

Binary To Decimal Conversion

Binary to Decimal

255

197

246

19

129

49

120

240

59

7

Decimal to Binary

123 - 0111011

50 - 00110010

255 - 11111111

200 - 11001000

10 - 00001010

138 - 10001010

1 - 00000001

13 - 00001101

250 - 11111010

107 - 01101011

224 - 11100000

114 - 01110010

Address Class Identification

Address	Class
10.250.1.1	<u>A</u>
150.10.15.0	<u>B</u>
192.14.2.0	_____
148.17.9.1	_____
193.42.1.1	_____
126.8.156.0	_____
220.200.23.1	_____
230.230.45.58	_____
177.100.18.4	_____
119.18.45.0	_____
249.240.80.78	_____

Address (hex) Identification		
C	- 192	Decim
B	- 147	123
C	- 193	50
A	- 126	255
C	- 220	200
D	- 230	10
B	- 177	138
A	- 119	1
D	- 249	13.
		250

Default Subnet Masks

177.100.18.4 — 255.255.0.0

119.18.45.0 — 255.0.0.0

191.249.234.191 — 255.255.0.0

223.23.223.109 — 255.255.255.0

10.10.250.1 — 255.0.0.0

126.123.23.1 — 255.0.0.0

223.69.230.250 — 255.255.255.0

192.12.35.105 — 255.255.255.0

77.251.200.51 — 255.0.0.0

189.210.50.1 — 255.255.0.0

Host addresses

$188 \cdot 10 \cdot 18 \cdot 2$ — $0 \cdot 0 \cdot 18 \cdot 2$

$255 \cdot 255 \cdot 0 \cdot 0$

$10 \cdot 10 \cdot 48 \cdot 80$ — $0 \cdot 0 \cdot 0 \cdot 80$

$255 \cdot 255 \cdot 255 \cdot 0$

$222 \cdot 49 \cdot 49 \cdot 11$ — $0 \cdot 0 \cdot 0 \cdot 11$

$255 \cdot 255 \cdot 255 \cdot 0$

$128 \cdot 23 \cdot 230 \cdot 19$ — $0 \cdot 0 \cdot 230 \cdot 19$

$255 \cdot 255 \cdot 0 \cdot 0$

$10 \cdot 10 \cdot 10 \cdot 10$ — $0 \cdot 0 \cdot 10 \cdot 10$

$255 \cdot 255 \cdot 0 \cdot 0$

$200 \cdot 113 \cdot 123 \cdot 11$ — $0 \cdot 0 \cdot 0 \cdot 11$

$255 \cdot 255 \cdot 255 \cdot 0$

$223 \cdot 169 \cdot 23 \cdot 20$ — $0 \cdot 0 \cdot 23 \cdot 20$

$255 \cdot 255 \cdot 0 \cdot 0$

No
Circle

(77)

(119)

(209)

(199)

(117)

(215)

(19)

(9)

(3)

(1)

(2)

(0)

Network address

—

188.10.18.2

255.255.0.0 — 188.10.0.0

10.10.48.80

255.255.255.0 — 10.10.48.0

192.149.24.191

255.255.255.0 — 192.149.24.0

150.203.23.0

255.255.0.0 — 150.203.0.0

10.10.10.0

255.0.0.0 — 10.0.0.0

186.13.23.110

255.255.255.0

223.69.230.250

255.255.0.0 — 223.69.0.0

200.120.135.15

255.0.0.0 — 200.120.135.0

Network Identification

Circle the Network Portion

8.2

(177.100) .18.4

(119) .18.45.0

80

(209.240) .80.78

(199.155.77) 56

1

(117) .89.56.45

(215.45.45) .0

(192.200) .15.0

0.19

(95) .0 .21.90

(33) .0 .0 .0

(158.98) .80.0

(217.21) .56.0

(10) .250.1.1

~~host~~

circle the host portion

10. 15. 123. 50

171. 2. 199. 31

198. 125. 87. 177

223. 250. 200. 222

17. 45. 222. 45

126. 201. 54. 230

191. 41. 35. 112

155. 25. 169. 227

192. 15. 155. 2

123. 102. 45. 254

148. 17. 9. 155

100. 25. 1. 1

Subnet Masks

188.10.18.2

255.255.0.0 — 188.10.255.055

10.10.48.80

255.255.255.0 — 10.10.48.255

192.149.24.191

255.255.255.0 — 192.149.24.255

150.203.23.19

255.255.0.0 — 150.203.255.255

10.10.10.10

— 10.255.255.255

186.13.23.110

255.255.255.0 — 186.13.23.255

223.69.230.250

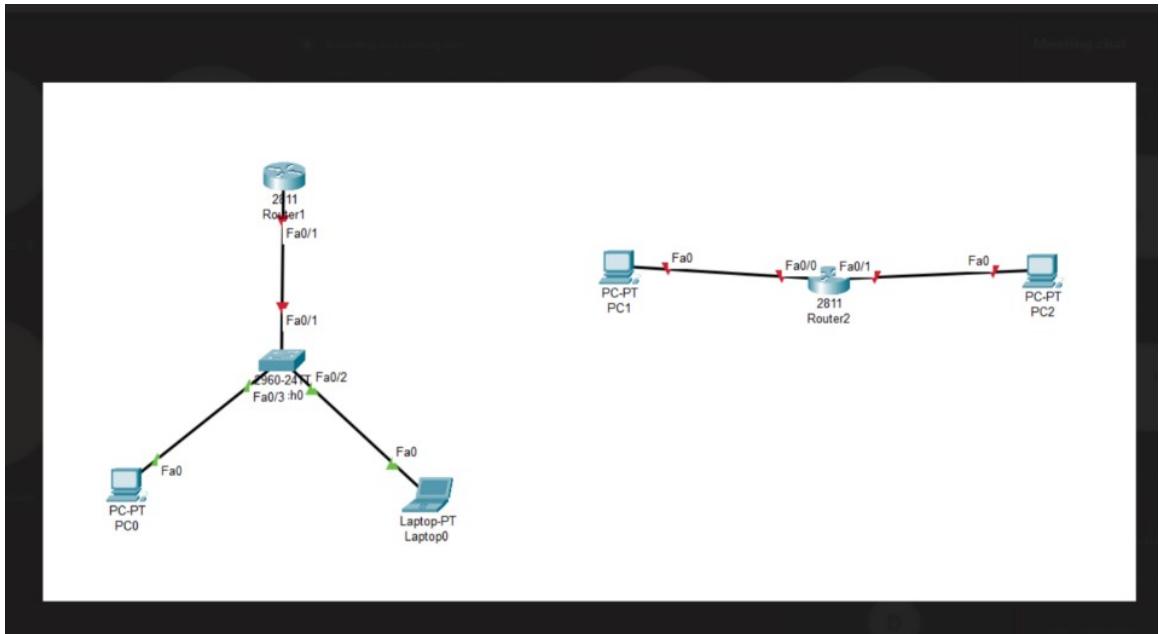
255.255.0.0 — 223.69.255.255

200.120.135.15

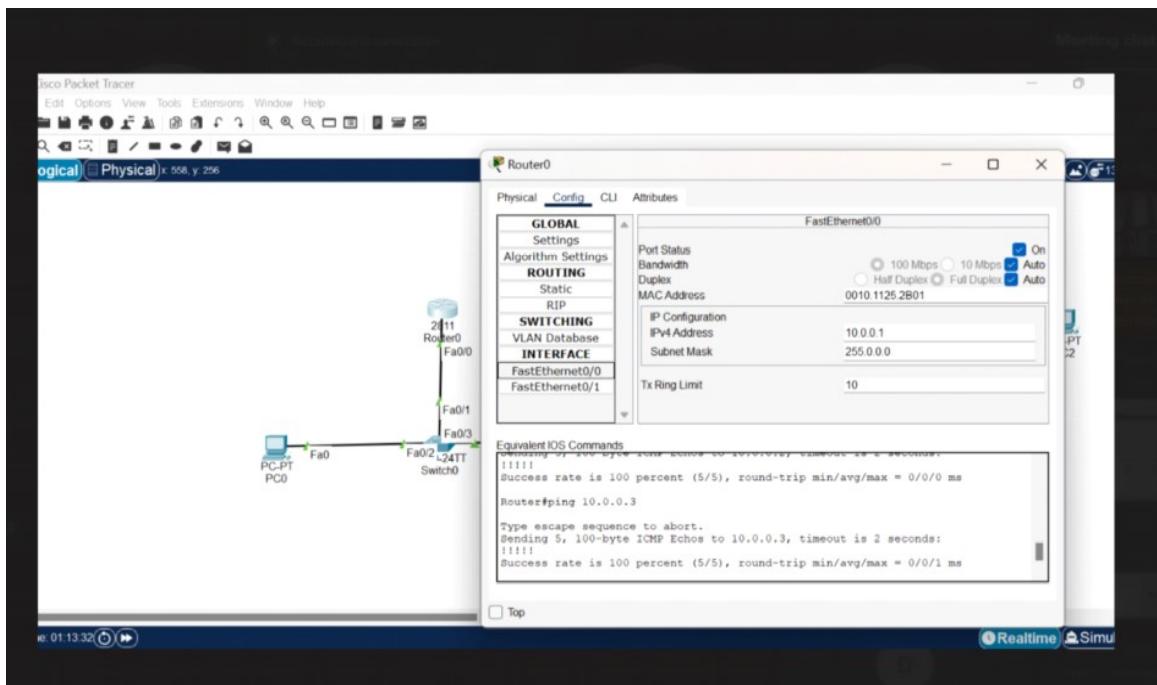
— 200.120.135.255

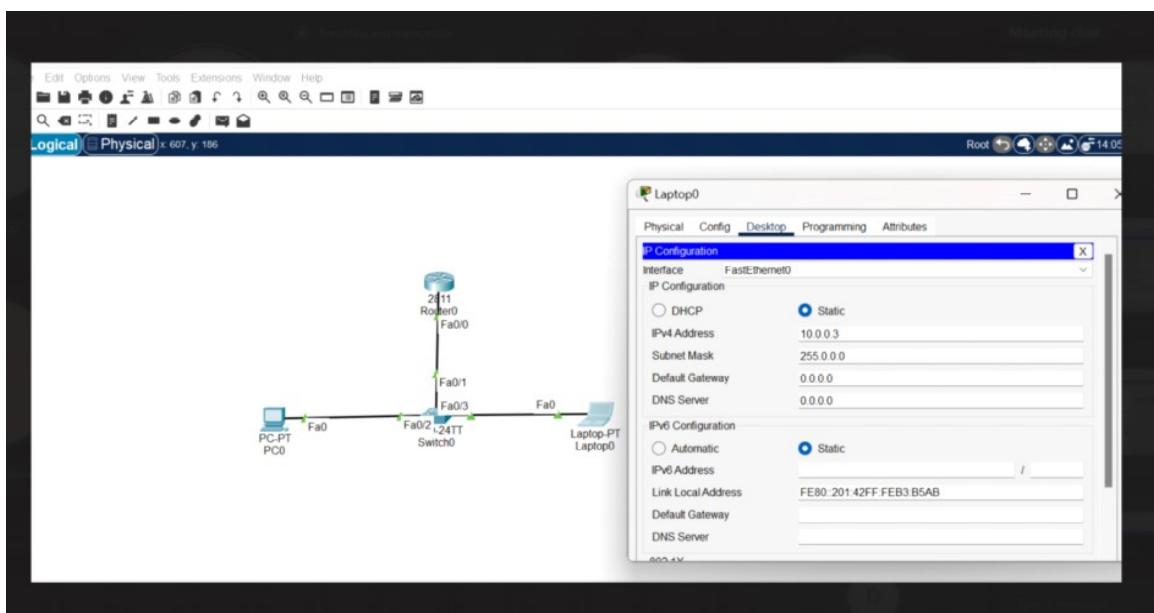
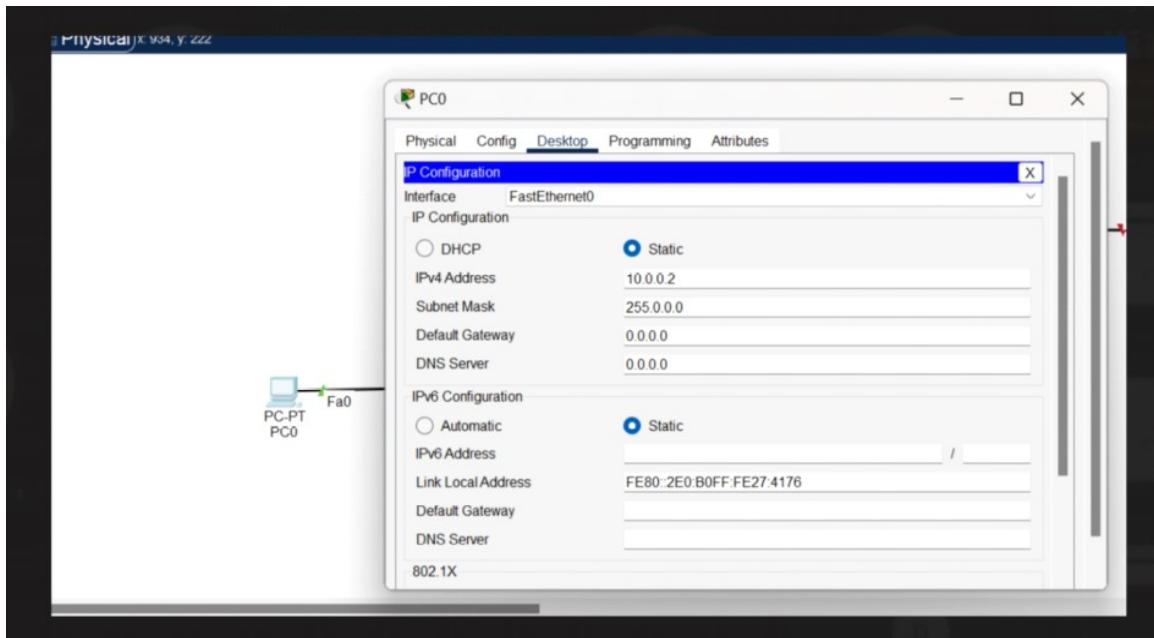
255.255.255.0

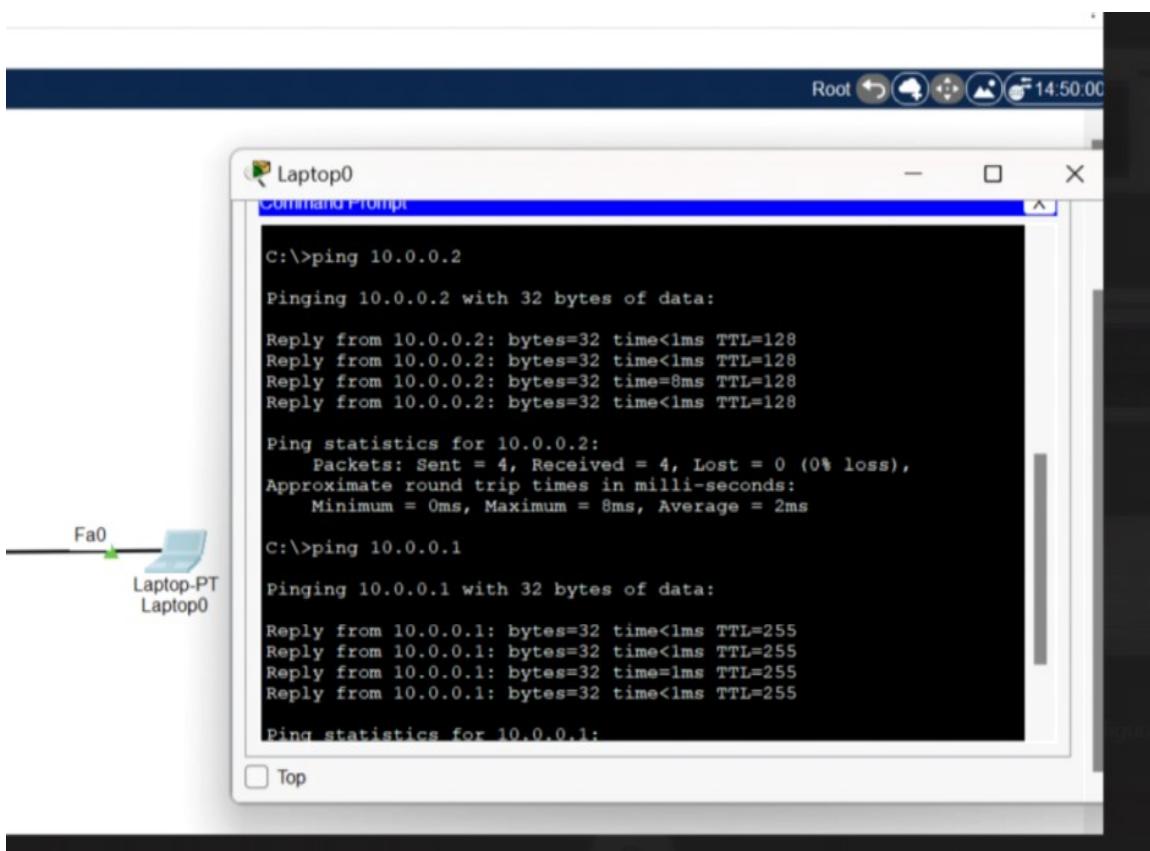
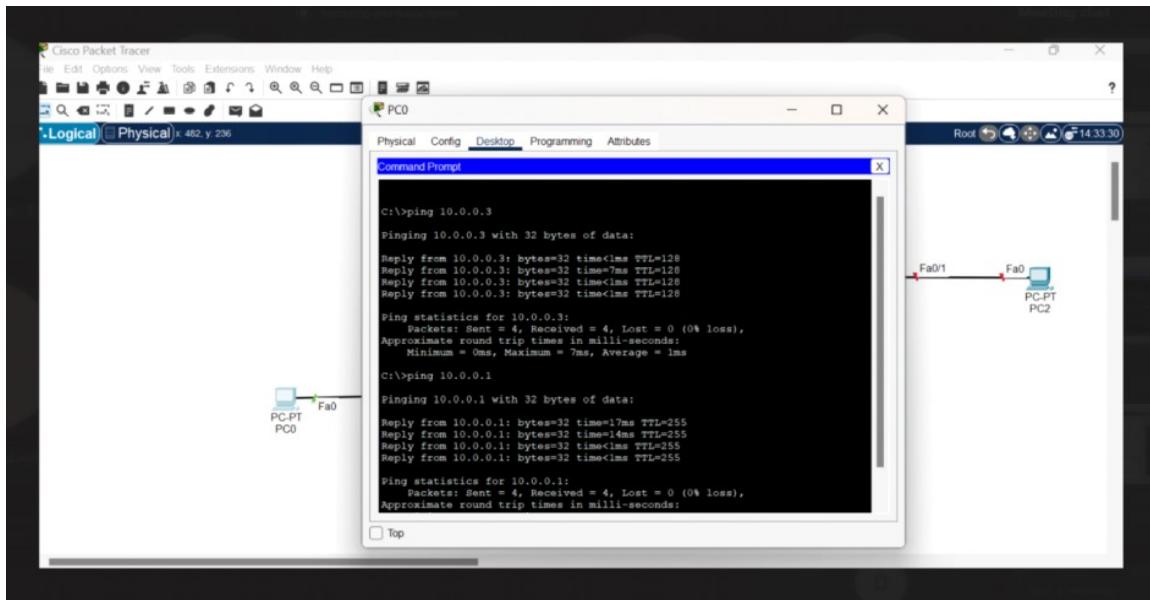
Subnetting



Lab 2--IP Address configuration and ping check.







