

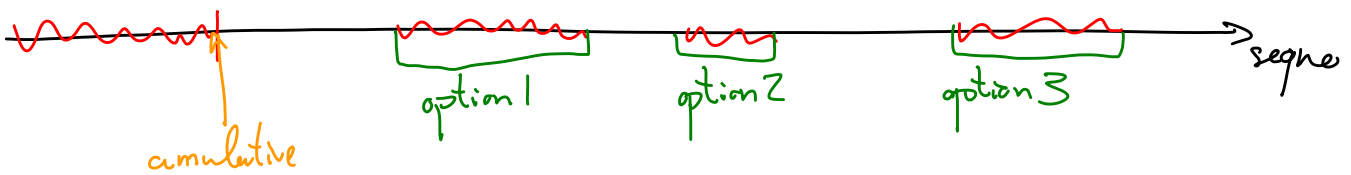
Lecture 10

SACK (Selective ACKs)

Sender uses this info only in fast recovery.

compare pipe, cwnd to decide *if* new packets should be sent

lookup scoreboard to decide *which* packets to send.

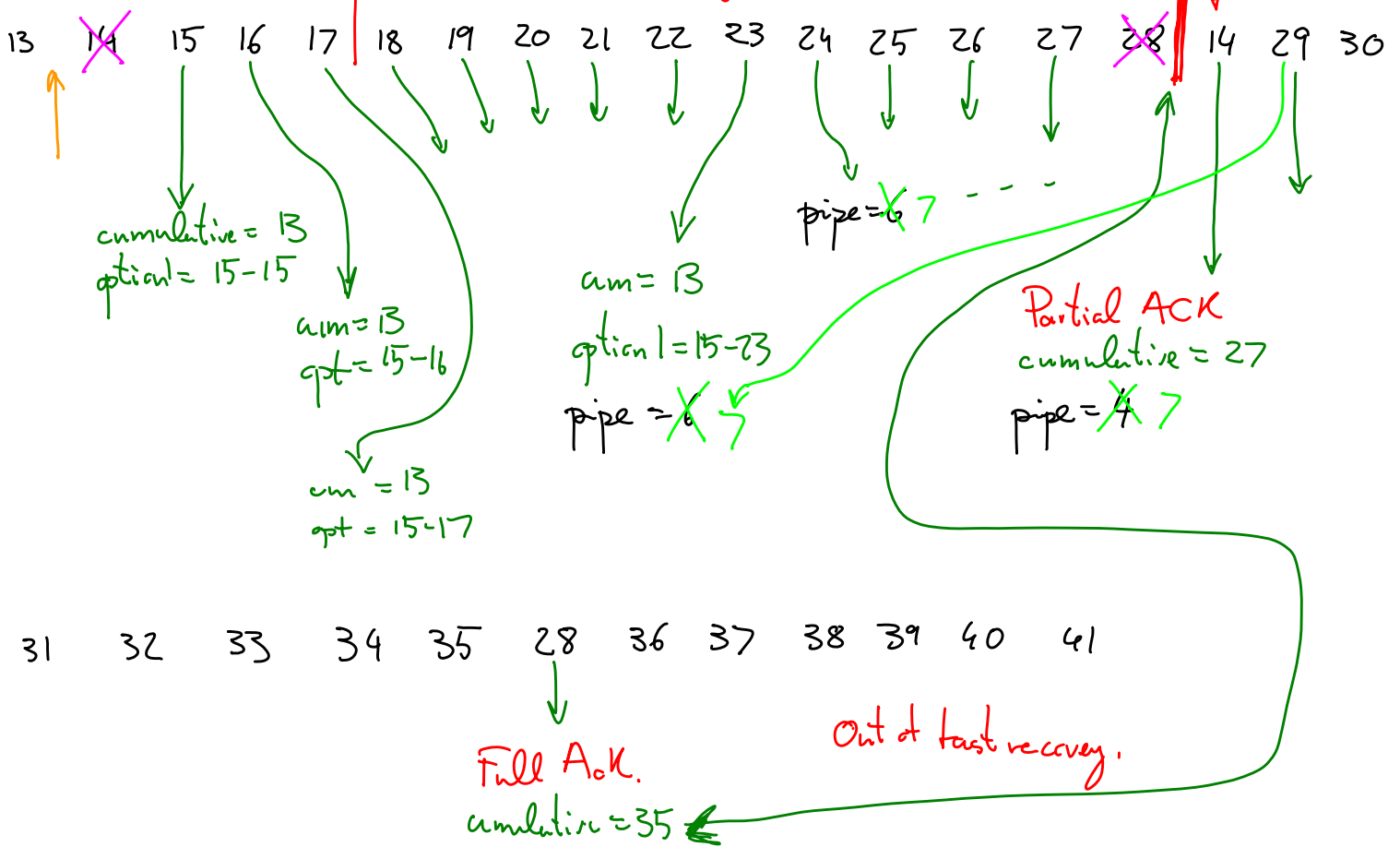


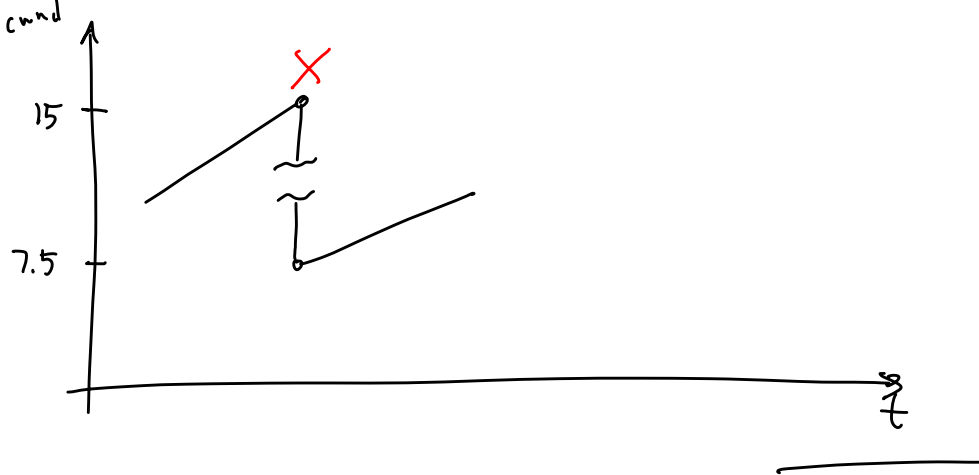
Example

cwnd = 15

cwnd = 7, pipe = 12

Fast Retx, Fast Recovery

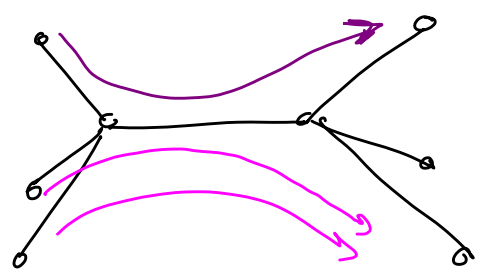




TCP Equation

$$\text{Throughput} \approx \frac{1}{RTT} \sqrt{\frac{3}{2\beta p}} + o\left(\frac{1}{\sqrt{p}}\right)$$

⊙
= 2



Flows influence one another by loss rates p and by RTT