

2.) 10.0. 11.12 mesh 255. 255. 256. 0

Subnet address : 0000 1010 . 0000 0000 . 0000 1010 . 0000 0000
→ 10. 0. 10. 0

5.) $220.168.49.0/24 \rightarrow$

$\downarrow$	$\left\{ \begin{array}{ll} 1 \text{ subnet} & \times 50 \text{ hosts} \\ 3 \text{ " } & \times 20 \text{ hosts} \\ 1 \text{ " } & \times 10 \text{ hosts} \end{array} \right.$
$32 - 24 = 8$	

$\rightarrow$ we can manipulate only 8 bits for Subnetting.

→ subnet address: 220.168.49.0100 0000
First host: 220.168.49.01000001 (.65)
—————^u ——— . 01111110 (.126)
host address:

$$2^6 - 2 = 62 \text{ hosts}$$

3 subnets x 20 hosts

→ 5 bits for hosts

→ 3 bits for subnet addresses

(~~000~~, ~~001~~, ~~010~~, ~~011~~, 100, 101, 110, ~~111~~)

100, 101, 110

Mask: /27

Subnet addr.	First host	Last host
① 220.168.49.100 00000 .128	220.168.49.100 00001 .129	220.168.49.100 11110 .158
② — " — .101 00000 .160	— " — .101 00001 .161	— " — .101 11110 .190
③ — " — .110 00000 .192	— " — .110 00001 .193	— " — .110 11110 .222

1 subnet x 10 hosts

→ 4 bits for host addressing

→ 4 bits for subnet address

Mask: (24+4=28) → /28

subnet address:

cannot use: all 0's, all 1's,

01 (1 & 56)
 100 } (3 x 20)
 101
 110

Subnet address: 220.168.49.0001 0000
First ——— 4 — , 0001 0001
Last ——— 4 — , 0001 1110