The screenshot shows the Cisco Packet Tracer interface with a window titled "Router0". The "CLI" tab is selected. The terminal window displays the following output:

```
Router#ping 10.0.0.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.0.0.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/3/7 ms

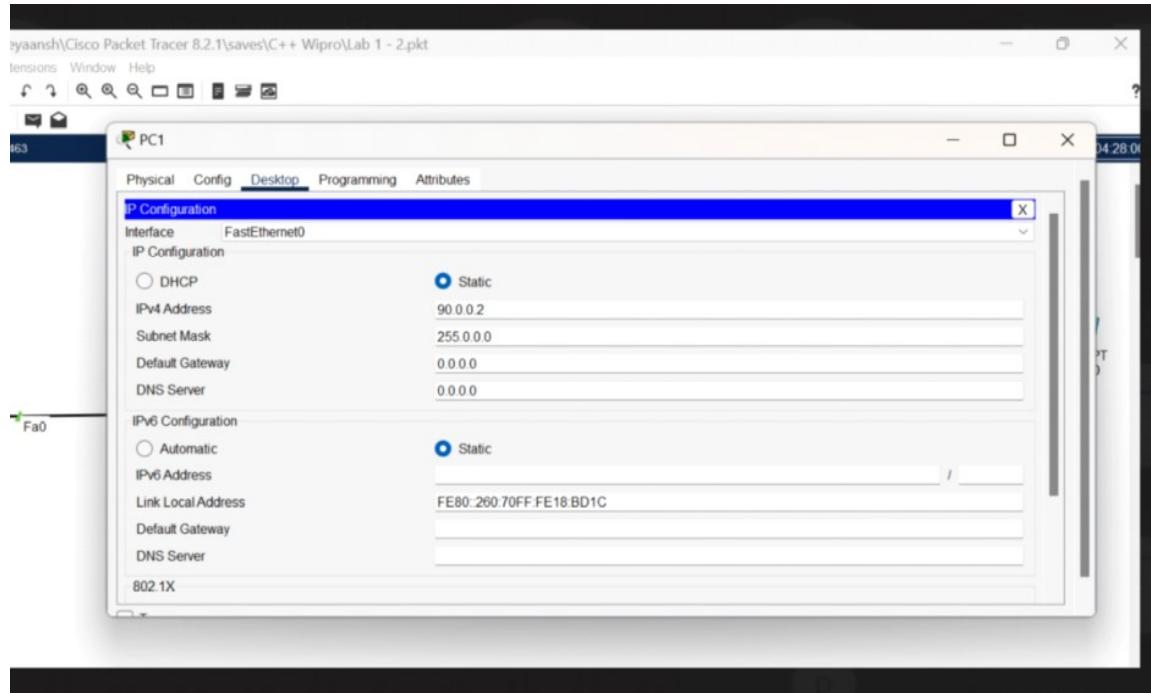
Router#ping 10.0.0.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.0.0.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms

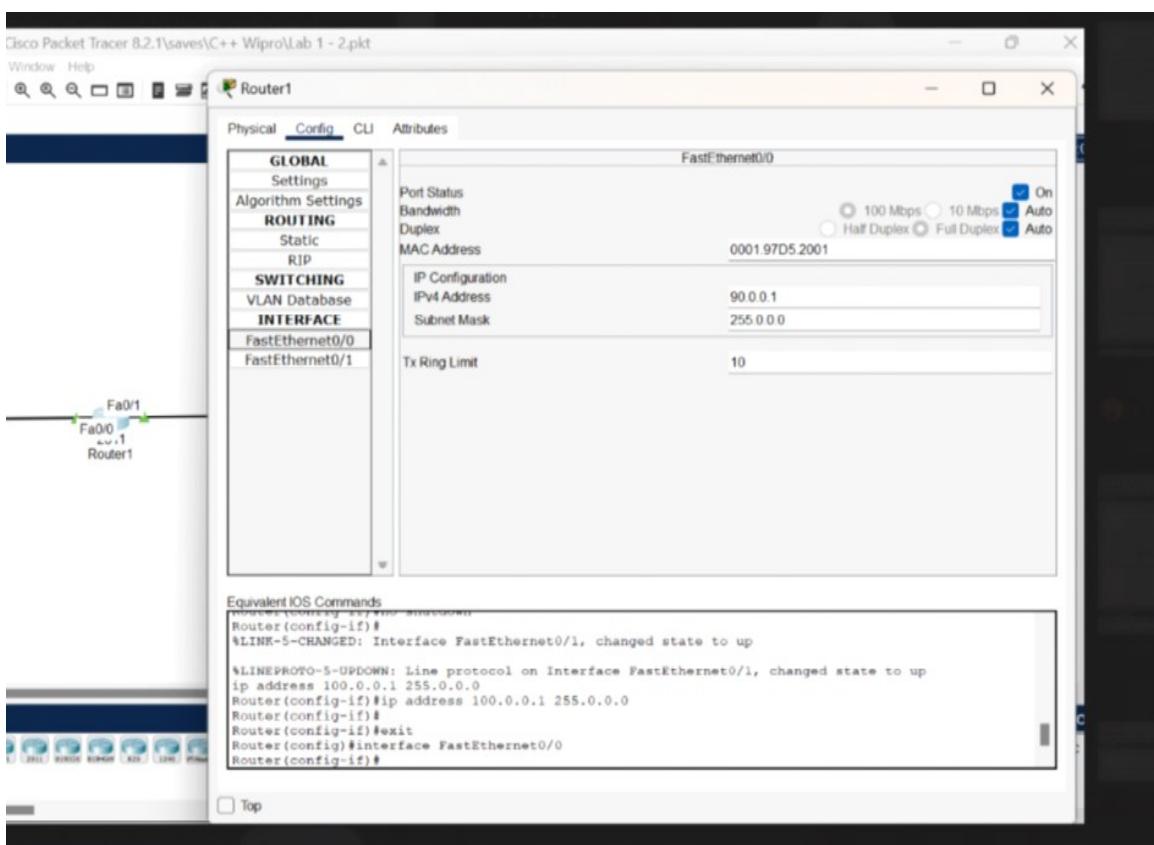
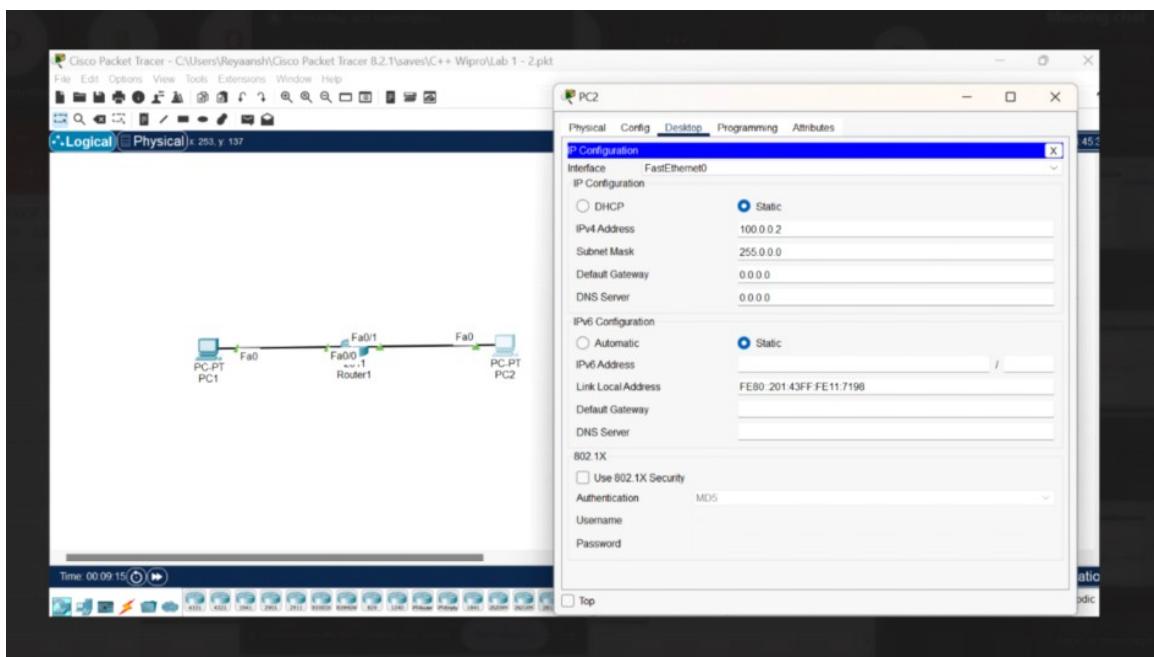
Router#ping 10.0.0.3
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.0.0.3, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms

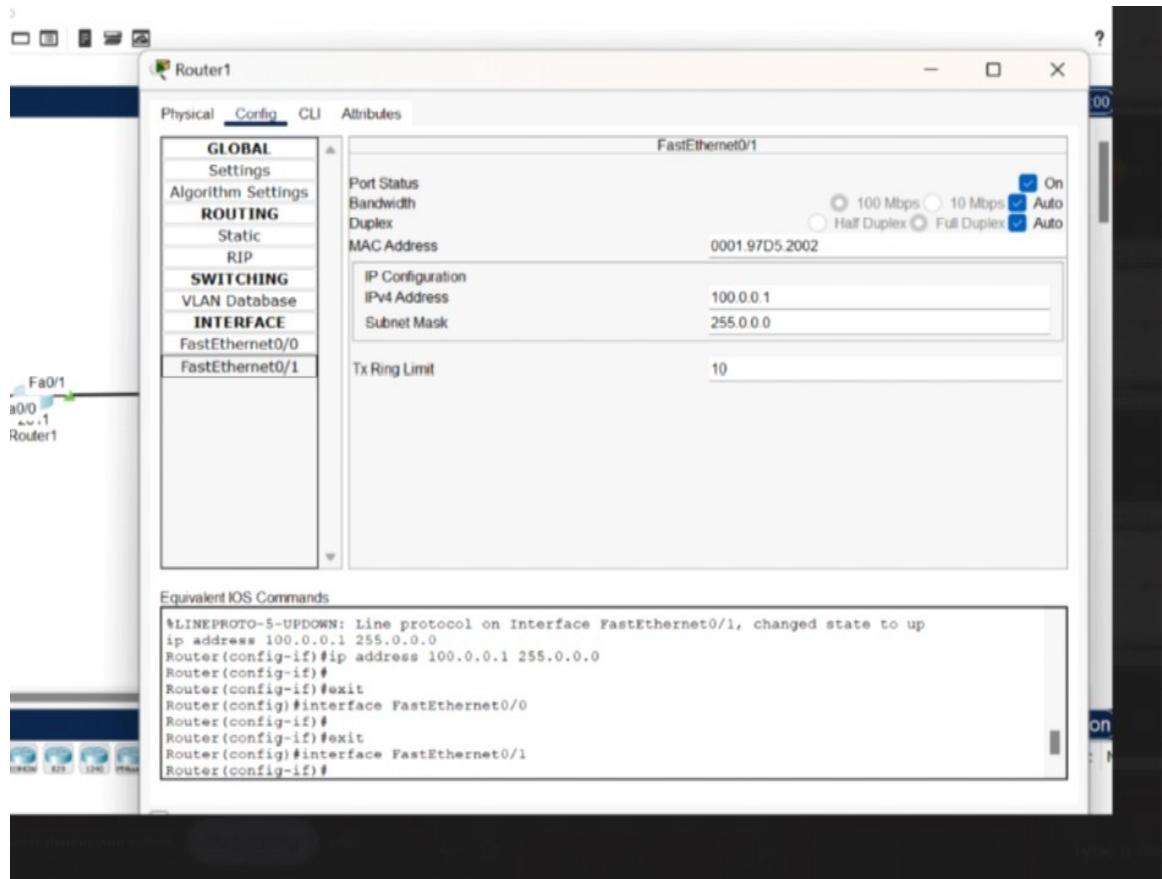
Router#
Router#
```

The left side of the window shows the physical configuration of the router, including interfaces Fa0/0, Fa0/1, Fa0/3, and Vlan0.

Lab 3 --Configuring Default Gateway







Cisco PC1

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ipconfig

FastEthernet0 Connection:(default port)

Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: FE80::260:70FF:FE18:BD1C
IPv6 Address.....: ::1
IPv4 Address.....: 90.0.0.2
Subnet Mask.....: 255.0.0.0
Default Gateway.....: ::1
                           0.0.0.0

Bluetooth Connection:

Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: ::1
IPv6 Address.....: ::1
IPv4 Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: ::1
                           0.0.0.0

C:\>ping 90.0.0.1

Pinging 90.0.0.1 with 32 bytes of data:

Reply from 90.0.0.1: bytes=32 time=3ms TTL=255
Reply from 90.0.0.1: bytes=32 time<1ms TTL=255
Reply from 90.0.0.1: bytes=32 time<1ms TTL=255
Reply from 90.0.0.1: bytes=32 time<1ms TTL=255

Ping statistics for 90.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 3ms, Average = 0ms

C:\>
```

PC1

Physical Config Desktop Programming Attributes

Command Prompt

```
Link-local IPv6 Address.....: FE80::260:70FF:FE18:BD1C
IPv6 Address.....: ::1
IPv4 Address.....: 90.0.0.2
Subnet Mask.....: 255.0.0.0
Default Gateway.....: ::1
0.0.0.0

Bluetooth Connection:

Connection-specific DNS Suffix..:
Link-local IPv6 Address.....: ::1
IPv6 Address.....: ::1
IPv4 Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: ::1
0.0.0.0

C:\>ping 90.0.0.1

Pinging 90.0.0.1 with 32 bytes of data:

Reply from 90.0.0.1: bytes=32 time=3ms TTL=255
Reply from 90.0.0.1: bytes=32 time<1ms TTL=255
Reply from 90.0.0.1: bytes=32 time<1ms TTL=255
Reply from 90.0.0.1: bytes=32 time<1ms TTL=255

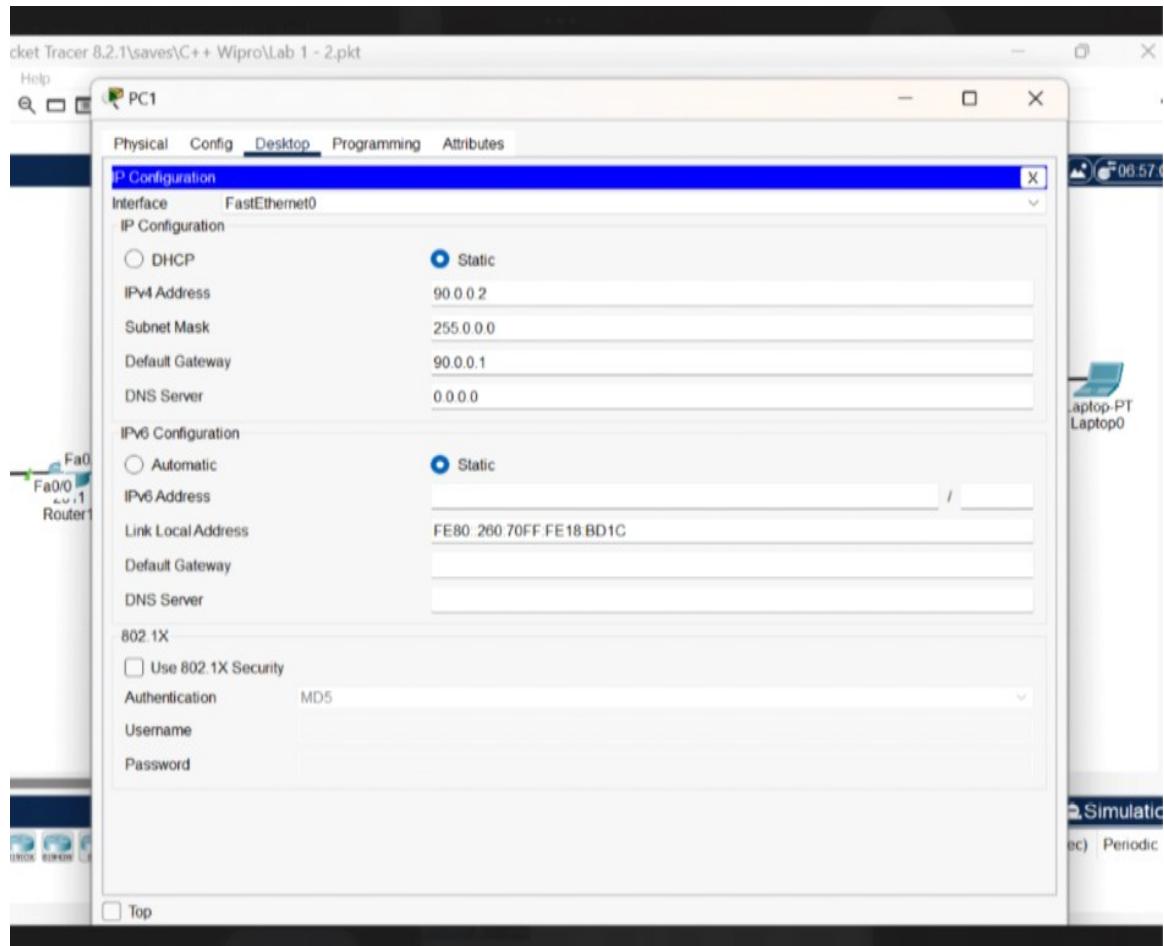
Ping statistics for 90.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 3ms, Average = 0ms

C:\>ping 100.0.0.1

Pinging 100.0.0.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 100.0.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>
```



it Tracer 8.2.1\saves\C++ Wipro\Lab 1 - 2.pkt

elp

PC1

Physical Config Desktop Programming Attributes

Command Prompt X

C:\>ping 90.0.0.1

Pinging 90.0.0.1 with 32 bytes of data:

Reply from 90.0.0.1: bytes=32 time=3ms TTL=255
Reply from 90.0.0.1: bytes=32 time<1ms TTL=255
Reply from 90.0.0.1: bytes=32 time<1ms TTL=255
Reply from 90.0.0.1: bytes=32 time<1ms TTL=255

Ping statistics for 90.0.0.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 3ms, Average = 0ms

C:\>ping 100.0.0.1

Pinging 100.0.0.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 100.0.0.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 100.0.0.1

Pinging 100.0.0.1 with 32 bytes of data:

Reply from 100.0.0.1: bytes=32 time<1ms TTL=255
Reply from 100.0.0.1: bytes=32 time<1ms TTL=255
Reply from 100.0.0.1: bytes=32 time<1ms TTL=255
Reply from 100.0.0.1: bytes=32 time<1ms TTL=255

Ping statistics for 100.0.0.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>

Top Firefox

Fa0/0

laptop-P' Laptop0

Router

Simu

ec) Per

NetTracer 8.2.1\saves\C++ Wipro\Lab 1 - 2.pkt

PC1

Physical Config Desktop Programming Attributes

Command Prompt

```
Minimum = 0ms, Maximum = 3ms, Average = 0ms
C:\>ping 100.0.0.1

Pinging 100.0.0.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 100.0.0.1:
  Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 100.0.0.1

Pinging 100.0.0.1 with 32 bytes of data:

