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Block C

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**INTERNET AND NETWORKING LAB**

1. Find the IP address of the computer you are using and enter it below as your answer.

Answer: 10.3.10.251

1. Find the IP address either of your phone (try to look through your phone settings and wifi), or the computer of someone next to you. Use the “ping” command to test to see if your computer can communicate with it. Copy and paste the output here.

Phone IP address: 10.3.227.61

Ping worked: ping 10.3.227.61

PING 10.3.227.61 (10.3.227.61): 56 data bytes

64 bytes from 10.3.227.61: icmp\_seq=0 ttl=63 time=261.072 ms

64 bytes from 10.3.227.61: icmp\_seq=1 ttl=63 time=54.857 ms

1. Find the IP addresses of 2 of your favorite websites using the “nslookup” command in your terminal editor. Copy and paste the output here.

[ 03-35d4-704365:~ 572421$ nslookup

> www.google.com

Server: 10.3.30.12

Address: 10.3.30.12#53

> www.bing.com

Server: 10.3.30.12

Address: 10.3.30.12#53

1. Now use the “traceroute” command to trace the route that it takes to go from your computer to those 2 websites you listed in question number 3. Copy and paste the output here. How many different servers does it take for it to get from your computer to each destination website?

traceroute to google.com (172.217.3.206), 64 hops max, 52 byte packets

1 10.3.10.1 (10.3.10.1) 0.740 ms 0.493 ms 0.490 ms

2 10.3.111.1 (10.3.111.1) 0.664 ms 0.681 ms 0.549 ms

3 10.200.3.2 (10.200.3.2) 1.324 ms 1.087 ms 1.490 ms

4 10.143.60.146 (10.143.60.146) 6.347 ms 9.427 ms 9.163 ms

\*bing Traceroute didn't work\*

traceroute to yourdomain.com (69.172.201.153), 64 hops max, 52 byte packets

1 10.3.10.1 (10.3.10.1) 0.791 ms 0.734 ms 0.539 ms

2 10.3.111.1 (10.3.111.1) 0.957 ms 0.981 ms 0.784 ms

3 10.200.3.2 (10.200.3.2) 4.725 ms 1.107 ms 1.279 ms

4 10.143.60.146 (10.143.60.146) 18.757 ms 4.790 ms 2.655 ms

1. Can you think of potential problems if two devices were to have the same IP address on a network?

A potential problem if two devices were to have the same ip address on the same network is disconnection from the connection.

1. Explain how DNS is like using a phone book.

If you know a person’s name but don’t know their telephone number, you can simply look it up in a phone book. DNS provides this same service to the Internet.