



Binary Lesson 7

Supernetting

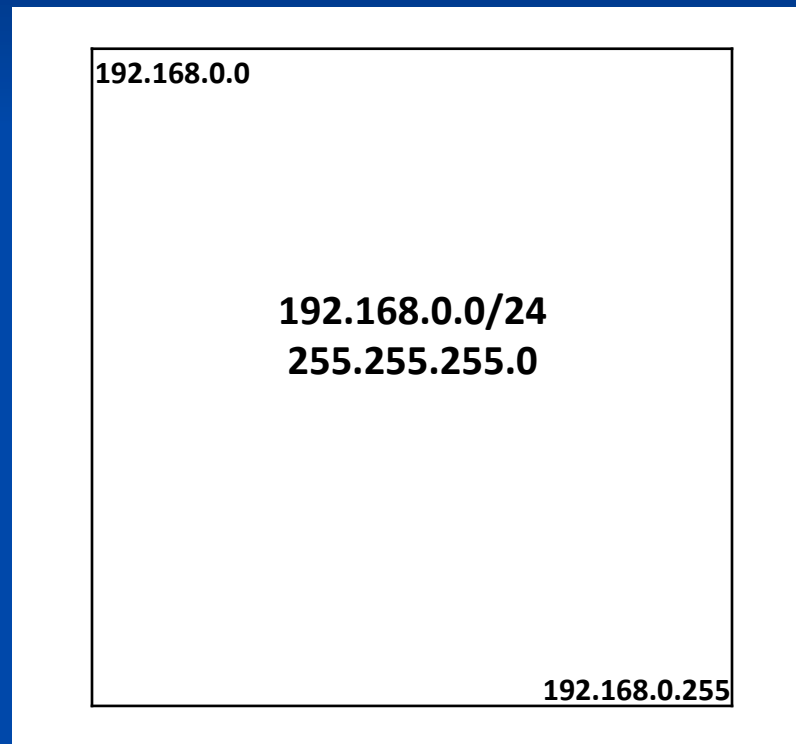
Class C

- Class C address: 192.168.1.10 /24
- The *subnet mask* is 255.255.255.0
- The network address is 192.168.1.0
- The broadcast address is 192.168.1.255
- In Binary:

IP:	11000000	10101000	00000001	00001010
Subnt Msk:	11111111	11111111	11111111	00000000
Network:	11000000	10101000	00000001	00000000
Broadcast:	11000000	10101000	00000001	11111111

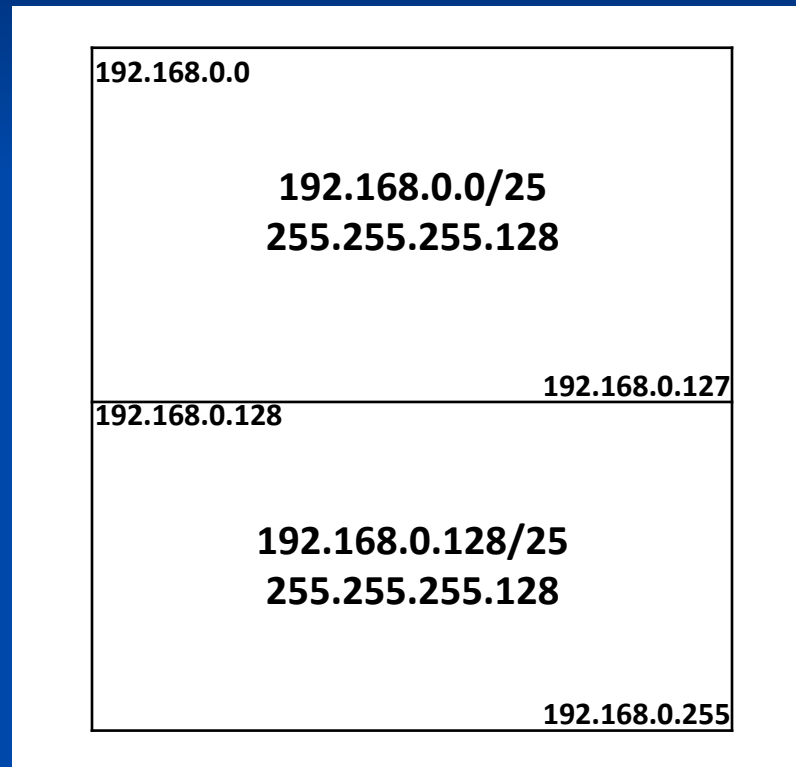
A Class C Network (/24)

