**Homework #2** Due: Dec. 19

1. Why is it necessary to have layering in a network? What is data encapsulation in computer networking?
2. What are the five layers in the Internet protocol stack? What are the principal responsibilities of each of these layers?
3. Describe *multiplexing* and *demultiplexing* in transport layer.
4. What is the difference between *segment* and *datagram*?
5. What are the types of addresses (identifiers) used in each of the following layers?
6. Application layer
7. Network layer
8. Data-link layer