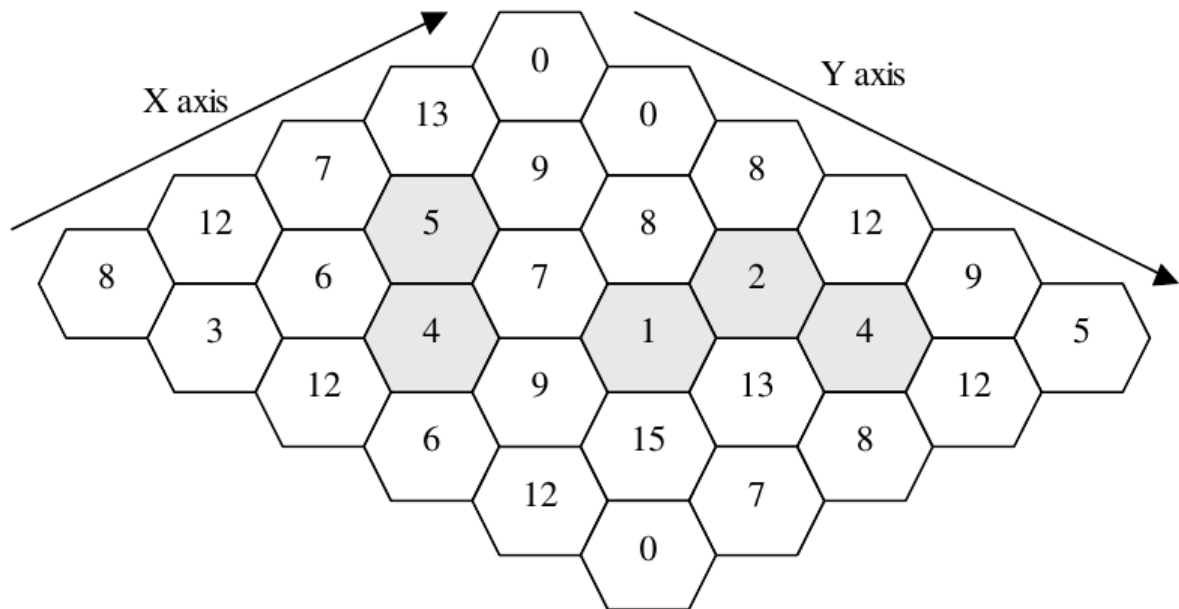


2252 Basalt Buckets

Under certain conditions volcanic basalt forms large crystals, like hexagonal pillars. At Fingal Head, at the border of New South Wales and Queensland, there is a dramatic example, called Giant's Causeway, where a peninsula formed of such columns juts into the Pacific. It is particularly dramatic when the big Pacific rollers break on the causeway, leaving streams of water cascading over the basalt pillars.

Your task is to find out how much water could collect in hexagonal hollows, formed when some pillars are shorter than others, and can act as wells.

Here is a diagram of a set of hexagons. Each hexagon has an integer height. Water can always cascade off the edge of the set of hexagons, but it will collect in the five shaded hexagons, since they form wells completely surrounded by higher hexagons. Water drains from the left hand pair over two pillars of height six, and from the three on the right water drains over a pillar of height seven. Assuming each hexagon has unit area, the volume of water that can collect is 17 units.



Input

Your program must handle input as a series of problem descriptions.

Each problem begins with two integers X and Y , on a line by themselves, in the range 1 to 200 inclusive, giving the number of hexagons along an X -axis, and along a Y -axis, as shown in the diagram. Then there are given a further $X * Y$ integers, in the range 0 to 5000 inclusive, which are the heights of the hexagons. The order of input heights is given as Y rows of X integers, but they may be split across lines arbitrarily.

The given diagram is described by sample input below.

Output

The output must consist only of one integer for each problem given, on a line by itself with no spaces, giving the volume of water that could collect for that set of columns.

The output for the given problem description would thus be the sample output below.

Sample Input

```
5 6
8 12 7 13 0 3 6 5 9 0 12
4 7 8 8 6 9 1 2 12 12 15 13 4 9 0 7 8 12 5
0 0
```

Sample Output

```
17
```