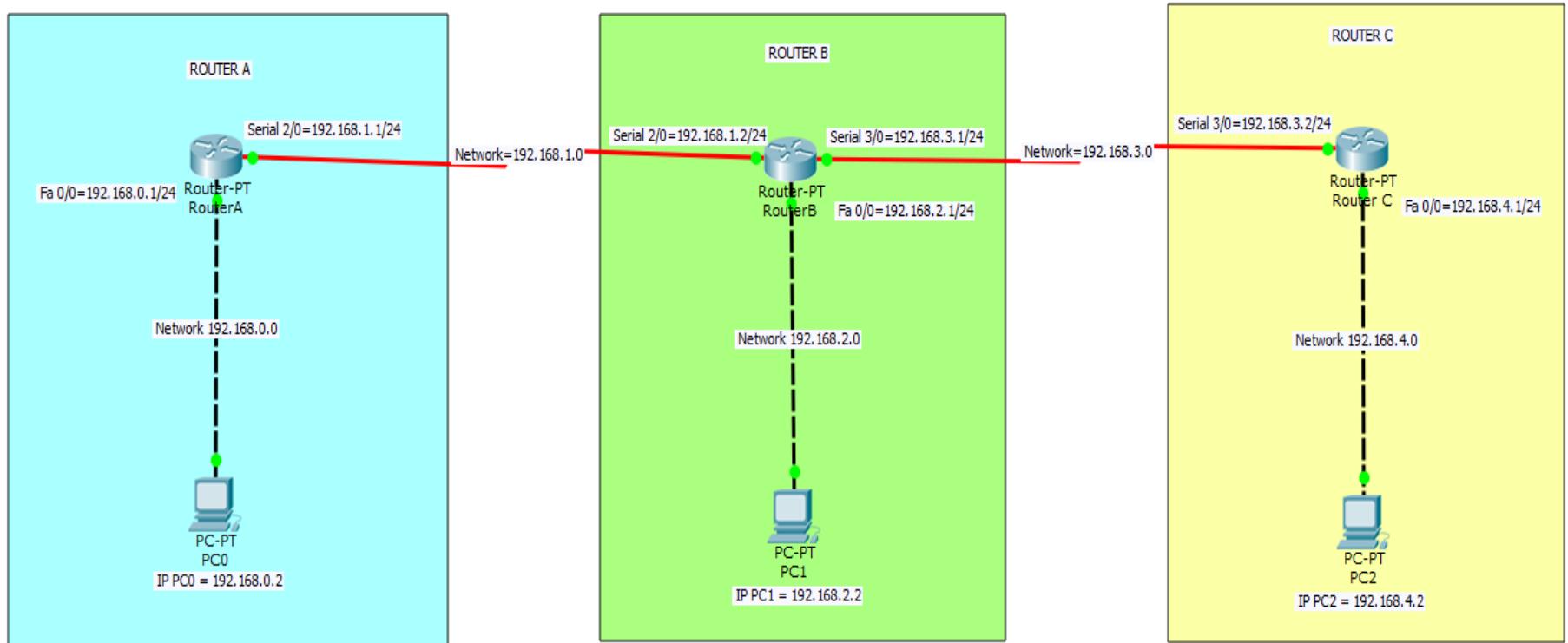


PERTEMUAN KE -10

ROUTING STATIK Dengan Menggunakan 3 Router

1. Buat seperti gambar 1.1, dengan menggunakan packet tracer