

1)

a) Identify the time intervals when TCP Slow Start is operating.

[1-6) and [23 - 26)

b) Identify the time intervals when TCP Congestion Avoidance is operating.

[6 – 22]

c) What is the value of ssthresh at the 4th transmission round?

Ssthresh = 32 as that is the cwnd that SS stops and CA starts

d) What is the value of ssthresh at the 10th transmission round?

No dup acks or timeouts have occurred so ssthresh = 32 still

e) What is the value of ssthresh at the 20th transmission round?

Had dup ack so ssthresh = $cwnd/2 = 42/2 = 21$

f) What is the value of ssthresh at the 24th transmission round?

Had timeout so ssthresh = $cwnd/2 = 26/2 = 13$

g) After the 16th transmission round, is the segment loss detected by a 3rd duplicate ACK or by a timeout?

Is a 3rd dup ack as cwnd isn't set to 1, rather cut in half.

h) 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?

Cwnd = 1 and ssthresh = $cwnd / 2 = 4$

2)

[illegible]