CSCI 1300 Recitation HW 15

Question 1:

```
#include <vector>
#include <iostream>
using namespace std;

int main() {
    vector<int> v = {5, 6, 7, 8, 9};
    //added find and v.at to iterate to the correct element
    v.erase(find(v.begin(), v.end(), v.at(0)));

    cout << v[0] << endl;
    return 0;
}
```

Question 2:

```
#include <vector>
#include <iostream>
using namespace std;

int main() {
    vector<int> v;
    //used vector push_back instead of vector at
    v.push_back(42);
    cout << v.at(0) << endl;
    return 0;
}
```

Question 3:

```
#include <vector>
#include <iostream>
using namespace std;

int main() {
    vector<int> v = {2, 4, 6, 8, 9};

    for (int i = 0; i < v.size(); i++) {
        if ((v.at(i) % 2) == 0) {
            v.erase(v.begin() + i);
            i--; //decrement to deal with decreasing size of v
        }
    }

    // Print remaining elements
    for (int i = 0; i < v.size(); i++) {
        cout<< v.at(i) <<"-";
    }
```

```
    cout << endl;
    return 0;
}
```

Question 4:

```
#include <vector>
#include <iostream>
using namespace std;

int main() {
    vector<int> v = {5, 6, 7, 8, 9};

    int length = v.size(); //static length variable

    for(int i = 0; i < length; i++){
        v.push_back(v[i] * 2);
    }

    for(int i=0; i<v.size(); i++){
        cout<< v[i]<< endl;
    }
}
```

Question 5:

```
/*
Psudocode:
define function Fibonacci
take input n
variable total = 1
variable prev_total = 0
for and integer i = 0 less than n:
x = total;
total = prev_total+x;
prev_total = x;
increment i
end
end

inputs:
n=3, total = 2
n=5, total = 5
n=8, total = 21
*/
#include <iostream>

using namespace std;

int Fibonacci(int n){
    int total = 1;
    int prev_total = 0;
```

```
    int x = 0;

    for (int i = 0; i < n-1; i++){
        x = total;
        total = prev_total+x;
        prev_total = x;
    }
    return total;
}
int main(){
    cout << Fibonacci(8) << endl;
    return 0;
}
```