

Theme:

10 9 8 7 6 5 4 3 2 1
1024 512 256 128 64 32 16 8 4 2 1

Date: / /

☐ Sat ☐ Sun ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri

1)

subnet	No. of IP	borrow bits	No. of allocated bits	No. of host bit No. of net bit	subnet mask	allocated IP range
1	120	$2^7 > 120$	128	$x=7$ $y=32-7=25$	255.255.255.128	192.168.0.0 - 192.168.0.127/25
2	50	$2^6 > 50$	64	$x=6$ $y=26$	255.255.255.192	192.168.0.128 - 192.168.0.191/26
3	20	$2^5 > 20$	32	$x=5$ $y=27$	255.255.255.224	192.168.0.192 - 192.168.0.223/27
4	6	$2^3 > 6$	8	$x=3$ $y=29$	255.255.255.248	192.168.0.224 - 192.168.0.231/29

2)

subnet	No. of IP	borrow bits	No. of allocated bits	No. of host bit No. of net bit	subnet mask	allocate IP range
1	800	$2^{10} > 800$	1024	$x=10$ $y=22$	255.255.255.0	172.16.0.0 - 172.16.3.255/22
2	500	$2^9 > 500$	512	$x=9$ $y=23$	255.255.254.0	172.16.0.0 - 172.16.5.255/23
3	100	$2^7 > 100$	128	$x=7$ $y=25$	255.255.255.128	172.16.6.0 - 172.16.6.127/25
4	50	2^6	64	$x=6$ $y=26$	255.255.255.192	172.16.6.128 - 172.16.6.191/26
5	20	2^5	32	$x=5$ $y=27$	255.255.255.224	172.16.6.192 - 172.16.6.223/27