1240. Stone Game II

Difficulty : Medium

https://leetcode.com/problems/stone-game-ii

Alice and Bob continue their games with piles of stones. There are a number of piles **arranged in a row**, and each pile has a positive integer number of stones `piles[i]`. The objective of the game is to end with the most stones.

Alice and Bob take turns, with Alice starting first. Initially, `M = 1`.

On each player's turn, that player can take **all the stones** in the **first** `X` remaining piles, where `1 <= X <= 2M`. Then, we set `M = max(M, X)`.

The game continues until all the stones have been taken.

Assuming Alice and Bob play optimally, return the maximum number of stones Alice can get.

Example 1:

```
Input: piles = [2,7,9,4,4]
Output: 10
Explanation:  If Alice takes one pile at the beginning, Bob takes two piles, then Alice takes 2 piles again. Alice can get 2 + 4 + 4 = 10 piles in total. If Alice takes two piles at the beginning, then Bo
```

Example 2:

```
Input: piles = [1,2,3,4,5,100]
Output: 104
```

Constraints:

- `1 <= piles.length <= 100`
- `1 <= piles[i] <= 10^4`