

# Answers to Even-numbered Exercises

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# 11

2. How would you communicate each of the following messages?

a. The system is coming down tomorrow at 6:00 in the evening for periodic maintenance.

Use the `/etc/motd` file and/or email.

b. The system is coming down in 5 minutes.

Use `wall`.

c. Jenny's jobs are slowing the system down drastically, and she should postpone them.

Use `write` or `talk`.

d. Alex's wife just had a baby girl.

Use the `motd` file and/or email.

4. How would you allow a user to execute privileged commands without giving the user the Superuser password?

You can create a `setuid` program that belongs to a group that only the user who is to execute it belongs to and that has no permissions for other users. Or you can implement `sudo` to grant the user permission to execute the file (see the `sudo` and `sudoers` man pages).

6. How can you disable SELinux?

Put the following line in `/etc/sysconfig/selinux`:

```
SELINUX=disabled
```

8. Give the command

```
$ /sbin/fuser -uv /
```

What is this a list of? Why is it so long? Give the same command as **root** (or ask the system administrator to do so and mail you the results). How does this list differ from the first? Why is it different?

This command displays a list of processes using the root filesystem.

The list is long because all the files on the system are children of root, so all processes using any file or filesystem are listed.

The first list shows only processes owned by the user who gave the command. When run as **root**, the output shows all processes. The lists are different because a **nonroot** user does not have access to gather information about other users.

10. Take a look at `/usr/bin/lesspipe.sh`, and explain what it does and six ways it works.

The `lesspipe.sh` script is a preprocessor for `less`. Search for **LESSOPEN** in the `less` man page for more information on `less` pre- and postprocessors. This preprocessor allows you to view archived directories and compressed files on the fly, without creating intermediate files. For example, once you have set the **LESSOPEN** variable, you can view a compressed file with the command `less memo.gz` or an archived directory with `less myold.tar`. The `lesspipe.sh` script works with tar, tar and gzip, tar and bzip2, gzip, bzip2, zip, and cpio files. It also displays the changelog when you ask `less` to display an `rpm` file.

12. When a user logs in, you would like the system to check for a username in the local `/etc/passwd` file first and then check NIS. How do you implement this strategy?

The

```
/etc/File:<B>/etc:<B>nsswitch.conf<X>File:<B>nsswitch.conf<X><B>ns  
switch.conf<D>
```

```
file<X>File:<B>/etc:<B>nsswitch.conf<X><B>/etc:<B>nsswitch.conf<D>  
file<X>nsswitch.conf file (page 413) controls the order in which the  
various sources are consulted to fulfill a request from the system. The  
following entry in this file causes the system to check /etc/passwd and then  
NIS:
```

```
passwd:      files nis
```