Reply from 100.0.0.1: bytes=32 time<1ms TTL=255

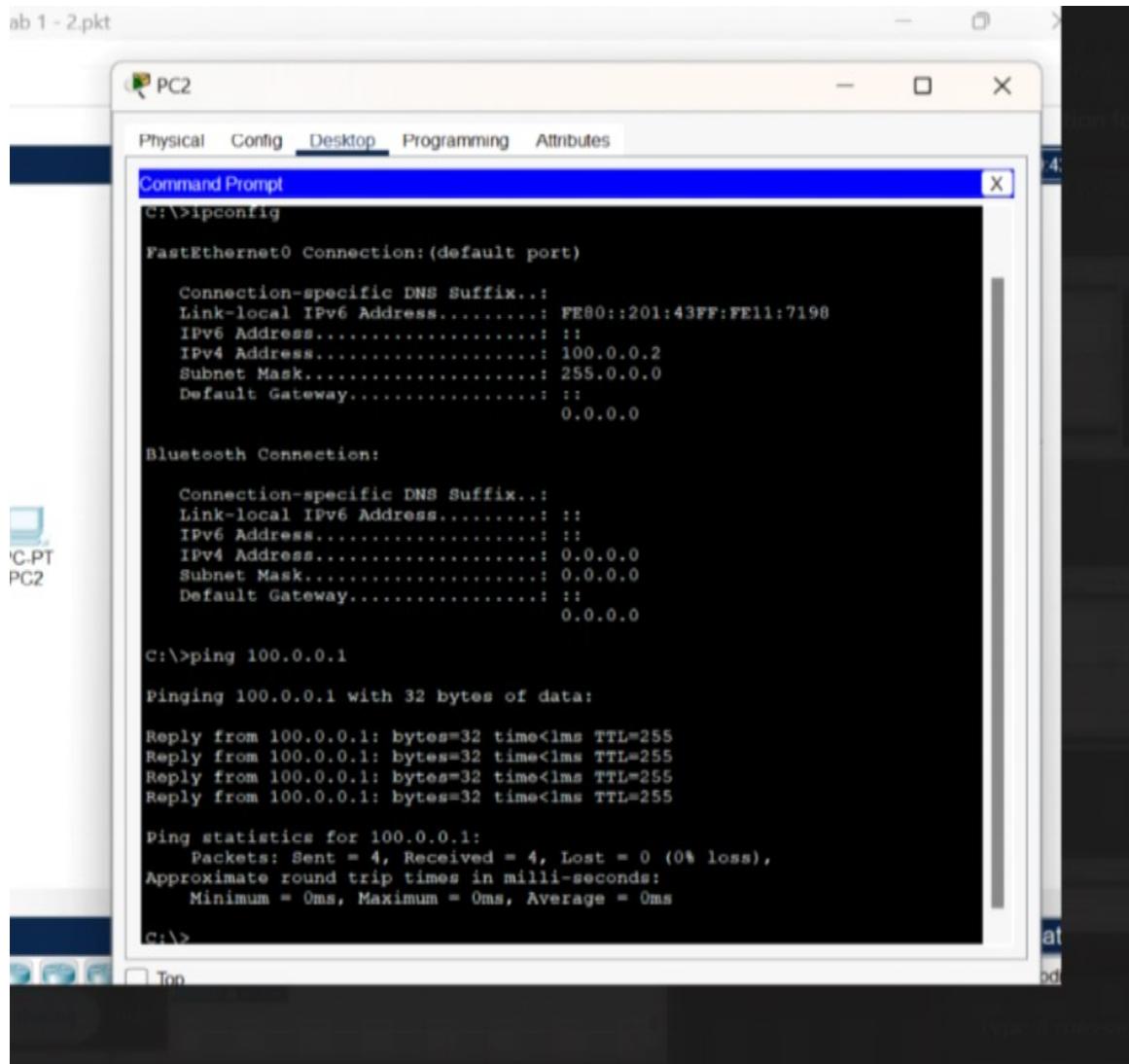
Ping statistics for 100.0.0.1:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
  Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 100.0.0.2

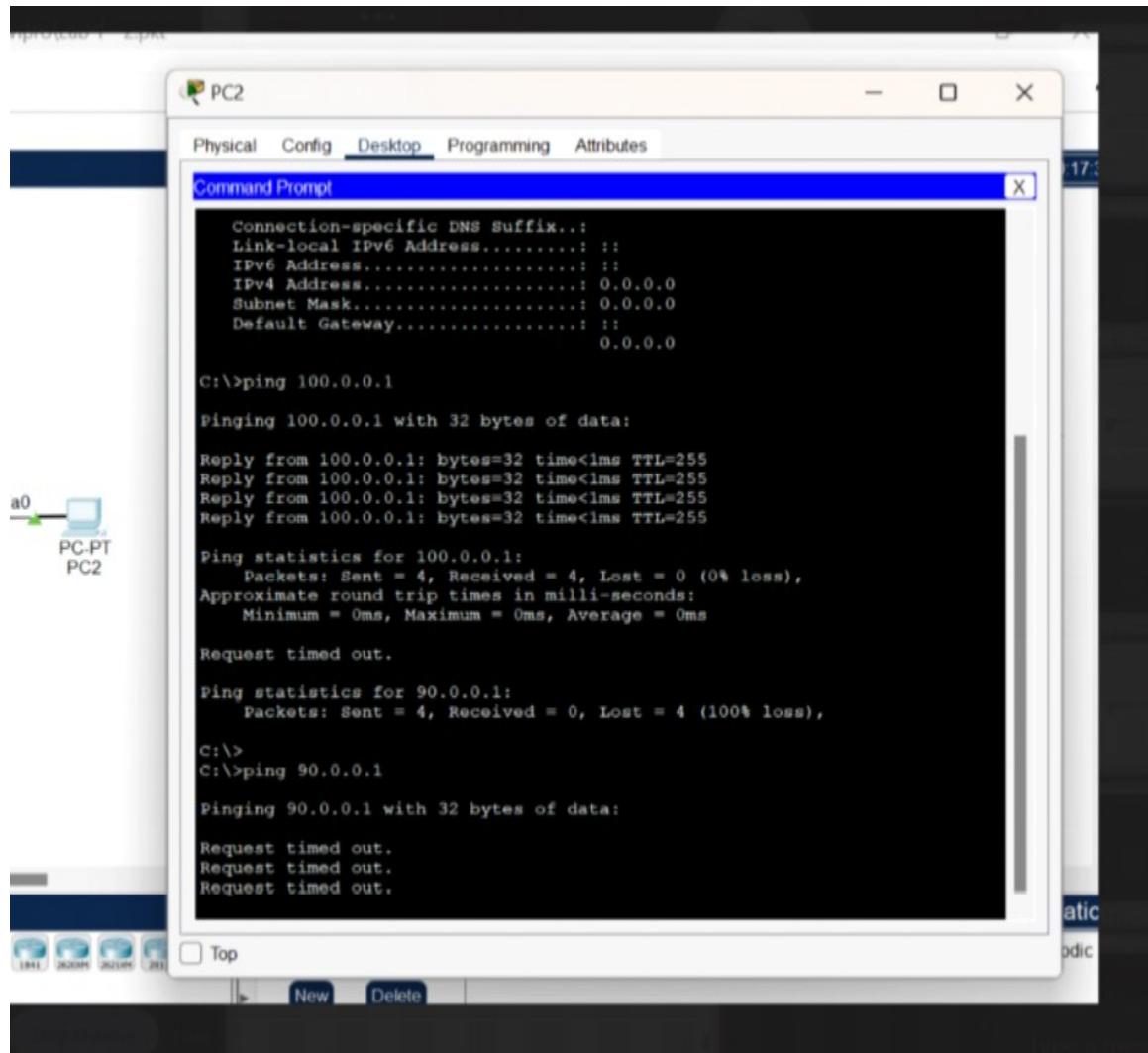
Pinging 100.0.0.2 with 32 bytes of data:

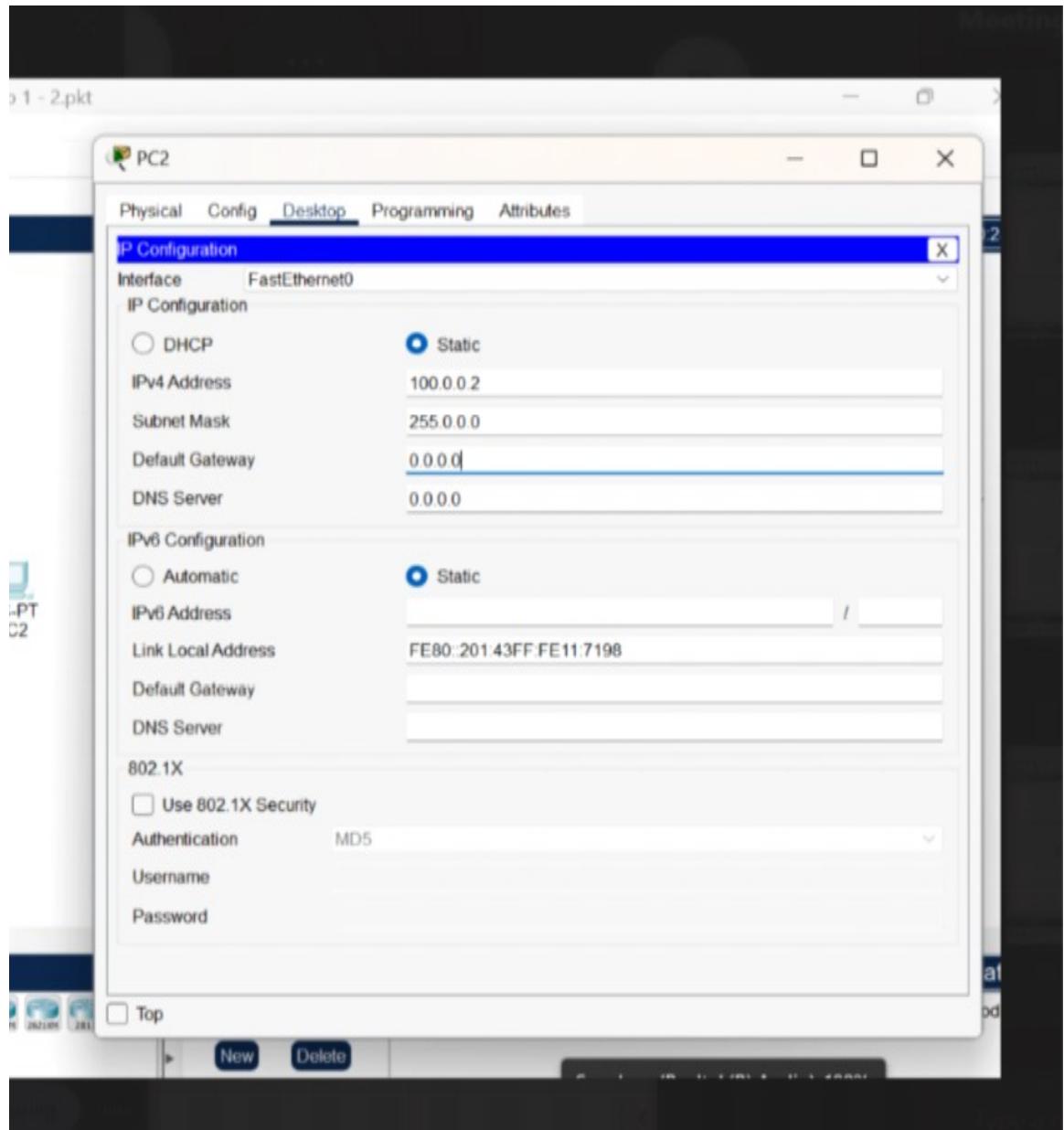
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 100.0.0.2:
  Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>
```

Top







PC2

Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>ipconfig

FastEthernet0 Connection:(default port)

Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: FE80::201:43FF:FE11:7198
IPv6 Address.....: ::1
IPv4 Address.....: 100.0.0.2
Subnet Mask.....: 255.0.0.0
Default Gateway.....: ::1
100.0.0.1

Bluetooth Connection:

Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: ::1
IPv6 Address.....: ::1
IPv4 Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: ::1
0.0.0.0

C:\>ping 90.0.0.1

Pinging 90.0.0.1 with 32 bytes of data:

Reply from 90.0.0.1: bytes=32 time<1ms TTL=255

Ping statistics for 90.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

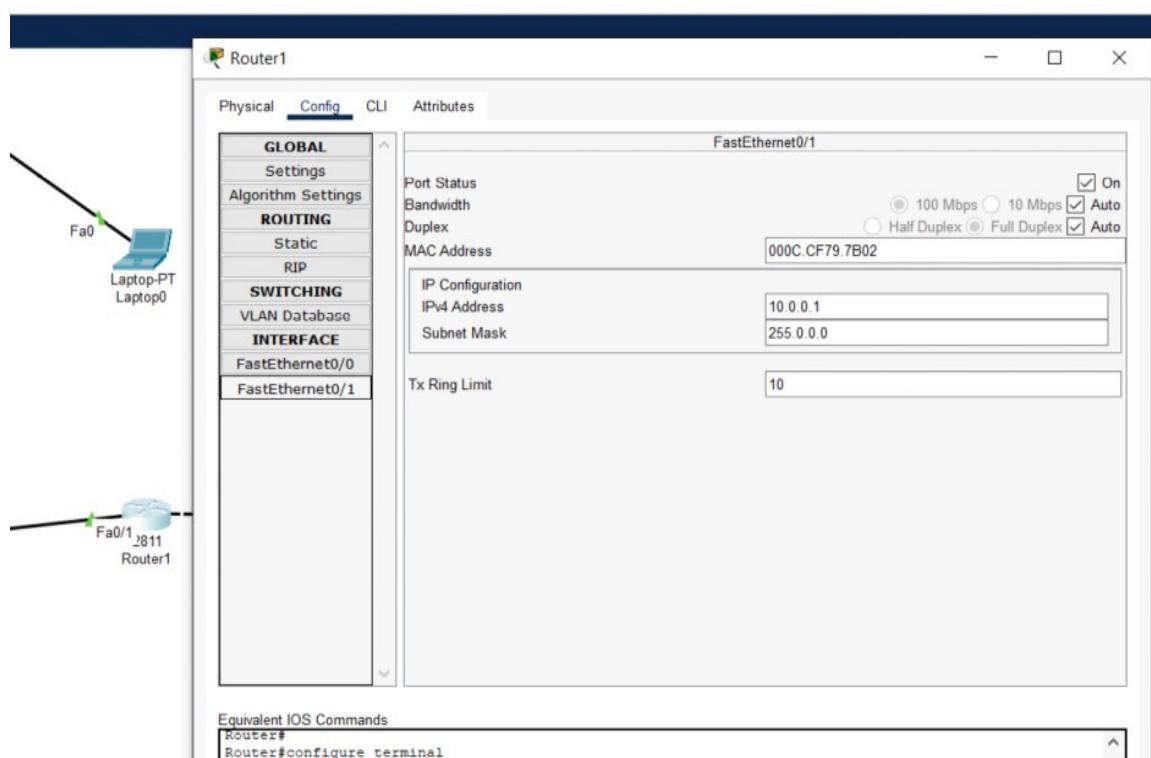
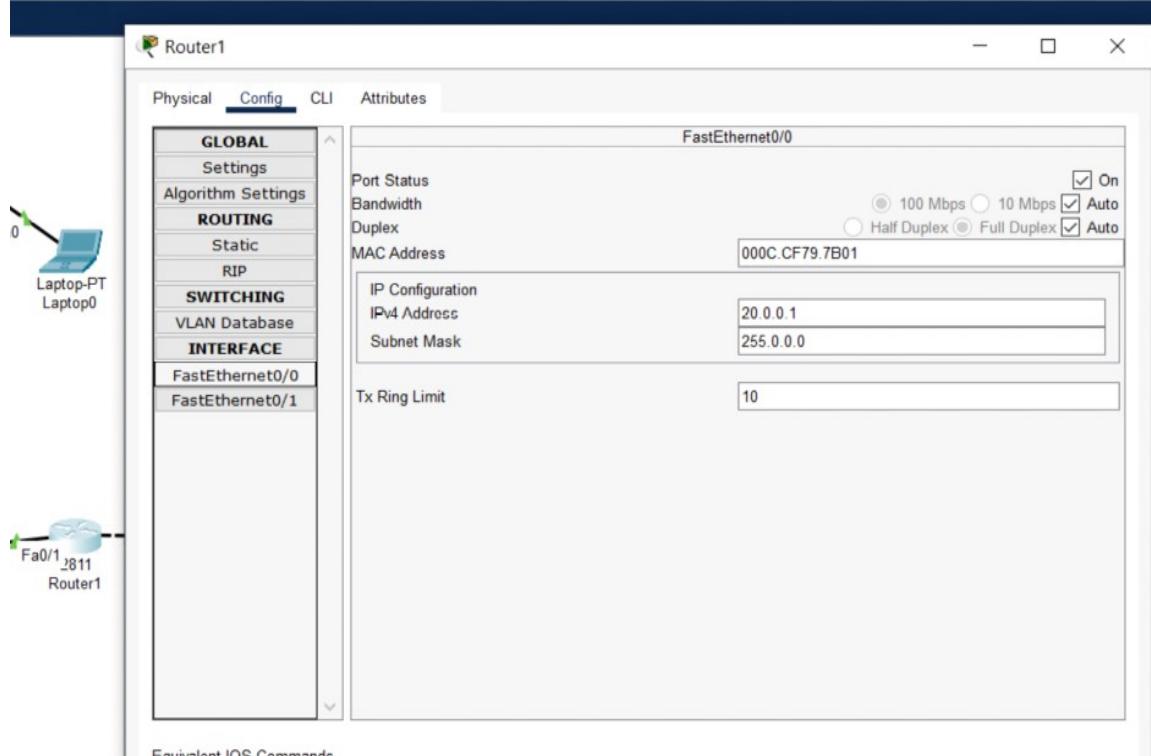
C:\>
```

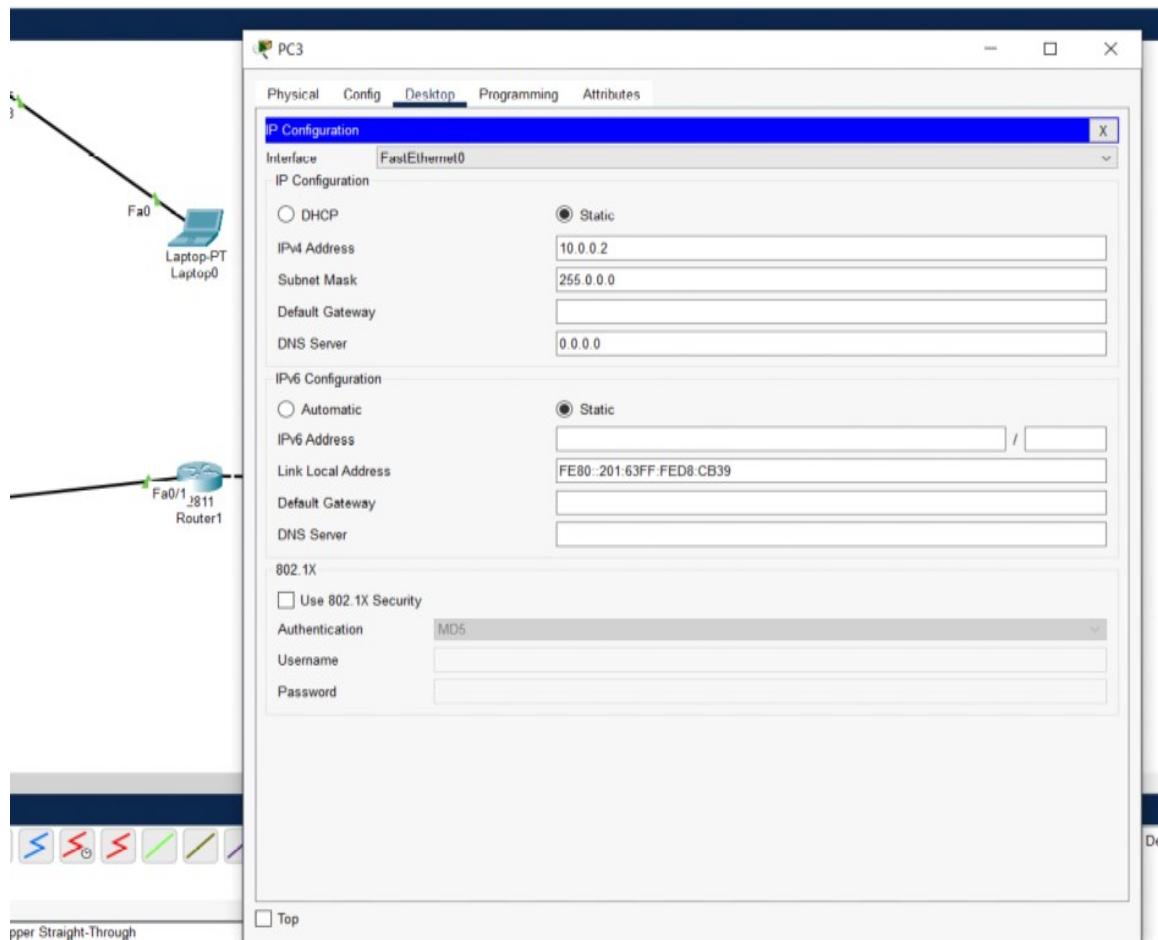
Top

New Delete

Lab 4--Static Router







Laptop-PT
Laptop0

Fa0/1_2811
Router1

Laptop-PT

Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>ipconfig

FastEthernet0 Connection: (default port)

  Connection-specific DNS Suffix..:
  Link-local IPv6 Address.....: FE80::201:63FF:FE08:CB39
  IPv6 Address.....: :::
  IPv4 Address.....: 10.0.0.2
  Subnet Mask.....: 255.0.0.0
  Default Gateway.....: :::
                           0.0.0.0

Bluetooth Connection:

  Connection-specific DNS Suffix...:
  Link-local IPv6 Address.....: :::
  IPv6 Address.....: :::
  IPv4 Address.....: 0.0.0.0
  Subnet Mask.....: 0.0.0.0
  Default Gateway.....: :::
                           0.0.0.0

C:\>l0.0.0.2
Invalid Command.

