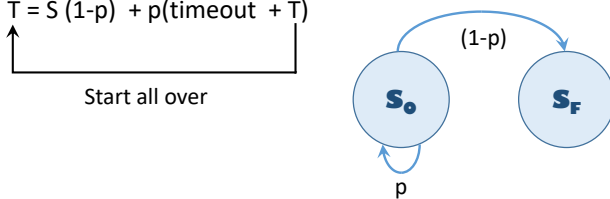


Problem 6
Clarification

Problem 6 – Computing the expected time it takes to transmit a packet successfully

- There are two possible events:
 - The packet transmission succeeds, with probability $(1-p)$
 - Let S be the time to successfully transmit a packet and receive an ACK
 - The packet transmission fails, with probability p
 - When a failure occurs, the sender waits until a timeout expires and retransmit the packet.
 - Therefore, if T represents the expected time, we have
 - $T = S(1-p) + p(\text{timeout} + T)$



Problem 6 – Computing S

