

Quiz 6: November 6, 2015

Left Neighbor: _____ Right Neighbor: _____

This is a closed book quiz

Your Computer’s IP address is 33.128.0.39 /25 and your MAC address is 00:32:5D:F8:00:31. Your default gateway (router) is 33.128.0.7 /25. You don’t know the MAC addresses of any computers on your local subnet (except your own).

1. **(2 points)** You’re first IP datagram is destined for 33.128.0.129 /25. Is the recipient on your subnet? Demonstrate conclusively. Your second IP datagram is destined for 33.128.0.127. Is the recipient on your subnet? Demonstrate conclusively.

2. **(1 points)** How do you get the MAC address you need in order to send a Layer-2 packet containing your IP datagram to either IP address in part 1?

3. **(1 points)** Suppose that the operation above gave you the MAC address 00:32:5D:3C:54:FA for your first IP datagram; what machine is this the MAC address for? Suppose the operation above gave you the MAC address 00:F3:D1:09:11:A0 for your second IP datagram; what machine is this the MAC address for?

4. **(6 point)** Fill in the appropriate (not grayed-out) fields below for each of the Layer-2 Packets you will send. Label each field with the computer it corresponds to (your computer, the recipient computer, the router).

Ethernet Header			IP Header			
Destination MAC Add.	Source MAC Address	Type	Source IP Address	Destination IP Address	Rest of IP Hdr	Data

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