May 22, 2015 Quiz 1

Total Score _______. Your work is to be done individually. The quiz is worth 50 points and it has 8 questions. Unless a problem directly instructs you differently, there are no known errors within this document. All programming solutions will be implemented in the C programming language. You only need to write the fragment of code that directly answers each question. Unless otherwise specified you do not have to write a full program for any of the questions.

1. [5 pts] Given a C program is contained in a file YourDoom.c, show how to compile the program at the command prompt using either of the two methods discussed in class.

Method 1: gcc YourDoom.c
Method 2: gcc YourDoom.c -o YourDoom.o

2. [5pts] Show how to run (execute) the program you compiled in the previous problem.

Method 1: ./a.out
Method 2: ./YourDoom.o

3. [6pts] Declare one variable of type char, one variable of type float, and one of the type int using a different name/identifier than those shown in our examples. (You are encouraged to be creative with the name/identifier)

```c
char someChar;
float someFloat;
int someInt;
```

//this is in green because I'm clearly not creative....

4. [6 pts] Read a char, float and int value from the user. Place each value read into the variables declared in the previous problem.

```c
scanf("%c", &someChar);
scanf("%f", &someFloat);
scanf("%i", &someInt);
```

5. [6pts] Provide an example of an invalid identifier. Provide a short explanation as to why the identifier could not be used to name a variable.

$money (or any other identifier using an invalid character $,%,^,+,&,|,(), [whitespace] etc) 
1someVariable (something starting with a number) 
while,if,do,case,swith,void,int,char,_Bool,float,double,long,unsigned (or some other reserved word)

The operator *= Multiplies the value in a variable by the expression to the right and stores it back in the variable.

sometInt *= 2; //this multiplies sometInt by 2.

7. [5pts] Given the following code fragment:

```c
int num = 10;
int den = 20;
float result = num/den;
```

What value is stored in the variable result?

0

(Not 0.5 because num and den are both integers so it is an integer division)

8. [10 pts] Provide an if statement that given a lower case letter (char letter;) would print to the console whether the letter is in the first half of the alphabet or on the second half of the alphabet. (Remember the alphabet has 26 letters… “m” is the 13th letter and “n” is the 14th).

```c
if(letter < 'n') {
    printf("letter %c is in the first half of the alphabet\n", letter);
} else {
    printf("letter %c is in the second half of the alphabet\n", letter);
}
```