

EECS 563
Homework 1

1. At the conclusion of this class you are expected to understand the basics of network protocols. List the basics you are to master.
2. Find the link to the Online Video Presentations associated with the Required text: Computer Networking: A Top-Down Approach, 8th Edition, J. Kurose and K. Ross
3. List the tools that will be used in this class.
4. Who will grade the class projects?
5. What information must be included on figures and tables in the class project reports?
6. Propagation delay plays an important role in communication networks. The one-way delay $\tau = d/v$, where d =distance between source and destination (m) and v =velocity of propagation in the transmission medium (m/s), e.g., in free space $v = c = 3 * 10^8$ m/s. For this problem assume free space propagation.
 - a. Find τ when the source and destination are in the same room, $d=2.5$ m
 - b. Find τ when the source and destination are in the same house, $d=25$ m
 - c. Find τ when the source is a smart phone and the destination is the cell tower, $d=2.5$ km
 - d. Find τ when the source is a satellite terminal and the destination is a satellite in low earth orbit, $d=2000$ km
 - e. Find τ when the source is a satellite terminal and the destination is a deep space probe nearing Saturn $d=1.2$ billion km.