Class 11

Network layer brings the end to end delivery. The data link provides single hops until you get there.

is 128.7.255.255 a part of 128.6.0.0/15

- 01000000 00000111 11111111 11111111
- 01000000 00000110 00000000 00000000

You cant tell by looking at the decimal in this case. If its a multiple of 8, you can look at decimal instead of converting to binary.

- When routing to the final destination, if the router does not know the address, it has to do ARP (address resolution protocol)
- Check internal ARP table for mapping IP -> MAC
    - If it doesn't exist, flood ARP request locally on FF:FF:FF asking for owner of IP address of IP Address to respond. (FF:FF:FF is a special broadcast address)
    - This is how the transport accross the network layer works.

Network layer is wrapped by the dataLink layer.

Reserved IP Addresses

- 127.0.0.0/8
    - Loopback localHost 127.0.0.1. Simulats your message going out and back in if your testing code.
- Local network
    - 192.168.0.0/16
- Ip multicast
    - 224.0.0.0/4

Dynamic host configuration protocol (DHCP)

- This is how IP Addresses are assigned to newly connected devices to the network.
- Discover, offer, request, acknowledge