

System Administration for Beginners

Week 3 Homework

September 29, 2008

As usual, please submit your homework to us at `cardi+decal@ocf.berkeley.edu` and `jchu+decal@ocf.berkeley.edu`. All that is necessary in your submission is your name, inst login, and the answers (just the letters is fine).

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