Lab #2: COMP 3000 (Operating Systems)
January 17 & 19, 2006

Please answer the following questions. Note that the commands which, ls, ps, and wc will be particularly useful for this lab. You can find documentation on a command by giving it the “-help” flag or by running man. For ps, there are many options; to start with, try “ps aux” and “ps -e -L”. Please shut down your computer when you are done.

1. (2 pts) How many regular processes are running on your computer? How many kernel subsystem threads are running? (These are the “processes” which correspond to no program binary; their names are enclosed by square brackets). Were any of these processes/threads created by your attempt to answer this question? Explain.

2. (1 pt) Switch to a text console using ctrl-alt-F1 key sequence and log in. Run the worms command. Switch virtual consoles by pressing ctrl-alt-F2 and log in again. (You can switch back to your graphical session by pressing ctrl-alt-F7.) Is worms still running when it isn’t on the screen? Describe how you checked your answer.

3. (1 pt) Where is binary for the top command? What is the size of this binary?

4. (1 pt) How much memory does the top command consume when running (both virtual (VSZ) and resident(RSS))?

5. (1 pt) What program is your default shell (the command interpreter that you get when you log in)?

6. (2 pt) What user-specific configuration files does your shell read when you first login to a virtual text console? (Only include files that already exist in your home directory. You will need to run “ls -a” to see these files.)

7. (2 pt) Does your account’s default configuration search for commands in your current working directory? Explain.