Search Insert Position

Given a sorted array and a target value, return the index if the target is found. If not, return the index where it would be if it were inserted in order.

You may assume no duplicates in the array.

Example 1:

```
Input: [1,3,5,6], 5
Output: 2
```

Example 2:

```
Input: [1,3,5,6], 2
Output: 1
```

Example 3:

```
Input: [1,3,5,6], 7
Output: 4
```

Example 1:

```
Input: [1,3,5,6], 0
Output: 0
```

【思路】

二分查找

```cpp
class Solution {
public:
    int searchInsert(vector<int>& nums, int target) {
        int low = 0, high = nums.size()-1;
         int mid = (low + high) / 2;
         while(low <= high){
             if(target < nums[mid]){
                 high = mid - 1;
                mid = (high + low) / 2;
             }
             else if(target > nums[mid]){
                 low = mid + 1;
                mid = (high + low) / 2;
             }
             else {
                 return mid;
             }
         }
         if(low == nums.size()) return low;
        else if(high == -1)  return 0;
        else return low;
    }
};
```