

# System Administration for Beginners

## Week 3 Homework

February 22, 2010

Please turn in your homework at the beginning of class, with the assignment title, your name, `inst` login, and the answers (if multiple choice, just the letter is fine).

**HINT:** Some of these topics may not have been covered extensively in class. Remember that for almost every command, there exists a `man` page.

1. A symbolic link uses up as much disk space as the file to which it points. In other words, if you create a symbolic link to a 10 MB file, the symbolic link will require 10 MB of disk space.
  - (a) True
  - (b) False
2. What three-digit permissions group would you use to assign read and write permissions to the owner, read permissions to the group, and no permissions to everyone else?
  - (a) 741
  - (b) 650
  - (c) 640
  - (d) 541
3. Suppose you wanted to take the output of a command, filter out lines that do contain a certain word, and read the output so you could scroll up and down. Which of the following commands would you use?
  - (a) `command > grep word | less`
  - (b) `command > grep word > less`
  - (c) `command | grep word | less`
  - (d) `command | grep word >> less`
4. If you used `tar` to archive the contents of a directory, the resulting tar archive would use significantly less disk space than the original files.
  - (a) True
  - (b) False

5. If you wanted to copy over an entire directory using `scp`, which command-line parameter would you use?
  - (a) `-C`
  - (b) `-p`
  - (c) `-r`
  - (d) `-v`
6. On a system with multiple untrusted users, assigning the permissions `777` would probably be safe.
  - (a) True
  - (b) False
7. On a system with multiple untrusted users, assigning the permissions `750` would probably be safe.
  - (a) True
  - (b) False
8. A certain file is owned by the science group. On the same system, your login is a member of the science group. The file has permissions of `714`. What permissions do you have, assuming you are not the owner?
  - (a) Execute, read, and write
  - (b) Execute and read
  - (c) Write and read
  - (d) Execute
9. You notice that the permissions on a symbolic link are `777`. Therefore, if you wanted to access any file on the system, it should not be possible to create a symbolic link to it to grant yourself `777` permissions. Why is this not true?
  - (a) You won't be able to create a symbolic link to the file.
  - (b) Symbolic link permissions only refer to the link, not to the file that the link points to.
  - (c) Symbolic link permissions are not `777`.
  - (d) The statement is not false.