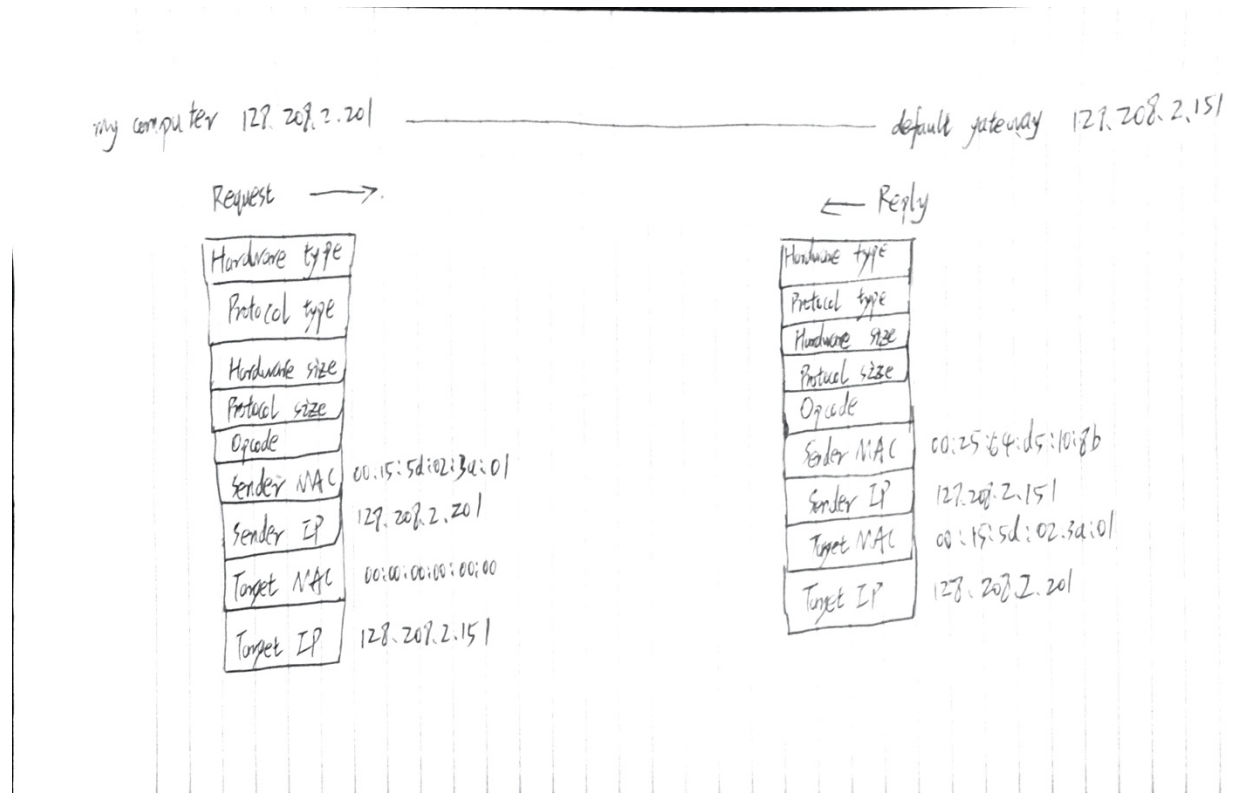


Step 3.



Turn-in: Hand in your drawing of the ARP exchange.

Step 4.

1. What opcode is used to indicate a request? What about a reply?

Opcode: request (1)

00 01

Opcode: reply (2)

00 02

2. How large is the ARP header for a request? What about for a reply?

Request: 28 bytes

▼ Address Resolution Protocol (request)

Hardware type: Ethernet (1)
Protocol type: IPv4 (0x0800)
Hardware size: 6
Protocol size: 4
Opcode: request (1)
Sender MAC address: Microsof_02:3a:01 (00:15:5d:02:3a:01)
Sender IP address: 128.208.2.201 (128.208.2.201)
Target MAC address: 00:00:00_00:00:00 (00:00:00:00:00:00)
Target IP address: 128.208.2.151 (128.208.2.151)

| | | |
|------|---|---------------|
| 0000 | ff ff ff ff ff ff 00 15 5d 02 3a 01 08 06 00 01 |]:..... |
| 0010 | 08 00 06 04 00 01 00 15 5d 02 3a 01 80 d0 02 c9 |]:..... |
| 0020 | 00 00 00 00 00 00 80 d0 02 97 00 00 00 00 00 00 | |
| 0030 | 00 00 00 00 00 00 00 00 00 00 00 00 00 | |

Reply: 28 bytes

▼ Address Resolution Protocol (reply)

Hardware type: Ethernet (1)
Protocol type: IPv4 (0x0800)
Hardware size: 6
Protocol size: 4
Opcode: reply (2)
Sender MAC address: Microsof_02:3a:01 (00:15:5d:02:3a:01)
Sender IP address: 128.208.2.201 (128.208.2.201)
Target MAC address: Dell_d5:10:8b (00:25:64:d5:10:8b)
Target IP address: 128.208.2.151 (128.208.2.151)

| | | |
|------|---|------------------|
| 0000 | 00 25 64 d5 10 8b 00 15 5d 02 3a 01 08 06 00 01 | ·%d.....]:..... |
| 0010 | 08 00 06 04 00 02 00 15 5d 02 3a 01 80 d0 02 c9 |]:..... |
| 0020 | 00 25 64 d5 10 8b 80 d0 02 97 00 00 00 00 00 00 | ·%d..... |
| 0030 | 00 00 00 00 00 00 00 00 00 00 00 00 00 | |

3. What value is carried on a request for the unknown target MAC address?

All 0.

Target MAC address: 00:00:00_00:00:00 (00:00:00:00:00:00)

Target IP address: 128 208 2 151 (128 208 2 151)

4. What Ethernet Type value which indicates that ARP is the higher layer protocol?

IPv4.

Hardware type: Ethernet (1)

Protocol type: IPv4 (0x0800)

5. Is the ARP reply broadcast (like the ARP request) or not?

Not.

Turn-in: Hand in your answers to the above questions.

Grades:

90/100

Comments:

-10 Step4 Q4: 0x0806