PIC 10A 1C Week 7b. Mini quiz. TA: Eric Kim. [Solutions]

1. Fairly Odd Program [3 minutes]

Write a program that asks the user for two integers a and b, and outputs all odd numbers between a and b (including a and/or b if they happen to be odd). An example output:

```
Enter two integers: 2 7
3
5
7
```

```
#include <iostream>

int main() {

    int a, b;

    cout << "Enter two integers: ";

    for (int i = a; i <= b; ++i) {




    }

    return 0;
}
```

[Solution]:

```
#include <iostream>
using namespace std;
int main() {
    int a, b;
    cout << "Enter two integers: ";
    cin >> a >> b;
    for (int i = a; i <= b; ++i) {
        if ((i % 2) == 1) {
            cout << i << endl;
        }
    }
    return 0;
}
```

2. Fibonaccios [3 minutes]

The Fibonacci sequence is the following sequence of numbers: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, etc. Each term is the sum of the previous two terms (1+1=**2**, 1+2=**3**, 2+3=**5**, etc).
Write a program that outputs the first N fibonacci numbers, where N is an integer given by the user. Pretend you are writing a brand-new cpp file (ie include any necessary headers). Use the following Fib class interface in your main() function:

```
class Fib {
public:
    Fib(); // Constructor
    unsigned int compute(unsigned int n); // Outputs the n-th term
                                          // of the Fib sequence
};
```

Here's the expected output:

```
    Enter an integer: 5
    The first 5 fib numbers are:
    0
    1
    1
    2
    3
```

```
// YOUR CODE HERE
```

[Solution]:

```
#include <iostream>
using namespace std;
int main() {
    unsigned int n;
    cout << "Enter an integer: ";
    cin >> n;
    cout << "The first " << n << " fib numbers are: " << endl;
    Fib myfib;
    for (unsigned int i = 0; i < n; ++i) {
        cout << myfib.compute(i) << endl;
    }
    return 0;
}
```