Sort an array in wave form

```
#include <stdio.h>
#include <stdlib.h>



int compare(const void *a, const void *b) {
   return (*(int *)a - *(int *)b);
}

// Convert array to wave form
void convertToWave(int arr[], int n) {
   qsort(arr, n, sizeof(int), compare);
   for (int i = 0; i < n - 1; i += 2) {
      // Swap elements
      int temp = arr[i];
      arr[i] = arr[i + 1];
      arr[i + 1] = temp;
   }
}

void printArray(int arr[], int n) {
   for (int i = 0; i < n; i++)
      printf("%d ", arr[i]);
   printf("\n");
}

int main() {
   int n;
```

```
    printf("Enter the number of elements: ");
    scanf("%d", &n);

    int arr[n];

    printf("Enter %d elements: ", n);
    for (int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }

    printf("Original array: ");
    printArray(arr, n);

    convertToWave(arr, n); // Convert to wave form

    printf("Wave array: ");
    printArray(arr, n);

    return 0;
}
```