

find all numbers smaller after self

this problem require to find all the smaller number after current index. This implies we need to some kind of sort from end to beginning. After we check current index, add it to the sorting. Segment tree is a good choice

to find out what the minimum value of all the numbers

1. first calculate the min and max of all numbers
- this is the segment of the whole tree. Every node has a count variable to record all number lies in this segment
2. then scan from end to beginning.
3. for every num, check the segment tree and try to find numbers count less than current number
 4. if current number larger than current max, add count
 5. if current number is less than mid, recursively find left tree
 6. if current number large than mid, then $\text{find}(\text{left}) + \text{find}(\text{right})$

