Sean Gordon (Sgordon4)
CprE 489 Online Exam 3 Q12

Time	Packet Received	Action Taken	List of unACKs packets	Total # dup ACKs	Estimated # outstanding packets	ssthresh value	cwnd size	cwnd range	# **new** packets to send
4 RTT	A9		9,10,11,12			4	5+1/5	9,10,11,12,13	1: #13
	A10		10,11,12,13			4	5+2/5	10,11,12,13,14	1: #14
	A11		11,12,13,14			4	5+3/5	11,12,13,14,15	1: #15
	A12		12,13,14,15			4	5+4/5	12,13,14,15,16	1: #16
	A13		13,14,15,16			4	6	13,14,15,16,17,18	2: #17, #18
5 RTT	A14		14,15,16,17,18			4	6+1/6	14,15,16,17,18,19	1: #19
	A15		15,16,17,18,19			4	6+2/6	15,16,17,18,19,20	1: #20
	1st dup A15		15,16,17,18,19,20			4	6+2/6	15,16,17,18,19,20	0
	2nd dup A15		15,16,17,18,19,20			4	6+2/6	15,16,17,18,19,20	0
	3rd dup A15	Enter FR, retransmit #15	15,16,17,18,19,20	3	20-15+1 - 3 = 3	3	3	15,16,17	0
6 RTT	A16	Partial ACK							
		Stay in Fast Recovery							
		Retransmit #16	16	0	16-16+1 - 0 = 1	3	3	16,17,18	1: #18
7 RTT	A17	Exit Fast Recovery	17,18			3	3+1/3	17,18,19	1: #19
	A18		18,19			3	3+2/3	18,19,20	1: #20
	A19		19,20			3	4	19,20,21,22	2: #21, #22
8 RTT	A20		20,21,22			3	4+1/4	20,21,22,23	1: #23
	A21		21,22,23			3	4+2/4	21,22,23,24	1: #24
	A22		22,23,24			3	4+3/4	22,23,24,25	1: #25
	A23		23,24,25			3	5	23,24,25,26,27	2: #26, #27