

```
1
2 #include "SortableIntVector.h"
3 #include "ShakerSortableIntVector.h"
4
5 using namespace std;
6
7
8
9 ShakerSortableIntVector::ShakerSortableIntVector(const int aArrayOfIntegers[], ↗
    size_t aNumberOfElements) : SortableIntVector::SortableIntVector ↗
    (aArrayOfIntegers, aNumberOfElements)
10 {}
11
12
13 void ShakerSortableIntVector::sort(Comparable aOrderFunction)
14 {
15     int start = 0;
16     int end = size() - 1;
17     while (start < end)
18     {
19         for (int i = start; i < end; ++i)
20         {
21             if (aOrderFunction(get(i), get(i + 1)))    // if the comparable ↗
22                 returns true
23             {
24                 swap(i, i + 1);    //swap the values
25             }
26         }
27         --end;
28
29         for (int i = end - 1; i >= start; --i)
30         {
31             if (aOrderFunction(get(i), get(i + 1)))    // if the comparable ↗
32                 returns true
33             {
34                 swap(i, i + 1);    //swap the values
35             }
36         }
37         ++start;
38     }
39 }
```