Introduction to Networking:

Link to challenge:

https://academy.hackthebox.com/module/34/

(log in required)

Class: Tier 0 | Fundamental | General

Addressing:

Subnetting:

Question: Submit the decimal representation of the subnet mask from the following CIDR: 10.200.20.0/27

Answer: 255.255.255.224

Method: subnet 27 → 1111 1111 | 1111 1111 | 1111 1111 | 1110 0000 → 255.255.255.224

Question: Submit the broadcast address of the following CIDR: 10.200.20.0/27

Answer: 10.200.20.31

Method: in subnet 27 we would have a network of 32 hosts, so the broadcast address, the last address within the network would be 10.200.20.31

Question: Split the network 10.200.20.0/27 into 4 subnets and submit the network address of the 3rd subnet as the answer.

Answer: 10.200.20.16

Method: in order to split the 10.200.20.0/27 into 4 subnets, we would have to increase the subnet value to 29→ 10.200.20.0/29.

In subnet 29 we would have a network of 8 hosts.

So, every subnet address of the splitted 4 subnets of the 10.200.20.0/27 would be: 10.200.20.0, 10.200.20.8, 10.200.20.16, 10.200.20.24.

So, the third subnet would be 10.200.20.16.

Question: Split the network 10.200.20.0/27 into 4 subnets and submit the broadcast address of the 2nd subnet as the answer.

Answer: 10.200.20.15

Method: as we are dealing with the same parameters as the last question, and the network address of the third subnet is 10.200.20.16 - all we have to do is subtract 1 from the 16 to get to the broadcast address of the previous (the second) subnet.