

## 215 数组中的第K个最大元素

```
class Solution {
public:
    int findKthLargest(vector<int> &nums, int k) {
        return quickSelect(nums, 0, nums.size() - 1, nums.size() - k);
    }

    int quickSelect(vector<int> &arr, int lo, int hi, int target) {
        int mid = partation(arr, lo, hi);
        if (mid == target) return arr[mid];
        return mid < target ? quickSelect(arr, mid + 1, hi, target) : quickSelect(arr,
lo, mid - 1, target);
    }

    int partation(vector<int> &arr, int lo, int hi) {
        swap(arr[lo], arr[lo + rand() % (hi - lo + 1)]);
        int pivot = arr[lo];
        while (lo < hi) {
            while (lo < hi && arr[hi] >= pivot) hi--;
            arr[lo] = arr[hi];
            while (lo < hi && arr[lo] <= pivot) lo++;
            arr[hi] = arr[lo];
        }
        arr[lo] = pivot;
        return lo;
    }
};
```