

Name: (as it would appear on official course roster)		
Umail address:	@umail.ucsb.edu	section
Optional: name you wish to be called if different from name above.		
Optional: name of "homework buddy" (leaving this blank signifies "I worked alone")		

## h02: Chapter 2: Variables and assignments, Input/output, Data types and expressions, Simple flow control

1  
h02  
CS16 F19

ready?	assigned	due	points
true	Thu 09/26 12:30PM	Thu 10/10 12:30PM	25

You may collaborate on this homework with AT MOST one person, an optional "homework buddy".

MAY ONLY BE TURNED IN IN THE LECTURE/LAB LISTED ABOVE AS THE DUE DATE, OR IF APPLICABLE, SUBMITTED ON GAUCHOSPACE. There is NO MAKEUP for missed assignments;

Complete your reading of Chapter 1, section 1.3 pages 27-32, Chapter 2 sections 2.1 thru 2.4. Turn your homework in during lecture.

1. (6 pts) The author describes the difference between "syntax errors" and "logic errors", and also the difference between syntax errors that produce an "error message" vs. those that produce a "warning message". Briefly explain each of the items below in a way that makes the DIFFERENCES among them clear:

i. Syntax errors that result in an error message:

ii. Syntax errors that result in a warning message:

iii. Logic errors:

2. (2 pt) If the following statement were in a C++ program, what would it do?

```
cout >> "I love oranges and apples";
```

3. (2 pt) If the following statement were in a C++ program, what would it do?

```
cout << "The world goes round and round"
```

Please:

- No Staples.
- No Paperclips.
- No folded down corners.

# 2

## h02

CS16 F19

4. (4 pts) Show 2 different ways to initialize variables in C++?

5. (2 pts) Is this variable declaration statement in C++ a good one? Why or why not?

```
double int=30;
```

6. (4 pts) Write an if-else statement that outputs the string "Grade is B" if the variable `score` is between 80 and 90 (both limits included). Otherwise the if-else statement should output "Grade is not B" ?

7. (5 pts) The program below intends to do the following: Repeatedly prompt the user to input an integer number. When the user no longer wants to continue entering numbers, output the sum of all the positive numbers entered by the user followed by the sum of all the negative numbers entered by the user. However, the given program has errors. Mark all logical and syntax errors in the program and provide corrections in the space provided to the right. Add missing statements if any.

```
#include <iostream>

int main(){
    int a , sumPositive, sumNegative;

    string promptContinue = "\nTo continue enter Y/y\n";
    string promptNum = "\nEnter a number: ";

    char response;

    while (response = 'Y' || `Y') {
        cout << promptNum;

        cin >> a;

        if(a)
            sumPositive+=a;

        else
            sumNegative+=a;

        cout<< promptContinue;

    }

    cout<< "Sum of all the positive numbers is: "<< sumPositive<<endl;
    cout<< "Sum of all the negative numbers is: "<< sumNegative<<endl;

    return 0;
}
```