

Jhony Kevin P. Lastre

BS - CpE - 3

①

192.168.0.0/24

5 networks = $2^{\textcircled{3}} = 8 \nearrow$ closest higher value

128 64 $\textcircled{32}$ 16 8
1 2 3

	NA	HA	BA	SM
0th	192.168.0.0	192.168.0.1 - 192.168.0.30	192.168.0.31	255.255.255.224
1st	192.168.0.32	192.168.0.33 - 192.168.0.62	192.168.0.63	
2nd	192.168.0.64	192.168.0.65 - 192.168.0.94	192.168.0.95	
3rd	192.168.0.96	192.168.0.97 - 192.168.0.126	192.168.0.127	
4th	192.168.0.128	192.168.0.129 - 192.168.0.158	192.168.0.159	
	192.168.0.160			

② 172.16.128.0/24

3 networks = $2^2 = 4$

128 64

NA

HA

BA

SM

0th	172.16.128.0	172.16.128.1 - 172.16.128.62	172.16.128.63
1st	172.16.128.64	172.16.128.65 - 172.16.128.126	172.16.128.127
2nd	172.16.128.128	172.16.128.129 - 172.16.128.190	172.16.128.191
	172.16.128.192		

255.255.255.192

3) 10.0.0.0/16

14 networks = $2^{(4)} = 16$

128 64 32 16

NA

0th	10.0.0.0
1st	10.0.16.0
2nd	10.0.32.0
3rd	10.0.48.0
4th	10.0.64.0
5th	10.0.80.0
6th	10.0.96.0
7th	10.0.112.0
8th	10.0.128.0
9th	10.0.144.0
10th	10.0.160.0
11th	10.0.176.0
12th	10.0.192.0
13th	10.0.208.0
14th	10.0.224.0

HA

10.0.0.1 — 10.0.15.254
10.0.16.1 — 10.0.31.254
10.0.32.1 — 10.0.47.254
10.0.48.1 — 10.0.63.254
10.0.64.1 — 10.0.79.254
10.0.80.1 — 10.0.95.254
10.0.96.1 — 10.0.111.254
10.0.112.1 — 10.0.127.254
10.0.128.1 — 10.0.143.254
10.0.144.1 — 10.0.159.254
10.0.160.1 — 10.0.175.254
10.0.176.1 — 10.0.191.254
10.0.192.1 — 10.0.207.254
10.0.208.1 — 10.0.223.254
10.0. .1 — 10.0. .254

BA

10.0.15.255
10.0.31.255
10.0.47.255
10.0.63.255
10.0.79.255
10.0.95.255
10.0.111.255
10.0.127.255
10.0.143.255
10.0.159.255
10.0.175.255
10.0.191.255
10.0.207.255
10.0.223.255
10.0. .255

SM

255.255.240.0