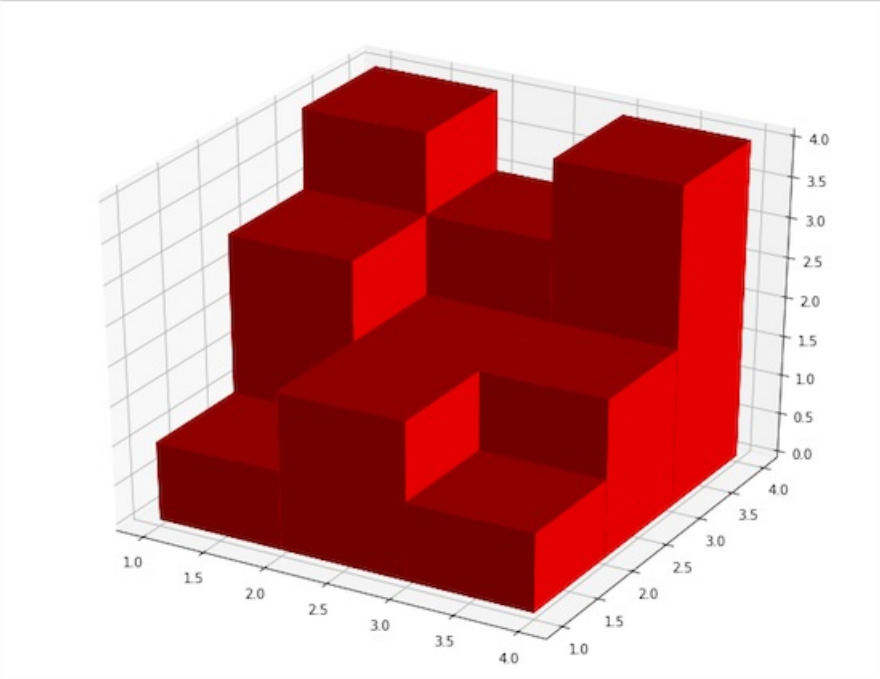
Madison, is a little girl who is fond of toys. Her friend Mason works in a toy manufacturing factory . Mason has a 2D board A of size $H \times W$ with H rows and W columns. The board is divided into cells of size 1×1 with each cell indicated by it's coordinate (i, j). The cell (i, j) has an integer A_{ij} written on it. To create the toy Mason stacks A_{ij} number of cubes of size $1 \times 1 \times 1$ on the cell (i, j).

Given the description of the board showing the values of A_{ij} and that the price of the toy is equal to the 3d surface area find the price of the toy.



Input Format

The first line contains two space-separated integers H and W the height and the width of the board respectively.

The next H lines contains W space separated integers. The j^{th} integer in i^{th} line denotes A_{ij}.

Constraints

- $1 \leq H, W \leq 100$
- $1 \leq A_{i,j} \leq 100$

Output Format

Print the required answer, i.e the price of the toy, in one line.

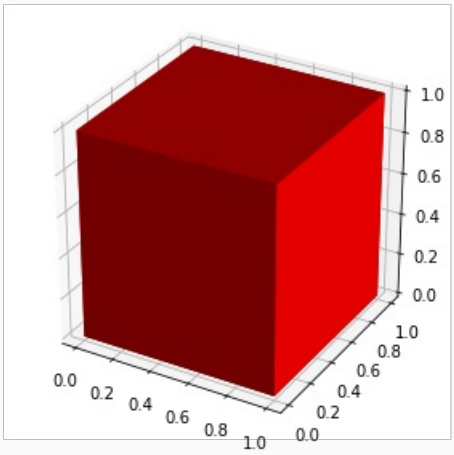
Sample Input 0

```
1 1
1
```

Sample Output 0

```
6
```

Explanation 0



The surface area of $1 \times 1 \times 1$ cube is 6.

Sample Input 1

```
3 3
1 3 4
2 2 3
1 2 4
```

Sample Output 1

```
60
```

Explanation 1

The sample input corresponds to the figure described in problem statement.