Quiz 1 Example Questions
Quiz 1 Examples

• Define the following computer network terms
  – Transmission delay
  – Propagation delay
  – Round trip time
  – Traffic intensity
  – Throughput
  – Forwarding Table
Quiz 1 Examples

• For each layer shown below write the name of the message exchanged between peers at that layer.
  – Transport
  – Network
  – Link
  – Physical
Quiz 1 Examples

• Suppose you want to move a 1GB file (use the base 2 meaning of G) from machine A to machine B. Machine A is connected to machine B by a coaxial cable that is 5 km long. The data rate is 1 Gbps (use the base 10 meaning of G) and the propagation speed is $2 \times 10^8$ m/s.
  
  – A) If you can transmit continuously, how long (measured from the time the first bit is sent) will it take for the last bit to arrive at B?
  
  – B) Suppose the file is broken into packets of 16,384 bytes and the transfer protocol sends 1024 packets and waits of an ACK before sending another 1024 packets. This process continues until the whole file has been sent. Assume the processing time to generate an ACK and to transmit the ACK is negligible but that you must account for the propagation delay when the ACK is sent. How long will it take to send the file measured from the time the first bit is sent to the time the last ACK arrives at A.
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• Match the following C code segments with the phrases on the accompany page.
  – A) sockfd = socket(AF_INET, SOCK_DGRAM, 0);
  – B) sockfd = socket(AF_INET, SOCK_STREAM, 0);
  – C) bind(sockfd, (struct sockaddr *) &server, sizeof(struct sockaddr_in));
  – D) listen(sockfd, 5);
  – E) sockfd2 = accept(sockfd, (struct sockaddr *) &client, &clen);
Quiz 1 Examples

- Waits for a new connection request
- Creates a UDP socket
- Associates a socket descriptor with a socket address
- Creates a TCP socket
- The server only accepts 5 connection request
- The server has room to buffer 5 unaccepted requests