**Packet 1**

* **Source MAC:** aa:bb:cc:dd:ee:ff
* **Destination MAC:** Broadcast (ff:ff:ff:ff:ff:ff)
* **ARP Type:** Request
* **Sender MAC:** aa:bb:cc:dd:ee:ff
* **Sender IP:** 192.168.1.1
* **Target MAC:** 00:00:00:00:00:00
* **Target IP:** 192.168.1.100
* **Purpose:**
  + This is an **ARP request**. It broadcasts the request to all devices in the network.

**Packet 2**

* **Source MAC:** 52:1a:7f:9b:3e:cd
* **Destination MAC:** aa:bb:cc:dd:ee:ff
* **ARP Type:** Reply
* **Sender MAC:** 52:1a:7f:9b:3e:cd
* **Sender IP:** 192.168.1.100
* **Target MAC:** aa:bb:cc:dd:ee:ff
* **Target IP:** 192.168.1.1
* **Purpose:**
  + This is an **ARP reply**.

**Packet 3**

* **Source MAC:** aa:bb:cc:dd:ee:ff
* **Destination MAC:** Broadcast
* **ARP Type:** Request
* **Sender MAC:** aa:bb:cc:dd:ee:ff
* **Sender IP:** 192.168.1.1
* **Target MAC:** 00:00:00:00:00:00
* **Target IP:** 192.168.1.150
* **Purpose:**
  + This is an **ARP request**.

**Packet 4**

* **Source MAC:** a6:4f:2d:8e:7c:51
* **Destination MAC:** aa:bb:cc:dd:ee:ff
* **ARP Type:** Reply
* **Sender MAC:** a6:4f:2d:8e:7c:51
* **Sender IP:** 192.168.1.150
* **Target MAC:** aa:bb:cc:dd:ee:ff
* **Target IP:** 192.168.1.1
* **Purpose:**
  + This is an **ARP reply.**

**Packet 5**

* **Source MAC:** aa:bb:cc:dd:ee:ff
* **Destination MAC:** Broadcast
* **ARP Type:** Request
* **Sender MAC:** aa:bb:cc:dd:ee:ff
* **Sender IP:** 192.168.1.1
* **Target MAC:** 00:00:00:00:00:00
* **Target IP:** 10.0.0.200
* **Purpose:**
  + This is another **ARP request**

**Step 2: Answering Questions**

**1. What is the purpose of an ARP request?**

An **ARP request** is used to **map an IP address to a MAC address**.

**2. What is the purpose of an ARP reply?**

An **ARP reply** is sent **in response to an ARP request**.

**3. What’s the difference between the Destination MAC address in ARP replies and ARP requests?**

* **ARP requests**: Sent as **broadcast** which is all devices in the network receive it.
* **ARP replies**: Sent as **unicast**.

**4. Why is there no ARP reply for the last packet?**

No device with IP exists in the network and the targeted device is turned off.