TCP Tahoe Example
Single packet loss: #13

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
5 RTT	1st dup A13		13,14,15,16,17,18			4	6	13,14,15,16,17,18	0
	2nd dup A13		13,14,15,16,17,18			4	6	13,14,15,16,17,18	0
	3rd dup A13	Retransmit #13	13,14,15,16,17,18			3	1	13	0
	4th dup A13		13,14,15,16,17,18			3	1	13	0
	5th dup A13		13,14,15,16,17,18			3	1	13	0
6 RTT	A19		none			3	2	19,20	2: #19, #20
7 RTT	A20		20			3	3	20,21,22	2: #21, #22
	A21		21,22			3	3+1/3	21,22,23	1: #23

TCP Tahoe Example
Multiple packet losses: #13, #17

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
5 RTT	1st dup A13		13,14,15,16,17,18			4	6	13,14,15,16,17,18	0
	2nd dup A13		13,14,15,16,17,18			4	6	13,14,15,16,17,18	0
	3rd dup A13	Retransmit #13	13,14,15,16,17,18			3	1	13	0
	4th dup A13		13,14,15,16,17,18			3	1	13	0
6 RTT	A17		17,18,19			3	2	17,18	0
									Wait for RTO

TCP Reno Example
Single packet loss: #13

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
5 RTT	1st dup A13		13,14,15,16,17,18			4	6	13,14,15,16,17,18	0
	2nd dup A13		13,14,15,16,17,18			4	6	13,14,15,16,17,18	0
	3rd dup A13	Enter Fast Recovery Retransmit #13	13,14,15,16,17,18	3	18-13+1 - 3 = 3	3	3	13,14,15	0
	4th dup A13		13,14,15,16,17,18	4	18-13+1 - 4 = 2	3	3	13,14,15	1: #19
	5th dup A13		13,14,15,16,17,18,19	5	19-13+1 - 5 = 2	3	3	13,14,15	1: #20
6 RTT	A19	Exit Fast Recovery	19,20			3	3+1/3	19,20,21	1: #21
	A20		20,21			3	3+2/3	20,21,22	1: #22
	A21		21,22			3	4	21,22,23,24	2: #23, #24

TCP Reno Example
Multiple packet losses: #13, #17

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
5 RTT	1st dup A13		13,14,15,16,17,18			4	6	13,14,15,16,17,18	0
	2nd dup A13		13,14,15,16,17,18			4	6	13,14,15,16,17,18	0
	3rd dup A13	Enter Fast Recovery Retransmit #13	13,14,15,16,17,18	3	18-13+1 - 3 = 3	3	3	13,14,15	0
	4th dup A13		13,14,15,16,17,18	4	18-13+1 - 4 = 2	3	3	13,14,15	1: #19
6 RTT	A17	Exit Fast Recovery	17,18,19			3	3+1/3	17,18,19	0
	1st dup A17		17,18,19			3	3+1/3	17,18,19	0
									Wait for RTO

TCP New Reno Example
Multiple packet losses: #13, #17

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
5 RTT	1st dup A13		13,14,15,16,17,18			4	6	13,14,15,16,17,18	0
	2nd dup A13		13,14,15,16,17,18			4	6	13,14,15,16,17,18	0
	3rd dup A13	*Enter Fast Recovery* Retransmit #13	13,14,15,16,17,18	3	18-13+1 - 3 = 3	3	3	13,14,15	0
	4th dup A13		13,14,15,16,17,18	4	18-13+1 - 4 = 2	3	3	13,14,15	1: #19
6 RTT	A17	*Partial ACK* *Stay in Fast Recovery* Retransmit 17	17,18,19	0	19-17+1 - 0 = 3	3	3	17,18,19	0
	1st dup A17		17,18,19	1	19-17+1 - 1 = 2	3	3	17,18,19	1: #20
7 RTT	A20	*Exit Fast Recovery*	20			3	3+1/3	20,21,22	2: #21, #22
	A21		21,22			3	3+2/3	21,22,23	1: #23

TCP New Reno Example

Multiple packet losses: #13, #15, #17

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
5 RTT	1st dup A13		13,14,15,16,17,18			4	6	13,14,15,16,17,18	0
	2nd dup A13		13,14,15,16,17,18			4	6	13,14,15,16,17,18	0
	3rd dup A13	*Enter Fast Recovery* Retransmit #13	13,14,15,16,17,18	3	18-13+1 - 3 = 3	3	3	13,14,15	0
6 RTT	A15	*Partial ACK* *Stay in Fast Recovery* Retransmit #15	15,16,17,18	0	18-15+1 - 0 = 4	3	3	15,16,17	0
7 RTT	A17	*Partial ACK* *Stay in Fast Recovery* Retransmit #17	17,18	0	18-17+1 - 0 = 2	3	3	17,18,19	1: #19
8 RTT	A19	*Exit Fast Recovery*	19			3	3+1/3	19,20,21	2: #20, #21
	A20		20,21			3	3+2/3	20,21,22	1: #22