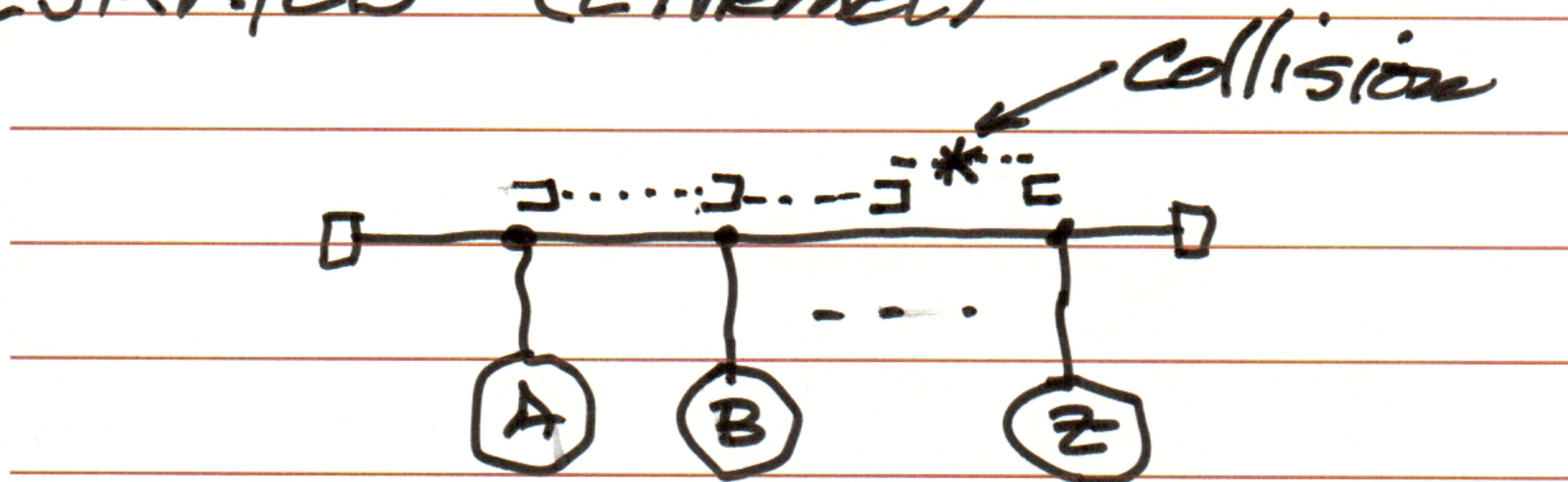


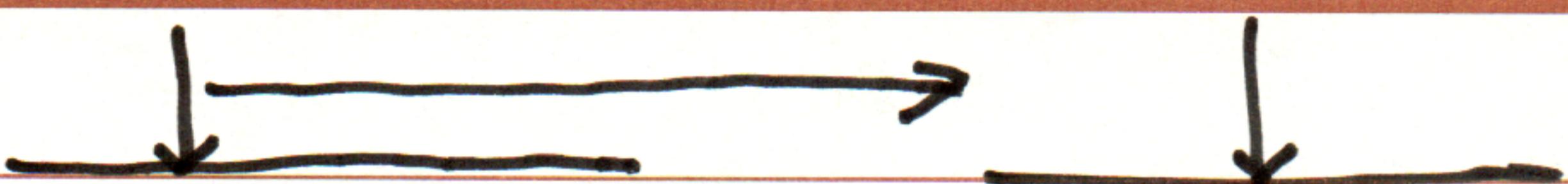
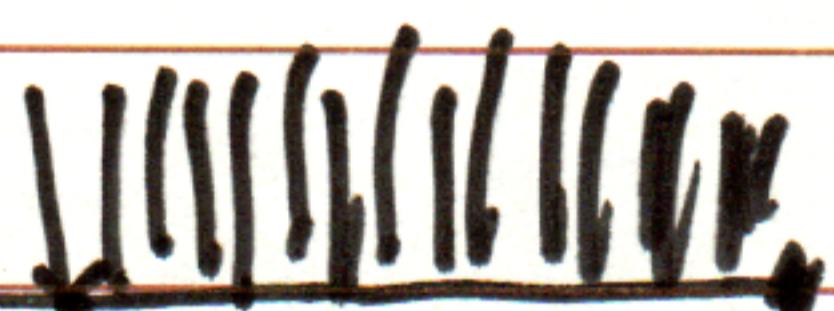
2021 - 2022.

