System Administration for Beginners

Week 3 Homework

February 23, 2009

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`ual 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 not contain a certain word, and read the output so you could scroll up and down. What single command 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.