

Task A

1.

```
(jayden-goldsmith@kali)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fd17:625c:f037:2:e2cc:dfc3:8a32:6be9 prefixlen 64 scopeid 0<global>
    inet6 fd17:625c:f037:2:a00:27ff:fed8:21fe prefixlen 64 scopeid 0<global>
    inet6 fe80::a00:27ff:fed8:21fe prefixlen 64 scopeid 0<link>
    ether 08:00:27:d8:21:fe txqueuelen 1000 (Ethernet)
    RX packets 9 bytes 3699 (3.6 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 30 bytes 4974 (4.8 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 8 bytes 480 (480.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 8 bytes 480 (480.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

2.

```
(jayden-goldsmith@kali)-[~]
$ route
Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface
default 10.0.2.2 0.0.0.0 UG 100 0 0 eth0
10.0.2.0 0.0.0.0 255.255.255.0 U 100 0 0 eth0
```

3.

```
(jayden-goldsmith@kali)-[~]
$ netstat -t
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address Foreign Address State
```

4.

```
(jayden-goldsmith@kali)-[~]
$ ping ubuntu.com
PING ubuntu.com (185.125.190.29) 56(84) bytes of data.
64 bytes from website-content-cache-3.ps5.canonical.com (185.125.190.29): icmp_seq=1 ttl=255 time=83.1 ms
64 bytes from website-content-cache-3.ps5.canonical.com (185.125.190.29): icmp_seq=2 ttl=255 time=82.5 ms
64 bytes from website-content-cache-3.ps5.canonical.com (185.125.190.29): icmp_seq=3 ttl=255 time=82.1 ms
64 bytes from website-content-cache-3.ps5.canonical.com (185.125.190.29): icmp_seq=4 ttl=255 time=82.4 ms
64 bytes from website-content-cache-3.ps5.canonical.com (185.125.190.29): icmp_seq=5 ttl=255 time=83.1 ms
64 bytes from website-content-cache-3.ps5.canonical.com (185.125.190.29): icmp_seq=6 ttl=255 time=82.4 ms
64 bytes from website-content-cache-3.ps5.canonical.com (185.125.190.29): icmp_seq=7 ttl=255 time=82.7 ms
64 bytes from website-content-cache-3.ps5.canonical.com (185.125.190.29): icmp_seq=8 ttl=255 time=83.7 ms
64 bytes from website-content-cache-3.ps5.canonical.com (185.125.190.29): icmp_seq=9 ttl=255 time=83.1 ms
64 bytes from website-content-cache-3.ps5.canonical.com (185.125.190.29): icmp_seq=10 ttl=255 time=83.0 ms
^C
--- ubuntu.com ping statistics ---
10 packets transmitted, 10 received, 0% packet loss, time 9012ms
rtt min/avg/max/mdev = 82.092/82.802/83.711/0.451 ms
```

5.

```
(jayden-goldsmith@kali)-[~]
$ dig www.odu.edu

; <<>> DiG 9.20.9-1-Debian <<>> www.odu.edu
;; global options: +cmd
;; Got answer:
;; -->HEADER<-- opcode: QUERY, status: NOERROR, id: 63506
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1220
; COOKIE: 875b72a9281c72708f632709692fad447c429c5b65b4c78d (good)
;; QUESTION SECTION:
;www.odu.edu.                IN      A

;; ANSWER SECTION:
www.odu.edu.                 600     IN      A      35.170.140.174

;; Query time: 4 msec
;; SERVER: 128.82.95.20#53(128.82.95.20) (UDP)
;; WHEN: Tue Dec 02 22:23:49 EST 2025
;; MSG SIZE rcvd: 84
```

6.