dengan ketentuan sebagai berikut :

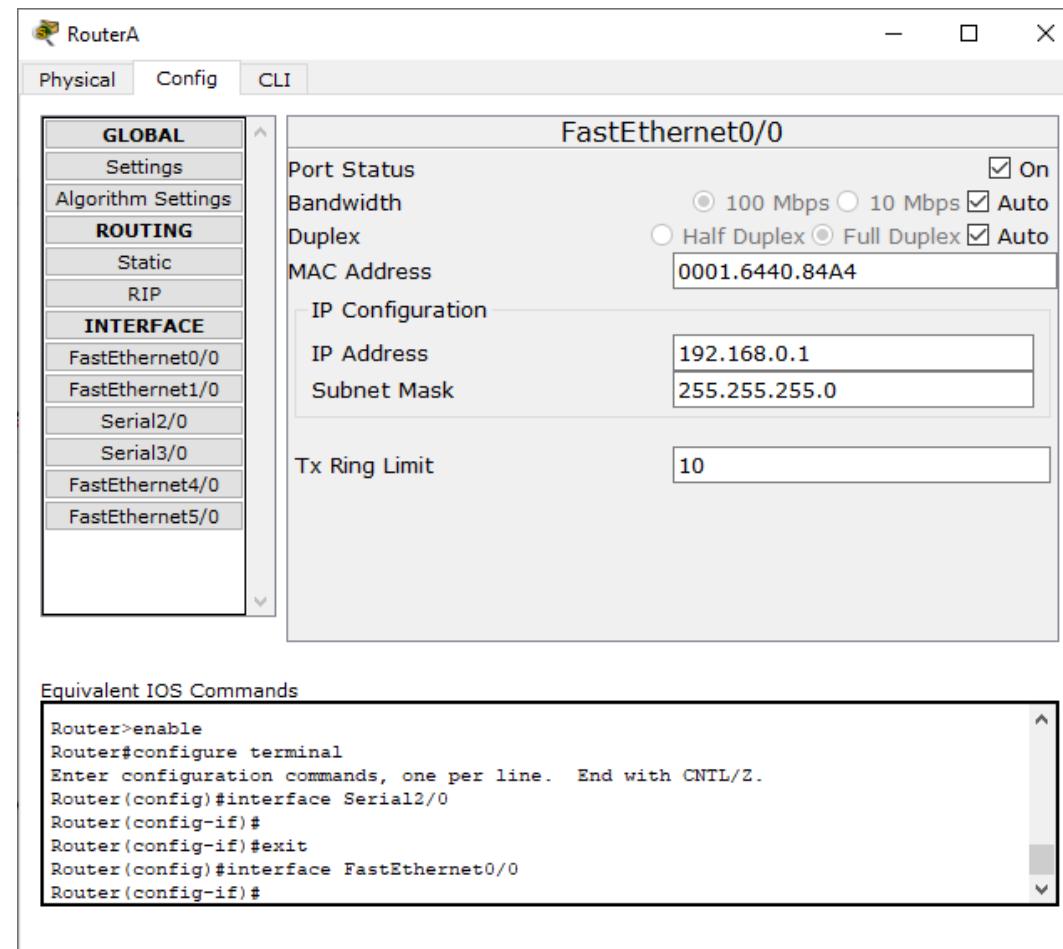


gambar 1.1

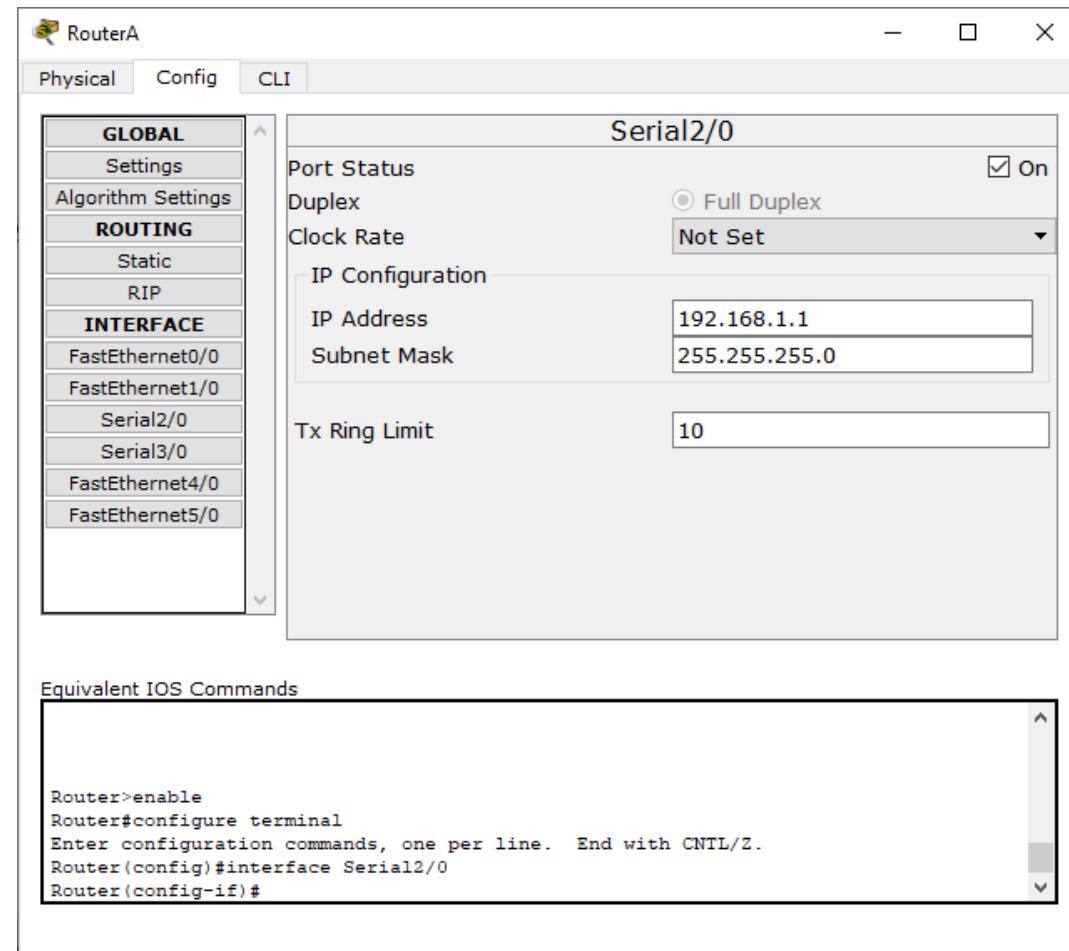
2. ROUTER A

Hasilnya sebagai berikut :

