Problem 1 [20 points]
OPNET Experiments Manual, Lab 1, Question 1

Problem 2 [20 points]
OPNET Experiments Manual, Lab 1, Question 2

Problem 3 [60 points: 20 points each part]
Now fix the propagation delay parameter of the coaxial cable in the network created above to be 128 nanoseconds/meter. Note that this scales the constructed network to about a maximum size Ethernet created by 10Base5 segments.
(a) Consider Ethernet frame size of 512 bytes. Recall that the packet size parameter for the Ethernet station node (ethcoax_station) does not include 18 bytes of header and CRC overhead. Run the simulation experiments for the appropriate values of the average interarrival packet time parameter (with identical value for each Ethernet station) to find the maximum throughput.
(b) Repeat (a) above for the minimum Ethernet frame size of 64 bytes, and find the corresponding maximum throughput.
(c) Compare the maximum throughput results of (a) and (b) to those obtained by the analytical formula discussed in the lectures. Explain the possible reasons for any differences observed.