Exercise 1 (10 Points)
Describe a simple client-server handshaking protocol. What information does the client need from the server? Why are handshaking protocols necessary?

Exercise 2 (10 Points)
Read the RFC for FTP (959). Why does FTP require two separate ports? If there are 12 clients connected to an FTP server, how many ports are in use by the FTP server?

Exercise 3 (10 Points)
Internet TCP sockets treat the data being sent as a byte stream but UDP sockets recognize message boundaries. What is one advantage and one disadvantage of using a byte-oriented API versus having the API explicitly recognize message boundaries defined by an application?

Exercise 4 (10 Points)
Is there any reason for a Socket API to allow an application to change its binding? If yes, what is the reason? If no, should the binding be a parameter of the socket procedure? Why?