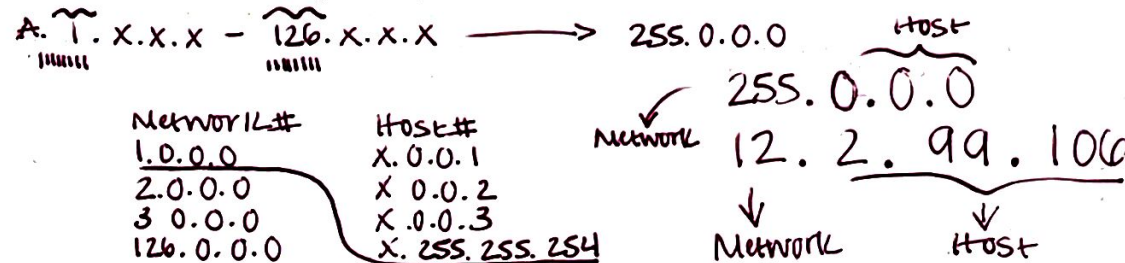


# 04/17 Class Notes

MAC address is physical, IP is logical  
 MAC address is permanent, IP address can change often

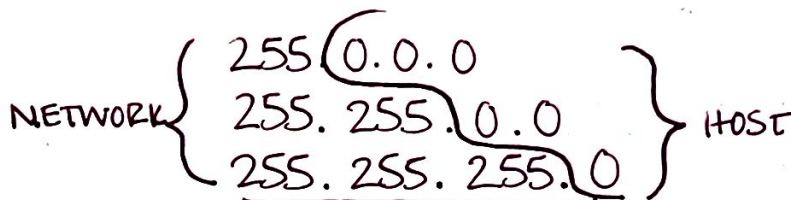
Subnet Mask (way to separate a network # from a host #)



\* The 255 will indicate the network # on an IP and the 0 indicates the host #

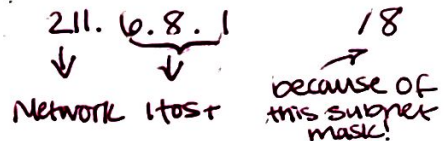
## DEFAULT MASK

Class A	255.0.0.0
Class B	255.255.0.0
Class C	255.255.255.0
Class D	Unknown
Class E	Unknown

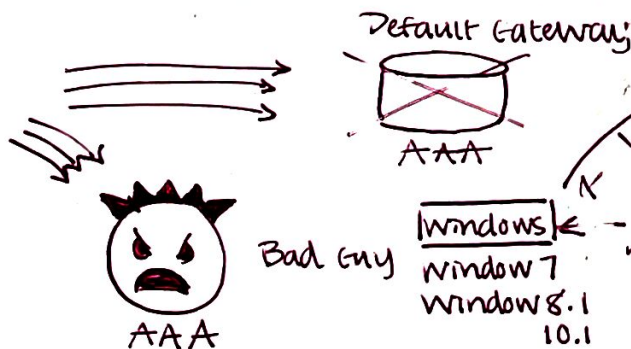


A. $1.x.x.x - 126.x.x.x$	$\rightarrow 255.0.0.0$	$\rightarrow 18$
B. $128.x.x.x - 191.x.x.x$	$\rightarrow 255.255.0.0$	$\rightarrow 16$
C. $192.x.x.x - 223.x.x.x$	$\rightarrow 255.255.255.0$	$\rightarrow 24$

\* If you are given the mask, you ignore the default!



Why would someone messes w/ a MAC address?



A.  $115.x.x.x$  / 18  
 Network:  $115.x.x.0$   
 Host:  $115.x.x.1$  (1st),  $115.x.x.2$  (2nd),  $115.x.x.3$  (3rd)  
 Last:  $115.255.255.254$   
 Broadcast:  $115.255.255.255$  (B-cast)

\* There will always be a broadcast number!

\* A private IP address that will never be out in public is  $169.254.0.1 - 169.254.255.254$   
 (APIPA) Automatic Private IP Addressing Range  
 Network card NOT getting respond from

ICANN

DHCP Process  
 DORA  
 Discover  
 Offer  
 Request  
 Acknowledge

A. $10.x.x.x$	/ 18
B. $172.16.x.x$	- 172
C. $192.168.0.0$	/ 24

\* All-In-One can do the job of a DHCP and DNS server, so they will go away

Remember  
 If you get a log file, what in his IP config...  
 "didn't get an add from a DHCP server"

