GUIDE:

128 64 32

SET A:

IP ADD: 192.168.100.0

SUBNET MASK: 255.255.255.224 /27

NETWORKS	START OF SUBNET IP	END OF SUBNET IP + 1
SUBNET NETWORK 1:	192.168.100.0	192.168.100.31
SUBNET NETWORK 2:	192.168.100.32	192.168.100.63
SUBNET NETWORK 3:	192.168.100.64	192.168.100.95
SUBNET NETWORK 4:	192.168.100.96	192.168.100.127
SUBNET NETWORK 5:	192.168.100.128	192.168.100.159
SUBNET NETWORK 6:	192.168.100.160	192.168.100.191
SUBNET NETWORK 7:	192.168.100.192	192.168.100.223
SUBNET NETWORK 8:	192.168.100.224	192.168.100.255

SET B:

IP ADD: 192.168.100.0

SUBNET MASK: 255.255.255.240 /28

) <u>120</u>	
START OF SUBNET IP	END OF SUBNET IP + 1
192.168.100.0	192.168.100.15
192.168.100.16	192.168.100.31
192.168.100.32	192.168.100.47
192.168.100.48	192.168.100.63
192.168.100.64	192.168.100.79
192.168.100.80	192.168.100.95
192.168.100.96	192.168.100.111
192.168.100.112	192.168.100.127
192.168.100.128	192.168.100.143
192.168.100.144	192.168.100.159
192.168.100.160	192.168.100.175
192.168.100.176	192.168.100.191
192.168.100.192	192.168.100.207
192.168.100.208	192.168.100.223
192.168.100.224	192.168.100.239
	192.168.100.0 192.168.100.16 192.168.100.32 192.168.100.48 192.168.100.64 192.168.100.80 192.168.100.96 192.168.100.112 192.168.100.128 192.168.100.144 192.168.100.160 192.168.100.176 192.168.100.192 192.168.100.208

SET C:

IP ADD: 192.168.100.0

SUBNET MASK: 255.255.255.248 /29

NETWORKS	START OF SUBNET IP + END OF SUBNET IP +	
SUBNET NETWORK 1:	192.168.100.0	192.168.100.7
SUBNET NETWORK 2:	192.168.100.8	192.168.100.15
SUBNET NETWORK 3:	192.168.100.16	192.168.100.23
SUBNET NETWORK 4:	192.168.100.24	192.168.100.31
SUBNET NETWORK 5:	192.168.100.32	192.168.100.39
SUBNET NETWORK 6:	192.168.100.40	192.168.100.47
SUBNET NETWORK 7:	192.168.100.48	192.168.100.55
SUBNET NETWORK 8:	192.168.100.56	192.168.100.63
SUBNET NETWORK 9:	192.168.100.64	192.168.100.71
SUBNET NETWORK 10:	192.168.100.72	192.168.100.79
SUBNET NETWORK 11:	192.168.100.80	192.168.100.87
SUBNET NETWORK 12:	192.168.100.88	192.168.100.95
SUBNET NETWORK 13:	192.168.100.96	192.168.100.103
SUBNET NETWORK 14:	192.168.100.104	192.168.100.111
SUBNET NETWORK 15:	192.168.100.112	192.168.100.119
SUBNET NETWORK 16:	192.168.100.120	192.168.100.127
SUBNET NETWORK 17:	192.168.100.128	192.168.100.135
SUBNET NETWORK 18:	192.168.100.136	192.168.100.143
SUBNET NETWORK 19:	192.168.100.144	192.168.100.151
SUBNET NETWORK 20:	192.168.100.152	192.168.100.159
SUBNET NETWORK 21:	192.168.100.160	192.168.100.167
SUBNET NETWORK 22:	192.168.100.168	192.168.100.175
SUBNET NETWORK 23:	192.168.100.176	192.168.100.183
SUBNET NETWORK 24:	192.168.100.184	192.168.100.191
SUBNET NETWORK 25:	192.168.100.192	192.168.100.199
SUBNET NETWORK 26:	192.168.100.200	192.168.100.207
SUBNET NETWORK 27:	192.168.100.208	192.168.100.215
SUBNET NETWORK 28:	192.168.100.216	192.168.100.223
SUBNET NETWORK 29:	192.168.100.224	192.168.100.231
SUBNET NETWORK 30:	192.168.100.232	192.168.100.239
SUBNET NETWORK 31:	192.168.100.240	192.168.100.247
SUBNET NETWORK 32:	192.168.100.248	192.168.100.255

CONCLUSION...

