1. Can a machine with a single DNS name have multiple IP addresses? How could this occur?

Solution: Yes. In fact, in Fig. 7-4 we seean example of a duplicate IP address. Remember that an IP address consists of a network number and a host number. If a machine has two Ethernet cards, it can be on two separate networks, and if so, it needs two IP addresses.

2. A binary file is 4560 bytes long. How long will it be if encoded using base64 encoding , with a CR+LF pair inserted after every 110 bytes sent and at the end?

Solution: The base64 encoding will break the messageinto 1520 units of 3 bytes each. Each of these will be encoded as 4 bytes, for a total of 6080 bytes. If these are then broken up into lines of 110 bytes, 56 such lines will be needed, adding 56 CRs and 56 LFs. The total length will then be 6192 bytes.

3. When Web pages are sent out, they are prefixed by MIME headers. Why?

Solution: The browser has to be able to know whether the page is text, audio, video, or something else. The MIME headers provide this information.

4. How do you make an image clickable in HTML? Give an example.

Solution:

A hyperlink consists ofand . In between them is the clickable text. It is also possible to put an image here. For example:

<img src="http://www.abcd.com/im/im2">