C:\>ping 10.0.0.2

Pinging 10.0.0.2 with 32 bytes of data:

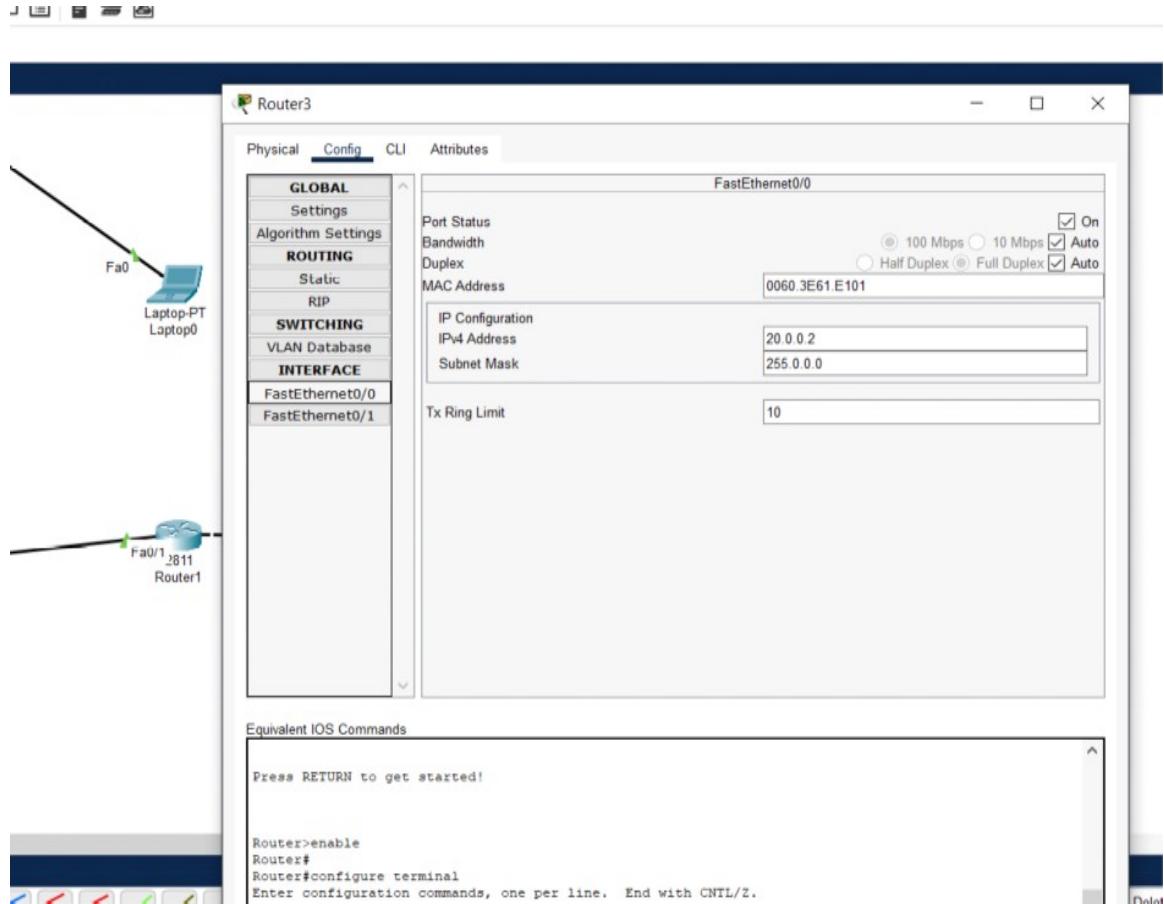
Reply from 10.0.0.2: bytes=32 time<1ms TTL=128
Reply from 10.0.0.2: bytes=32 time=19ms TTL=128
Reply from 10.0.0.2: bytes=32 time=4ms TTL=128
Reply from 10.0.0.2: bytes=32 time<1ms TTL=128

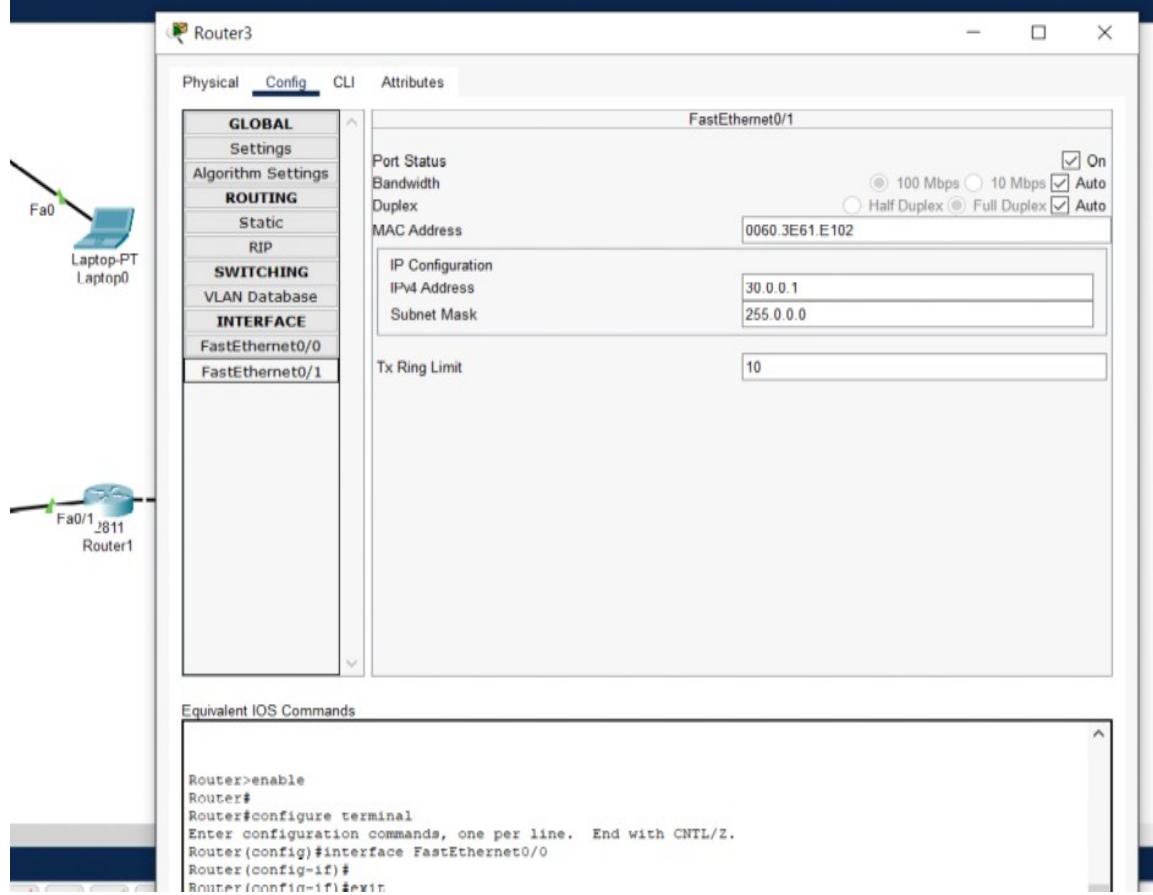
Ping statistics for 10.0.0.2:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 19ms, Average = 5ms

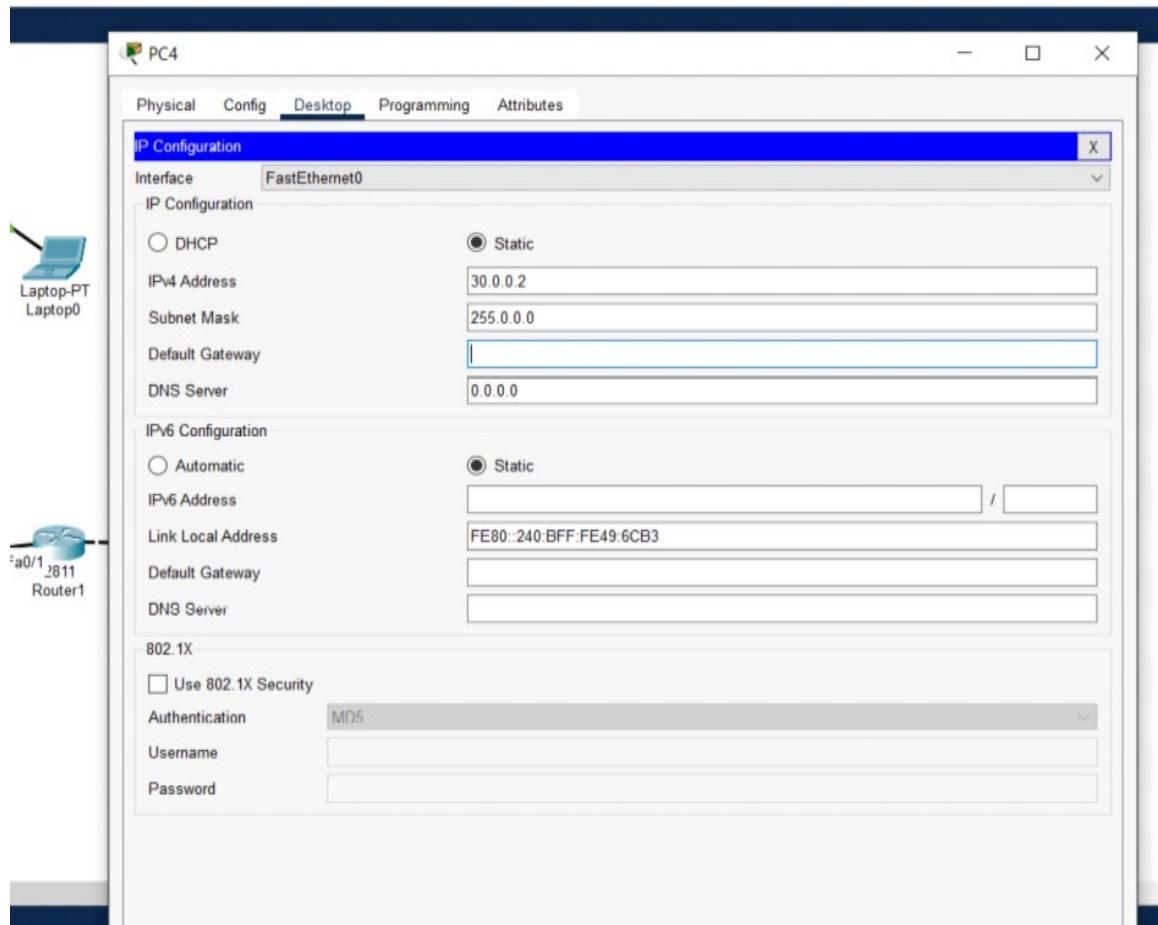
C:\>ping 20.0.0.1

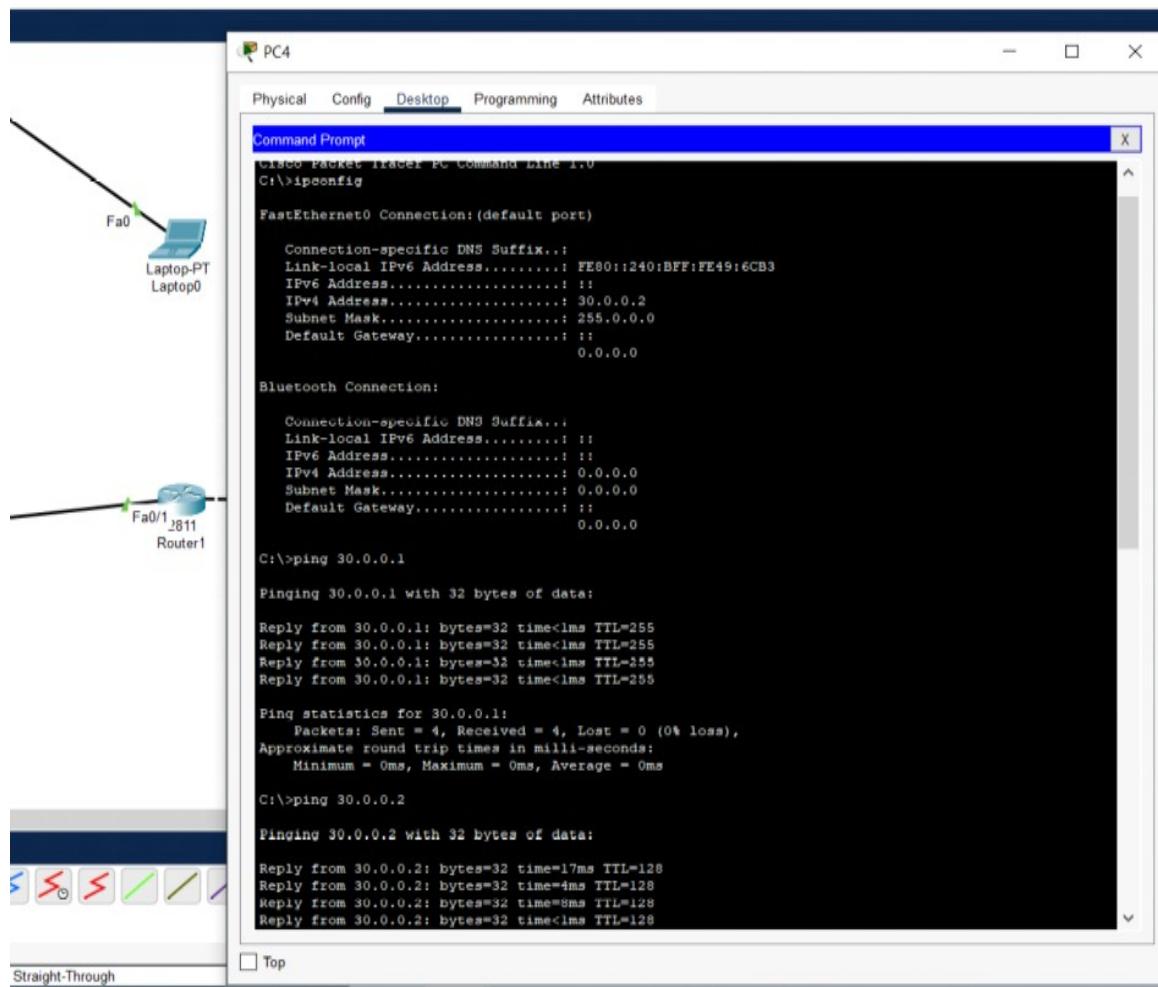
Pinging 20.0.0.1 with 32 bytes of data:

