```cpp
1  #include <iostream>
2  #include <queue>
3  #include <vector>
4
5  using namespace std;
6
7  void display_array(const vector<int>& A){
8      for(int e : A) cout << e << " ";
9      cout << endl;
10 }
11
12 // O(n * log(k))
13 void k_index_away(vector<int>& A, int k){
14     priority_queue<int, vector<int>, greater<>> pq;
15     for(int i = 0;i < k;i++)
16         pq.push(A[i]);
17     int idx = 0;
18     for(int i = k + 1;i < A.size();i++){
19         pq.push(A[i]);
20         A[idx++] = pq.top();
21         pq.pop();
22     }
23     while(!pq.empty()){
24         A[idx++] = pq.top();
25         pq.pop();
26     }
27 }
28
29 int main() {
30     vector<int> A = {2, 8, 0, 17, 5, 12};
31     k_index_away(A, 2);
32     display_array(A);
33 }
```