

```
1  #include <iostream>
2  #include <string.h>
3  #include <vector>
4  #include <sstream>
5  #include <algorithm>
6  #include "A9.h"
7
8
9
10 //////////////////////////////////////////////////
11
12 void assignment9_1(const std::string & S) {
13     std::vector<int> V;
14     StoV(S, V);
15
16     reverse(V);
17 }
18
19
20 //////////////////////////////////////////////////
21
22 void assignment9_2(const std::string & S) {
23     std::vector<int> V;
24     StoV(S, V);
25
26     // Create a container for the Fibonacci sequence and
27     // provide the first 2 numbers in the sequence.
28     std::vector<int> F{0, 1};
29
30     if (!V.empty()) {
31         int MAX = *max_element(V.begin(), V.end());
32
33         if (MAX >= 2)
34             fib(MAX, F);
35
36         for (auto i : V)
37             std::cout << F[i] << " ";
38     }
39     else
40         std::cout << "Nothing to print!" << std::endl;
41 }
42
43
44 //////////////////////////////////////////////////
45
46 void assignment9_3(const std::string & S) {
47     std::vector<int> V;
48     StoV(S, V);
49
50     if (palindrome(V, V.begin(), V.rbegin()))
51         std::cout << "yes" << std::endl;
52     else
53         std::cout << "no" << std::endl;
54 }
55
56
57
58
```

```
59
60
61 ///////////////////////////////////////////////////////////////////
62
63 // cin behaves strangely with strings so it's safer to use a
64 // stringstream to take in formatted strings.
65 // I suspect it's a problem in the command prompt because on a
66 // different machine simply using cin didn't give me any problem.
67
68 void assignment9_4(const std::string & S) {
69     std::stringstream stream(S);
70     std::string s1, s2;
71
72     stream >> s1;
73     stream >> s2;
74
75     std::cout << lev(s1.begin(), s1.end(), s2.begin(), s2.end());
76 }
77
78
79
80 ///////////////////////////////////////////////////////////////////
81
82 void StoV(const std::string & S, std::vector<int> & V) {
83     std::stringstream stream(S);
84     int n;
85     while (stream >> n)
86         V.push_back(n);
87 }
```