2019 - 2021

CSMA/CD (Ethernet)

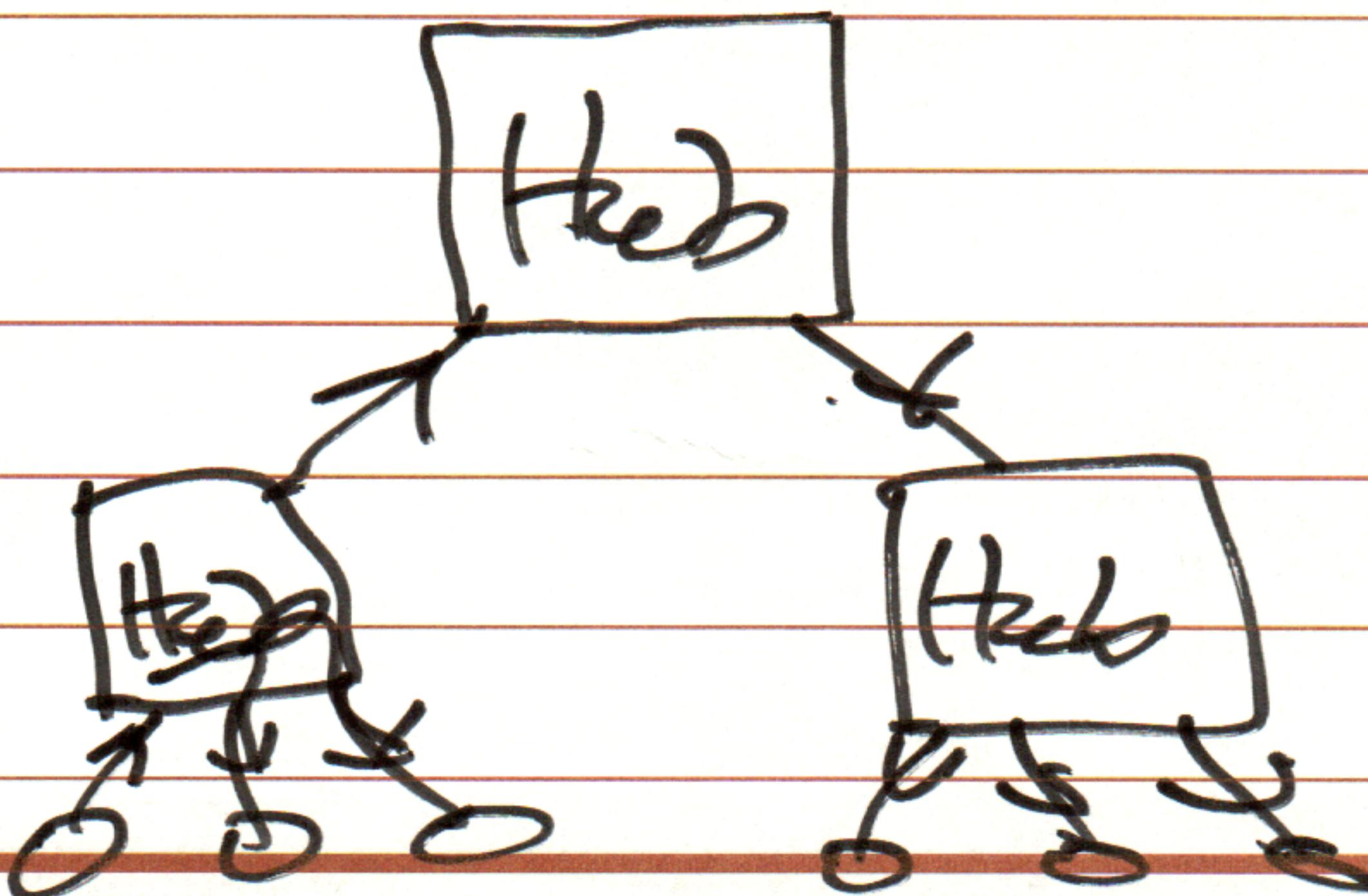
