

# Sorting array with reverse around middle

考虑数组arr，判断是否可以通过如下操作（可以重复）使得数组有序：选取一个子数组subarr，subarr的中位数必须也是arr的中位数，然后逆置该subarr。

```
#include<bits/stdc++.h>

using namespace std;

bool sortingWithReverseAroundMiddle(vector<int> &arr) {
    vector<int> copyArr;
    copy(arr.begin(), arr.end(), back_inserter(copyArr));
    sort(copyArr.begin(), copyArr.end());
    for (int i = 0; i < arr.size(); ++i) {
        if (arr[i] != copyArr[i] && arr[arr.size() - 1 - i] != copyArr[i]) {
            return false;
        }
    }
    return true;
}

int main() {
    vector<int> arr = {1, 6, 3, 4, 5, 2, 7};
    sortingWithReverseAroundMiddle(arr) ? printf("YES\n") : printf("NO\n");
    return 0;
}
```