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Description

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948. Bag of Tokens

Medium

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You have an initial **power** of `power`, an initial **score** of `0`, and a bag of `tokens` where `tokens[i]` is the value of the i^{th} token (0-indexed).

Your goal is to maximize your total **score** by potentially playing each token in one of two ways:

- If your current **power** is at least `tokens[i]`, you may play the i^{th} token face up, losing `tokens[i]` **power** and gaining `1` **score**.
- If your current **score** is at least `1`, you may play the i^{th} token face down, gaining `tokens[i]` **power** and losing `1` **score**.

Each token may be played **at most** once and **in any order**. You do **not** have to play all the tokens.

Return *the largest possible score you can achieve after playing any number of tokens*.

Example 1:

Input: `tokens = [100]`, `power = 50`

Output: `0`

Explanation: Playing the only token in the bag is impossible because you either have too little power or too little score.

Example 2:

Input: `tokens = [100,200]`, `power = 150`

Output: `1`

Explanation: Play the 0^{th} token (`100`) face up, your power becomes `50` and score becomes `1`. There is no need to play the 1^{st} token since you cannot play it face up to add to your score.

Example 3:

Input: `tokens = [100,200,300,400]`, `power = 200`

Output: `2`

Explanation: Play the tokens in this order to get a score of `2`:
1. Play the 0^{th} token (`100`) face up, your power becomes `100` and score becomes `1`.
2. Play the 3^{rd} token (`400`) face down, your power becomes `500` and score becomes `0`.
3. Play the 1^{st} token (`200`) face up, your power becomes `300` and score becomes `1`.
4. Play the 2^{nd} token (`300`) face up, your power becomes `0` and score becomes `2`.

Constraints:

- `0 <= tokens.length <= 1000`
- `0 <= tokens[i]`, `power < 104`

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class Solution {

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public int bagOfTokensScore(int[] tokens, int power) {

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