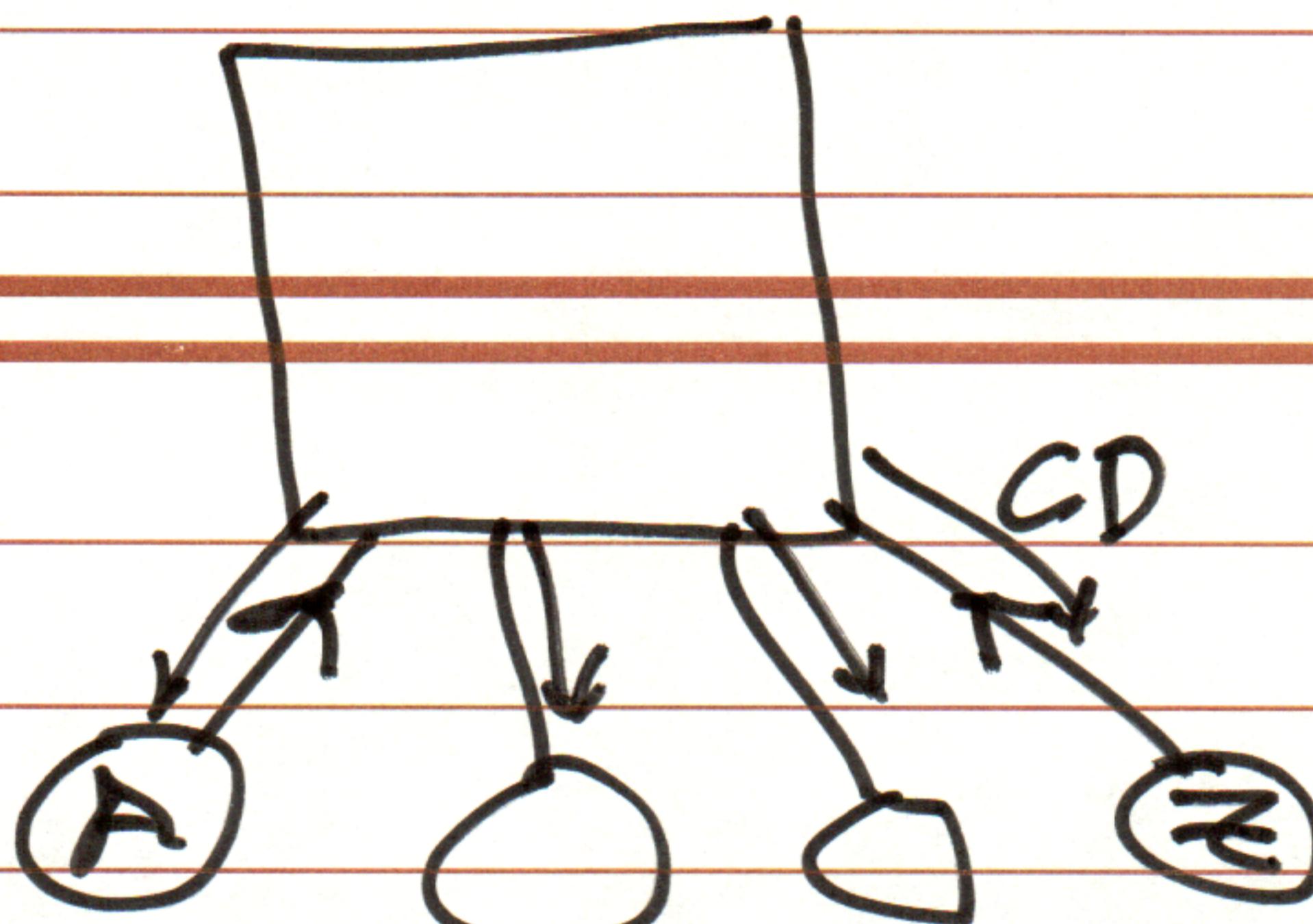
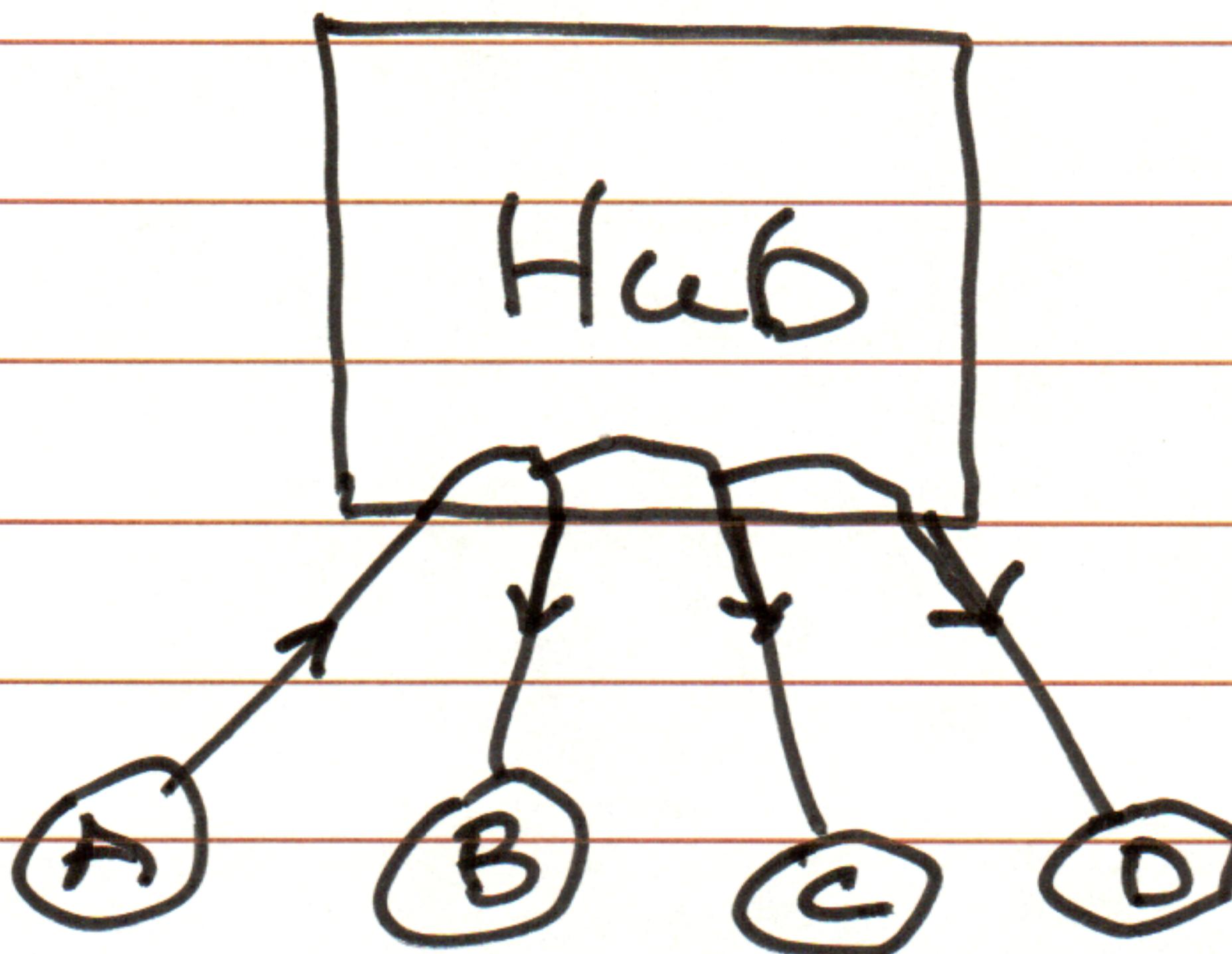


