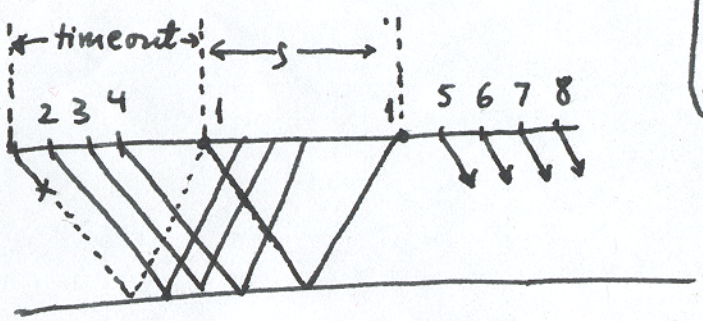
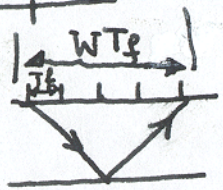
1st packet lost
W=4



Assumption



WTf = timeout = S

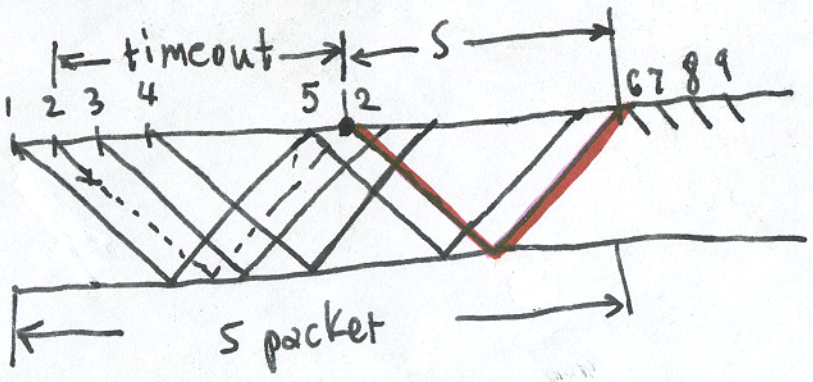
Round trip assumption

In S+timout we transmit 4 packets

1st packet lost $N_1 = 4$, $T_1 = S + timeout = 2S$

$= 2W \cdot T_f$

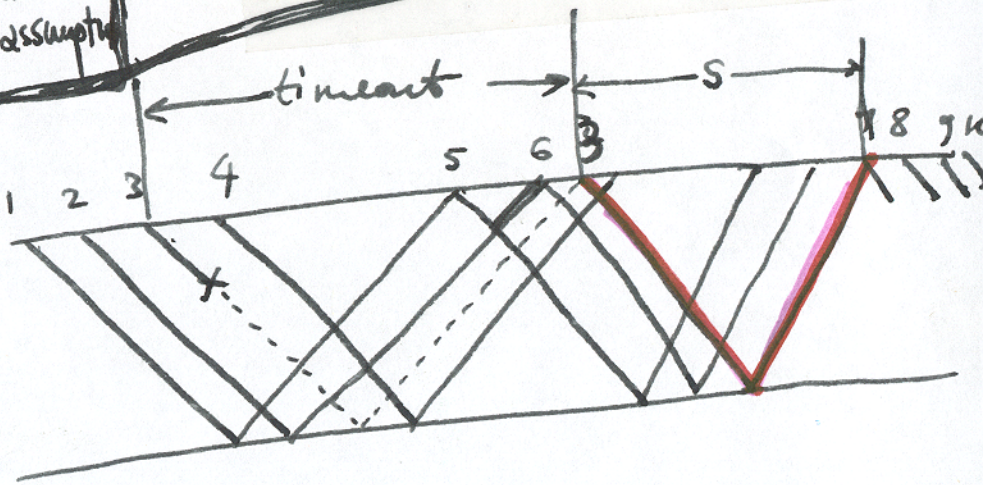
2nd packet lost
W=4



$N_2 = 5$, $T_2 = T_f + timeout + S$

$= 2WT_f + T_f$

$= (2W + (2-1))\, T_f$.

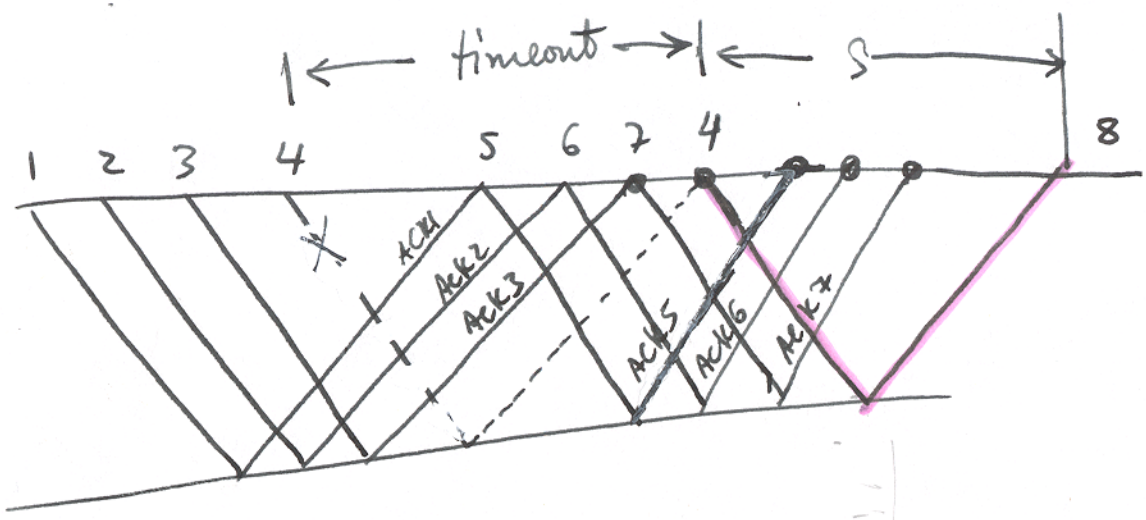


$T_3 = (2W + (3-1))\, T_f$

$N_3 = 6$.

3rd packet lost, W=4

1 2 3 X 5 6 7 8



4th packet lost

W = 4