By the subnetting that I did, such as the Set A, B, and C, One can postulate that (128...1) is very helpful so it is no wonder very important in subnetting as well. Each network w between others because it has different limitations when it comes to distribution of IPs. To sun distinguish the right Hosts and Subnetwork counts for each network bits of the class C.

16 8 4 2 1

USABLE IP		255/8	EX
192.168.100.1	192.168.100.30	1 = 30	Set A which consists of an
192.168.100.33	192.168.100.62	2 = 30	Mask of 255.255.255.? And a network bit
192.168.100.65	192.168.100.94	3 = 30	hosts each. The complete Subnet Mask is 2
192.168.100.97	192.168.100.126	4 = 30	its network bits /27 which has 11100000.
192.168.100.129	192.168.100.158	5 = 30	in 24 bits + the 111 in the binary that gave
192.168.100.161	192.168.100.190	6 = 30	each cell in the DataFrame contains Two s
192.168.100.193	192.168.100.222	7 = 30	the end or broadcast. The Usable Ip is the
192.168.100.225	192.168.100.254	8 = 30	process of dividing it into 8. The process in
			Network and starting a network to the usaby each start of the network. For example 192.168.100.0 and by considering the expentation of the subnet network, the ending of the subnet network adding 1 each and starting is necessary for that the usable IPs are the in the middle of All in all, This network is a class C.

USABLE IP		255/16	EX
192.168.100.1	192.168.100.14	1 = 14	Set B which consists of an
192.168.100.17	192.168.100.30	2 = 14	Mask of 255.255.255.240 And a network k
192.168.100.33	192.168.100.46	3 = 14	because of the binary of 240 in the guide(
192.168.100.49	192.168.100.62	4 = 14	11110000. As what I stated in the in the se
192.168.100.65	192.168.100.78	5 = 14	255.255.255 has a total value of 24 bits + 3
192.168.100.81	192.168.100.94	6 = 14	bits. On the other hand, Each cells contain
192.168.100.97	192.168.100.110	7 = 14	such as the Starting Ip, End Ip or Broadcas
192.168.100.113	192.168.100.126	8 = 14	mask allows 16 subnetworks and 14 hosts
192.168.100.129	192.168.100.142	9 = 14	that is filtered through the process of divid
192.168.100.145	192.168.100.158	10 = 14	includes separating the Broadcast or End I
192.168.100.161	192.168.100.174	11 = 14	IPs by subtracting it and leaping 1 point by
192.168.100.177	192.168.100.190	12 = 14	subnet network 1 has a starting Ip of 192. amount of IPs that is shareable by each ne
192.168.100.193	192.168.100.206	13 = 14	would be 192.168,100.15 because Adding
192.168.100.209	192.168.100.222	14 = 14	subnetting. Therefore, we can conclude the
192.168.100.225	192.168.100.238	15 = 14	Starting and ending IPs of the network. Th