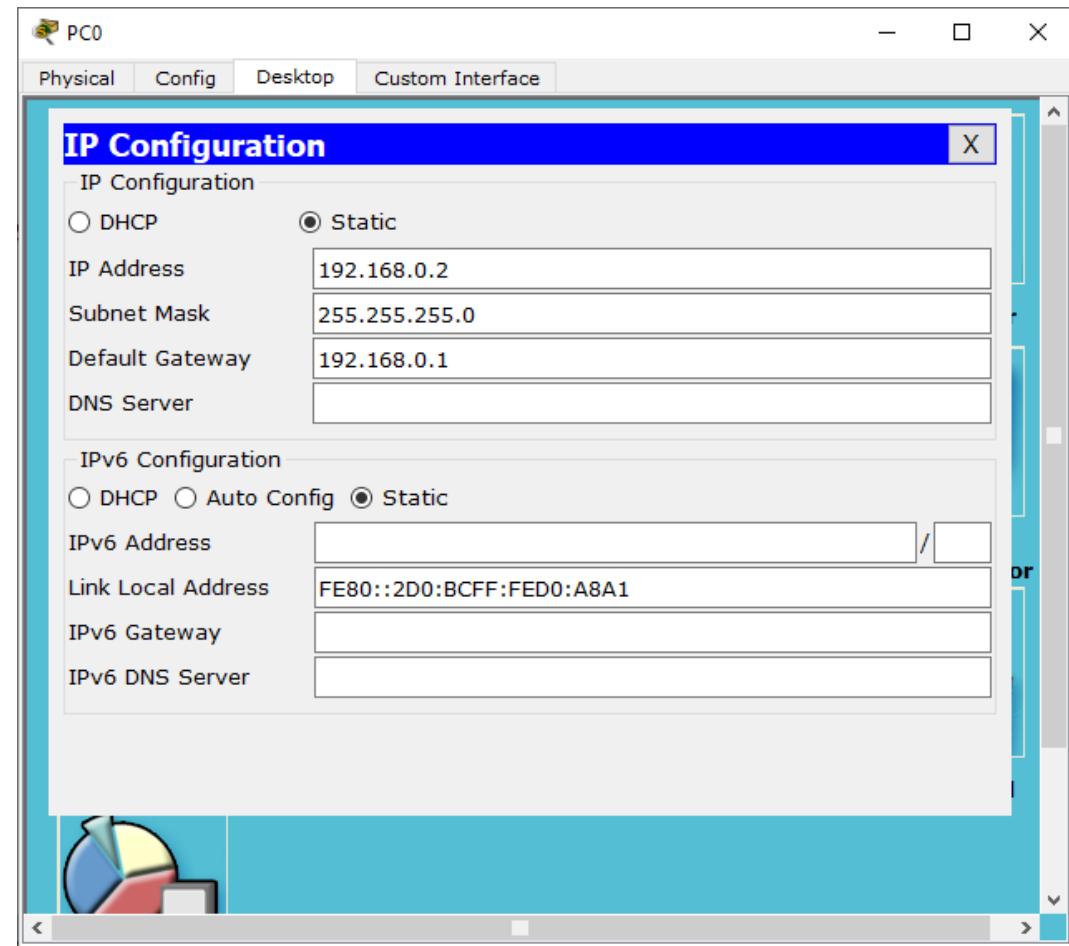
Konfigurasi Fa0/0 Router A



Konfigurasi