

Problem 3 – Digits

You are given a matrix of digits. The matrix contains some patterns that form digits. Your task is to find these digits and calculate their sum:

The digit patterns are as follows:

0	0	0				1				2			3	3	3			4		4
0			0				1	1		2					3			4		4
0								1			2			3	3			4	4	4
0								1			2				3				4	
0	0	0						1			2	2	2	3	3	3				4

5	5	5				6	6	6				7	7	7			8	8	8			9	9	9
5						6								7			8				9		9	
5	5	5				6	6	6				7						8			9	9		
						6		6				7					8				9		9	
5	5	5				6	6	6				7					8	8	8			9	9	9

Each digit patterns is formed by the same digit:

- The one-digit pattern is formed from cells with the digit one
- The nine-digit pattern is formed from cells with the digit nine
- Etc...

The size of the patterns is constant and always has the given form.

Example:

3	2	1	1	2	3	0	1
2	1	1	9	7	6	4	0
1	4	1	7	7	7	5	1
2	4	1	4	2	7	1	1
3	4	1	4	7	1	3	1
0	4	4	4	7	4	5	1
5	8	2	4	7	3	2	1
1	2	7	4	9	2	1	8

The digit patterns are marked in green, red and blue

Four digit patterns are found – twice one-digit, one seven-digit and one four-digit pattern.

The sum is $1 + 1 + 4 + 7 = 13$

Input

On the first line of the console you will find the number N – the number of rows and columns of the matrix

On the next N lines you will find exactly N digits, separated by a space. These are the digits of the matrix. The input data will always be valid and in the described format. There is no need to check it explicitly.

Output

The output data consists of a single line. It should contain the sum of all the digit patterns in the matrix

Constraints

- **N** will always be **greater or equal to 5** and **less or equal to 1250**
- The values in the matrix will always be **digits**
- Allowed working time for your program: **0.3** seconds.
- Allowed memory: **32 MB**.

Examples

Input	Output	Explanation
5 1	3	The one-pattern is found three times. The sum is $1+1+1 = 3$

Input	Output	Explanation
7 9 9 9 2 2 2 9 9 9 2 2 2 9 9 9 2 2 2 9 9 9 2 2 2 9 9 9 2 2 2 9 9 9 2 2 2 9 9 9 2 2 2	22	The nine-pattern is found twice and the two-pattern is also found twice. The sum is $9 + 9 + 2 + 2 = 22$

Input	Output	Explanation
8 3 2 1 1 2 3 0 1 2 1 1 9 7 6 4 0 1 4 1 7 7 7 5 1 2 4 1 4 2 7 1 1 3 4 1 4 7 1 3 1 0 4 4 4 7 4 5 1 5 8 2 4 7 3 2 1 1 2 7 4 9 2 1 8	13	This is explained in the example above