Homework 1

Points: 100 **Due Date**: Monday, October 11, 1999 at 11:59PM

1. (*7 points*) Chapter 1, exercise 1
2. (*14 points*) Chapter 1, exercise 2
3. (*5 points*) Chapter 1, exercise 3
4. (*12 points*) Chapter 1, exercise 5
5. (*6 points*) Chapter 1, exercise 7
6. (*6 points*) Chapter 1, exercise 13
7. (*6 points*) Chapter 1, exercise 14
8. (*9 points*) Robust Programming handout, exercise 2
9. (*5 points*) Robust Programming handout, exercise 17
10. (*30 points*) This exercise asks you to look at a standard UNIX C library for problems with robustness. Please write three programs that use functions from the standard I/O library. You are to call the functions in such a way that they cause the program to crash, or generate unpredictable results. To demonstrate "crashing," use *gdb* output to show that the crash occured within the standard I/O library function. To demonstrate "unpredictable results," run your program (without changes) on at least two different types of computers in the CSIF (for example, once on a DEC and once on an SGI) and show that the results of the function differ (you can use *gdb*, or print the relevant values). ***Important note:you must supply the correct type of argument for the functions. You may not, for example, pass a character pointer where a file pointer is expected.***
    Please submit both the programs and typescripts for each program showing the crash or the unpredictable results.