# Class A

* First bit ALWAYS 0
* Default subnet mask is /8
* Network address range: 1.0.0.0 - 126.0.0.0 /8
* So 126 networks and 16.777.214 hosts per network

Also

0.0.0.0/8 reserved and signifies "this network", so 0.0.0.1 - 0.255.255.255 are NOT valid host addresses

And

127.0.0.0/8 is reserved as loopback address, so 127.0.0.1 - 127.255.255.255 are NOT valid host addresses

# Class B

* First two bits are always set to 10
* Default subnet is /16
* Valid network addresses: 128.0.0.0 - 191.255.0.0 /16
* 16.384 networks and 65.534 hosts per network

# Class C

* The first three bits are always 110
* Default subnet mask is /24
* Valid network addresses: 192.0.0.0 - 223.255.255.0 /24
* 2.097.152 networks and 254 hosts per network

# Private Addresses Ranges

Class A: 10.0.0.0 - 10.255.255.255  
Class B: 172.16.0.0 - 172.31.255.255  
Class C: 192.168.0.0 - 192.168.255.255

# Class D

* Reserved for multicast addresses
* First four bits are always 1110
* These addresses are not allocated to hosts and there is no default subnet mask
* Range: 224.0.0.0 - 239.255.255.255

# Class E

* Experimental and reserved for future use
* First four bits are always 1111
* Not allocated to hosts so there is no default mask
* Range 240.0.0.0 - 255.255.255.255
* 255.255.255.255 is the broadcast address for "this network"