1. The Ethernet address of my computer is 00:d0:59:a9:3d:68.

Graphical user interface, text, application

Description automatically generated

Problem 1

1. The destination address 00:06:25:da:af:73 is not the Ethernet address of gaia.cs.umass.edu. It is the address of my router.

Graphical user interface, text, application

Description automatically generated

Problem 2

1. The hex value for the Frame type field is 0x0800. This corresponds to the IP protocol (the frame type filed indicates that the nest layer above IP – the layer to which the payload of this Ethernet frame will be passed – is IP.

Graphical user interface, text, application

Description automatically generated

Problem 3

1. The ASCII “G” appears 52 bytes from the start of the Ethernet frame.

Table

Description automatically generated

Problem 4

1. The source address 00:06:25:da:af:73 is the address of my router, which is the link used to get onto my subnet.

Table

Description automatically generated with low confidence

Problem 5

1. The destination address 00:d0:59:a9:3d:68 is the address of my computer.

Table

Description automatically generated with low confidence

Problem 6

1. The Hex value is 0x0800, which corresponds to the IP protocol IPv4.

Graphical user interface

Description automatically generated with medium confidence

Problem 7

1. The ASCII “O” appears 67 bytes from the start of the Ethernet frame.

Table

Description automatically generated with medium confidence

**ARP**

9.

A picture containing text, newspaper

Description automatically generated

The Internet Address column contains the IP address, the Physical Address column contains the MAC address, and the type indicates the protocol type.

10.

Graphical user interface, application

Description automatically generated

Problem 10

The hex value for the source address is 00:d0:59:a9:3d:68. The hex value for the destination address is ff:ff:ff:ff:ff:ff, the broadcast address.

11. The hex value for the Ethernet Frame type field is 0x0806, for ARP.

Graphical user interface, application

Description automatically generated

Problem 11

12.

a.21 Bytes.

b.1

Graphical user interface, application

Description automatically generated

Problem 12b

c.Yes

d.In the target IP address.

13.

a.21 Bytes.

b.002

Graphical user interface, text, application

Description automatically generated with medium confidence

Problem 13b

c.In sender MAC address.

14.Source:00:06:25:da:af:73

Destination:00:d0:59:a9:3d:68

Graphical user interface, application

Description automatically generated

Problem 14

15.Because the host computer is not the router that maintains the ARP table.