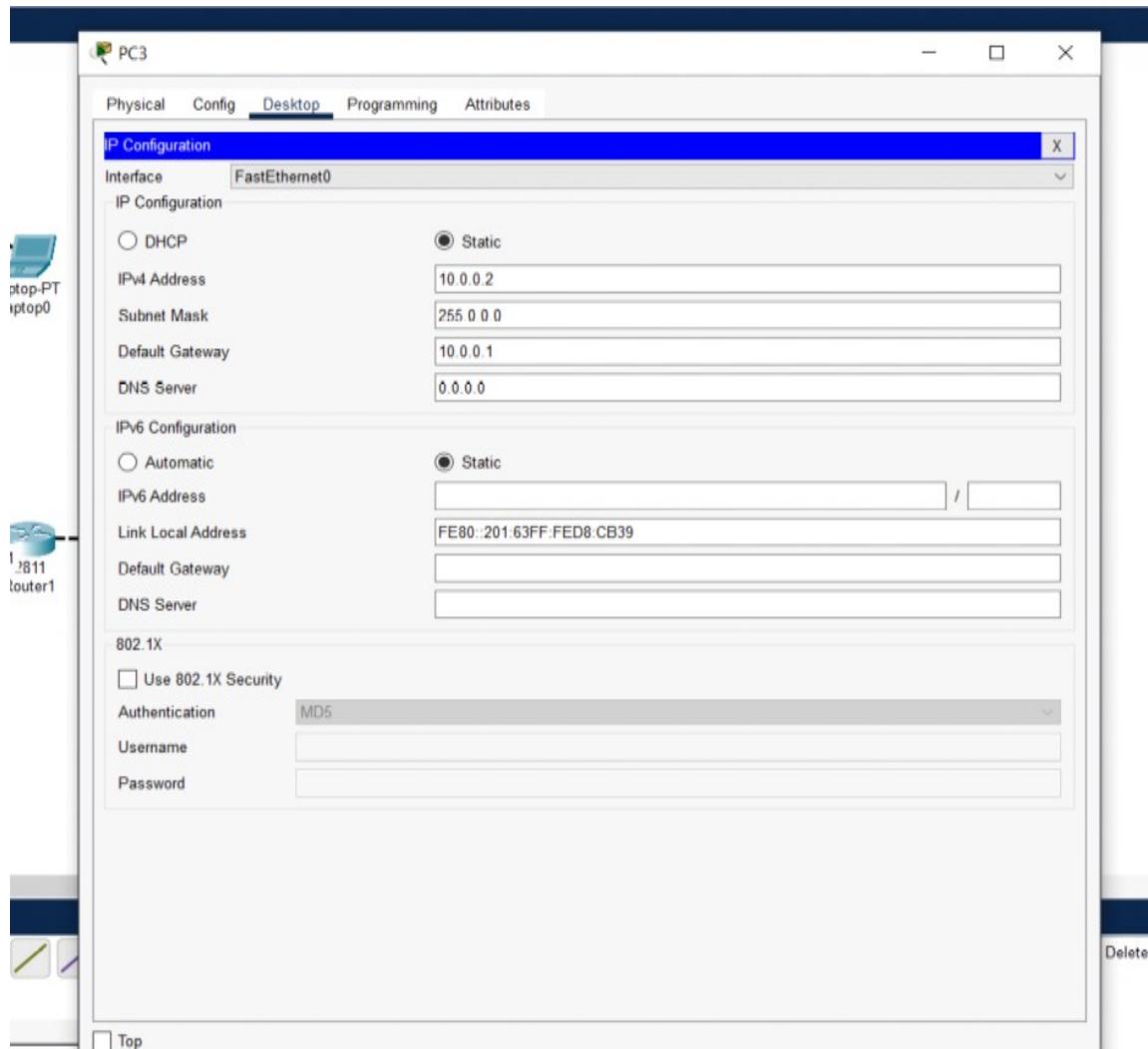
Reply from 20.0.0.1: bytes=32 time<1ms TTL=255
Reply from 20.0.0.1: bytes=32 time=2ms TTL=255
```

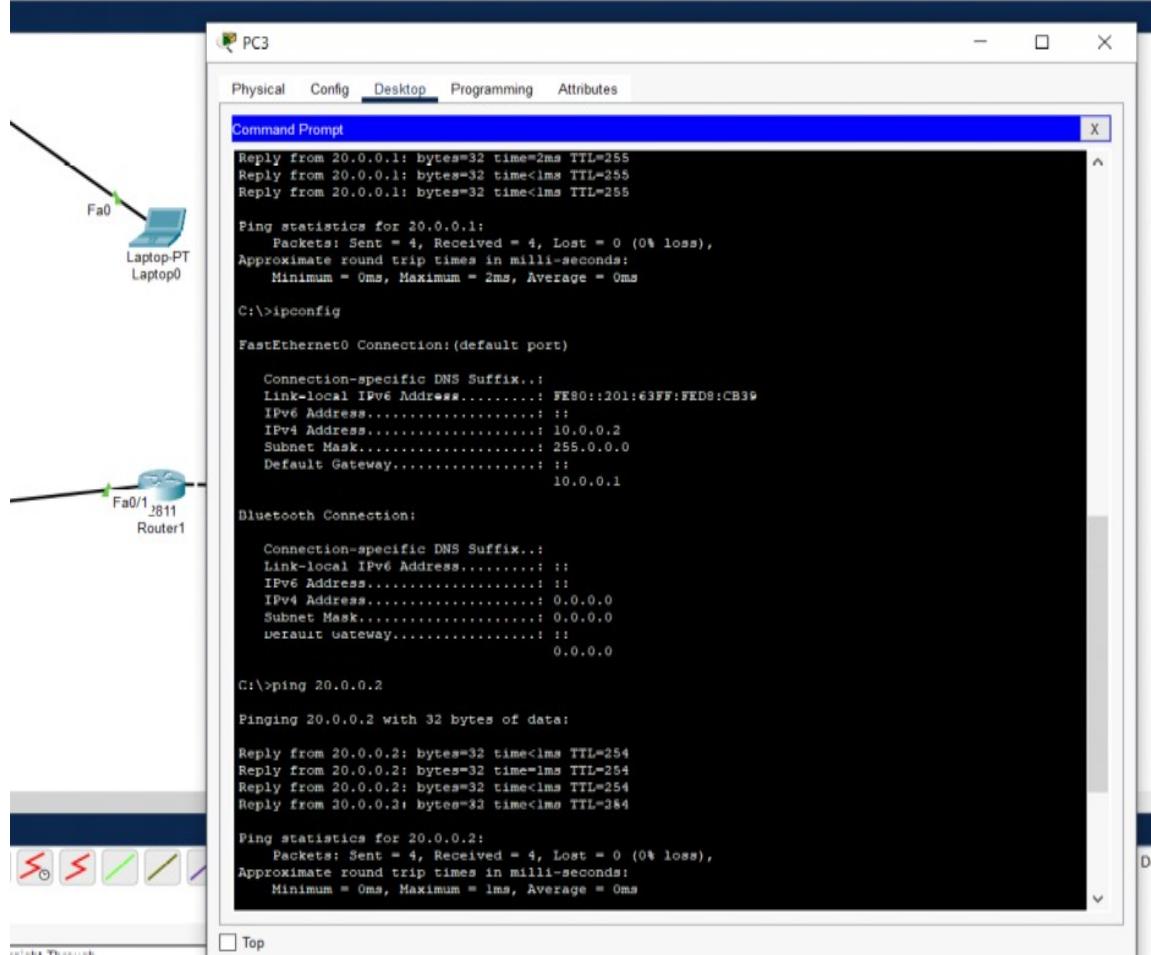


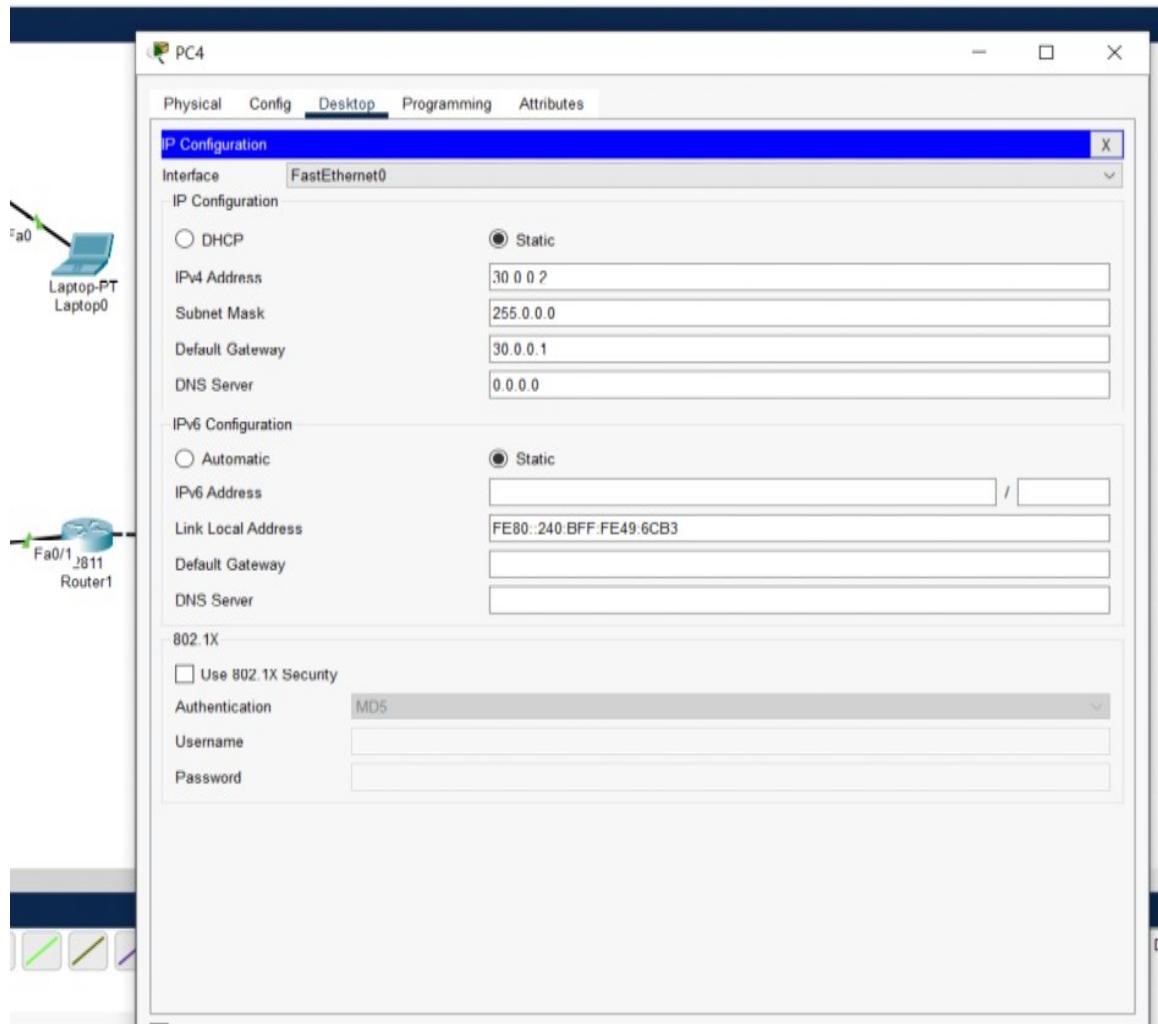












PC4

Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>ping 30.0.0.1

Pinging 30.0.0.1 with 32 bytes of data:

Reply from 30.0.0.1: bytes=32 time<1ms TTL=255

Ping statistics for 30.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 30.0.0.2

Pinging 30.0.0.2 with 32 bytes of data:

Reply from 30.0.0.2: bytes=32 time=17ms TTL=128
Reply from 30.0.0.2: bytes=32 time=4ms TTL=128
Reply from 30.0.0.2: bytes=32 time=8ms TTL=128
Reply from 30.0.0.2: bytes=32 time<1ms TTL=128

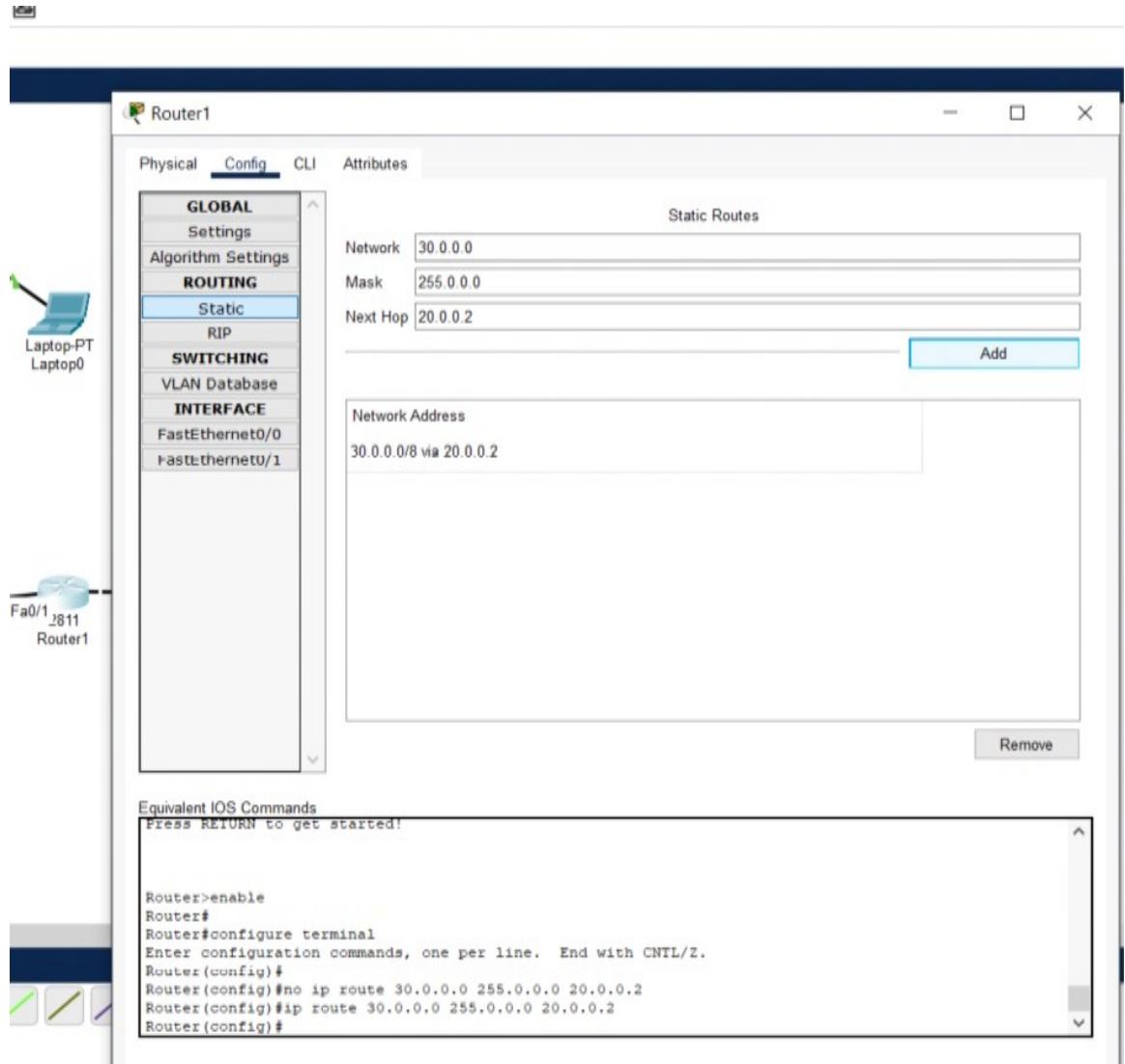
Ping statistics for 30.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 17ms, Average = 7ms

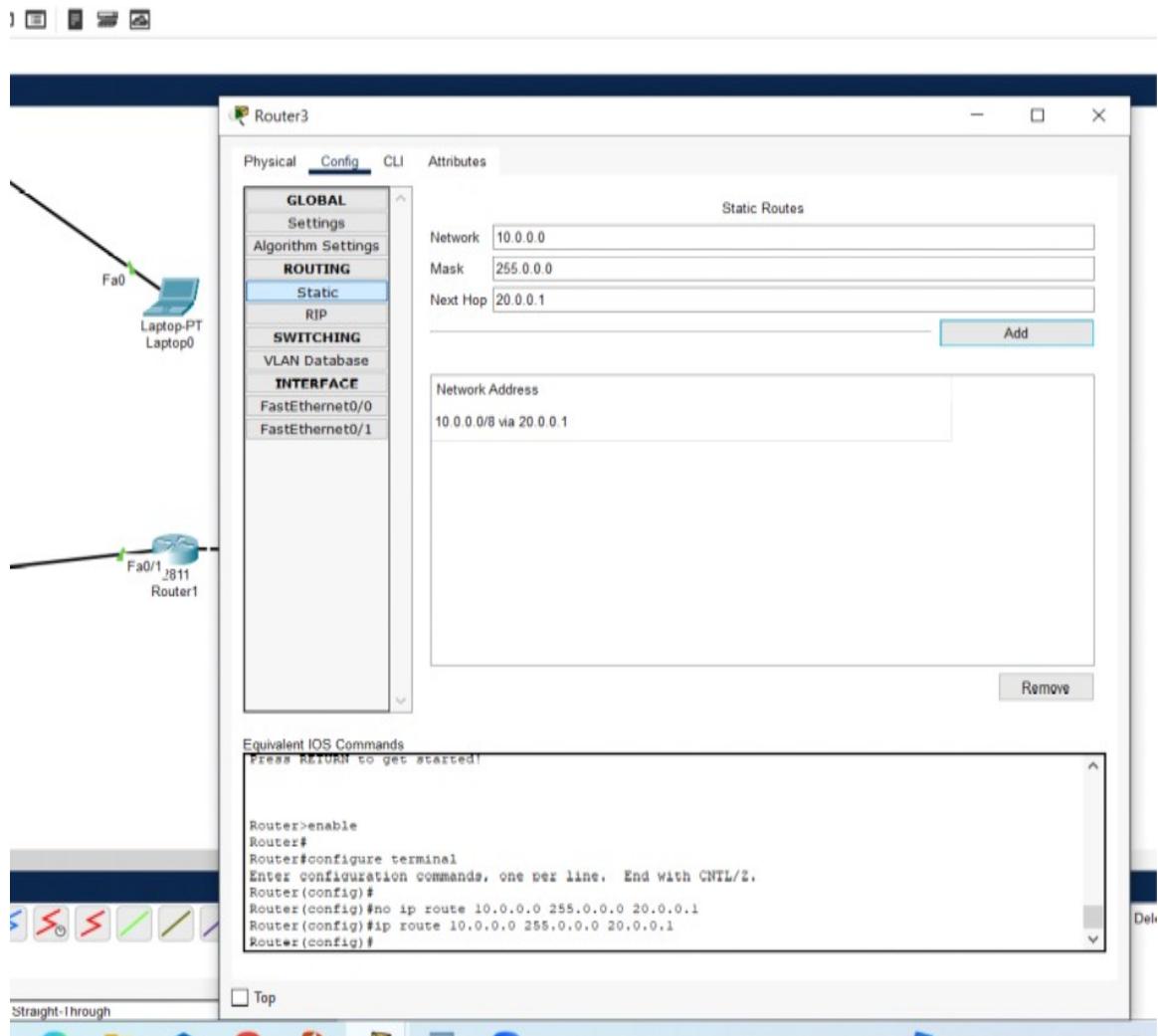
C:\>ping 20.0.0.2

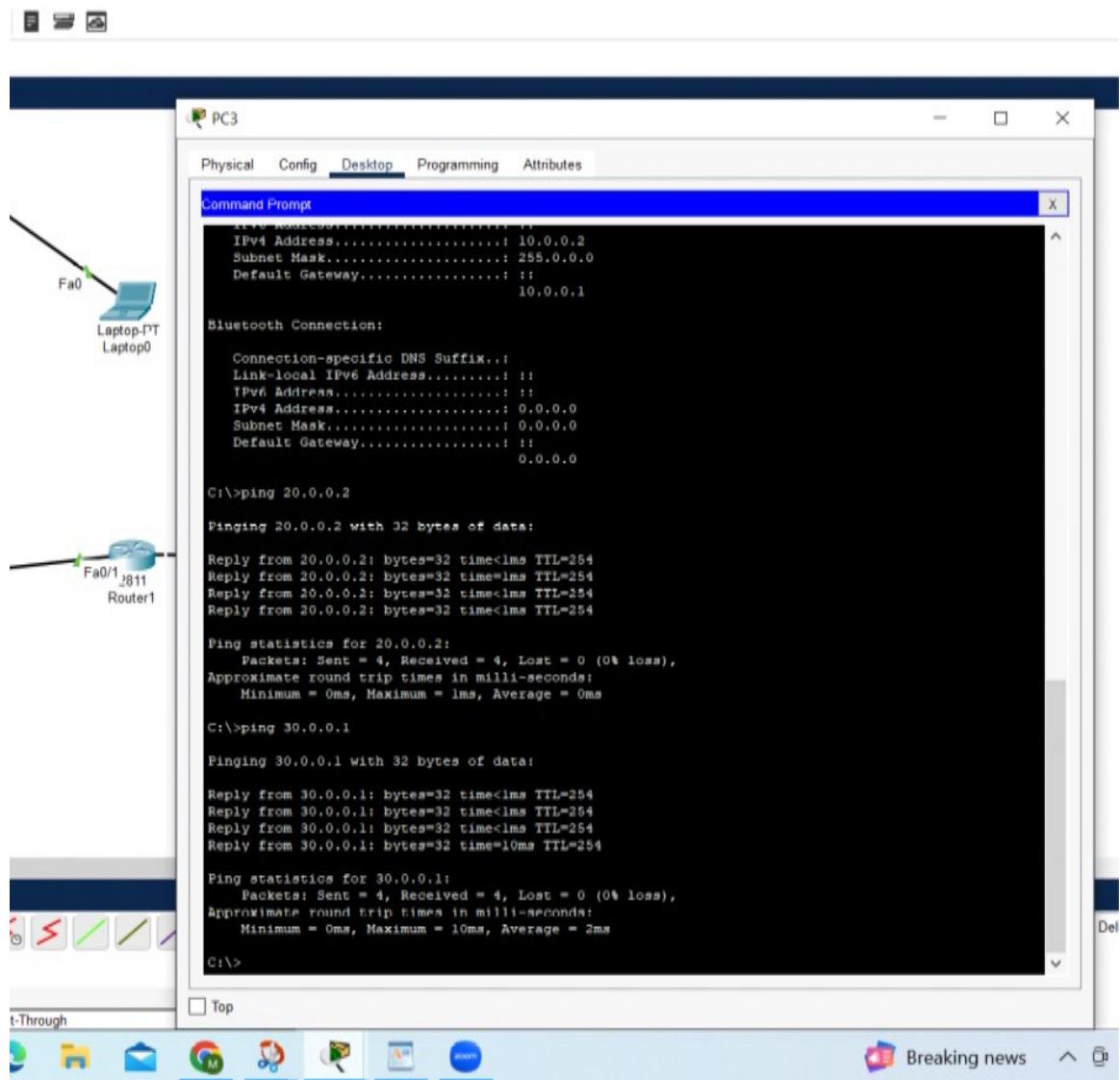
Pinging 20.0.0.2 with 32 bytes of data:

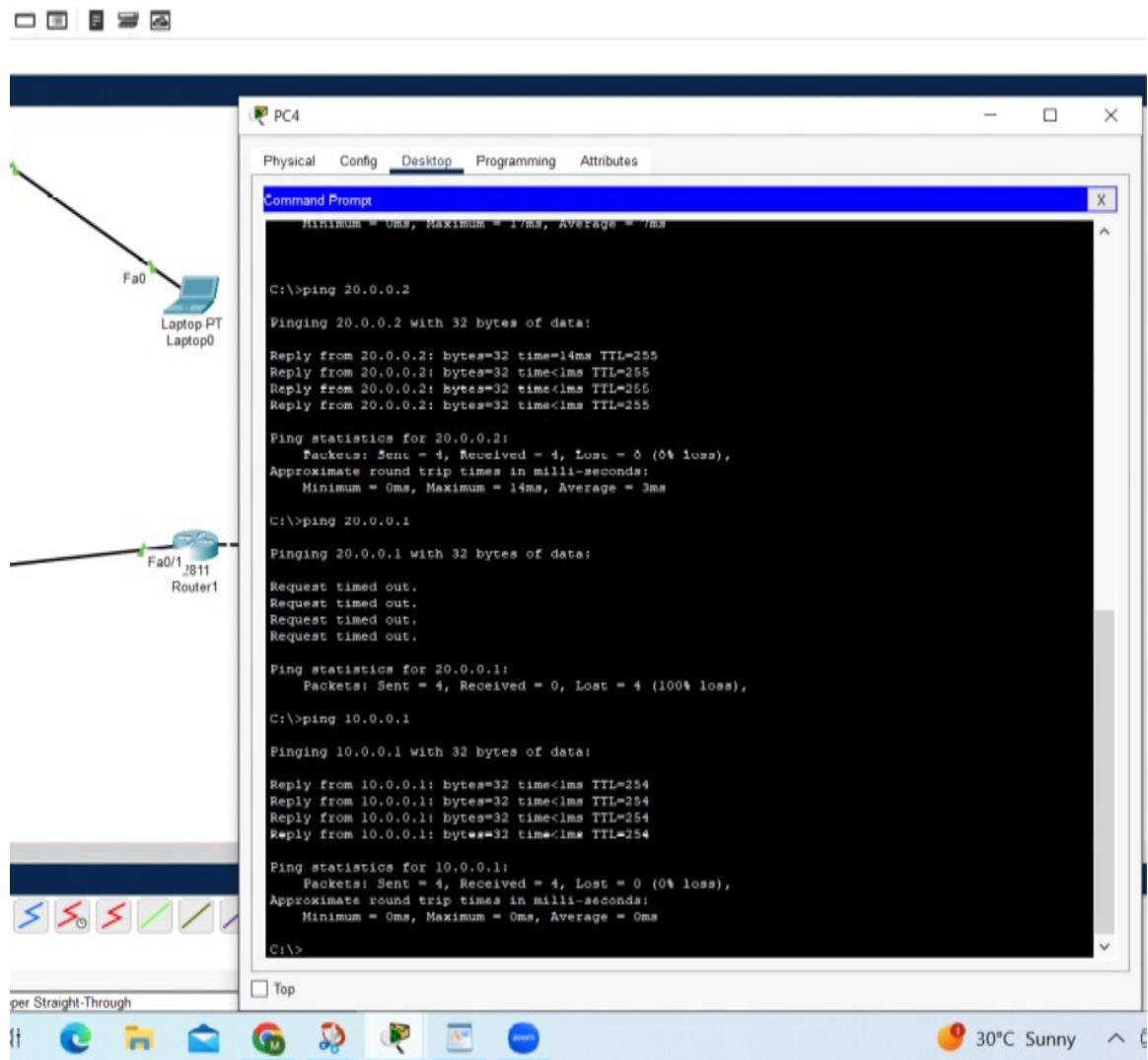
Reply from 20.0.0.2: bytes=32 time=14ms TTL=255
Reply from 20.0.0.2: bytes=32 time<1ms TTL=255
Reply from 20.0.0.2: bytes=32 time<1ms TTL=255
Reply from 20.0.0.2: bytes=32 time<1ms TTL=255

Ping statistics for 20.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 14ms, Average = 3ms
```



