is completely empty as shown in the below image

C

 Upload Code as file



```
1  #include<stdio.h>
2  #include<string.h>
3
4  int requiredTetriminos(int input1,int input2,int input3[])
5  {
6      //Write code here
7  }
8
```

NORMAL

Line: 8 Col: 1

Own Testcase

Compile & Run Code

Submit Code

See sample problems

(<http://www.techgig.com/recruit/tests/info/instructions/MzY4M0AjlEAjJDQ4ODMyM0AjlEAjDI3Nzl3MDIstatement=true>)

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