

## Subnetting Exercise

### Identify the Subnet

Using the information given, list the (sub)netmask, subnet address, first valid address, last valid address and the broadcast address for each.

1.

192.168.53.127 /24	
(sub)netmask	
Subnet Address	
1 <sup>st</sup> valid	
Last valid	
Broadcast	

128	192	224	240	248	252	254	255
128	64	32	16	8	4	2	1

2.

192.168.10.53 /27	
(sub)netmask	
Subnet Address	
1 <sup>st</sup> valid	
Last valid	
Broadcast	

3.

192.168.10.38 /28	
(sub)netmask	
Subnet Address	
1 <sup>st</sup> valid	
Last valid	
Broadcast	

4.

192.168.10.13 /30	
(sub)netmask	
Subnet Address	
1 <sup>st</sup> valid	
Last valid	
Broadcast	

5.

192.168.53.127 /23	
(sub)netmask	
Subnet Address	
1 <sup>st</sup> valid	
Last valid	
Broadcast	

6.

172.18.6.7 /26	
(sub)netmask	
Subnet Address	
1 <sup>st</sup> valid	
Last valid	
Broadcast	

128	192	224	240	248	252	254	255
128	64	32	16	8	4	2	1

7.

172.23.192.66 /18	
(sub)netmask	
Subnet Address	
1 <sup>st</sup> valid	
Last valid	
Broadcast	

8.

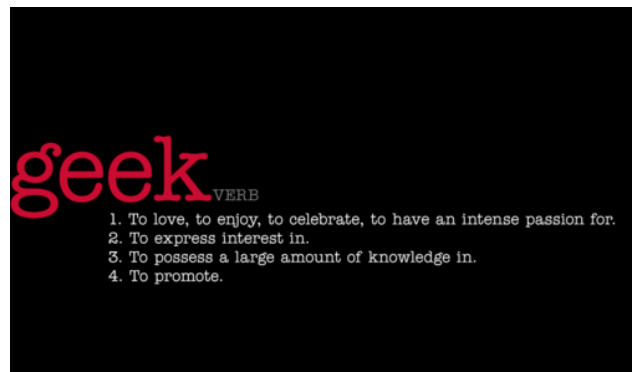
10.55.171.26 /13	
(sub)netmask	
Subnet Address	
1 <sup>st</sup> valid	
Last valid	
Broadcast	

9.

172.20.128.121 /22	
(sub)netmask	
Subnet Address	
1 <sup>st</sup> valid	
Last valid	
Broadcast	

10.

192.168.180.120 /25	
(sub)netmask	
Subnet Address	
1 <sup>st</sup> valid	
Last valid	
Broadcast	



## General Questions:

11. Enter the maximum number of valid subnet and host per subnet that you can get from the network 192.168.201.0 /30 :

12. What is the (sub)netmask corresponding to /8?

13. Enter the last valid address on the subnet that the host 172.30.59.202 /26 is a part of?

14. Enter the valid IP range for the subnet that the IP address 10.188.45.28 255.255.255.248 is a part of:

15. Enter the last valid address on the subnet 10.231.29.0 255.255.255.0 :

16. Enter the maximum number of valid subnets and hosts per subnet that you can get from the subnet 172.21.0.0 /23 :

17. Enter the subnet address and the CIDR that the host 10.244.159.130 255.255.224.0 belongs to:

18. What is the CIDR notation for the corresponding (sub)net mask 225.248.0.0?

19. Enter the broadcast address for the network 10.38.218.20 /30:

20. Enter the subnet address that the host 172.28.94.170 /27 belongs to:

Bonus: What (sub)net mask would you use for the 172.19.0.0 network, such that you can get 250 subnets and at least 190 hosts per subnet?