USABLE IP		255/32	
192.168.100.1	192.168.100.6	1 = 6	
192.168.100.9	192.168.100.14	2 = 6	Mask of 255.
192.168.100.17	192.168.100.22	3 = 6	hosts each. T
192.168.100.25	192.168.100.30	4 = 6	its network b
192.168.100.33	192.168.100.38	5 = 6	in 24 bits + th
192.168.100.41	192.168.100.46	6 = 6	each cell in th
192.168.100.49	192.168.100.54	7 = 6	the end or br
192.168.100.57	192.168.100.62	8 = 6	process of div
192.168.100.65	192.168.100.70	9 = 6	Broadcast or
192.168.100.73	192.168.100.78	10 = 6	and leaping 1
192.168.100.81	192.168.100.86	11 = 6	has a starting
192.168.100.89	192.168.100.94	12 = 6	is shareable to 192.168,100.
192.168.100.97	192.168.100.102	13 = 6	Therefore, w
192.168.100.105	192.168.100.110	14 = 6	and ending If
192.168.100.113	192.168.100.118	15 = 6	192.168.100.
192.168.100.121	192.168.100.126	16 = 6	the sharable
192.168.100.129	192.168.100.134	17 = 6	the cells, I for
192.168.100.137	192.168.100.142	18 = 6	
192.168.100.145	192.168.100.150	19 = 6	
192.168.100.153	192.168.100.158	20 = 6	
192.168.100.161	192.168.100.166	21 = 6	
192.168.100.169	192.168.100.174	22 = 6	
192.168.100.177	192.168.100.182	23 = 6	
192.168.100.185	192.168.100.190	24 = 6	
192.168.100.193	192.168.100.198	25 = 6	
192.168.100.201	192.168.100.206	26 = 6	
192.168.100.209	192.168.100.214	27 = 6	
192.168.100.217	192.168.100.222	28 = 6	
192.168.100.225	192.168.100.230	29 = 6	
192.168.100.233	192.168.100.238	30 = 6	
192.168.100.241	192.168.100.246	31 = 6	
192.168.100.249	192.168.100.254	32 = 6	
		·	

Set C which consists of an .255.255.? with a network bit The complete Subnet Mask is: bits /29 which has 11111000. the 11111 in the binary that ga the DataFrame contains Two s roadcast. The Usable Ip is the ividing it into 32 subnetworks. r End Network and starting a r 1 point by each start of the ne ig Ip of 192.168.100.0 and by c by each network, the ending of 0.7 because Adding 1 each and ve can conclude that the usabl Ps of the network. Finally, Aft 0.255 must match the expected IPs, Broadcast IPs, and especi ound out that the network is p

EX

these are types of Class C network. The Guide ith their network bits also makes a difference n it all up, These subnetting activity helped me

FORMULA

1s of Bits	0s of Bits
(2#^-)	(2#^0)-2

PLANATION

Ip Address of 192.168.100.0, and a Subnet of /27 is found to have 8 Subnets with 30 255.255.255.255.224 which was defined through The 255.255.255 has 8 bits each which result an answer of 224. Each subnet network in pecial network IPs which are the Start and shareable IP that is filtered through the ncludes separating the Broadcast or Endable IPs by subtracting it and leaping 1 point The subnet network 1 has a starting Ip of ected amount of IPs that is shareable by each k 1 would be 192.168,100.31 because r subnetting. Therefore, we can conclude f the Starting and ending IPs of the network.

PLANATION

Ip Address of 192.168.100.0, and a Subnet pit of ? I found out that the network bit is 28 128...1) is equal to /28 as the binary shows et A, The 255 has a value of 8 bits so a 11110000 is definitely equal to /28 network is the Subnetworks and its corresponding IPs t, and usable IP. In addition, This Subnet . Finally, The Usable Ip is the shareable IP ding it into 16 sub networks. The process Network and starting a network to the usable / each start of the network. For example, The 168.100.0 and by considering the expected etwork, the ending of the subnet network 1 1 each and starting is necessary for nat the usable IPs are the in the middle of the ie network is probably class C.

PLANATION

Ip Address of 192.168.100.0, and a Subnet of /29 is found to have 32 Subnets with 6 255.255.255.248 which was defined through The 255.255.255 has 8 bits each which result ave an answer of 224. Each subnet network in pecial network IPs which are the Start and shareable IP that is filtered through the . The process includes separating the network to the usable IPs by subtracting it etwork. For example. The subnet network 1 considering the expected amount of IPs that of the subnet network 1 would be I starting is necessary for subnetting. le IPs are the in the middle of the Starting er filling all the cells, the ending d ending. This whole Dataframe shows all of ially the starting IPs. Finally, after filling all robably Class C as well.