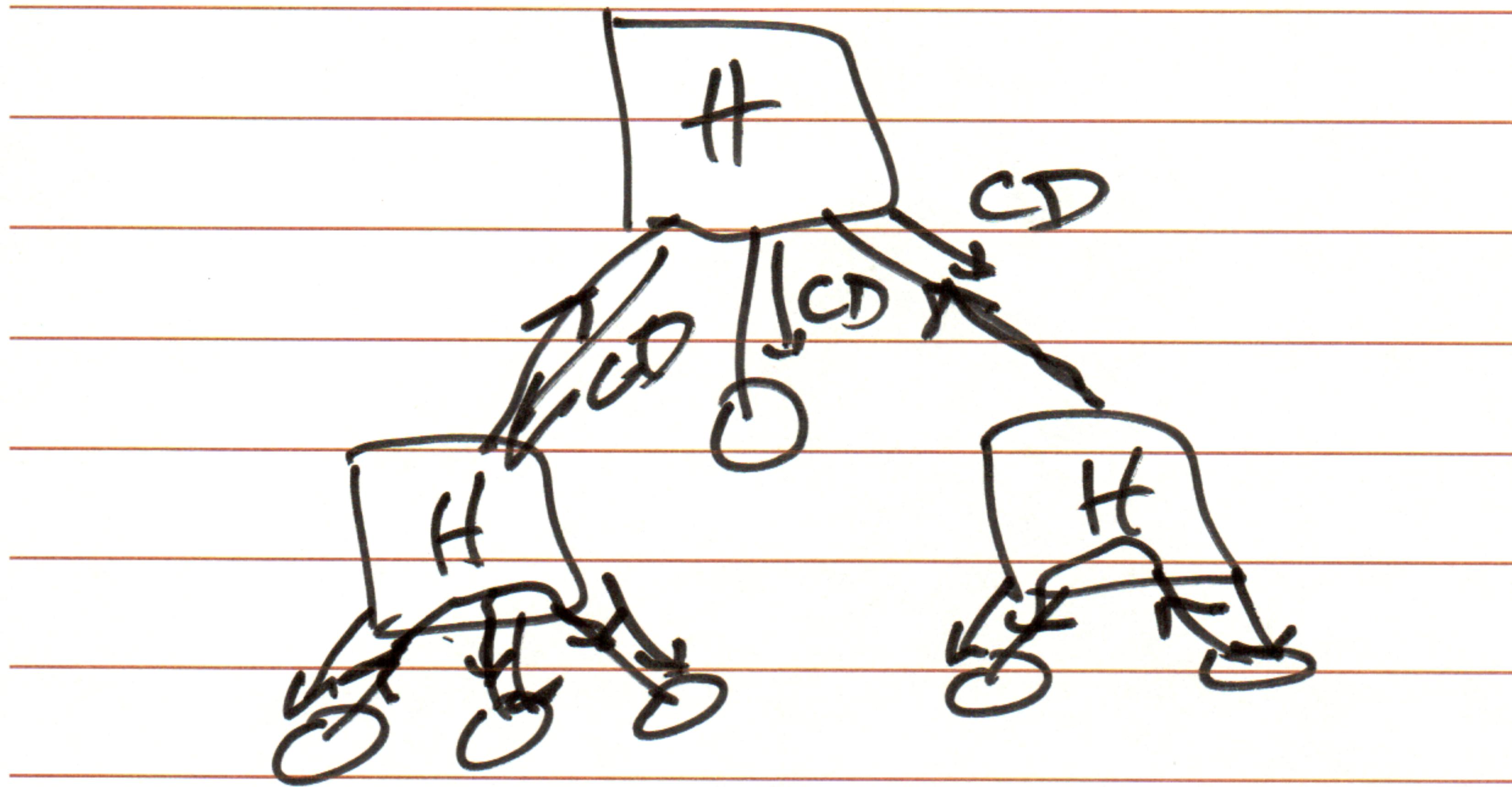
$$T_f = \text{Frame } T/x + \text{time} \geq 2T_p$$



Hub Topology

Physical Layer
doesn't recognize any address.

