

Zig-Zag Array



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Insights

🕒 Recommended Time: 36 mins 🏆 Points: 50 📝 15 test cases (5 samples)

Skills: Problem Solving (Basic) 

Coding 

EASY

Arrays

Interviewer Guidelines

Given an array of integers, change it in such a way that it follows a zig-zag pattern. A zig-zag array is one where for each integer, its adjacent integers are both greater than or less than itself. In other words, using L to mean a lower value and H to mean higher, the array follows either the pattern [L,H,L,H...] or [H,L,H,L...]. To make the array a zig-zag array, you can replace any element with any other integer (positive, negative, or zero). What is the minimum number of replacements required to accomplish this?

Example

`arr = [1, 2, 3, 4, 5]`

```
Original: [1, 2, 3, 4, 5]
LHLHL:   [1, 2, -, 4, -]
HLHLH:   [+ , 2, 3, -, 5]
```

To achieve an array starting with a low value, both the 3 and the 5 need to be reduced to any value less than 2 and 4 respectively.

To achieve an array starting with a high value, the 1 needs to be increased (any value > 2) and the 4 needs to be decreased (any value < 3)

In this case, creating either form of zig-zag array takes a minimum of 2 replacements, the final answer.

Function Description

Complete the function *minOperations* in the editor below.