

## CS262, Lab 08: Debugging Techniques

### Answer Sheet

Name:

Lab Section:

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#### Step #1:

1. How many errors appear?  
**3 errors**
2. How many warnings appear?  
**2 warning**

#### Step #2: <NO QUESTIONS>

#### Step #3:

Run the program, and at the prompt, enter the value 10.

3. What happens?

**Segmentation fault (core dumped)**

4. What value is printed after "The sum of integers 0 to 10 is: " ?  
**10**
5. What value *\*should\** have been printed?  
**55**
6. How many warnings appear without the -Wall option?  
**0**
7. How many warnings appear with the -Wall option?  
**2**

#### Step #4:

8. How many times does the printf statement you added get executed?  
**1 time**
9. List in order the numerical values of sum output by the printf statement you added:  
**The sum in my printf is 10;**

Answer the following questions again, based on the most recent code execution:

10. How many times does the printf statement you added get executed?  
**1**
11. List in order the numerical values of *sum* output by the printf statement you added:  
**10**
12. What is the value of sum output by the program in the final statement?  
**10**

Compile and run the code again (using 10 as input).

13. Did the "statement with no effect" warning message go away?  
**Yes it did go away**

Now answer the following questions:

14. How many times does the printf statement you added get executed?  
**Only 1 time**
15. List in order the numerical values of *sum* output by the printf statement you added:

10

16. What is the value of sum output by the program in the final statement?

10

Comment out the for loop, and copy it to the line below, this time without the semicolon.

Compile and run the program again (using 10 as input). Now answer the questions:

17. How many times does the printf statement you added get executed?

10 times

18. List in order the numerical values of *sum* output by the printf statement you added:

0 1 3 6 10 15 21 28 36 45

19. What is the value of sum output by the program in the final statement?

45

20. Is the final value of sum correct? (Look at your answer to step #3 above)

No it should be 55

You are supposed to add the integers from 0 to 10.

21. Which integer is missing?

The integer 10 is missing

Compile and run the code again (using 10 as input):

Answer the following questions:

22. How many times does the printf statement you added get executed?

\_\_11 times\_\_

23. List in order the numerical values of *sum* output by the printf statement you added:

24. 0 1 3 6 10 15 21 28 36 45 55

25. What is the value of sum output by the program in the final statement?

55

### Step #5:

Recompile, and run the code.

26. Has the output changed?

\_\_\_\_\_Yes, it change drastically\_\_\_\_\_