

C++ Programming

Variables Homework 2

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Problem #1: Guess Program Output

04_homework4.cpp

```
1 #include<iostream>
2 using namespace std;
3
4 int main() {
5     int num1, num2, num3;
6
7     num1 = 0, num2 = 1, num3 = num1 + num2, cout <<num3<<"\n";
8     num1 = num2, num2 = num3, num3 = num1 + num2, cout <<num3<<"\n";
9     num1 = num2, num2 = num3, num3 = num1 + num2, cout <<num3<<"\n";
10    num1 = num2, num2 = num3, num3 = num1 + num2, cout <<num3<<"\n";
11    num1 = num2, num2 = num3, num3 = num1 + num2, cout <<num3<<"\n";
12    num1 = num2, num2 = num3, num3 = num1 + num2, cout <<num3<<"\n";
13    num1 = num2, num2 = num3, num3 = num1 + num2, cout <<num3<<"\n";
14    num1 = num2, num2 = num3, num3 = num1 + num2, cout <<num3<<"\n";
15    num1 = num2, num2 = num3, num3 = num1 + num2, cout <<num3<<"\n";
16
17    // https://en.wikipedia.org/wiki/Fibonacci\_number
18
19    return 0;
20 }
```

Problem #2: Swapping 2 numbers!

- Write a program that reads 2 variables num1 and num2
 - E.g. say we read num1 = 7 and num2 = 231
- Target: we want swap the values of Num1 and Num2?
 - Swap means exchange
 - So Num1 takes value 231 and Num2 takes value 7

```
int main() {  
    int num1, num2, num3 = -1;  
  
    cin>>num1>>num2;           // let say we read 7 and 231  
  
    // TODO write 3 lines that swaps them  
  
    cout<<num1<<" "<<num2<<endl;    // This should print 231 7  
  
    return 0;  
}
```

“Acquire knowledge and impart it to the people.”

“Seek knowledge from the Cradle to the Grave.”