```
(jayden-goldsmith@kali)-[~]
$ cat /etc/hostname
kali
```

7.

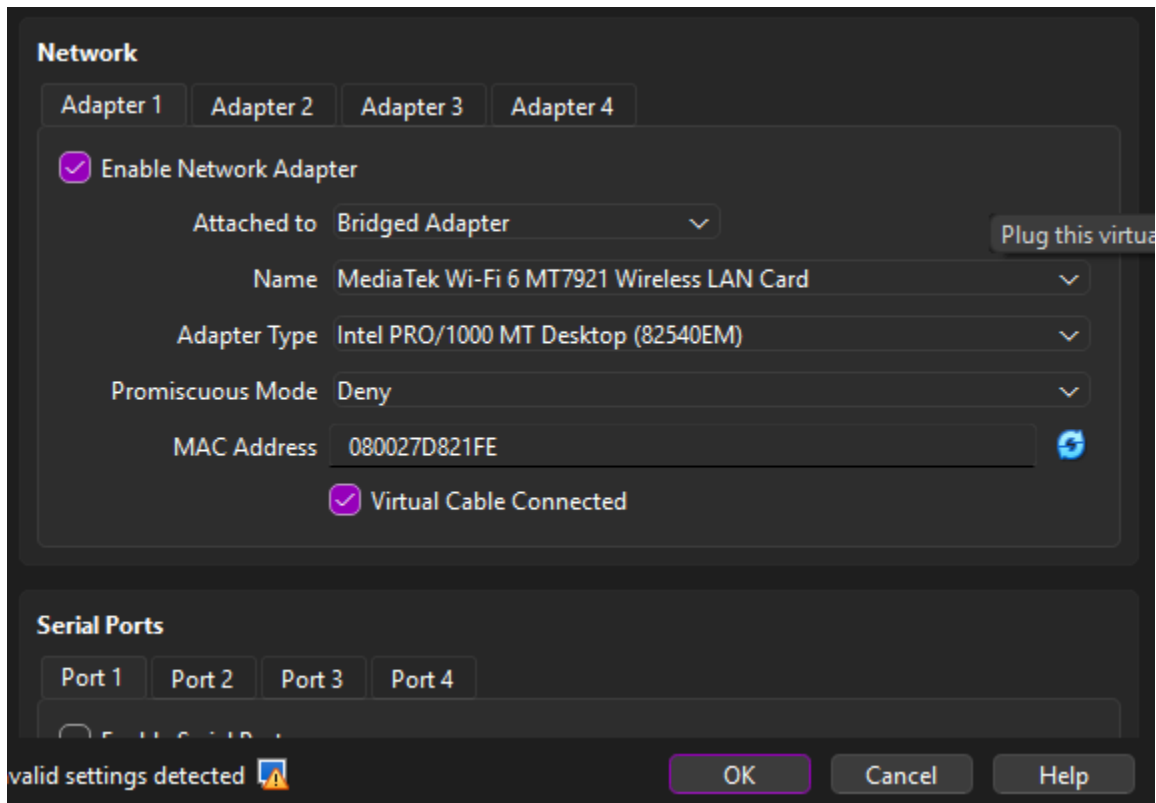
```
(jayden-goldsmith@kali)-[~]  
$ cat /etc/resolv.conf  
# Generated by NetworkManager  
search wlan.odu.edu  
nameserver 128.82.95.20
```

8.

```
(jayden-goldsmith@kali)-[~]  
$ sudo nano /etc/hostname  
sudo: unable to resolve host jgold033: Name or service not known  
  
(jayden-goldsmith@kali)-[~]  
$ cat /etc/hostname  
jgold033
```

Task B

1.



2. and 3.

1. I noticed that “inet” and “broadcast” have different addresses, and that there is 1 inet6 line instead of 3. The Rx and TX packets are lower as well as their bytes.

```
(jayden-goldsmith@ jgold033)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.254.253.12 netmask 255.255.0.0 broadcast 10.254.255.255
    inet6 fe80::a00:27ff:fed8:21fe prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:d8:21:fe txqueuelen 1000 (Ethernet)
    RX packets 3 bytes 462 (462.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 24 bytes 3156 (3.0 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 8 bytes 480 (480.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 8 bytes 480 (480.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

2. The “default” and “Gateway” addresses have been changed.

```
(jayden-goldsmith@ jgold033)-[~]
$ route
Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface
default 10.254.0.1 0.0.0.0 UG 100 0 0 eth0
10.254.0.0 0.0.0.0 255.255.0.0 U 100 0 0 eth0
```

3. Nothing has changed with step 3.

```
(jayden-goldsmith@ jgold033)-[~]
$ netstat -t
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address Foreign Address State
```


4. "ttl" has went from 255 to 50. The "min/avg/max/mdev" times is slightly lower ms times.

```
(jayden-goldsmith@jgold033)-[~]
$ ping -c 10 ubuntu.com
PING ubuntu.com (185.125.190.21) 56(84) bytes of data.
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=1 ttl=50 time=81.5 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=2 ttl=50 time=82.4 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=3 ttl=50 time=82.4 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=4 ttl=50 time=80.2 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=5 ttl=50 time=81.3 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=6 ttl=50 time=80.1 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=7 ttl=50 time=80.3 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=8 ttl=50 time=81.4 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=9 ttl=50 time=82.7 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=10 ttl=50 time=81.5 ms

— ubuntu.com ping statistics —
10 packets transmitted, 10 received, 0% packet loss, time 900ms
rtt min/avg/max/mdev = 80.128/81.380/82.737/0.892 ms
```

5. The "COOKIE" address has changed. The query time has went up from 4 to 8 msec.

```
(jayden-goldsmith@jgold033)-[~]
$ dig www.odu.edu

; <<>> DiG 9.20.9-1-Debian <<>> www.odu.edu
;; global options: +cmd
;; Got answer:
;; ->HEADER<- opcode: QUERY, status: NOERROR, id: 27456
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1220
; COOKIE: d411599732efdb48726fc64d692fc2e9bb6889591234a382 (good)
;; QUESTION SECTION:
;www.odu.edu.                IN      A

;; ANSWER SECTION:
www.odu.edu.                 600     IN      A      35.170.140.174

;; Query time: 8 msec
;; SERVER: 128.82.95.20#53(128.82.95.20) (UDP)
;; WHEN: Tue Dec 02 23:56:09 EST 2025
;; MSG SIZE rcvd: 84
```

6. It is named my MIDAS ID instead of the previous name with was "kali".

```
(jayden-goldsmith@jgold033)-[~]
$ cat /etc/hostname
jgold033
```

7. Nothing has changed for step 7.

```
(jayden-goldsmith@jgold033)-[~]
$ cat /etc/resolv.conf
# Generated by NetworkManager
search wlan.odu.edu
nameserver 128.82.95.20
```