DAY 7

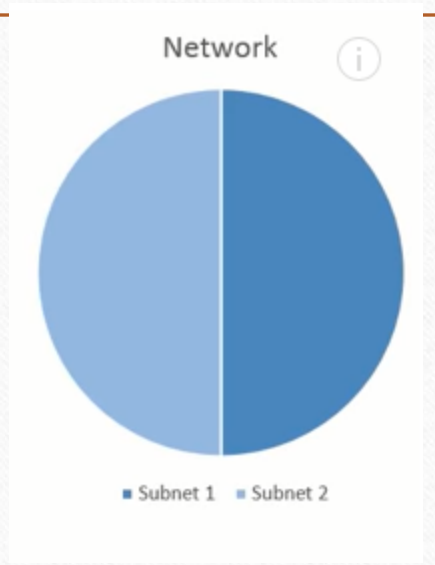
SUBNETTING

Class C

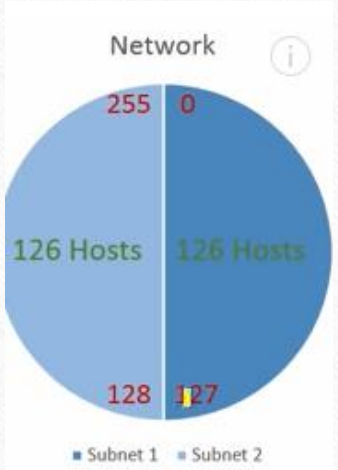
IP Address 192 . 168 . 100 . 225

Subnet Mask 255 . 255 . 255 . 0

IP Address
192 . 168 . 100 .
Subnet Mask
11111111 . 11111111 . 11111111 . 10000000


Network
Subnet 1
Subnet 2

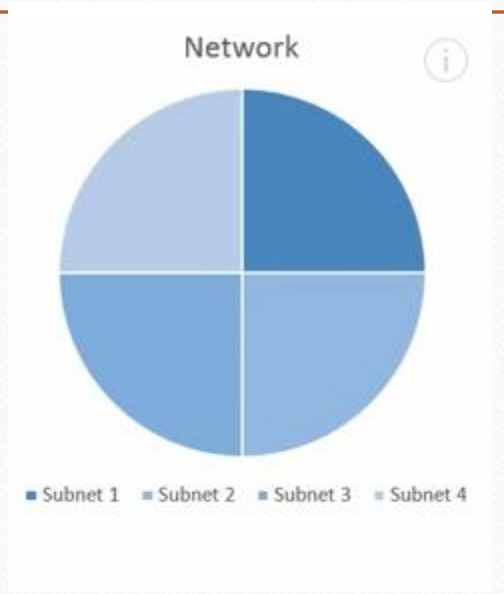
Network Id 1	192 . 168 . 100 . 0
Broadcast Id 1	192 . 168 . 100 . 127
Network Id 2	192 . 168 . 100 . 128
Broadcast Id 2	192 . 168 . 100 . 255

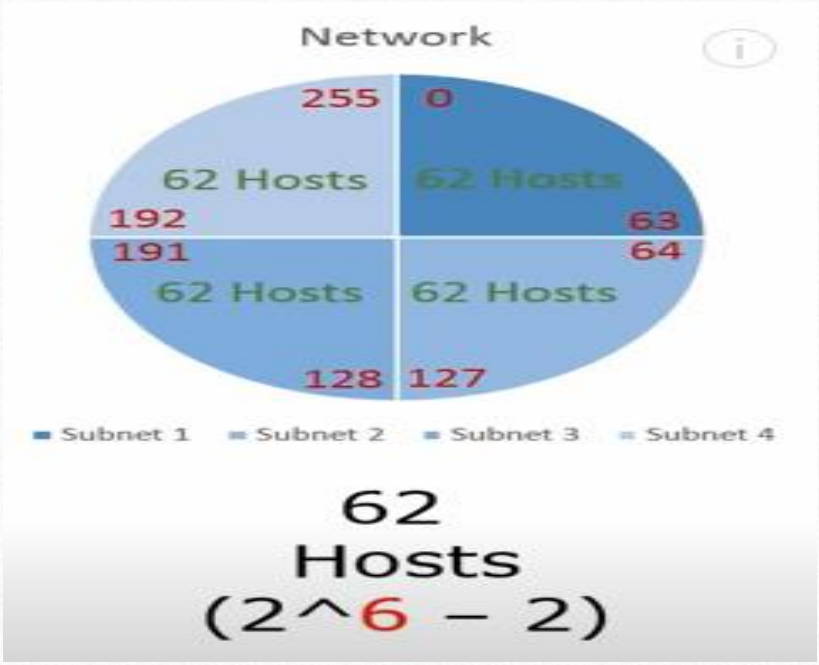


126 Hosts
(2^7 – 2)

Network Id 1	192 . 168 . 100 . 0 /25
Broadcast Id 1	192 . 168 . 100 . 127 /25
Network Id 2	192 . 168 . 100 . 128 /25
Broadcast Id 2	192 . 168 . 100 . 255 /25

IP Address
192 . 168 . 100 .
Subnet Mask
11111111 . 11111111 . 11111111 . 11000000


Network
Subnet 1
Subnet 2
Subnet 3
Subnet 4


Network
255
0
62 Hosts
62 Hosts
192
63
191
64
62 Hosts
62 Hosts
128
127
Subnet 1
Subnet 2
Subnet 3
Subnet 4
62
Hosts
(2^6 – 2)

Borrowed Bits	1	2	3	4	5	6
Mask Value	128	192	224	240	248	252
Subnets	2	4	8	16	32	64
Hosts	126	62	30	14	6	2
CIDR	/25	/26	/27	/28	/29	/30
Block Size	128	64	32	16	8	4

Another way

- 192.168.10.0/26
- **11111111.11111111.11111111.**11000000
- 255.255.255.**192**
- No of sub-networks: 2^2 → 4 sub-networks
- No of hosts per sub-network: 2^6 -2 → 62
- Block size: 256-192 → 64
- NW: 192.168.10.0 ***192.168.10.64*** 192.168.10.128 ***192.168.10.192***

Assignments

- Find the subnet mask and network and host bits for following
- 192.168.10.0/25
- 192.168.10.0/27