

```
def find_peak_element(nums):
    left, right = 0, len(nums) - 1
    while left < right:
        mid = (left + right) // 2
        if nums[mid] > nums[mid + 1]:
            right = mid
        else:
            left = mid + 1
    return left

# Test cases
print(find_peak_element([1, 2, 3,
1])) # Output: 2 (index of peak
element 3)
print(find_peak_element([1, 2, 1, 3,
5, 6, 4])) # Output: 5 (index of
peak element 6)
```