

# 10

## ANSWERS TO EVEN-NUMBERED EXERCISES

2. Describe two ways to find out who is logged in on some of the other machines attached to your network.

Use `rsh`, `ssh`, or `telnet` to connect to and run `w` or `who` on each host.

Use `finger`.

Log in on the console of each host and run `w` or `who`.

4. A software implementation of chess was developed by GNU and is available for free. How can you use the Internet to find and download this program?

Use a search engine to find **GNU chess** and download the software from an appropriate site. Alternatively, go to the GNU home page and find the page that you can download the software from.

6. If you have access to the World Wide Web, answer the following questions.

- a. Which browser do you use?

System/user dependent, frequently Chrome or Firefox.

- b. What is the URL of the author of this book's home page? How many links does it have?

The URL is [www.sobell.com](http://www.sobell.com); the number of links varies.

- c. Does your browser allow you to create bookmarks? If so, how do you create a bookmark? How can you delete one?

Browser dependent.

8. What is the fully abbreviated form of the IPv6 address  
2620:0100:e000:0000:0000:0000:8001?

2620:100:e000::8001

10. Suppose the link between routers 1 and 2 is down in the Internet shown in Figure 10-1 on page 369. What happens if someone at site C sends a message to a user on a workstation attached to the Ethernet cable at site A? What happens if the router at site A is down? What does this tell you about designing network configurations?

Instead of traffic going from site C to router 1 to router 2 and then to site A, traffic goes from site C to router 1 to router 3 to router 2 and then to site A.

Network configurations are flexible and adaptive if redundancy has been designed in from the start.

12. Suppose you have 300 hosts and want to have no more than 50 hosts per subnet. What size of address block should you request from your ISP? How many /24 addresses would you need? How many subnets would you have left over from your allocation?

The next largest subnet above 50 that is a power of 2 is 64 addresses. Because 300/50 is 6, 6 subnets of 64 would be about 2 /24-equivalent networks. The subnet mask is 255.255.255.192 or /26. There would be 2 subnets left over.

14. Determine if IPv6 is enabled on the local system by finding the link-local address of a network interface.

Give the command `ifconfig` or `ip addr` to list addresses on enabled interfaces. An address of the form `fe80::xxxx:xxxx:xxxx:xxxx/64` means IPv6 is enabled.