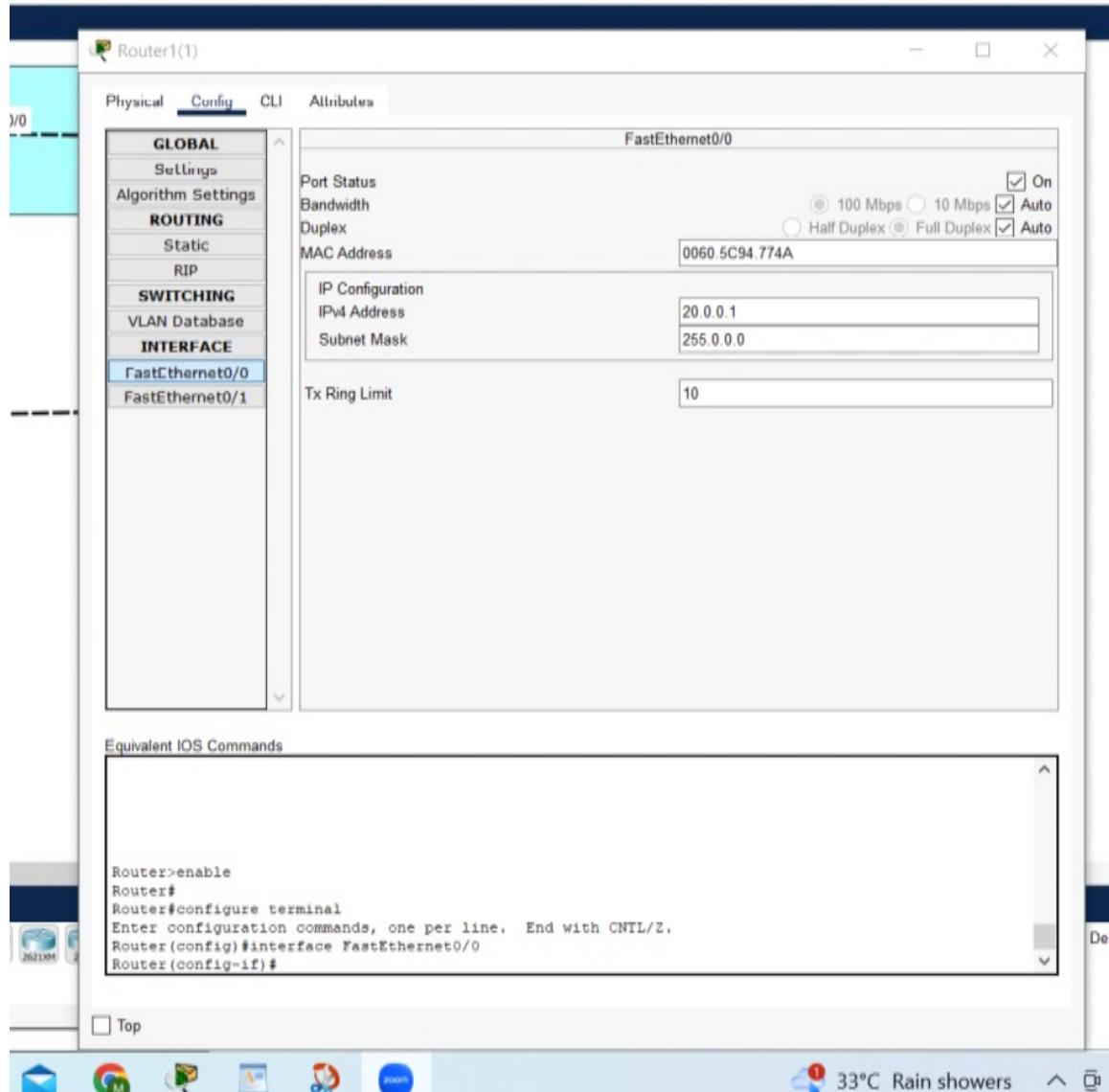






Lab 5---static routing





Router1(1)

Physical Config CLI Attributes

GLOBAL

- Settings
- Algorithm Settings
- ROUTING**
 - Static
 - RIP
- SWITCHING**
- VLAN Database
- INTERFACE**

FastEthernet0/0

FastEthernet0/1

FastEthernet0/1

Port Status

Bandwidth

Duplex

MAC Address

FastEthernet0/1

On 100 Mbps 10 Mbps Auto
Half Duplex Full Duplex Auto

0001.96B9.A450

IP Configuration

IPv4 Address

Subnet Mask

Tx Ring Limit

10

Equivalent IOS Commands

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#

```

Top

Delete

This screenshot shows a network configuration interface for a device named 'Router1(1)'. The 'Config' tab is selected. On the left, a navigation tree includes 'GLOBAL', 'ROUTING' (with 'Static' and 'RIP' options), 'SWITCHING', 'VLAN Database', and 'INTERFACE' (with 'FastEthernet0/0' and 'FastEthernet0/1' options). The 'FastEthernet0/1' node is expanded, showing its configuration details. The 'Port Status' section includes bandwidth (100 Mbps selected), duplex (Full Duplex selected), and auto-negotiation (selected). The 'IP Configuration' section sets the IPv4 address to 10.0.0.1 and the subnet mask to 255.0.0.0. The 'Tx Ring Limit' is set to 10. Below this, an 'Equivalent IOS Commands' section displays the configuration commands that would produce the same settings: Router>enable, Router#configure terminal, Enter configuration commands, one per line. End with CNTL/Z., Router(config)#interface FastEthernet0/0, Router(config-if)#, Router(config-if)#exit, Router(config)#interface FastEthernet0/1, Router(config-if)#. At the bottom, there are 'Top' and 'Delete' buttons, and a standard Windows-style taskbar.

Router4

Physical Config CLI Attributes

V/0

GLOBAL

- Settings
- Algorithm Settings

ROUTING

- Static
- RIP

SWITCHING

- VLAN Database

INTERFACE

- FastEthernet0/0
- FastEthernet0/1

FastEthernet0/0

Port Status On

Bandwidth 100 Mbps 10 Mbps Auto

Duplex Half Duplex Full Duplex Auto

MAC Address 0001.63D1.5701

IP Configuration

IPv4 Address 20.0.0.2

Subnet Mask 255.0.0.0

Tx Ring Limit 10

Equivalent IOS Commands

Press RETURN to get started!

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#

```

Top Delete

Router4

Physical Config CLI Attributes

/0

GLOBAL

- Settings
- Algorithm Settings
- ROUTING**
- Static
- RIP

SWITCHING

- VLAN Database
- INTERFACE**

FastEthernet0/0

FastEthernet0/1

FastEthernet0/1

Port Status

Bandwidth

Duplex

MAC Address

On 100 Mbps 10 Mbps Auto
 Half Duplex Full Duplex Auto

0001.63D1.5702

IP Configuration

IPv4 Address

Subnet Mask

Tx Ring Limit

30.0.0.1

255.0.0.0

10

Equivalent IOS Commands

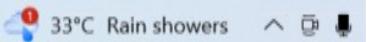
```
MRouter>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#

```

Top

Delete

33°C Rain showers



Router5

Physical Config CLI Attributes

GLOBAL
Settings
Algorithm Settings

ROUTING
Static
RIP

SWITCHING
VLAN Database

INTERFACE
FastEthernet0/0
FastEthernet0/1

FastEthernet0/0

Port Status
Bandwidth
Duplex
MAC Address

On 100 Mbps 10 Mbps Auto
Half Duplex Full Duplex Auto

0001 C942 EC01

IP Configuration
IPv4 Address: 40.0.0.1
Subnet Mask: 255.0.0.0

Tx Ring Limit: 10

Equivalent IOS Commands

Press RETURN to get started!

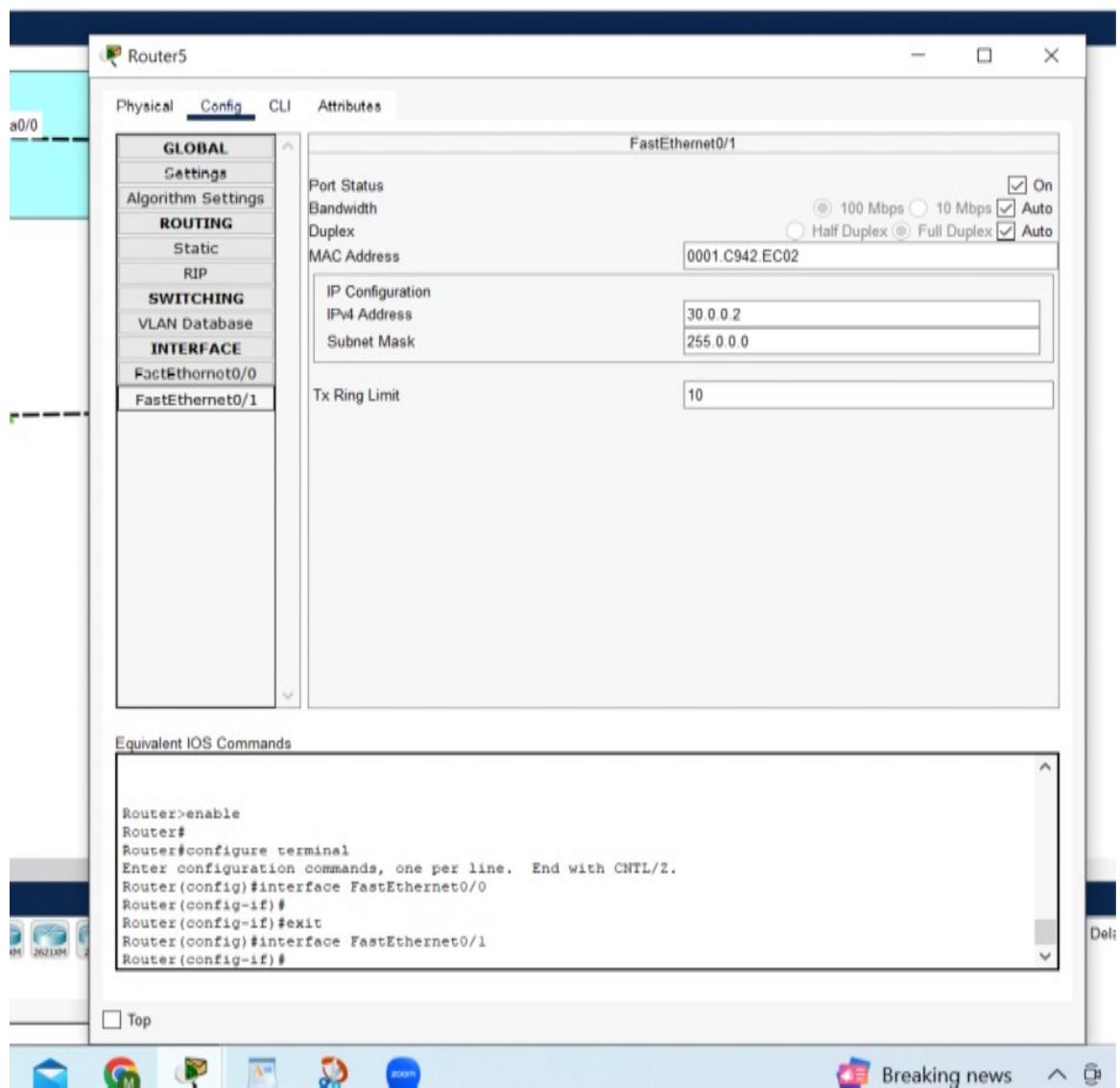
```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#

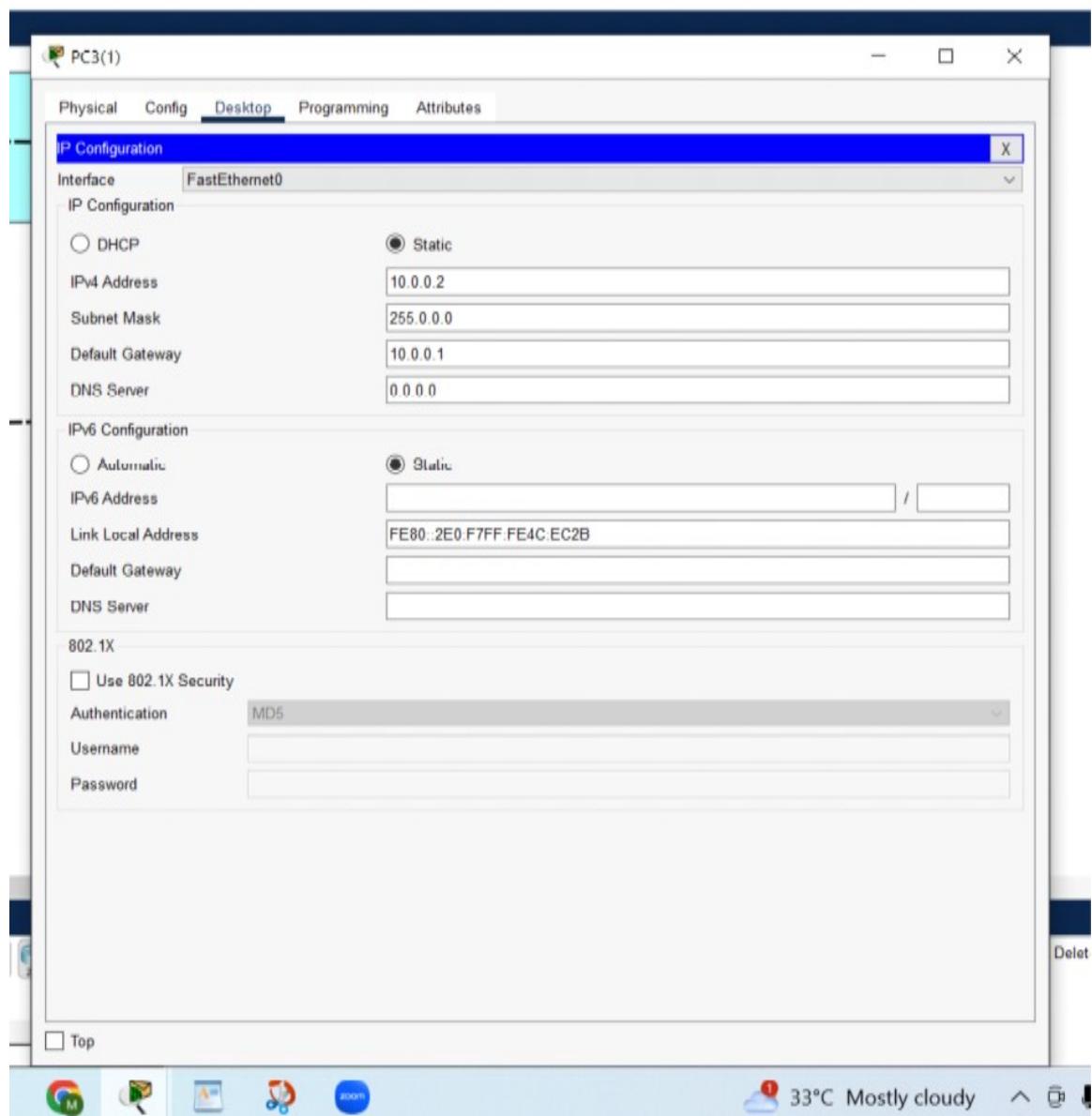
```

