**6 kyu**

**Traverse array elements diagonally**

12494% of 5536 of134[kodejuice](https://www.codewars.com/users/kodejuice)

Python

* [TRAIN AGAIN](https://www.codewars.com/kata/traverse-array-elements-diagonally/train/python)
* [NEXT KATA](https://www.codewars.com/trainer/python)

Details

[Solutions](https://www.codewars.com/kata/traverse-array-elements-diagonally/solutions/python)

[Discourse (11)](https://www.codewars.com/kata/traverse-array-elements-diagonally/discuss/python)

* Add to Collection
* |
* Share this kata:

In this kata you're given an n x n array and you're expected to traverse the elements diagonally from the bottom right to the top left.

**Example**

1 6 7

7 2 4

3 5 9

your solution should return elements in the following order

9

4 5

7 2 3

6 7

1

//=> [9, 4, 5, 7, 2, 3, 6, 7, 1]

Your task is to write the function diagonal() that returns the array elements in the above manner.

**Another Example**

arr = [

[4, 5, 7],

[3, 9, 1],

[7, 6, 2]

]

diagonal(arr) //=> [2, 1, 6, 7, 9, 7, 5, 3, 4]

You can assume the test cases are well formed.

<https://www.codewars.com/kata/traverse-array-elements-diagonally/python>

**def** diagonal(matrix):

    n = len(matrix)

    ans = []

**for** i **in** range(n-1, -1, -1):

        fila = []

        f = i

        c = n - 1

**while**( f < n **and** c >=0):

            ans.append(matrix[f][c])

            f+=1

            c-=1

**for** j **in** range(n-2, -1, -1):

        fila = []

        f = 0

        c = j

**while**(f < n **and** c >=0):

            ans.append(matrix[f][c])

            f += 1

            c -= 1

**return** ans