

# 948. Bag of Tokens

## Description

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 `ith` 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 `ith` token face up, losing `tokens[i]` **power** and gaining `1` **score** .
- If your current **score** is at least `1` , you may play the `ith` 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 `0th` token (`100`) face up, your power becomes `50` and score becomes `1`.  
There is no need to play the `1st` 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 `0th` token (`100`) face up, your power becomes `100` and score becomes `1`.  
2. Play the `3rd` token (`400`) face down, your power becomes `500` and score becomes `0`.  
3. Play the `1st` token (`200`) face up, your power becomes `300` and score becomes `1`.  
4. Play the `2nd` token (`300`) face up, your power becomes `0` and score becomes `2`.

### Constraints:

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

