

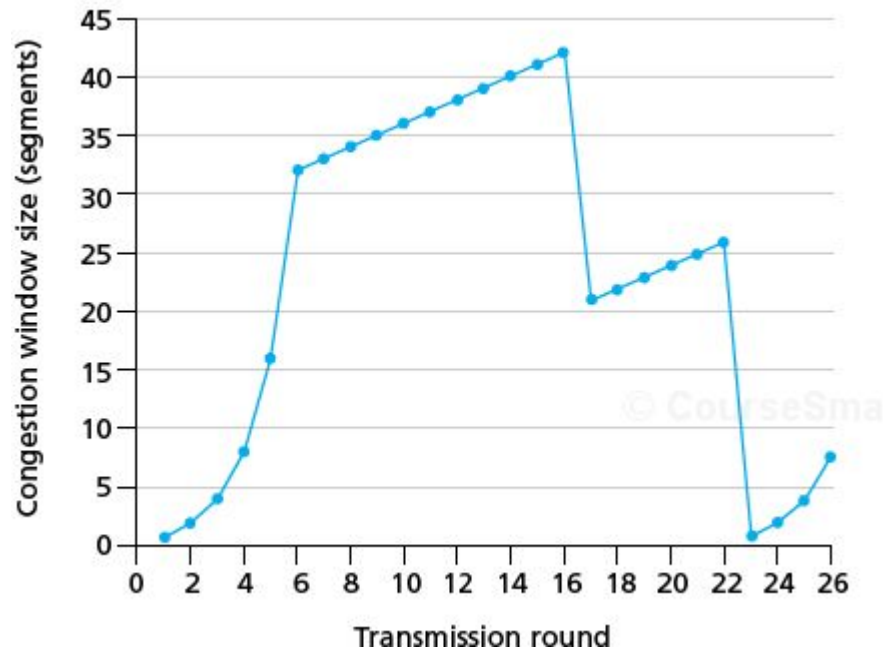
Cpr E 489 Spring 2020

Homework #6

Due Date: 04/28/2020 (Tue) by 11:00 AM

Type your answers and submit on Canvas

1. (50 points) Assume TCP Reno is the protocol experiencing the behavior shown in the following “Transmission round vs. Congestion window size” figure. Answer each of the following questions, and provide a short discussion to justify your answer.



- a) Identify the time intervals when TCP Slow Start is operating.
- b) Identify the time intervals when TCP Congestion Avoidance is operating.
- c) What is the value of *ssthresh* at the 5th transmission round?
- d) What is the value of *ssthresh* at the 15th transmission round?
- e) What is the value of *ssthresh* at the 25th transmission round?
- f) After the 16th transmission round, is the segment loss detected by a 3rd duplicate ACK or by a timeout?
- g) During which transmission round is the 50th data segment sent?
- h) During which transmission round is the 150th data segment sent?
- i) During which transmission round is the 250th data segment sent?
- j) Assuming a segment loss is detected after the 26th round by a timeout, what will be the values of new congestion window size and *ssthresh*?

- [illegible]