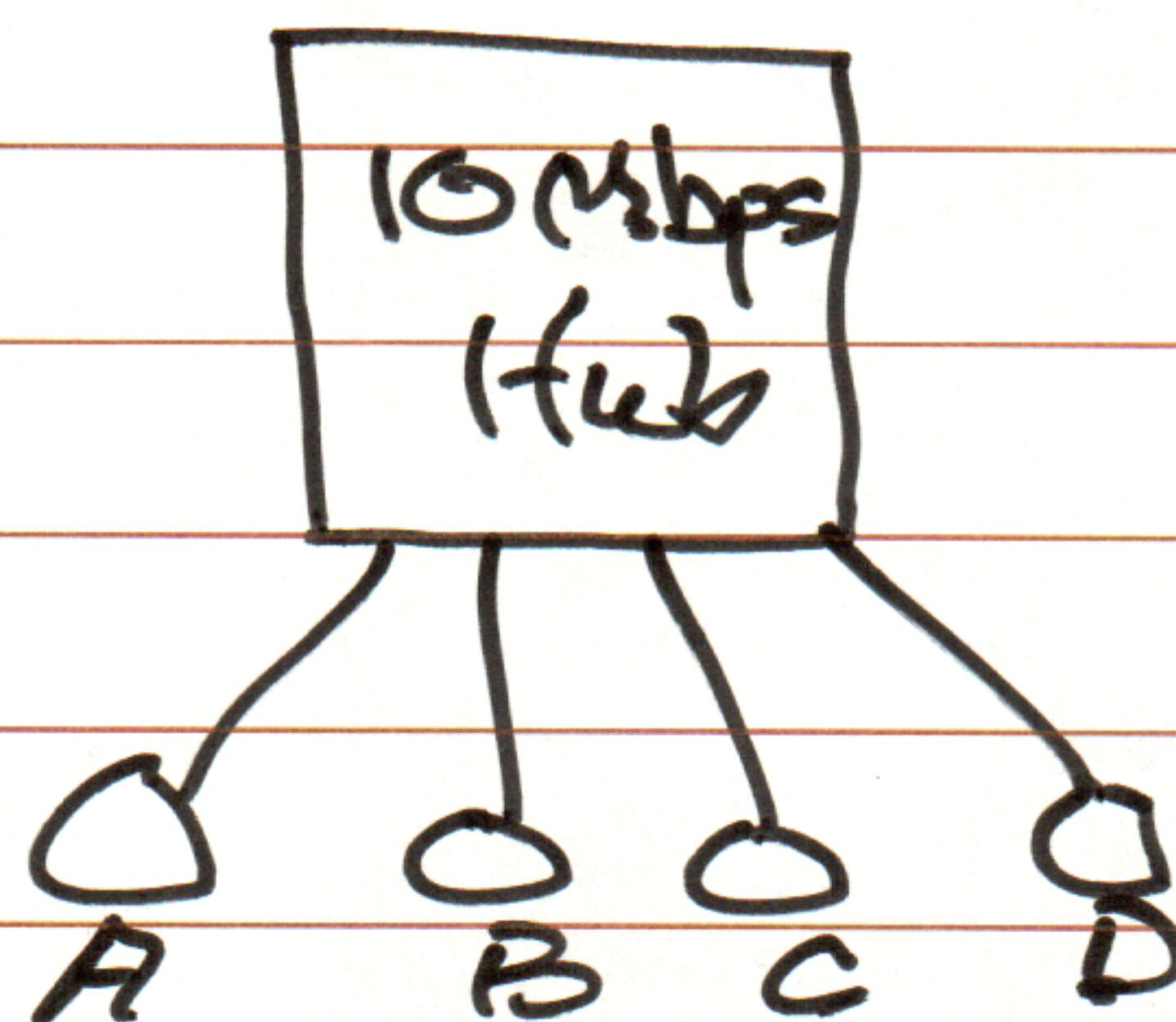




In a hub there is ONE collision domain

domain

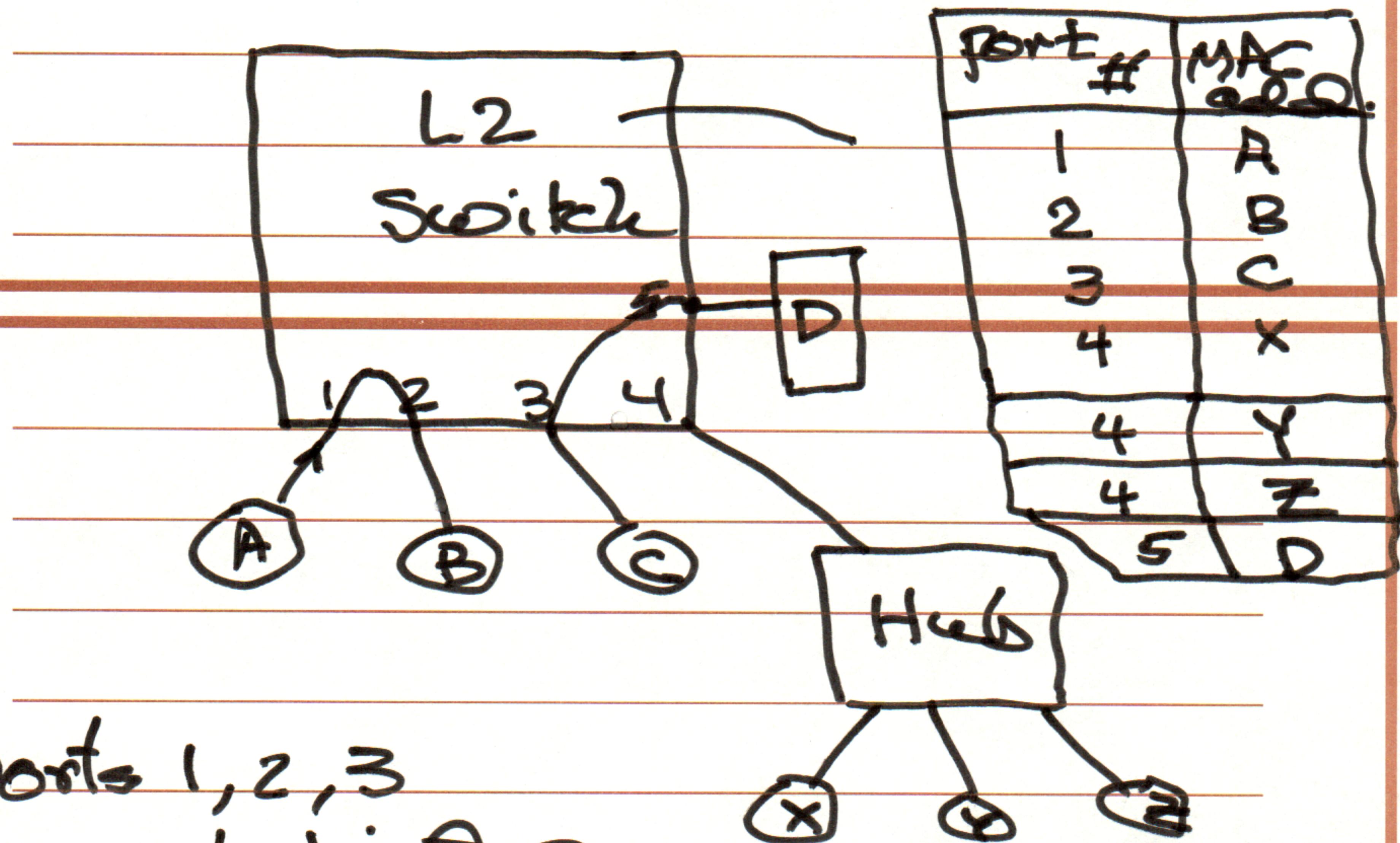
every port
can support
10Mbps.



Hub has 10Mbps throughout
avg throughput of each node
is 2.5 Mbps.

