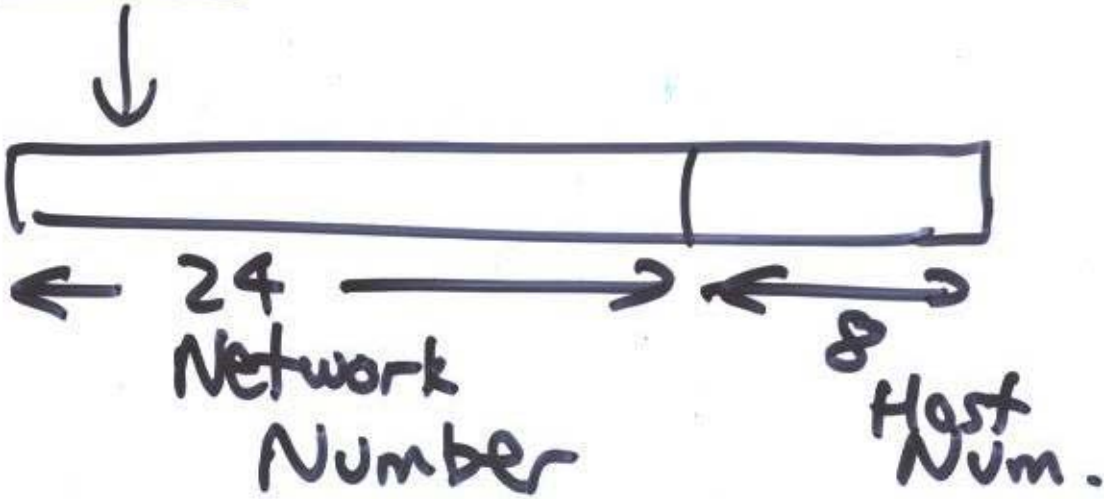
Network Class

FIRST BITS

0 → Class A → 0 ... 127

10 → Class B → 128 ... 191

110 → Class C → 192 ... 223



Host 1 to [redacted] 2

192.31.65.7 → 192.31.65.5

1. What network?
   ⇒ own network (same network number)

2. Host 1 – ARP request (Broadcast)
   Who owns 192.31.65.5?
   (My MAC address is ...)

3. Host 2 – ARP response
   "I do" – my MAC address is ... M2

4. Host 1: IP packet sent from H1 to H2
   (destination MAC address M2)

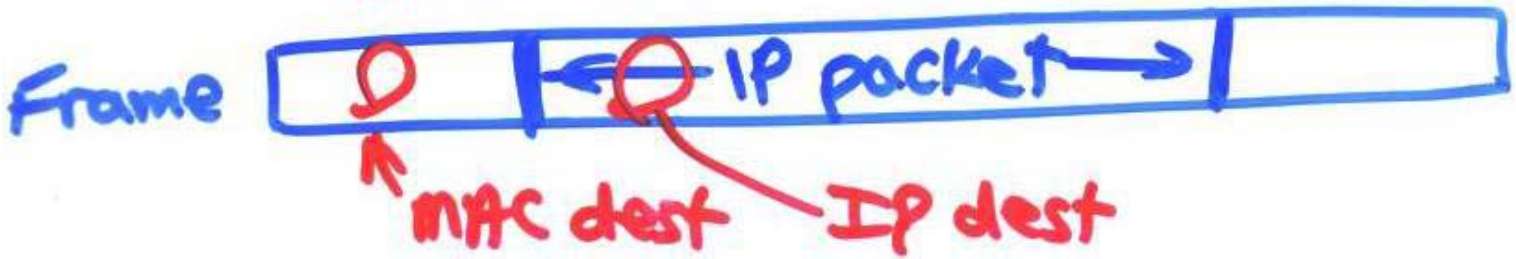
48 bits

Host 1 to 4

192.31.65.7 → 192.31.63.8

1. What network?
   ⇒ diff network numbers
   Host 1 decides to send packet to router
   (Knows Router IP address 192.31.65.1)
2. H1 - ARP - who owns 192.31.65.1
3. Router replies - I do: MAC is M3
4. IP packet sent from H1 to Router

IP dest: 192.31.63.8 (Host 4)
MAC dest: M3 (Router)



5. ROUTER 1 - looks in routing table
- has to send to R2 (192.31.60.7)

6. ARP request from R1
Who owns 192.31.60.7?

7. R2 : I do , MAC address is M4

8. R1 sends packet to R2

9. R2 - arp request
Who owns 192.31.63.8

10. H4 : I do - MAC address is M5

11. R2 - sends packet to Host 4

IP dest : 192.31.63.8

MAC dest : M5