

Question #4:

You are given an array of integers stones where stones[i] is the weight of the i^{th} stone.

We are playing a game with the stones. On each turn, we choose the **heaviest two stones** and smash them together. Suppose the heaviest two stones have weights x and y with $x \leq y$. The result of this smash is:

- If $x == y$, both stones are destroyed, and
- If $x \neq y$, the stone of weight x is destroyed, and the stone of weight y has new weight $y - x$.

At the end of the game, there is **at most one** stone left.

Return *the weight of the last remaining stone*. If there are no stones left, return 0.

Example 1:

Input: stones = [2,7,4,1,8,1]

Output: 1

Explanation:

We combine 7 and 8 to get 1 so the array converts to [2,4,1,1,1] then,

we combine 2 and 4 to get 2 so the array converts to [2,1,1,1] then,

we combine 2 and 1 to get 1 so the array converts to [1,1,1] then,

we combine 1 and 1 to get 0 so the array converts to [1] then that's the value of the last stone.

Example 2:

Input: stones = [1]

Output: 1