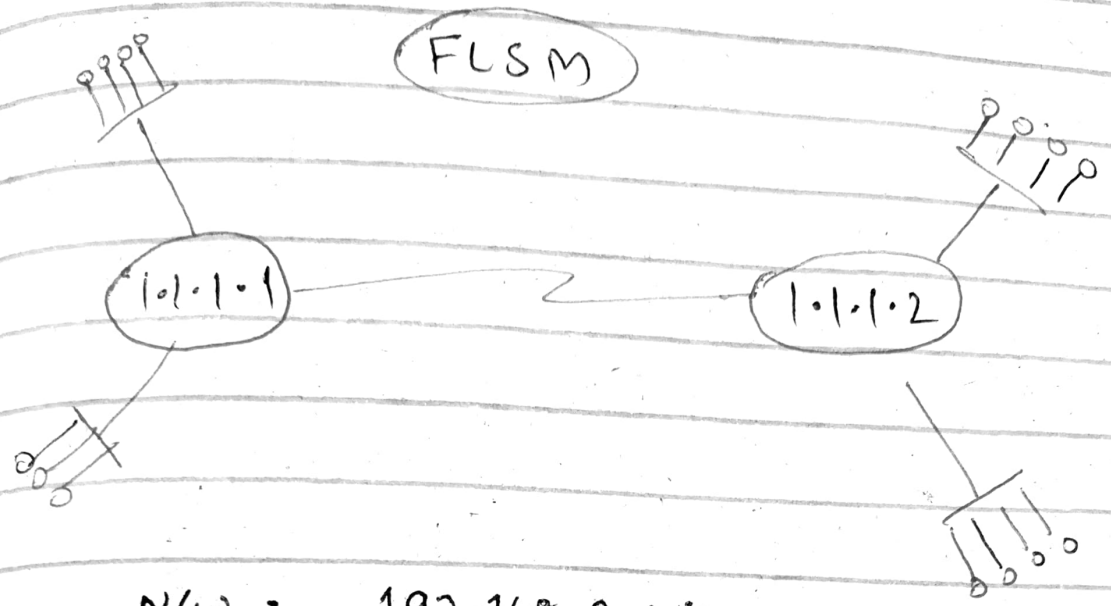
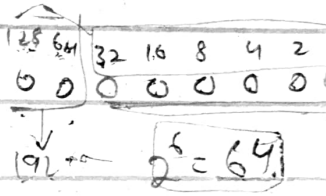
Networking

Wed, 10 Sep



N/w : 192.168.0.0/24

4 subnets, 60 hosts/subnet



Borrow 2 bits to n/w:

NW1: 192.168.0.0/26

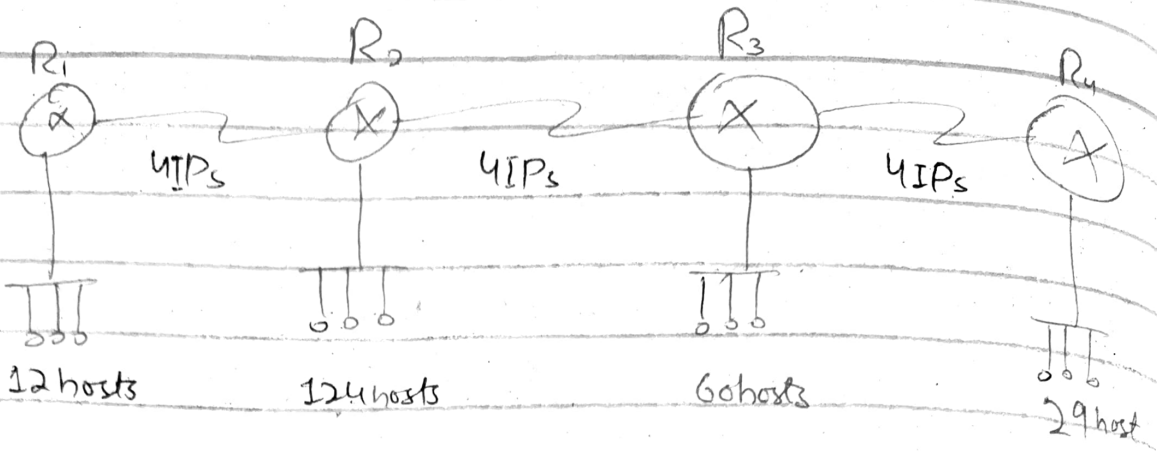
NW2: 192.168.0.64/26

NW3: 192.168.0.128/26

NW4: 192.168.0.192/26

	NW - ID	B-ID	Subnet mask
1	192.168.0.0	192.168.0.63	255.255.255.192
2	192.168.0.64	192.168.0.127	255.255.255.192
3	192.168.0.128	192.168.0.191	255.255.255.192
4	192.168.0.192	192.168.0.255	255.255.255.192

VLSM



Total n/ws : 7

N/W Given: 192.168.10.0/24

2 subnets: 192.168.10.0/25

192.168.10.128/25

124 hosts n/w : 192.168.10.0/25 126 IPs usable

Further subnet n/w : 192.168.10.128/25

192.168.10.128/26

192.168.10.192/26

60 host n/w 192.168.10.128/26 62 usable IPs

further subnet 192.168.10.192/26

192.168.10.192/27

192.168.10.224/27

29 host n/w 192.168.10.192/27 30 usable IPs

further subnet 192.168.10.224/27

192.168.10.224/28
192.168.10.240/28

12 hosts n/w 192.168.10.224/28 14 IPs usable

further subnet 192.168.10.240/28

14 IPs each ←
- 192.168.10.240/30
- 192.168.10.244/30
- 192.168.10.248/30

192.168.10.252/30 → extra

N-ID	B-ID	subnet mask
192.168.10.0	192.168.10.127	255.255.255.128
192.168.10.128	192.168.10.192	255.255.255.192
192.168.10.192	192.168.10.223	255.255.255.224
192.168.10.224	192.168.10.239	255.255.255.240
192.168.10.240	192.168.10.243	255.255.255.252
192.168.10.244	192.168.10.247	255.255.255.252
192.168.10.248	192.168.10.251	255.255.255.252
192.168.10.252	192.168.10.255	255.255.255.252