```
class Solution {
  public int searchInsert(int[] nums, int target) {
     if (nums.length == 0 || nums[0] >= target)
        return 0;
     if (target > nums[nums.length-1])
        return nums.length;
     int I = 0, r = nums.length - 1;
     while (I + 1 < r) {
        int mid = (r - l) / 2 + l;
if (nums[mid] == target) {
           return mid;
        } else if (nums[mid] > target) {
           r = mid;
        } else {
           I = mid;
     if (nums[I] == target)
        return I;
     return r;
  }
}
```