Suppose you are an FBI field agent working on a mission. The HQ has sent you a secret **message** in 2D array format containing information about the **pin** code of a highly protected facility. Now, you need to decode the **pin** from the **message** using the method “**decodeMessage()**,” which takes the **message** as a **parameter** and returns a decoded **pin**.

**Decoding procedure:** You need to find out the **absolute difference** between the diagonal and counter-diagonal elements and create a new array containing the resultant values.

**Notice:** Consider the message being **(MxM)** 2D array, where **“M’’** is **even**.

| **Sample Input** | **Sample Output** |
| --- | --- |
| message=  [ [1, 2, 3, -4],  [5, -6, 7, 8],  [9, -10, 11, 12],  [13, 14, 15, -16] ] | [5, 13, 21, 29 ] |
| **Explanation** | |
| 1st Diagonal element = 1  1st Counter Diagonal element = - 4  Absolute difference= | 1 - (- 4) | = 5  3rd Diagonal element = 11  3rd Counter Diagonal element = - 10  Absolute difference= | 11 - (- 10) | = 21 | 2nd Diagonal element = - 6  2nd Counter Diagonal element = 7  Absolute difference= | -6 - 7 | = 13  4th Diagonal element = -16  4th Counter Diagonal element = 13  Absolute difference= | -16 - 13 | = 29 |

Suppose you are an FBI field agent working on a mission. The HQ has sent you a secret **message** in 2D array format containing information about the **pin** code of a highly protected facility. Now, you need to decode the **pin** from the **message** using the method “**decodeMessage()**,” which takes the **message** as a **parameter** and returns a decoded **pin**.

**Decoding procedure:** You need to find out the **absolute average** between the diagonal and counter-diagonal elements and create a new array containing the resultant values.

**Notice:** Consider the message being **(MxM)** 2D array, where **“M’’** is **even**.

| **Sample Input** | **Sample Output** |
| --- | --- |
| message=  [ [1, 2, 3, -4],  [5, -6, 7, 8],  [9, -10, 11, 12],  [13, 14, 15, -16] ] | [1.5, 0.5, 0.5, 1.5] |
| **Explanation:** | |
| 1st Diagonal element = 1  1st Counter Diagonal element = - 4  Absolute average= |1+(-4)|/2 = 1.5  3rd Diagonal element = 11  3rd Counter Diagonal element = - 10  Absolute average= |11+(-10)|/2 = 0.5 | 2nd Diagonal element = - 6  2nd Counter Diagonal element = 7  Absolute average= |-6+7|/2 = 0.5  4th Diagonal element = -16  4th Counter Diagonal element = 13  Absolute average= |-16+13|/2 = 1.5 |