CCN

Lab 1

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1. 172.19.160.1

```
IPv4 Address. . . . . . . . . . : 172.19.160.1
```

2. Google.com = 172.217.7.174

```
Pinging google.com [172.217.7.174] with 32 bytes of data:
Reply from 172.217.7.174: bytes=32 time=10ms TTL=118
```

3. Here

IP Address	Country	Region	City
172.217.7.174	United States of America	California	Mountain View

ISP	Organization	Latitude	Longitude
Google LLC	Not Available	37.4060	-122.0785

Geolocation data from ipinfo.io (Product: API, real-time)

4. Formula (my access delay = 10 ms

```
C:\Windows\system32> ping -l 600 -n 100 www.google.com

Pinging www.google.com [142.250.73.196] with 600 bytes of data:
Reply from 142.250.73.196: bytes=68 (sent 600) time=10ms TTL=118
Reply from 142.250.73.196: bytes=68 (sent 600) time=10ms TTL=118
Reply from 142.250.73.196: bytes=68 (sent 600) time=10ms TTL=118
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Reply from 142.250.73.196: bytes=68 (sent 600) time=10ms TTL=118
```
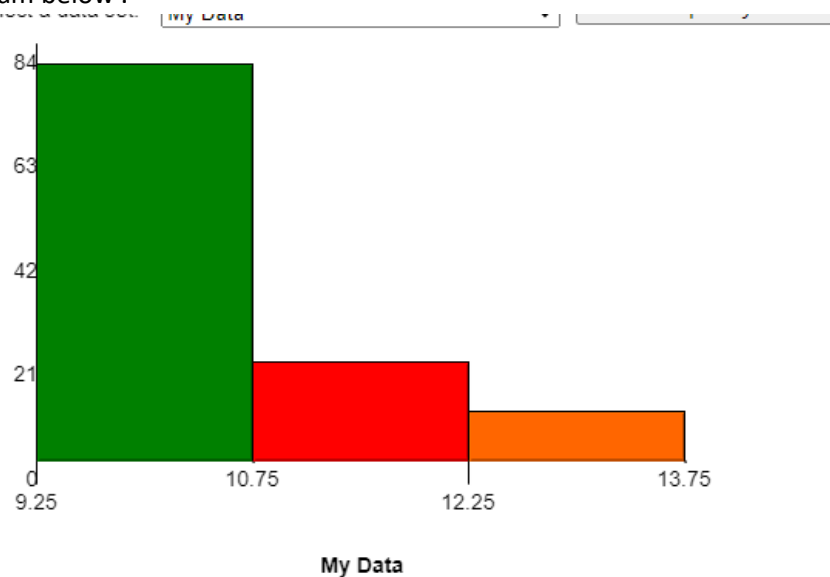
5. Answers below

a. They are not similar.

```
Reply from 142.250.73.196: bytes=68 (sent 600) time=10ms TTL=118
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Reply from 142.250.73.196: bytes=68 (sent 600) time=10ms TTL=118
Reply from 142.250.73.196: bytes=68 (sent 600) time=12ms TTL=118
Reply from 142.250.73.196: bytes=68 (sent 600) time=10ms TTL=118
Reply from 142.250.73.196: bytes=68 (sent 600) time=10ms TTL=118
Reply from 142.250.73.196: bytes=68 (sent 600) time=15ms TTL=118
Reply from 142.250.73.196: bytes=68 (sent 600) time=10ms TTL=118
Reply from 142.250.73.196: bytes=68 (sent 600) time=10ms TTL=118
Reply from 142.250.73.196: bytes=68 (sent 600) time=11ms TTL=118

Ping statistics for 142.250.73.196:
    Packets: Sent = 100, Received = 100, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 10ms, Maximum = 36ms, Average = 10ms
```

b. Histogram below .

My Data

c. is the same time almost always , so roughly 88% the time is 10 ms, 5% 13ms , and the rest its 6% 11ms, one was 36 ms though.

d. mean was 10.883453ms. (given by the pc) , variance calculation) is 4.0051265

e. An appropriate time is around 21 ms or twice the average or the between the variance and mean.