Swap and Maximize

```
#include <bits/stdc++.h>
using namespace std;

// 1 2 4 8
int maxCircularArr(vector<int>& arr, int N) {
    int maxDiffSum = 0;
    vector<int> finalSeq;
    sort(arr.begin(), arr.end());
    for (int i = 0; i <= N / 2; ++i) {
        finalSeq.push_back(arr[i]);
        finalSeq.push_back(arr[N - i - 1]);
    }
    for (int i = 0; i < N - 1; ++i) {
        maxDiffSum += abs(finalSeq[i] - finalSeq[i + 1]);
    }
    maxDiffSum += abs(finalSeq[N - 1] - finalSeq[0]);
    return maxDiffSum;
}

int main() {
    int T;
    scanf("%d", &T);
    while (T--) {
        int N;
        scanf("%d", &N);
        vector<int> arr;
        for (int i = 0; i < N; ++i) {
            int num;
            scanf("%d", &num);
            arr.push_back(num);
        }
        printf("%d\n", maxCircularArr(arr, N));
    }
}
```