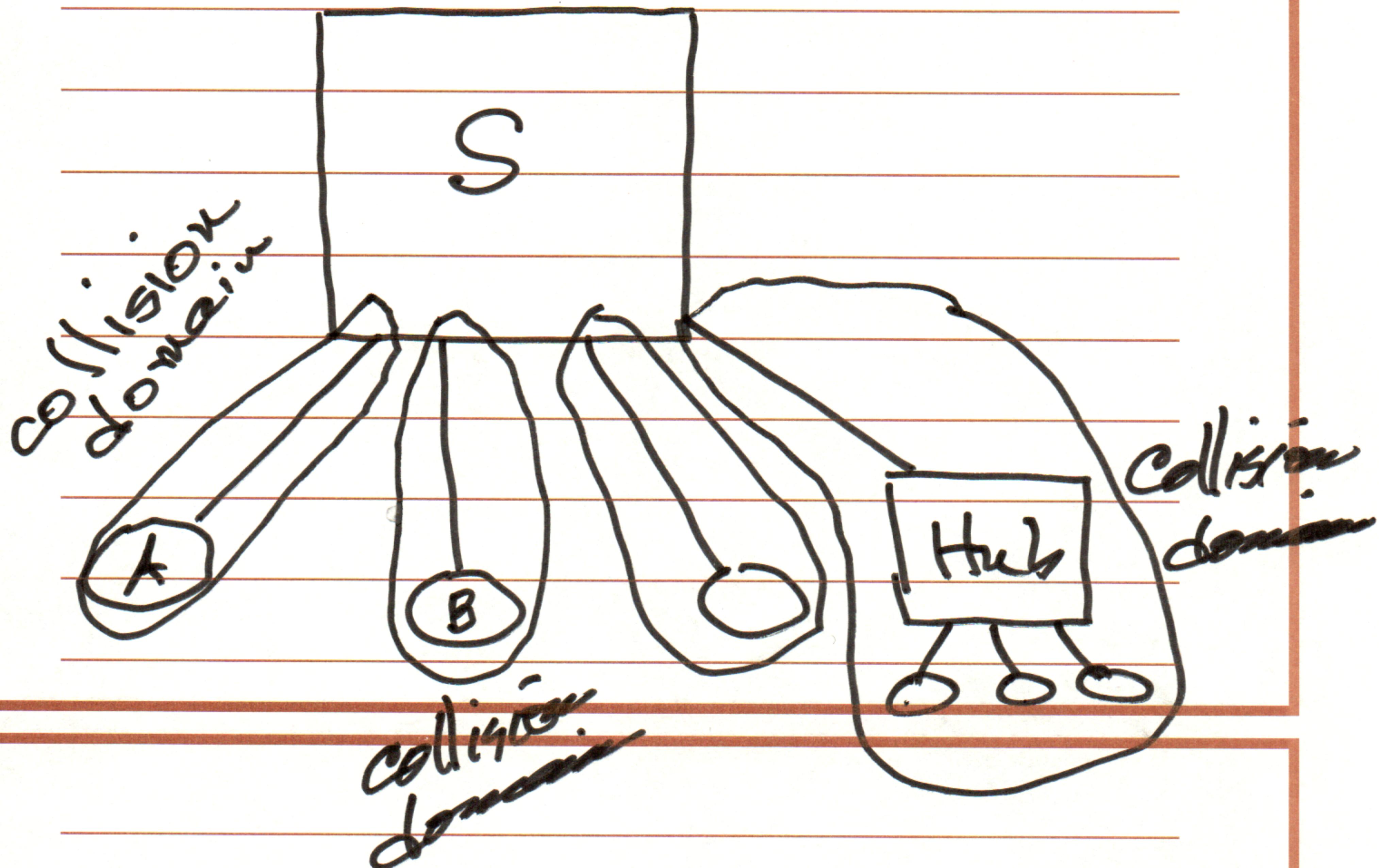
Switched Ethernet

A switch is a L2 device.
they recognize MAC address
only (i.e. No recognition for IP
addresses).