Sub Mask: 11111111 11111111 11111111 00000000



Subnetting to /25

Sub Mask: 11111111 11111111 11111111 10000000



Subnetting to /26

Sub Mask: 11111111 11111111 11111111 11000000

192.168.0.0	192.168.0.64
192.168.0.0/26 255.255.255.192	192.168.0.64/26 255.255.255.192
192.168.0.63	192.168.0.127
192.168.0.128	192.168.0.192
192.168.0.128/26 255.255.255.192	192.168.0.192/26 255.255.255.192
192.168.0.191	192.168.0.255

Two Class C Networks

192.168.0.0

192.168.0.0/24
255.255.255.0

192.168.0.255

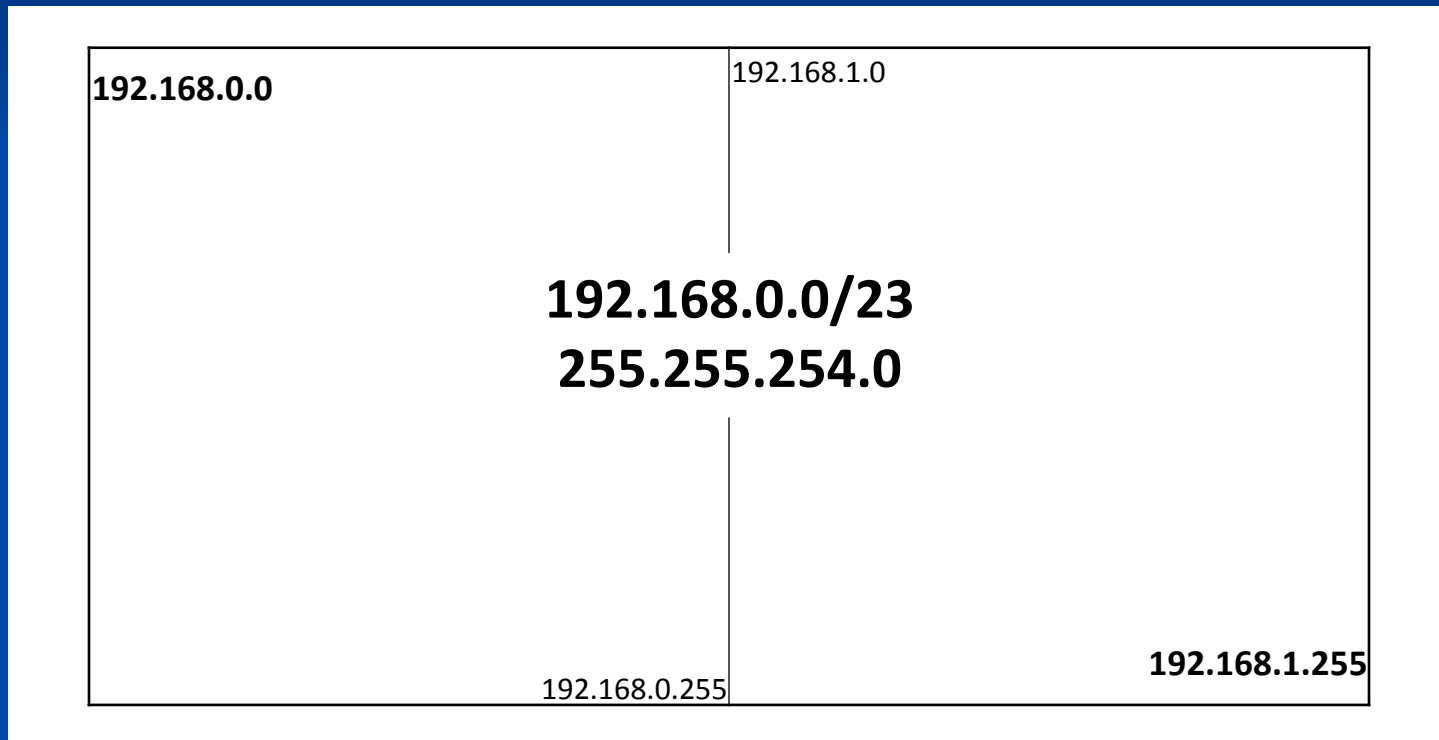
192.168.1.0

192.168.1.0/24
255.255.255.0

192.168.1.255

Supernetting to /23

Sub Mask: 11111111 11111111 11111110 00000000



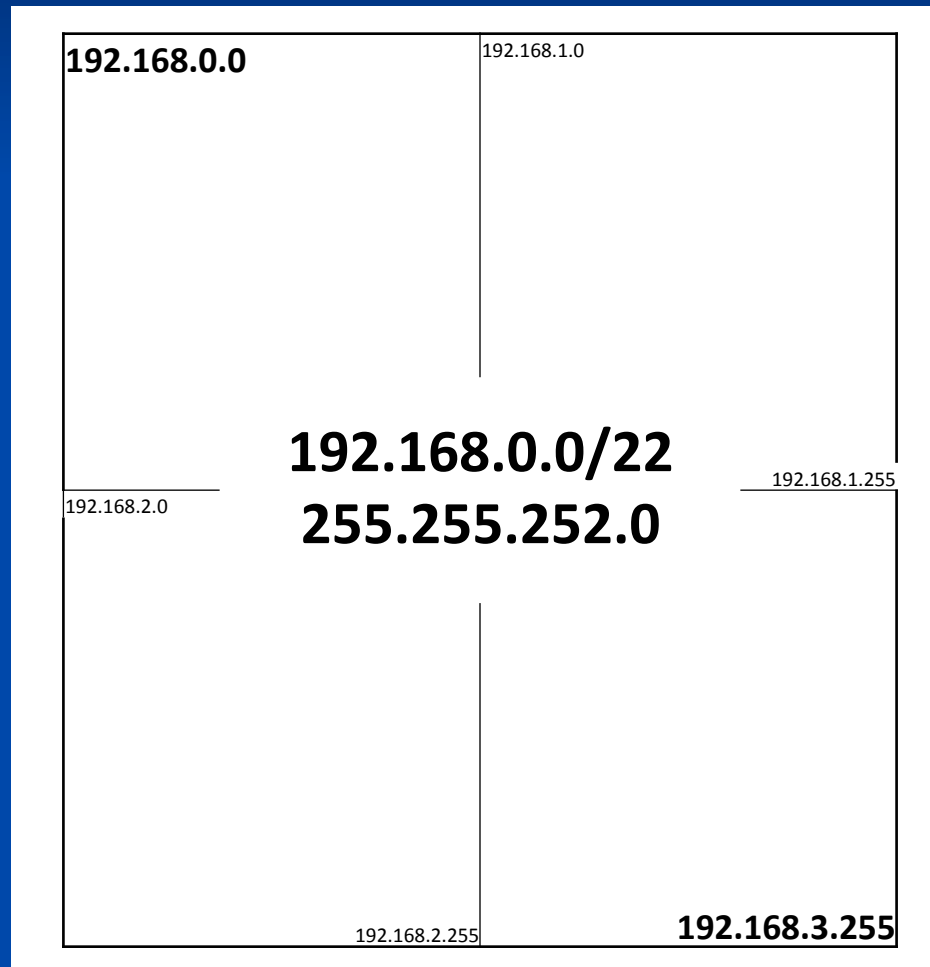
Supernetted /23 Network

- Node address: 192.168.1.10 /23
- The *subnet mask* is 255.255.254.0
- The network address is 192.168.0.0
- The broadcast address is 192.168.1.255
- In Binary:

IP:	11000000	10101000	00000001	00001010
Subnt Msk:	11111111	11111111	11111110	00000000
Network:	11000000	10101000	00000000	00000000
Broadcast:	11000000	10101000	00000001	11111111

Supernetting to /22

Sub Mask: 11111111 11111111 11111100 00000000



Supernetted /22 Network

- Node address: 192.168.1.10 /22
- The *subnet mask* is 255.255.252.0
- The network address is 192.168.0.0
- The broadcast address is 192.168.3.255
- In Binary:

IP:	11000000	10101000	00000001	00001010
Subnt Msk:	11111111	11111111	11111100	00000000
Network:	11000000	10101000	00000000	00000000
Broadcast:	11000000	10101000	00000011	11111111