Subnetting Lab

0) Given IP address and a mask: 35.94.88.137 / 28

/28 - Borrowing 4 bits → 16 subnets (2^4).

each supports 14 hosts, 1 for subnet address, 1 for Broadcast Address → $2^4 - 2$

For Subnet Mask: 255.255.255.240 (/28)

1111 1111 11111111 11111111 → 11110000 (240) — For host

⇒ we have 16 subnets with 16 addresses

0a) Network Address — Broadcast Address — Subnet mask

0) 35.94.88.0 - 35.94.88.15 - 0
1) 35.94.88.16 - 35.94.88.31 - 1
2) 35.94.88.32 - 35.94.88.47 - 2
3) 35.94.88.48 - 35.94.88.63 - 3
4) 35.94.88.64 - 35.94.88.79 - 4
5) 35.94.88.80 - 35.94.88.95 - 5
6) 35.94.88.96 - 35.94.88.111 - 6
7) 35.94.88.112 - 35.94.88.127 - 7
8) 35.94.88.128 - 35.94.88.143 - 8
9) 35.94.88.144 - 35.94.88.159 - 9
10) 35.94.88.160 - 35.94.88.175 - 10
11) 35.94.88.176 - 35.94.88.191 - 11
12) 35.94.88.192 - 35.94.88.207 - 12
13) 35.94.88.208 - 35.94.88.223 - 13
14) 35.94.88.224 - 35.94.88.239 - 14
15) 35.94.88.240 - 35.94.88.255 - 15

} 255.255.255.240

0b) Given IP address: 35.94.88.134