

Problem F: Foresee

ChatICPC, the world's most powerful generative AI, has just been released, and it can do basically ANYTHING. It can predict the next winning lottery numbers, forecast the weather for the next ten years with near-perfect accuracy, or even diagnose diseases at a molecular level.

You decide to leverage this power in a card game against your friend. The game uses a deck of $2N$ cards, with values from 1 to $2N$. The deck is shuffled, and you and your friend are each dealt N cards. The game proceeds in N rounds, where in each round, both players select and reveal one card from their hand.

You use ChatICPC to foresee the exact sequence of cards your friend will play in each round. Now, you must write a program to determine the best way to play your own cards to achieve the highest possible score.

Game Rules

The winner of each round earns one point. The rules for winning change depending on the round:

- **Normal Rounds:** For any round except the first and the last, the player whose card has a **higher value** wins the point.
- **Special Rounds:** In the **first** and the **last** rounds, the player with the **lower value** card wins the point.

Your goal is to calculate the maximum number of points you can win.

(Wait, why not just use the AI to play the game for you? ... *Come on man, if we are gonna rely on AI for everything, what's the point of being human?*)

Input:

The first line of input is an integer T , representing the number of test cases. Each test case consists of a single line containing $N+1$ numbers. The first number is N , the number of rounds, followed by N integers, where the i -th integer listed is the card your friend will play in the i -th round.

Output:

For each test case, print a single line with the maximum number of points you can win.

Sample Input	Sample Output
3 3 4 5 1 4 2 8 7 1 5 1 5 7 8 4	2 0 4

Explanation:

- Test Case #1: The maximum number of points you can win is 2
 - Play 3 in the first round and win against 4. (Special round: lower number wins)
 - Play 6 in the second round and win against 5.
 - Play 2 in the third round but lose to 1. (Special round: lower number wins)

Constraints:

- $1 \leq T \leq 20$
- $1 \leq N \leq 500$