

Subnetting Cheat-sheet

Network: 192.168.0.0

Subnet Mask: 255.255.255.0 (/24)

- 1) Convert both the given IP Address and Subnet Mask to binary

192.	168.	0.	0
1100 0000	1010 1000	0000 0000	0000 0000
1111 1111	1111 1111	1111 1111	0000 0000 (/24 subnet mask)

Network	Host
---------	------

- 2) Perform a logical AND comparison of the binary values to determine the subnet/network address in binary form (1 AND 1 = 1, 1 AND 0 = 0, 0 AND 0 = 0)

1100 0000	1010 1000	0000 0000	0000 0000
192	168	0	0

- 3) Convert all the host bits in the network address to 1 to determine the broadcast address

1100 0000	1010 1000	0000 0000	1111 1111
192	168	0	255

All the host bits are converted to 1 in the last octet \therefore 255

- 4) Move onto the next subnet

1100 0000 1010 1000 0000 0001 0000 0000 (192.168.1.0)

Host IP address range: 192.168.0.1-254

Next subnet: 192.168.1.0

- 5) Repeat steps 1-4 for the next subnet(s)

