Cs.colostate.edu

```
Development/CS457/labs/7 main* 14s
sudo python3 icmpPing.py
nging 129.82.45.48 using Python:
ply from 129.82.45.48: bytes=16 time=106.451511ms TTL=47
ply from 129.82.45.48: bytes=16 time=98.154068ms TTL=47
ply from 129.82.45.48: bytes=16 time=86.009741ms TTL=47
ply from 129.82.45.48: bytes=16 time=86.008787ms TTL=47
ply from 129.82.45.48: bytes=16 time=89.518309ms TTL=47
ply from 129.82.45.48: bytes=16 time=77.476025ms TTL=47
ply from 129.82.45.48: bytes=16 time=88.693857ms TTL=47
ply from 129.82.45.48: bytes=16 time=106.734991ms TTL=47
ply from 129.82.45.48: bytes=16 time=90.941429ms TTL=47
ply from 129.82.45.48: bytes=16 time=92.329264ms TTL=47
ply from 129.82.45.48: bytes=16 time=89.360952ms TTL=47
ply from 129.82.45.48: bytes=16 time=83.133221ms TTL=47
ply from 129.82.45.48: bytes=16 time=175.341606ms TTL=47
ply from 129.82.45.48: bytes=16 time=79.344034ms TTL=47
-- cs.colostate.edu statistics ---
t min/avg/max = 77.476/96.393/175.342 ms
```

Google.com

```
> sudo python3 icmpPing.py
Pinging 216.58.194.110 using Python:

Reply from 216.58.194.110: bytes=16 time=50.021172ms TTL=111
Reply from 216.58.194.110: bytes=16 time=49.973726ms TTL=111
Reply from 216.58.194.110: bytes=16 time=64.350367ms TTL=111
Reply from 216.58.194.110: bytes=16 time=75.743914ms TTL=111
Reply from 216.58.194.110: bytes=16 time=59.573412ms TTL=111
Reply from 216.58.194.110: bytes=16 time=55.093050ms TTL=111
^C
--- google.com statistics ---
rtt min/avg/max = 49.974/59.126/75.744 ms
```

```
~/Development/CS457/labs/7 main* 31m 20s
> sudo python3 icmpPing.py
[sudo] password for trick:
Pinging 127.0.0.1 using Python:
Reply from 127.0.0.1: bytes=16 time=0.313759ms TTL=64
Reply from 127.0.0.1: bytes=16 time=0.101328ms TTL=64
Reply from 127.0.0.1: bytes=16 time=0.123978ms TTL=64
Reply from 127.0.0.1: bytes=16 time=0.317812ms TTL=64
Reply from 127.0.0.1: bytes=16 time=0.217676ms TTL=64
Reply from 127.0.0.1: bytes=16 time=0.216722ms TTL=64
Reply from 127.0.0.1: bytes=16 time=0.128746ms TTL=64
~/Development/CS457/labs/7 main*
> sudo python3 icmpPing.py
Pinging 200.75.30.181 using Python:
Reply from 200.75.30.181: bytes=16 time=211.344004ms TTL=47
Reply from 200.75.30.181: bytes=16 time=213.431120ms TTL=47
Reply from 200.75.30.181: bytes=16 time=205.490351ms TTL=47
Reply from 200.75.30.181: bytes=16 time=229.649544ms TTL=47
Reply from 200.75.30.181: bytes=16 time=214.359760ms TTL=47
Reply from 200.75.30.181: bytes=16 time=252.158880ms TTL=47
> sudo python3 icmpPing.py
Pinging 153.127.75.11 using Python:
Reply from 153.127.75.11: bytes=16 time=225.846767ms TTL=44
Reply from 153.127.75.11: bytes=16 time=212.628603ms TTL=44
Reply from 153.127.75.11: bytes=16 time=210.787773ms TTL=44
Reply from 153.127.75.11: bytes=16 time=221.344471ms TTL=44
Reply from 153.127.75.11: bytes=16 time=216.692209ms TTL=44
Reply from 153,127,75,11: bytes=16 time=212,829828ms TTL=44
```

```
~/Development/CS457/labs/7 main* 9s
> sudo python3 icmpPing.py
Pinging 103.22.220.133 using Python:

Reply from 103.22.220.133: bytes=16 time=282.344341ms TTL=39
Reply from 103.22.220.133: bytes=16 time=231.230736ms TTL=39
Reply from 103.22.220.133: bytes=16 time=240.415335ms TTL=39
Reply from 103.22.220.133: bytes=16 time=216.943026ms TTL=39
Reply from 103.22.220.133: bytes=16 time=260.957956ms TTL=39
```

Approximately how much longer does it take to do a round-trip ping from/to a remote machine than from/to localhost? (Note, answers may vary if you are doing the experiment from your home or from the CS building itself and whether the destination is in North America or some other continent).

It takes approximately 210ms longer to do a round trip to a remote machine compared to localhost.