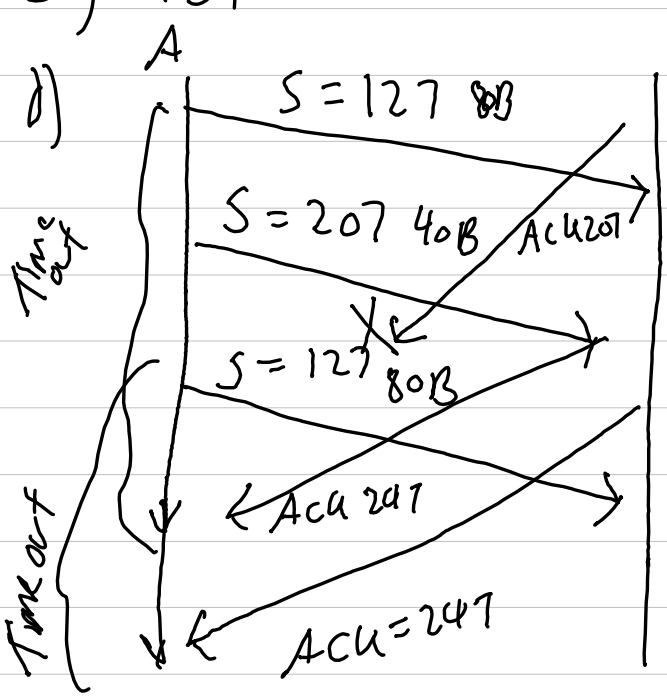
P.27

a) Sequence number 207 Source 302
destination 80

b) Seq 207 Source 80 destination 302

c) 127

d)



P. 31

Sample RTT = 106ms

Estimated RTT = 100.75

DevRTT = 5.06

Timeout interval = 120.99

Sample RTT value 120ms

Estimated RTT = 103.15

DevRTT = 8

Timeout interval = 135.15

Sample RTT value = 140

Estimated RTT = 107.756

DevRTT = 14.061

Timeout Interval = 164

Sample RTT value 90

Estimated RTT = 105.536

DevRTT = 14.43

Timeout interval = 163.256

Sample RTT = 115

Estimated RTT = 106.72

Dev RTT = 12.84

Timeout interval = 156.26

P.40

a) [1, 6] and [23, 6]

b) [7, 16] and [17, 22]

c) ~~Timeout~~ Triple duplicate ACK

d) Triple duplicate ACK

P.47

a) $\frac{w}{2}\left(\frac{w}{2}+1\right)\left(\frac{\frac{w}{2}\left(\frac{w}{2}+1\right)}{2}\right)$

$= \frac{w^2}{4} + \frac{w}{2} + \frac{w^2}{8} + \frac{w}{4}$

$= \frac{3}{8}w^2 + \frac{3}{4}w$ rota

$\Rightarrow \boxed{\frac{1}{\frac{3}{8}w^2 + \frac{3}{4}w}}$

b) $\frac{3}{8}w^2 > \frac{3}{4}w$

$\text{Isolate} = \frac{3}{3}w^2$ & from that find w

$w = \sqrt{\frac{8}{3}}L$

$B = \frac{3}{4}\sqrt{\frac{8}{3}}L = \frac{MS}{RT_1}$

$= \boxed{\frac{1.22\,MS}{RT_1}\sqrt{L}}$