Given a rectangular matrix containing only digits, calculate the number of different 2 × 2 squares in it.

**Example**

For

matrix = [[1, 2, 1],

[2, 2, 2],

[2, 2, 2],

[1, 2, 3],

[2, 2, 1]]

the output should be  
differentSquares(matrix) = 6.

Here are all 6 different 2 × 2 squares:

* 1 2  
  2 2
* 2 1  
  2 2
* 2 2  
  2 2
* 2 2  
  1 2
* 2 2  
  2 3
* 2 3  
  2 1

**Input/Output**

* **[time limit] 3000ms (cs)**
* **[input] array.array.integer matrix**

*Constraints:*  
1 ≤ matrix.length ≤ 100,  
1 ≤ matrix[i].length ≤ 100,  
0 ≤ matrix[i][j] ≤ 9.

* **[output] integer**

The number of different 2 × 2 squares in matrix.

<https://codefights.com/arcade/code-arcade/mirror-lake/fQpfgxiY6aGiGHLtv>

static int differentSquares(int[][] matrix)

{

int f = matrix.Length, c = matrix[0].Length;

HashSet<string> hs = new HashSet<string>();

for (int i = 0; i < f - 1; i++)

{

for (int j = 0; j < c-1; j++)

{

string concat = "";

concat += matrix[i][j].ToString() + matrix[i][j + 1].ToString();

concat += matrix[i + 1][j].ToString() + matrix[i + 1][j + 1].ToString();

hs.Add(concat);

}

}

return hs.Count;

}