1. What is the difference between Ethernet and the Internet? What are the differences between the main use cases?

2. What is the difference between a WAN and a LAN (local area network)?

3. What is the difference between FDM and TDM?

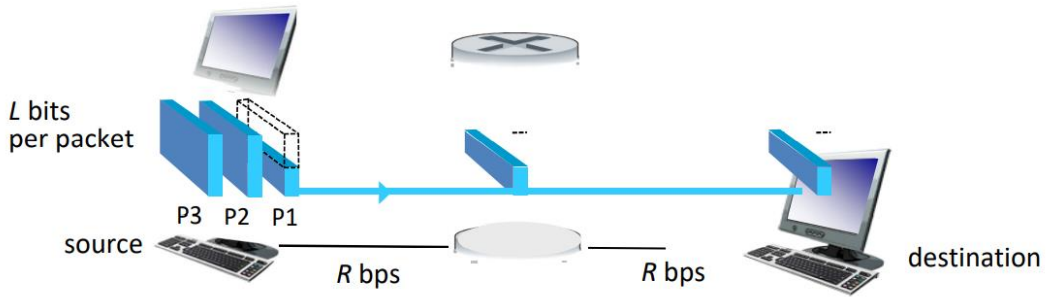
4. The transmission distance between the two ends of the transceiver is 1000 km, and the signal propagation speed on the media is 2×10^8 m/s. **Try calculating the send delay and propagation delay in the following two cases** (There is no need to consider about nodal processing and queueing time) :

(1) The data length is 10^7 bits, and the data transmission rate is 100kb/s.

(2) The data length is 10^3 bits, and the data transmission rate is 1Gb/s.

What conclusions can be drawn from the above calculations (For example: What is the main component in the total delay if the data length is short and the send rate is high)?

5. Scenario 3: Store and forward technique with 4 packets. **What is the end-end delay?**



6. Please **draw the protocol stacks of Internet**, and **describes the principle of each part**. Then use graphical descriptions to describe **the process of adding control information** as a message passes through the layered model.