

SHOW ALL WORK – EXCEPT FOR BINARY CONVERSION PROCESS

1. Given the following IP Address: **10.1.78.32 / 24**

A) Convert this IP Address to binary. Put an oval around the section of bits that identify the network. Put a box around the section of bits that identify the host.	B) What is the Network Mask (netmask) in binary?
C) What is the Network Mask in decimal?	D) What is the Network Address (decimal)?
E) What is the Broadcast Address (decimal)?	F) What domain name is associated with this IP address?

2. For your network:

Broadcast Address -> **192.168.85.63**

Network Mask -> **255.255.255.224**

A) What is the 6th IP Address (sequentially) that could be assigned to a host on this network?

B) How many users could be on this network at maximum?

C) What is the Network Address in CIDR notation?

3. To which address must a packet be sent to reach *everyone* on a local network?

4. Solve the following logical AND problem: **11011010** AND **10010011**

5. A) Your IP Address is **172.16.58.92/27**. Is the host **172.16.58.149** on your network?

B) What will be the first host to receive a packet you send to this address? (circle)

Final Destination / Your Router

6. A) Your IP Address is **10.53.221.99** and your Network Mask is **255.255.240.0**. Is the host **10.53.209.251** on your network?

B) What will be the first host to receive a packet you send to this address? (circle)

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