**1. ICMP and Ping**

**Text

Description automatically generated**

**Graphical user interface, text, application, email

Description automatically generated**

**Graphical user interface, text, application, email

Description automatically generated**

1. The IP address of my host is 131.210.236.165 and the IP address of the destination host is 143.89.12.134.
2. They do not need port numbers because they were designed to communicate network-layer information between hosts and routers, not between application layer processes.
3. The ICMP Type and Code numbers are 8 and 0, respectively. The ICMP packet also has Checksum, Checksum Status, Identifier, Sequence Number, and Data fields. The Checksum, Sequence Number, and Identifier fields are each 2 bytes.
4. The ICMP Type and Code numbers are both 0. It has all the same fields as the request packet but also includes Response Time. The Checksum, Sequence Number, and Identifier fields are each 2 bytes.

**2. ICMP and Traceroute**

Text

Description automatically generated

Graphical user interface, text, application

Description automatically generated

1. The IP address of my host is 192.168.1.29. The IP address of the target destination host is 192.168.1.1.
2. No, the IP protocol number would be 0x11.
3. No, it is the same.
4. Those fields show the IP header and the first 8 bytes of the original ICMP packet.
5. The last 3 ICMP packets have a Type number of 0 as opposed to the Type number 11 that the error packets had. This is because they made it all the way to their destination while the others didn’t.
6. There is a significant delay between 8 and 9. However, I can’t figure out the location of the routers from the image.