

```
1  #include "IntVector.h"
2  #include <cstdlib>
3  #include "IntSorter.h"
4  #include "IntVectorIterator.h"
5  #include <stdexcept>
6
7  using namespace std;
8
9  IntVector::IntVector(const int aArrayOfIntegers[], size_t aNumberOfElements)
10 {
11     fNumberOfElements = aNumberOfElements;
12     fElements = new int[fNumberOfElements];
13
14     for (size_t i = 0; i < fNumberOfElements; i++)
15     {
16         fElements[i] = aArrayOfIntegers[i];
17     }
18 }
19
20 IntVector::~IntVector()
21 {
22     delete[] fElements;
23 }
24
25 size_t IntVector::size() const
26 {
27     return fNumberOfElements;
28 }
29
30 void IntVector::swap(size_t aSourceIndex, size_t aTargetIndex)
31 {
32     if (aSourceIndex < fNumberOfElements && aTargetIndex < fNumberOfElements)
33     {
34         size_t tempIndex = fElements[aSourceIndex];
35         fElements[aSourceIndex] = fElements[aTargetIndex];
36         fElements[aTargetIndex] = tempIndex;
37
38         return;
39     }
40     throw
41         out_of_range("Invalid index(es).");
42 }
43
44 void IntVector::sort(const IntSorter& aSorter)
45 {
46     aSorter(*this);
47 }
48
49 const int IntVector::operator[](size_t aIndex) const
50 {
51     if (aIndex < fNumberOfElements)
52     {
53         return fElements[aIndex];
```