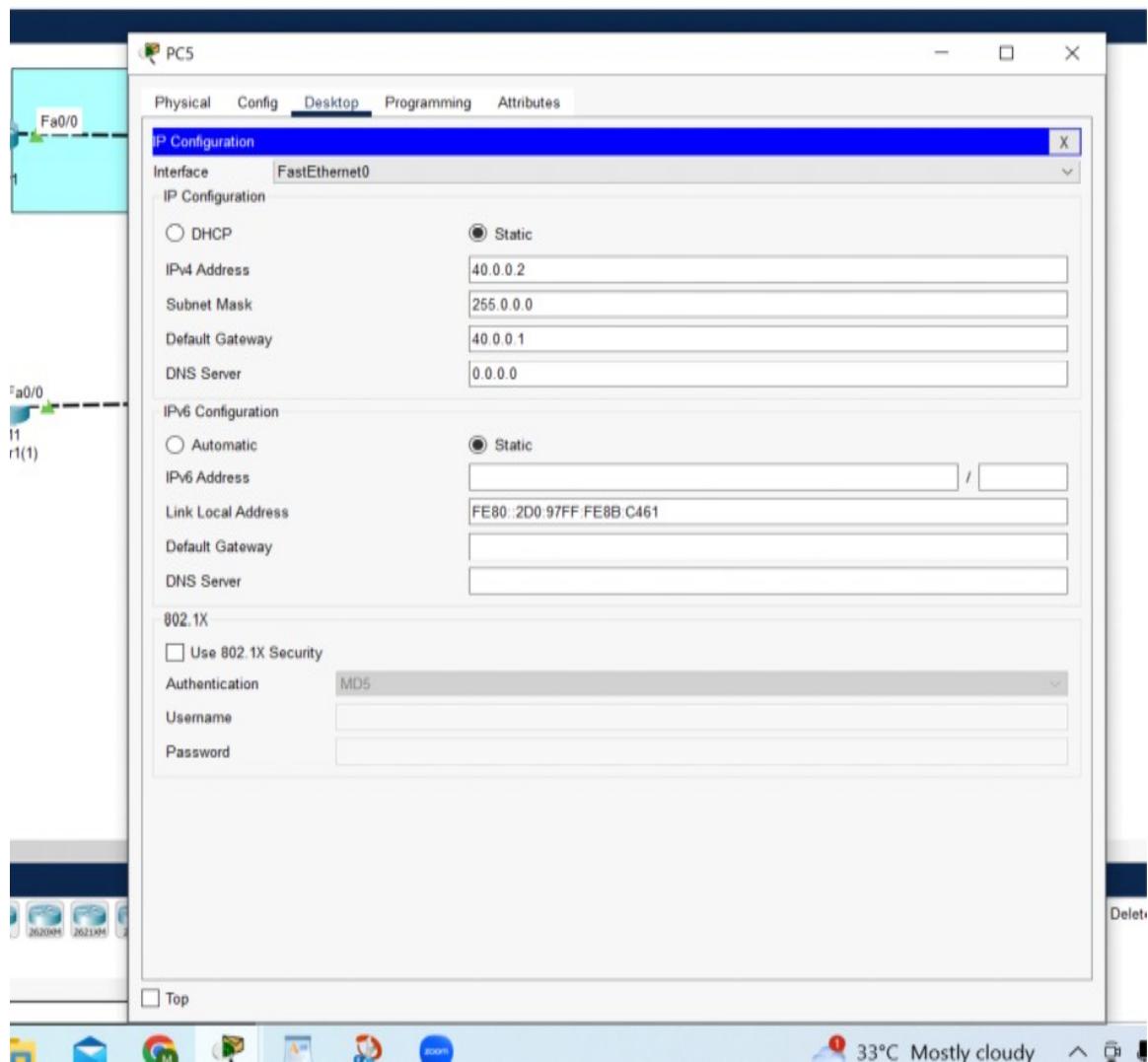
Top

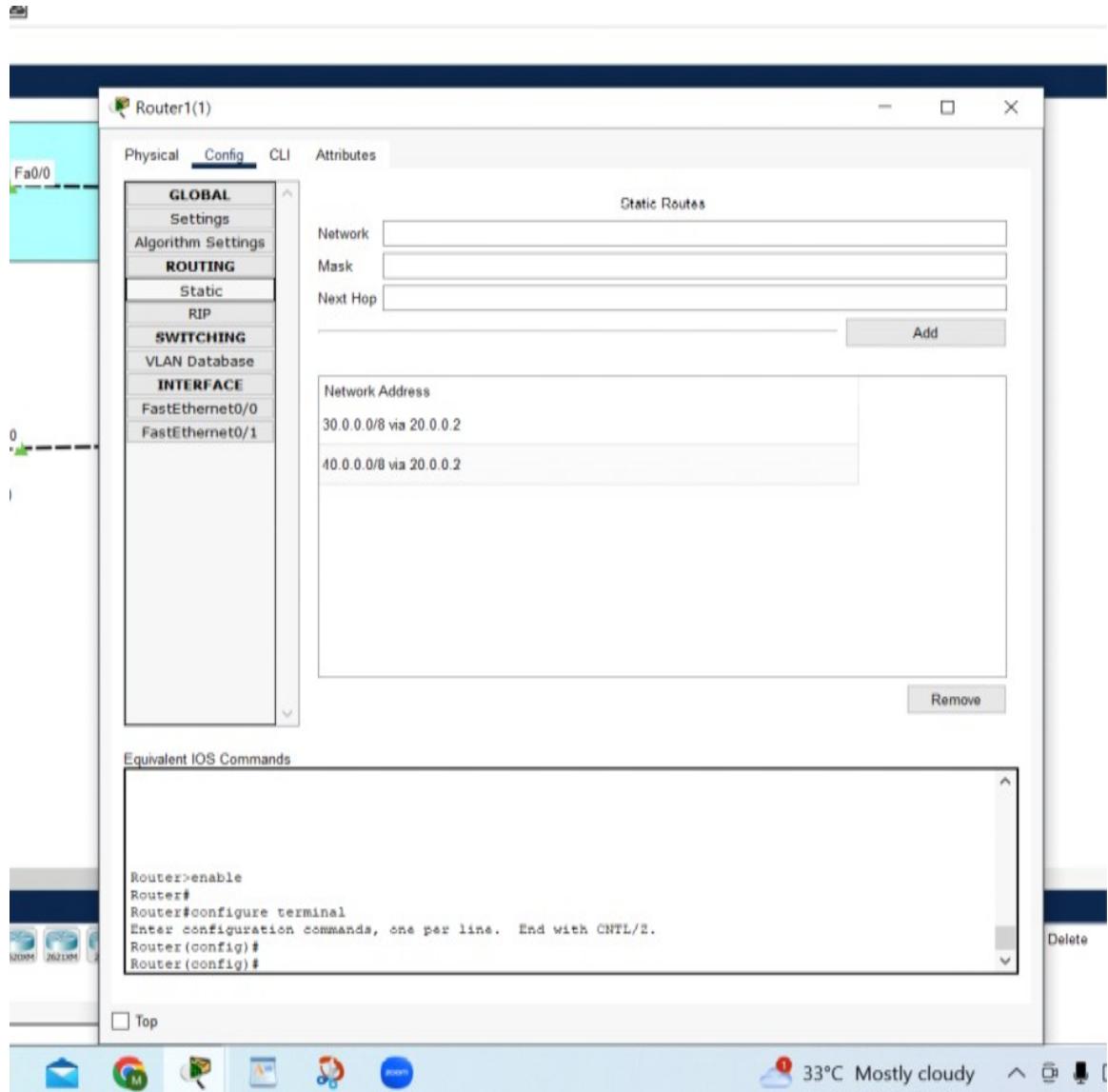
33°C Light rain

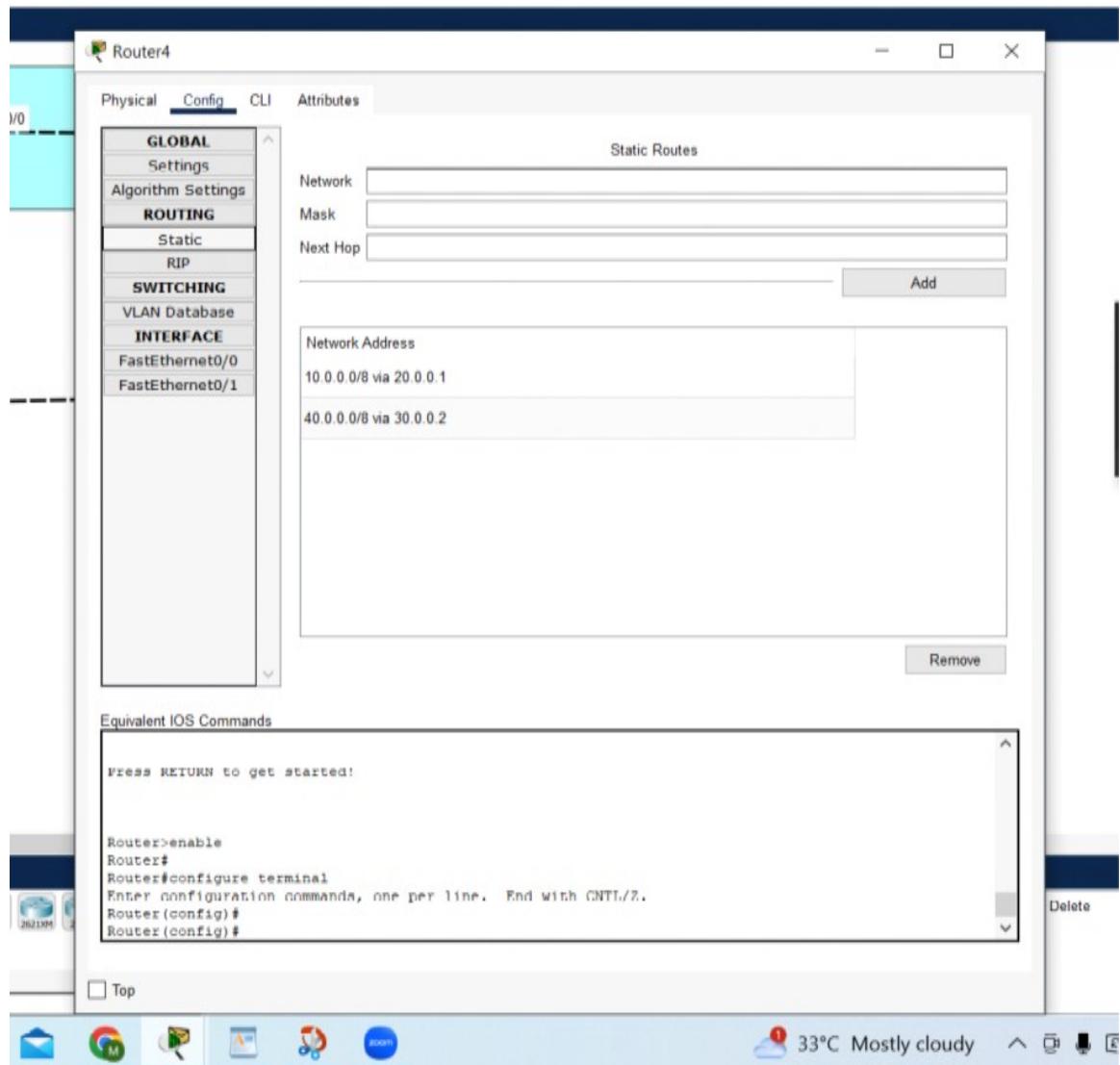
Icons: Mail, Google, File, Home, Tools, Help

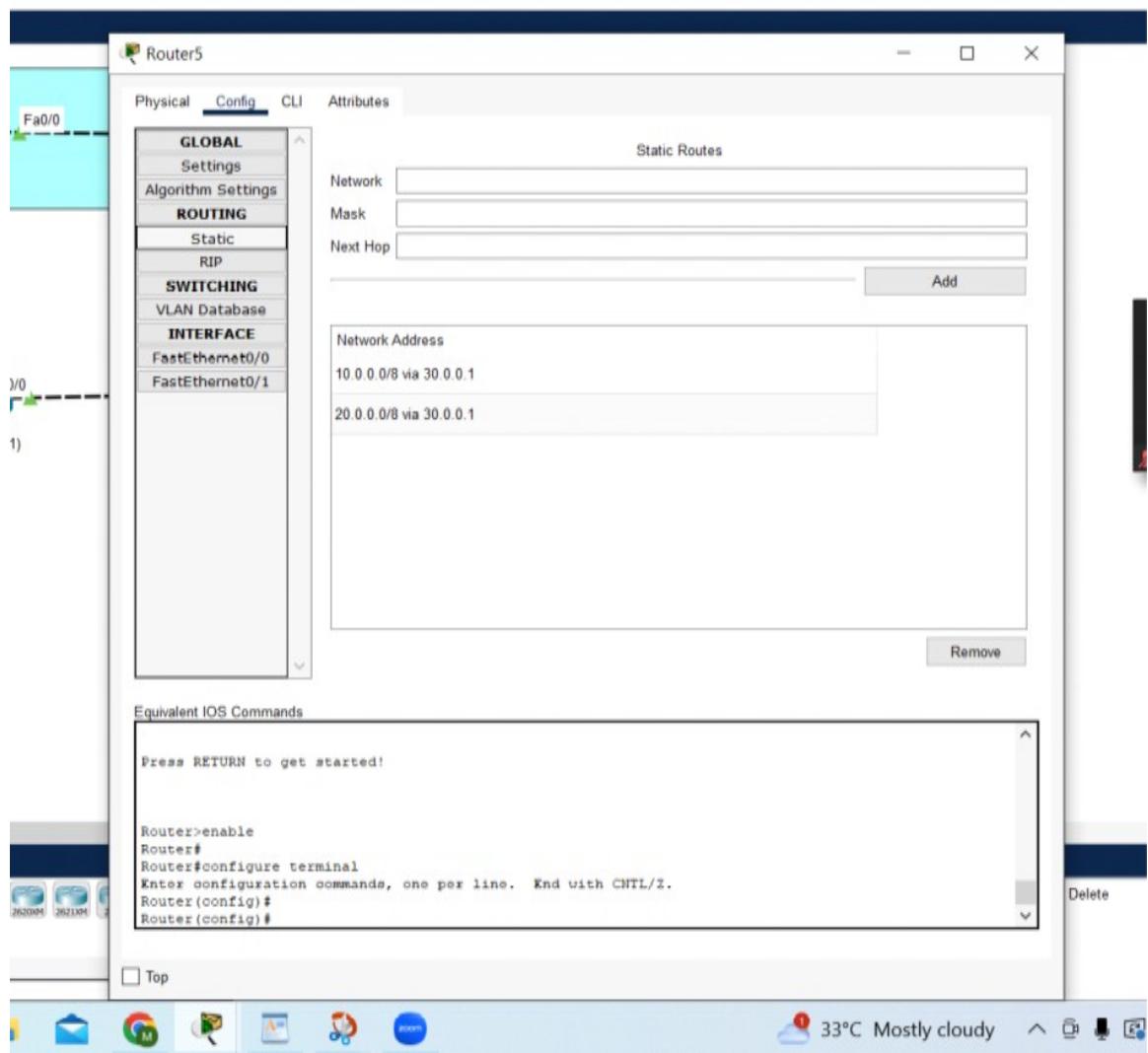












PC3(1)

Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>ipconfig

FastEthernet0 Connection:(default port)

Connection-specific DNS Suffix...:
Link-local IPv6 Address....: FE80::2E0:F7FF:FE4C:EC2B
IPv6 Address.....: :::
IPv4 Address.....: 10.0.0.2
Subnet Mask.....: 255.0.0.0
Default Gateway.....: :::
10.0.0.1

Bluetooth Connection:

Connection-specific DNS Suffix...:
Link-local IPv6 Address....: :::
IPv6 Address.....: :::
IPv4 Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: :::
0.0.0.0

C:\>ping 40.0.0.2

Pinging 40.0.0.2 with 32 bytes of data:

Request timed out.
Reply from 40.0.0.2: bytes=32 time<1ms TTL=125
Reply from 40.0.0.2: bytes=32 time<1ms TTL=125
Reply from 40.0.0.2: bytes=32 time<1ms TTL=125

Ping statistics for 40.0.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 40.0.0.2

Pinging 40.0.0.2 with 32 bytes of data:

Reply from 40.0.0.2: bytes=32 time=24ms TTL=125
Reply from 40.0.0.2: bytes=32 time<1ms TTL=125
Reply from 40.0.0.2: bytes=32 time<1ms TTL=125
Reply from 40.0.0.2: bytes=32 time<1ms TTL=125
```

PCS

Physical Config Desktop Programming Attributes

Command Prompt

```

Ping statistics for 20.0.0.1:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
C:\>ipconfig

FastEthernet0 Connection:(default port)

Connection-specific DNS Suffix.:
Link-local IPv6 Address.....: FE80::2D0:57FF:FE88:C461
IPv6 Address.....: ::1
IPv4 Address.....: 40.0.0.2
Subnet Mask.....: 255.0.0.0
Default Gateway.....: 40.0.0.1

Bluetooth Connection:

Connection-specific DNS Suffix.:
Link-local IPv6 Address.....: ::1
IPv6 Address.....: ::1
IPv4 Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: 0.0.0.0

C:\>ping 20.0.0.1

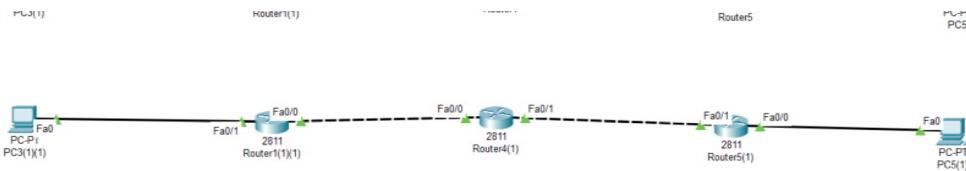
Pinging 20.0.0.1 with 32 bytes of data:

