H-Index

For this problem we need to find the maximum i such that at least h papers have ≥ h citations.

Approach 1: Sorting (O(n log n)):

Steps: 1. Sort citations in descending order.
2. Iterate and count how many papers have citations[i] >= i+1
3. The highest i+1 that satisfies this is the h-index.

Approach 2: Counting Sort(O(n)):

- Since citations[i] ≤ 1000 (or ≤ n in many cases), use counting:
  1. Count frequencies of citations.
  2. Accumulate from high to low until cumulative count ≥ index.

Complexity:

- Sorting: O(n log n)
- Counting: O(n) (better for large inputs with bounded values).