How long should a sender wait before retransmitting?

Sender

Recv.

RTT

best case

worst case

never

avg. length

$\text{timer} = \text{RTT}$

if timer value is set too low then unnecessary retransmissions

if too high then unnecessary lag.
Receiver FSM doesn't need to worry about timer!
Can we have TTL field?

Pkt.Htime > Pkt.O.Htime

= having long sequence numbers
How many packets can be in transit before the sender receive the ack for first bit?

\[
\frac{\text{Latency} \times \text{Bandwidth product}}{\text{RTT}} + 1
\]
HW
1.
2. Problems 3, 4, 8, 9, 10, 11
   12, 18, 19, 20, 21