```
--- Paxos Proposer ---
    proposer(v):
 1
 2
      while not decided:
 2
         choose n, unique and higher than any n seen so far
 3
         send prepare(n) to all servers including self
         if prepare_ok(n, \mathbf{n}_{a}\text{, }\mathbf{v}_{a}\text{)} from majority:
 4
 5
           v' = v_a with highest n_a; choose own v otherwise
           send accept(n, v') to all
 6
 7
           if accept ok(n) from majority:
             send decided(v') to all
 8
    --- Paxos Acceptor ---
    acceptor state on each node (persistent):
10
     n<sub>p</sub> --- highest prepare seen
11
     n_a, v_a --- highest accept seen
    acceptor's prepare(n) handler:
12
13
     if n > n_p
14
       n_p = n
15
       reply prepare_ok(n, n<sub>a</sub>, v<sub>a</sub>)
16
     else
17
       reply prepare_reject
    acceptor's accept(n, v) handler:
18
19
     if n >= n_p
20
       n_p = n
21
       n_a = n
22
       v_a = v
23
       reply accept_ok(n)
24
     else
25
       reply accept reject
```