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## ANSWERS TO EVEN-NUMBERED EXERCISES

2. What is the MBR?

The MBR is the master boot record. It is the boot loader that frequently resides on the starting sectors of a hard disk.

4. What does the `/etc/init/rsyslog.conf` file do? When does it stop? What does the `respawn` keyword in this file mean?

The `/etc/init/rsyslog.conf` file controls the `rsyslogd` service, which logs messages. The `stop on runlevel [06]` line stops the service when the system is being brought down (runlevel 0) and when it is being rebooted (runlevel 6). The `respawn` keyword causes `init` to restart `logd` if it stops at a point other than when the system enters runlevel 0 or 6.

6. What is a boot loader?

A boot loader is a very small program that the bootstrap process uses as it brings a computer up from an off or reset state to a fully functional state. The boot loader frequently resides on the starting sectors of a hard disk called the MBR (master boot record).

8. When it puts files in a `lost+found` directory, `fsck` has lost the directory information for the files and thus has lost the names of the files. Each file is given a new name, which is the same as the inode number for the file:

```
$ ls -l lost+found
-rw-r--r-- 1 max pubs 110 06-10 10:55 51262
```

How can you identify these files and restore them?

Run `file` on the files in `lost+found`. View any readable file (e.g., text, C program, ASCII, shell script) using `less` or a text editor. Running strings on an executable file might help figure out which program it is. The `ls -l` command

displays the name of the owner of the file and the group it is associated with; gather additional information from users regarding which files are missing.

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

The `/etc/nsswitch.conf` file controls the order in which sources are consulted to fulfill a request from the system. The following entry in this file causes the system to check `/etc/passwd` first and NIS second:

```
passwd:      files nis
```

12. You have just installed an Adaptec SCSI card. How can you find out whether it has been recognized and which entry in `/dev` represents it?

```
$ dmesg | grep -i adaptec
```