Name:

ECE 1574: Engineering Problem Solving with C++
Spring 2006, 3 credits, CRN: 11719: Test#1
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1. What will be the output of the following program if the user enters 12? (Give all details, i.e. all output lines) (2 pts)

```
#include <iostream>
using namespace std;
int main() {
    double  num1, num2;
    cout << "Input a number and press ENTER: ";
    cin >> num1;
    num2 = (num1 - 32) / 1.8;
    cout <<  num2;
    return 0;}
```

2. If a user enters 25 as the input to the following program, what will be the output? (2 pts)

```
#include <iostream>
using namespace std;
int main() {
    int  n;
    cin >> n;
    if (n % 3 == 0)
        cout << "Yes";
    else
        cout << "No";
    return 0;}
```

3. Convert 10010110 to a hexadecimal number; convert decimal 26 to a binary number, convert 35 to a hexadecimal number, convert hexadecimal number F3 to decimal, and convert binary 1110 to decimal. (5 pts)

4. Write a C++ program that prints out "Number is in range" if the user enters an integer between 10 and 100. (5 pts)

5. Write a C++ program that asks the user to input three integers one at a time (by prompting the user by saying "enter the first integer" etc., finds out the biggest number out of the three integers and then prints out a statement saying "The biggest number is = " followed by the biggest number out of the three numbers. (6pts)