**Problem 1:**

Given a square matrix, calculate the absolute difference between the sums of its diagonals.

For example, the square matrix is shown below:

1 2 3

4 5 6

9 8 9

The left-to-right diagonal = 1 + 5 + 9 = 15. The right to left diagonal = 3 + 5 + 9 = 17. Their absolute difference is 2.

**Function description**

Complete the *DiagonalDifference* function in project Q 1. It must return an integer representing the absolute diagonal difference.

DiagonalDifference takes the following parameter:

* *arr*: an array of integers .

**Output Format**

Print the absolute difference between the sums of the matrix's two diagonals as a single integer.

**Sample Input**

11 2 4

4 5 6

10 8 -12

**Sample Output**

15

**Explanation**

The primary diagonal is:

11

5

-12

Sum across the primary diagonal: 11 + 5 - 12 = 4

The secondary diagonal is:

4

5

10

Sum across the secondary diagonal: 4 + 5 + 10 = 19   
Difference: |4 - 19| = 15

**Note:** |x| is the [absolute value](https://www.mathsisfun.com/numbers/absolute-value.html) of x

**Problem 2:**

Consider a staircase of size 4:

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Observe that its base and height are both equal to 4, and the image is drawn using # symbols and spaces. *The last line is not preceded by any spaces.*

Write a program that prints a staircase of size n.

**Function Description**

Complete the *Staircase* function in project Q2. It should print a staircase as described above.

staircase has the following parameter(s):

* *n*: an integer

**Output Format**

Print a staircase of size using # symbols and spaces.

**Note**: The last line must have no spaces in it.

**Sample Input**

6

**Sample Output**

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**Explanation**

The staircase is right-aligned, composed of # symbols and spaces, and has a height and width of 6.