INPUT:

Input an integer n, and then input n numbers.
Input an integer m, which means there are m querys.

OUTPUT:

For each query, output the rank of number.

Binary Search Pseudo code:

```
1:  n ← INPUT                                          ▷ Input n
2:  for i ← 0 to n − 1 do                              ▷ Input n sorted numbers
3:      A[i] ← INPUT
4:  end for
5:
6:  m ← INPUT                                          ▷ Input m, means m querys
7:  for i in 1 to m do                                 ▷ Input m numbers
8:      x ← INPUT
9:      i ← 0                                          ▷ Initialize i and j
10:     j ← n − 1
11:     while i < j do
12:         mid ← (i + j)/2
13:         if x ≤ A[mid] then                         ▷ x is smaller than middle number
14:             j ← mid                                ▷ update j
15:         else
16:             i ← mid + 1                            ▷ update i
17:         end if
18:     end while
19:     OUTPUT ← l                                     ▷ Output l as answer
20: end for
```