IP Addresses, Classes, Subnet Mask

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Subnet Mask:

Subnets are categories in different classes are as follows:

Classes	IP Addresses	Subnet Masks
Class A	1.0.0.0 → 126.0.0.0	255.0.0.0 / 8
Class B	128.0.0.0 → 191.0.0.0	255.255.0.0 / 16
Class C	192.0.0.0 → 223.0.0.0	255.255.255.0 / 24
Class D	224.0.0.0 → 239.0.0.0	Reserved for Multicasting
Class E	240.0.0.0 → 254.0.0.0	Experimental, Use for research

Note: Class A addresses 127.0.0.0 to 127.255.255.255 cannot be used and is reserved for loopback and diagnostic functions.

Private IP Address:

Class	Private Network	Subnet Mask	Address Range
Class A	10.0.0.0	255.0.0.0	10.0.0.0 → 10.255.255.255
Class B	172.16.0.0 → 172.31.0.0	255.240.0.0	172.16.0.0 → 172.31.255.255
Class C	192.168.0.0	255.255.0.0	192.168.0.0 → 192.168.255.255

NOTE: Here the starting address of the network will always be the Network Address and ending one will be the Broadcast Address. Network Address and the Broadcast Address can't be use for the host. Other than these IP Addresses can be use for host address.

For Example:

172.16.0.0 = Network Address.
172.31.255.255 = Broadcast Address.
172.16.1.0 → 172.31.255.254 = Host Addresses.