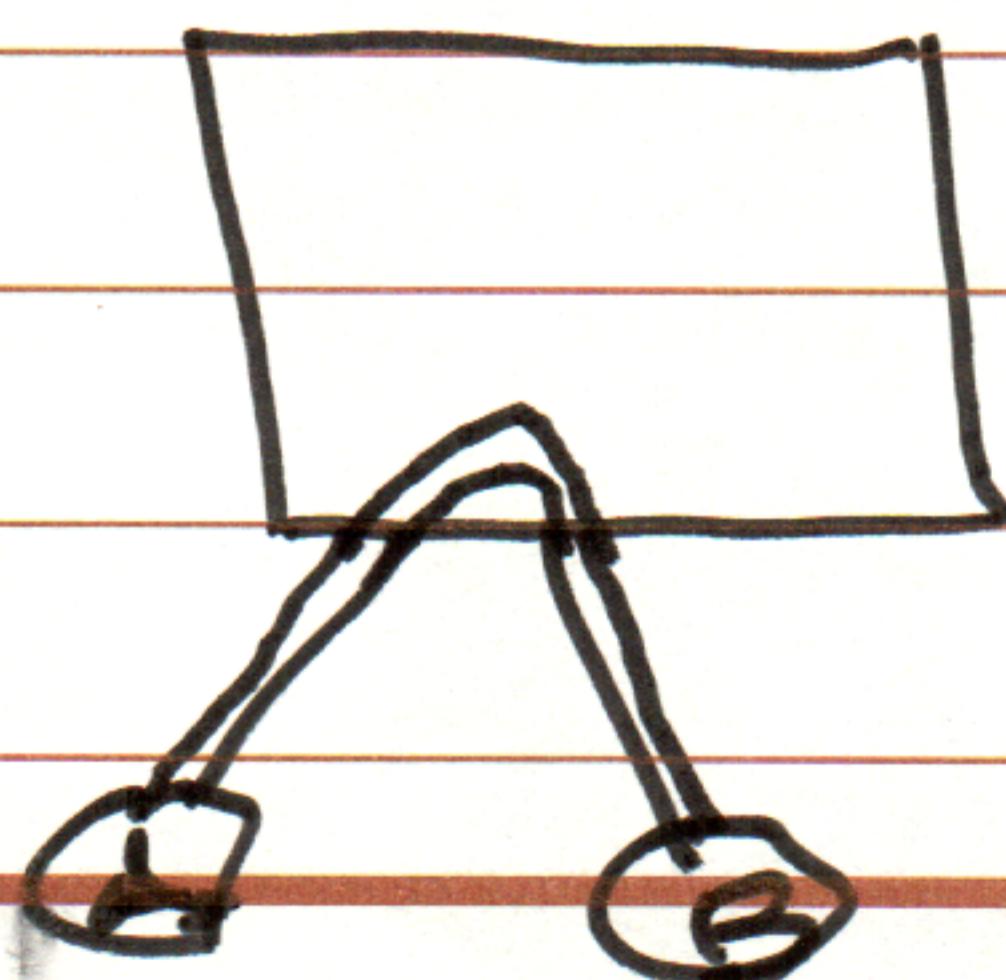


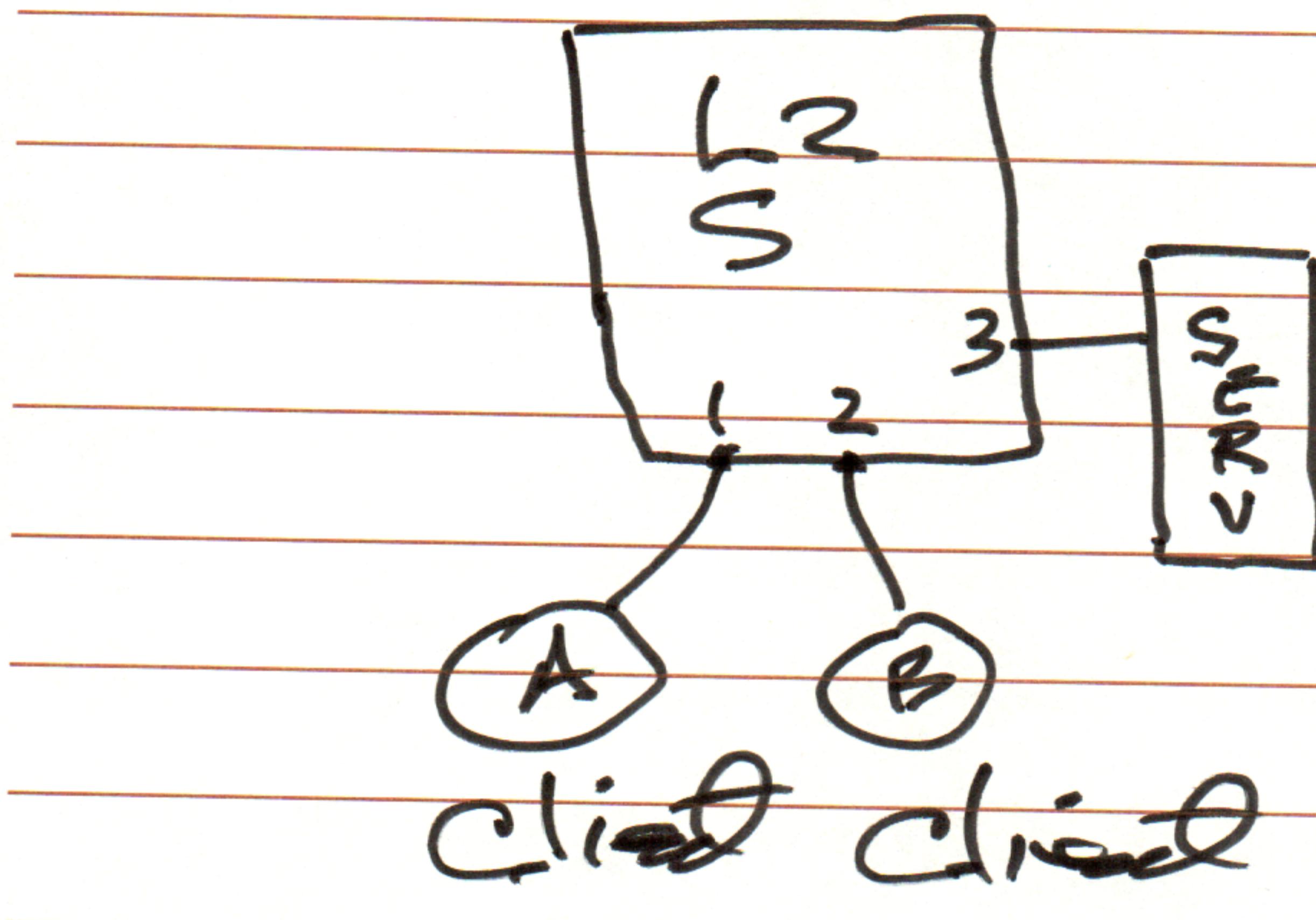
ports 1, 2, 3
are dedicated
ports

port 4 is shared.



A switch isolates collision domains \Rightarrow Every port of a switch constitutes a collision domain.





Cut-through Switching

Switch is a Transparent device i.e. the nodes do not know that the Switch exists.