1. Find the IP address of the computer you are using and enter it below as your answer.
2. 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.
3. Find the IP addresses of 2 of your favorite websites using the “nslookup” command in your terminal editor. Copy and paste the output here.
4. 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 2. Copy and paste the output here. How many different servers does it take for it to get from your computer to each destination website?
5. Can you think of potential problems if two devices were to have the same IP address on a network?
6. Explain how DNS is like using a phone book.

1. 10.3.10.249
2. 10.3.227.101: 64 bytes from 10.3.227.101: icmp_seq=0 ttl=63 time=196.801 ms 64 bytes from 10.3.227.101: icmp_seq=1 ttl=63 time=441.322 ms 64 bytes from 10.3.227.101: icmp_seq=2 ttl=63 time=65.878 ms 64 bytes from 10.3.227.101: icmp_seq=3 ttl=63 time=322.670 ms 64 bytes from 10.3.227.101: icmp_seq=4 ttl=63 time=565.512 ms
3.
    a. 03-35d2-704320:~ 477425$ nslookup instagram.com
    b. Server: 10.3.30.12
    c. Address: 10.3.30.12#53
    d. 03-35d2-704320:~ 477425$ nslookup youtube.com
    e. Server: 10.3.30.12
    f. Address: 10.3.30.12#53
4. Instagram 1st
    a. 1 10.3.10.1 (10.3.10.1) 0.730 ms 0.506 ms 0.458 ms
    b. 2 10.3.111.1 (10.3.111.1) 1.042 ms 0.623 ms 0.494 ms
    c. 3 10.200.3.2 (10.200.3.2) 1.330 ms 1.375 ms 1.179 ms
    d. 4 10.143.60.146 (10.143.60.146) 1.949 ms 4.995 ms 13.063 ms

e. 5 * * *
f. 6 10.143.58.89 (10.143.58.89) 3.629 ms 2.446 ms 2.892 ms
g. 7 64.114.202.165 (64.114.202.165) 3.717 ms 3.458 ms 2.794 ms
h. 8 64.114.202.170 (64.114.202.170) 2.844 ms 3.354 ms 3.373 ms
i. 9 206.108.207.181 (206.108.207.181) 2.503 ms 2.779 ms 3.476 ms
j. 10 75.154.223.209 (75.154.223.209) 59.638 ms 59.985 ms 59.687 ms
k. 11 96.1.252.177 (96.1.252.177) 60.126 ms 60.675 ms 60.255 ms
l. 12 * * *
m. 13 * * *
n. 14 * * *
o. 15 * * *
p. 16 * * *
q. 17 54.239.110.147 (54.239.110.147) 90.898 ms
r. 54.239.110.177 (54.239.110.177) 111.762 ms
s. 54.239.110.139 (54.239.110.139) 103.250 ms
t. 18 54.239.109.149 (54.239.109.149) 79.629 ms
u. 54.239.111.41 (54.239.111.41) 78.318 ms
v. 54.239.109.47 (54.239.109.47) 75.010 ms
w. 19 205.251.245.252 (205.251.245.252) 80.128 ms * *
x. 19 Hops
y. Youtube 2nd
z. 1 10.3.10.1 (10.3.10.1) 0.768 ms 0.833 ms 0.484 ms
aa. 2 10.3.111.1 (10.3.111.1) 0.857 ms 0.937 ms 0.750 ms
bb. 3 10.200.3.2 (10.200.3.2) 1.309 ms 1.184 ms 1.504 ms
cc. 4 10.143.60.146 (10.143.60.146) 1.800 ms 4.489 ms 24.882 ms
dd. 5 * *146 (10.143.60.146) 1.800 ms 4.489 ms 24.882 ms *
ee. 6 10.143.58.89 (10.143.58.89) 2.568 ms 3.861 ms 2.427 ms
ff. 7 64.114.202.165 (64.114.202.165) 3.224 ms 4.163 ms 3.346 ms
gg. 8 64.114.202.170 (64.114.202.170) 3.248 ms 3.674 ms 4.349 ms
hh. 9 206.108.207.181 (206.108.207.181) 4.276 ms 9.242 ms 3.356 ms
ii. 10 154.11.10.11 (154.11.10.11) 9.172 ms 9.439 ms 9.199 ms
jj. 11 72.14.220.60 (72.14.220.60) 7.851 ms 5.905 ms 9.823 ms
kk. 12 108.170.245.97 (108.170.245.97) 14.293 ms
ll. 108.170.245.113 (108.170.245.113) 7.516 ms 7.155 ms
mm. 13 209.85.243.233 (209.85.243.233) 5.882 ms

nn. 209.85.243.153 (209.85.243.153) 7.176 ms
oo. 209.85.243.233 (209.85.243.233) 8.152 ms
pp. 14 sea15s08-in-f14.1e100.net (216.58.193.110) 8.534 ms 8.852 ms 6.621 ms
qq. 03-35d2-704320:~ 477425$ 146 (10.143.60.146) 1.800 ms 4.489 ms 24.882 ms
rr. 14 Hops

5. Packages sent to one device may be received by the other that has the identical IP address and vice versa so when sending packages the IP address could become misinterpreted
6. DNS is used as a phonebook in the sense that it is a system that that assigns a name to an IP address so that one does not have to memorize an IP address to get to one's favourite website.