



```
1  1572. Easy
2
3  Given a square matrix mat, return the sum of the matrix diagonals.
4
5  Only include the sum of all the elements on the primary diagonal
6  and all the elements on the secondary diagonal that are not part
7  of the primary diagonal.
8
9  Constraints:
10 n == mat.length == mat[i].length
11 1 <= n <= 100
12 1 <= mat[i][j] <= 100
```

Example 1:

Input: `mat = [[1,2,3],
 [4,5,6],
 [7,8,9]]`

Output: 25

Explanation: Diagonals sum: $1 + 5 + 9 + 3 + 7 = 25$

Notice that element `mat[1][1] = 5` is counted only once.

Example 2:

Input: `mat = [[1,1,1,1],
 [1,1,1,1],
 [1,1,1,1],
 [1,1,1,1]]`

Output: 8

Example 3:

Input: `mat = [[5]]`

Output: 5



```
1  int diagonalSum(vector<vector<int>>& mat) {
2      int N = mat.size();
3
4      int sum = 0;
5      for(int i=0; i<N; i++) {
6          sum += mat[i][i] + mat[i][N-i-1];
7      }
8
9      // if Odd number of row than subtract middle element
10     if(N%2) {
11         sum = sum - mat[N/2][N/2];
12     }
13     return sum;
14 }
```

#100daysofDSA



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