Reply from 20.0.0.1: bytes=32 time<1ms TTL=253

Ping statistics for 20.0.0.1:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
  Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>

```

Lab 6---Dynamic routing



PC3(1)(1)

Physical Config Desktop Programming Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration

DHCP Static

IPv4 Address: 10.0.0.1

Subnet Mask: 255.0.0.0

Default Gateway: 10.0.0.2

DNS Server: 0.0.0.0

IPv6 Configuration

Automatic Static

IPv6 Address: FE80::20D:BDFF:FE94:1B69 /

Link Local Address: FE80::20D:BDFF:FE94:1B69

Default Gateway:

DNS Server:

802.1X

Use 802.1X Security

Authentication: MD5

Username:

Password:

Top

Delete

This screenshot shows a network configuration dialog box for a device named "PC3(1)(1)". The "Desktop" tab is currently selected. The "IP Configuration" section is open, showing settings for the "FastEthernet0" interface. The IP address is set to "Static" with values 10.0.0.1, 255.0.0.0, 10.0.0.2, and 0.0.0.0 for Subnet Mask, Default Gateway, and DNS Server respectively. The "IPv6 Configuration" section is also present, showing an automatic link-local address of FE80::20D:BDFF:FE94:1B69. The "802.1X" section includes options for using 802.1X security, selecting MD5 authentication, and entering a username and password. A "Delete" button is located on the right side of the dialog.

Router1(1)(1)

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

FastEthernet0/0

Port Status
Bandwidth
Duplex
MAC Address

On 100 Mbps 10 Mbps Auto
 Half Duplex Full Duplex Auto

0090.0C96.5DDB

IP Configuration
IPv4 Address
Subnet Mask

20.0.0.1
255.0.0.0

Tx Ring Limit

10

Equivalent IOS Commands

Press RETURN to get started!

Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if) #

Top

33°C Mostly cloudy

Router1(1)(1)

Physical Config CLI Attributes

GLOBAL

- Settings
- Algorithm Settings
- ROUTING**
- Static
- RIP

SWITCHING

- VLAN Database
- INTERFACE**

FastEthernet0/0
FastEthernet0/1

FastEthernet0/1

Port Status
Bandwidth
Duplex
MAC Address

On 100 Mbps 10 Mbps Auto
 Half Duplex Full Duplex Auto

000B BEBC 7D12

IP Configuration
IPv4 Address: 10.0.0.2
Subnet Mask: 255.0.0.0

Tx Ring Limit: 10

Equivalent IOS Commands

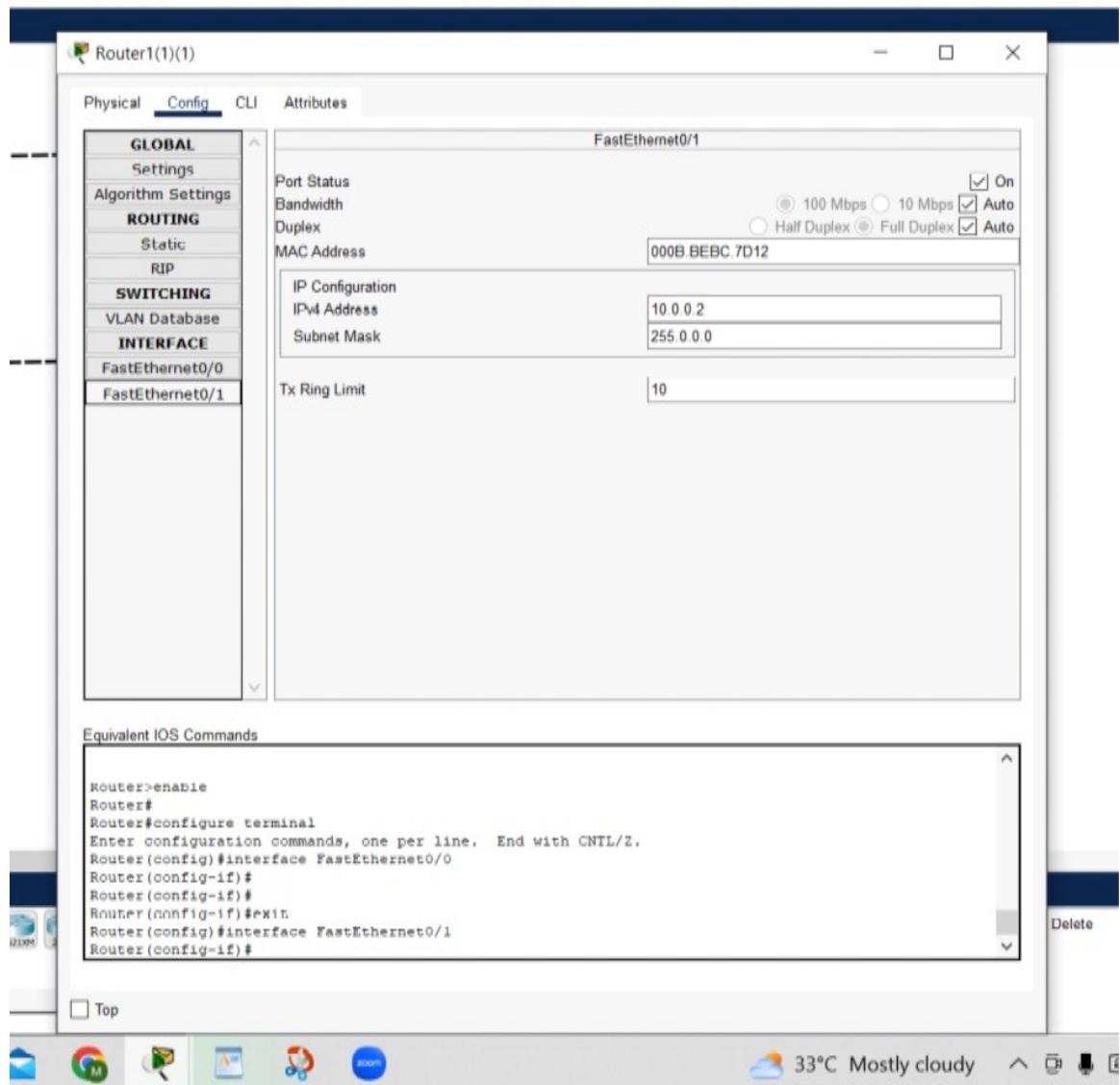
```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#

```

Top

Delete

Cloud 33°C Mostly cloudy



Router4(1)

Physical Config CLI Attributes

GLOBAL

- Settings
- Algorithm Settings
- ROUTING**
- Static
- RIP
- SWITCHING**
- VLAN Database
- INTERFACE**
- FastEthernet0/0
- FastEthernet0/1

FastEthernet0/0

Port Status

Bandwidth: On 100 Mbps 10 Mbps Auto
 Half Duplex Full Duplex Auto

Duplex

MAC Address: 0001.4327.C6A5

IP Configuration

IPv4 Address: 20.0.0.2

Subnet Mask: 255.0.0.0

Tx Ring Limit: 10

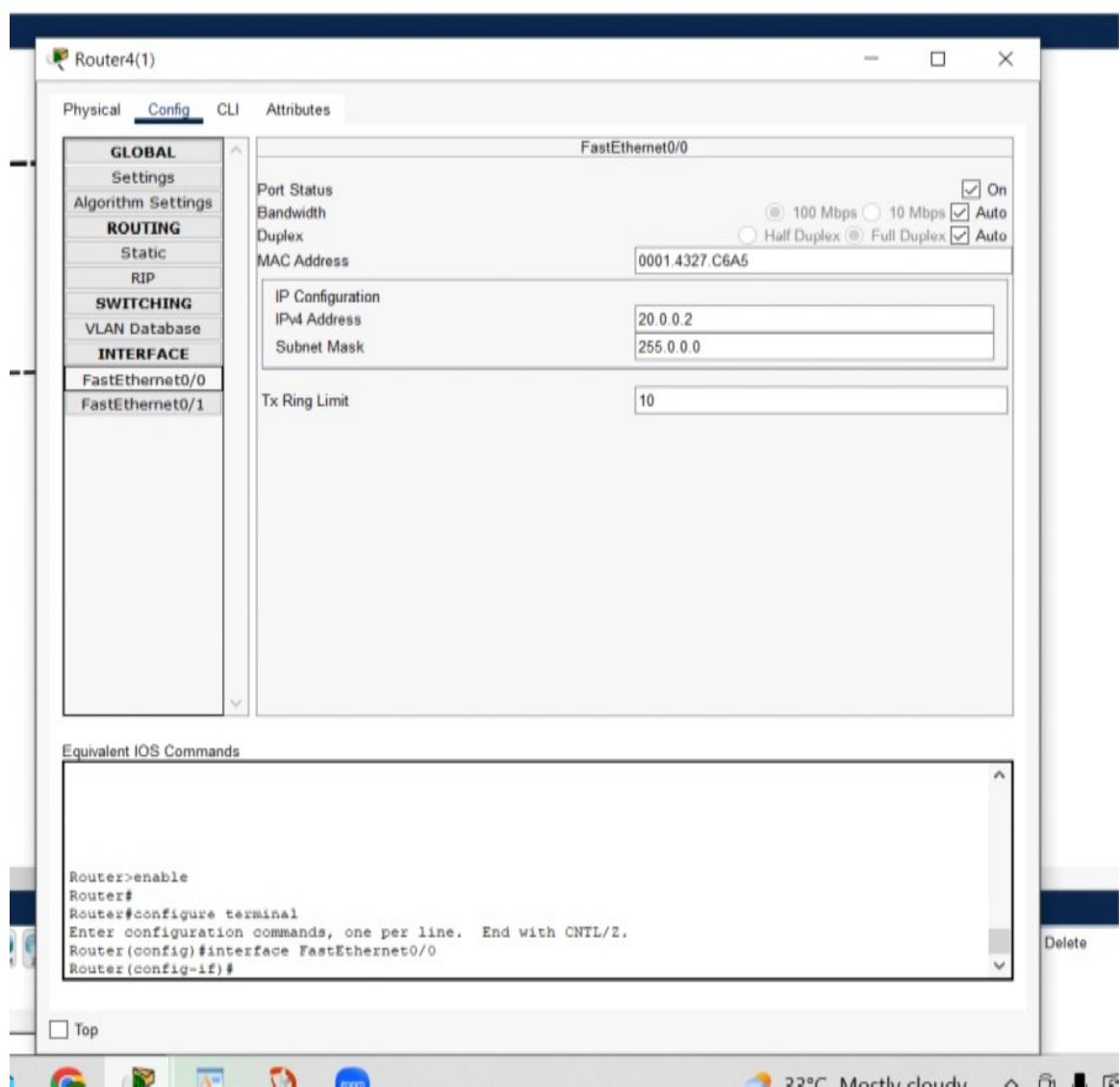
Equivalent IOS Commands

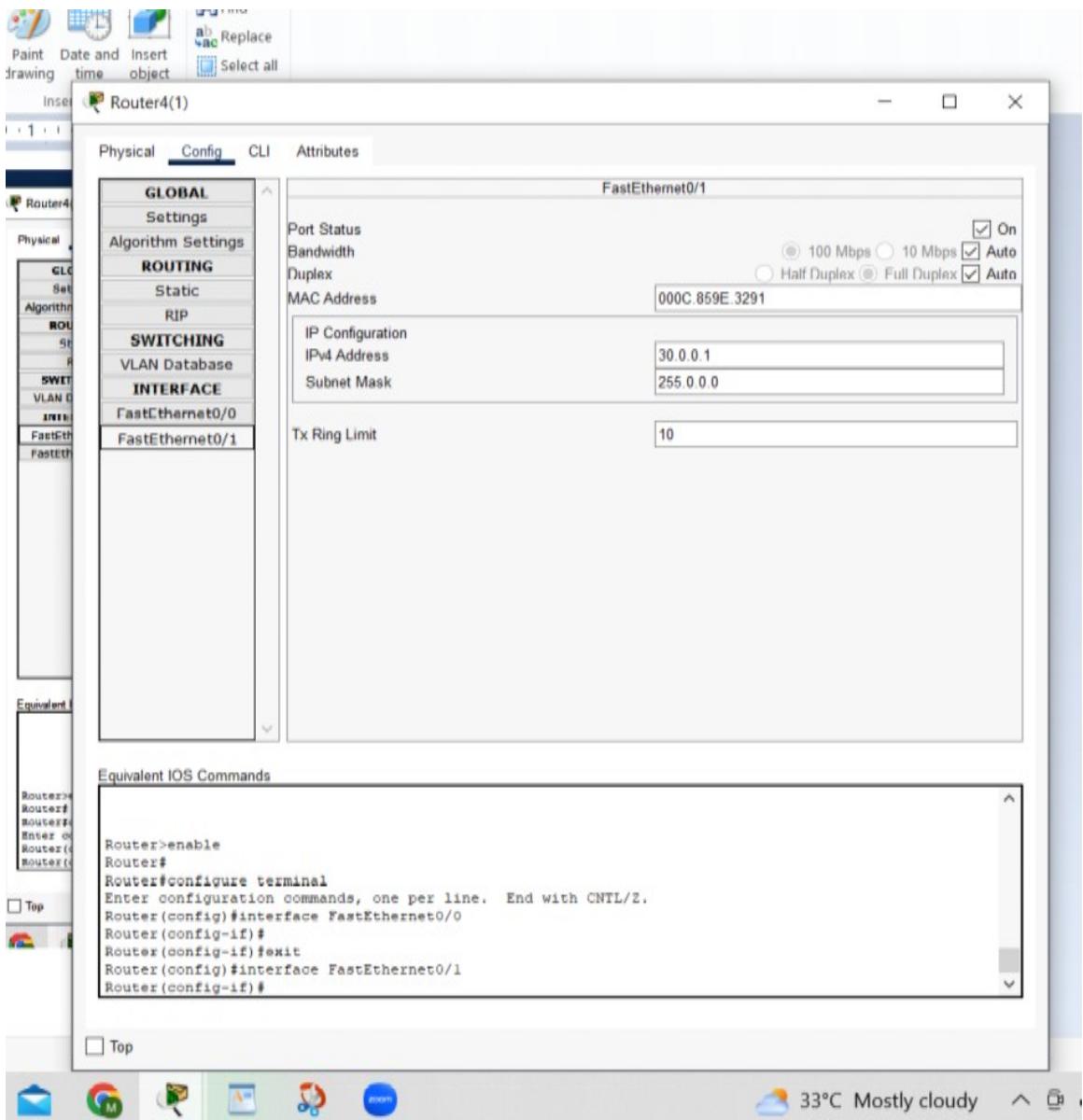
```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#

```

Top Delete

22°C Mostly cloudy





Router5(1)

Physical Config CLI Attributes

GLOBAL

- Settings
- Algorithm Settings

ROUTING

- Static
- RIP

SWITCHING

- VLAN Database

INTERFACE

- FastEthernet0/0
- FastEthernet0/1

FastEthernet0/0

Port Status: On
 100 Mbps 10 Mbps Auto
 Half Duplex Full Duplex Auto

Bandwidth: 0009.7C45 CD00

Duplex: IP Configuration

MAC Address: 40.0.0.1

Subnet Mask: 255.0.0.0

Tx Ring Limit: 10

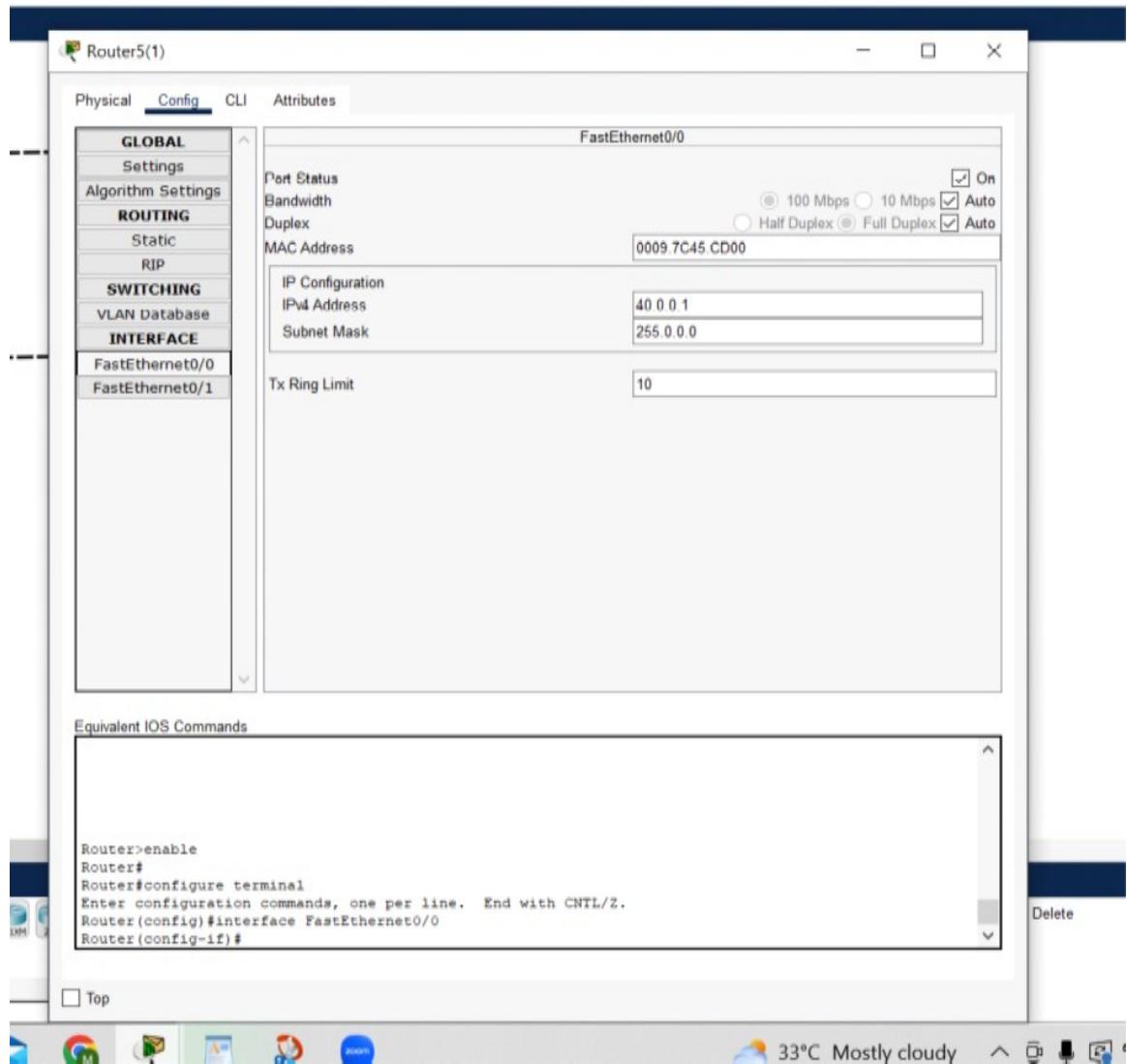
Equivalent IOS Commands:

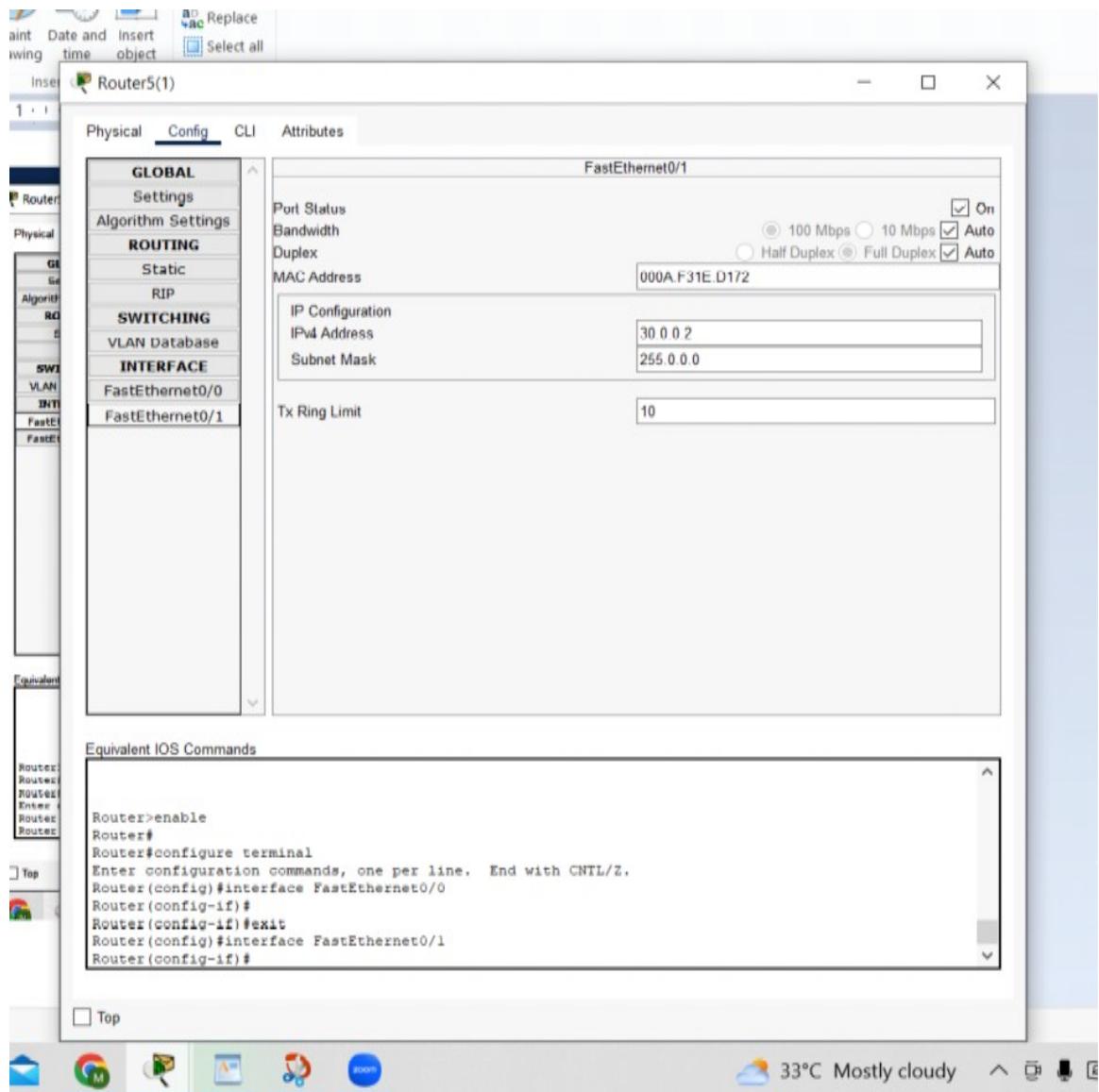
```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#

```

Top

Delete





Router1(1)(1)

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Press RETURN to get started!

Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 20.0.0.1 255.0.0.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
%IP-4-DUPADDR: Duplicate address 10.0.0.2 on FastEthernet0/1, sourced by 000D.BD94.1B69

Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%IP-4-DUPADDR: Duplicate address 10.0.0.2 on FastEthernet0/1, sourced by 000D.BD94.1B69
```

Top

Copy Paste

2621XM 3 33°C Mostly cloudy

Router4(1)

Physical Config **CLI** Attributes

IOS Command Line Interface

```
%LINEPROTO-0-UPDOWN: Line protocol on interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to down

Router>en
Router>enable
Router>con
Router>con
Router>confi
Router>configure t
Router>configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ro
Router(config)#router rip
Router(config-router)#ver
Router(config-router)#version 2
Router(config-router)#net
Router(config-router)#network 20.0.0.0
Router(config-router)#new
Router(config-router)net
Router(config-router)#network 30.0.0.0
Router(config-router)#no auto
Router(config-router)#no auto-summary
Router(config-router)#
Router(config-router)#end
Router>configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
%SYS-5-CONFIG_I: Configured from console by console

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-router)#end
Router>configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
%SYS-5-CONFIG_I: Configured from console by console
```

Top

Copy Paste Delete

Router5(1)

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Press RETURN to get started!
```

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router>en
Router>enable
Router>con
Router>confi
Router>configure t
Router>configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#version 2
Router(config-router)#net
Router(config-router)#network 30.0.0.0
Router(config-router)#net
Router(config-router)#network 40.0.0.0
Router(config-router)#no auto
Router(config-router)#no auto-summary
Router(config-router)#

Router con0 is now available

Press RETURN to get started.
```

Top

Copy Paste Del

33°C Mostly cloudy

PC3(1)(1)

Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>ping 10.0.0.1

Pinging 10.0.0.1 with 32 bytes of data:

Reply from 10.0.0.1: bytes=32 time<1ms TTL=128
Reply from 10.0.0.1: bytes=32 time=21ms TTL=128
Reply from 10.0.0.1: bytes=32 time=8ms TTL=128
Reply from 10.0.0.1: bytes=32 time<1ms TTL=128

Ping statistics for 10.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 21ms, Average = 7ms

C:\>ping 20.0.0.2

Pinging 20.0.0.2 with 32 bytes of data:

Reply from 20.0.0.2: bytes=32 time<1ms TTL=254

Ping statistics for 20.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 40.0.0.1

Pinging 40.0.0.1 with 32 bytes of data:

Reply from 40.0.0.1: bytes=32 time<1ms TTL=253

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

26108 Top Delete

Top

33°C Mostly cloudy