Serial 2/0 Router A

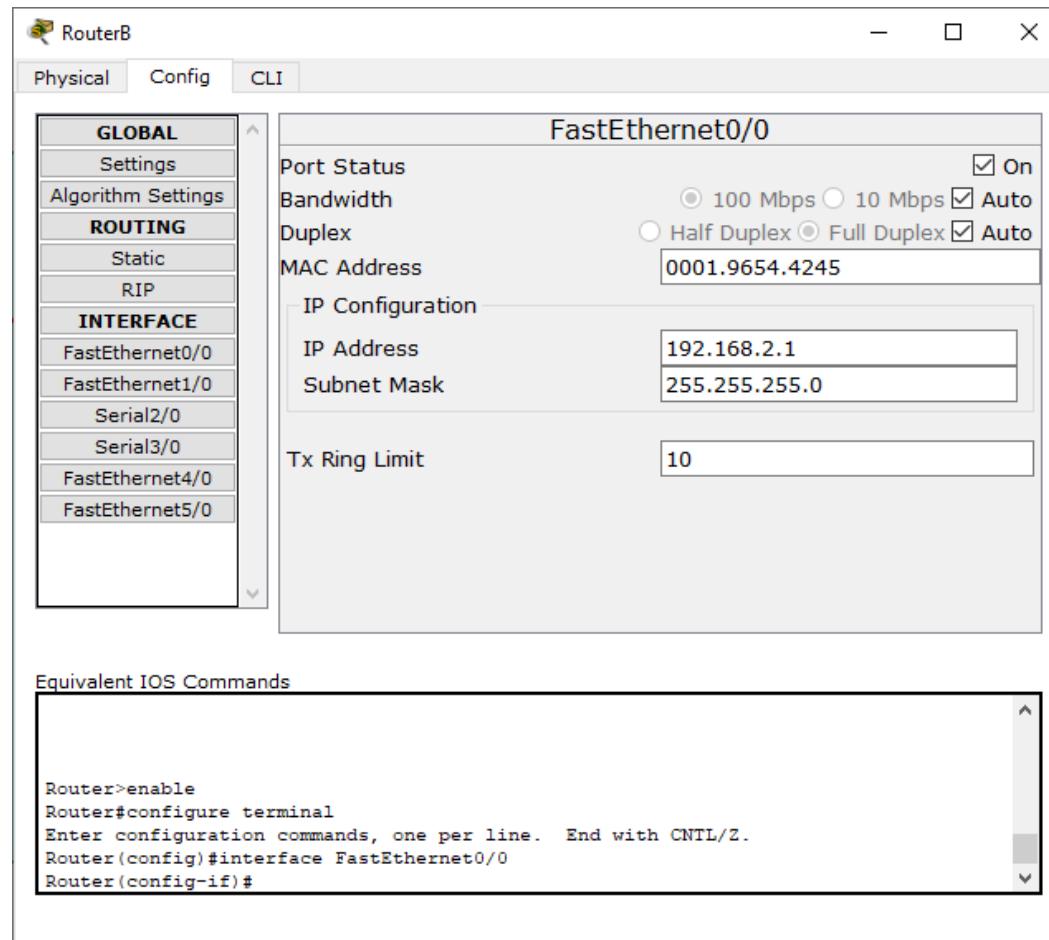


Konfigurasi PC0 Router A

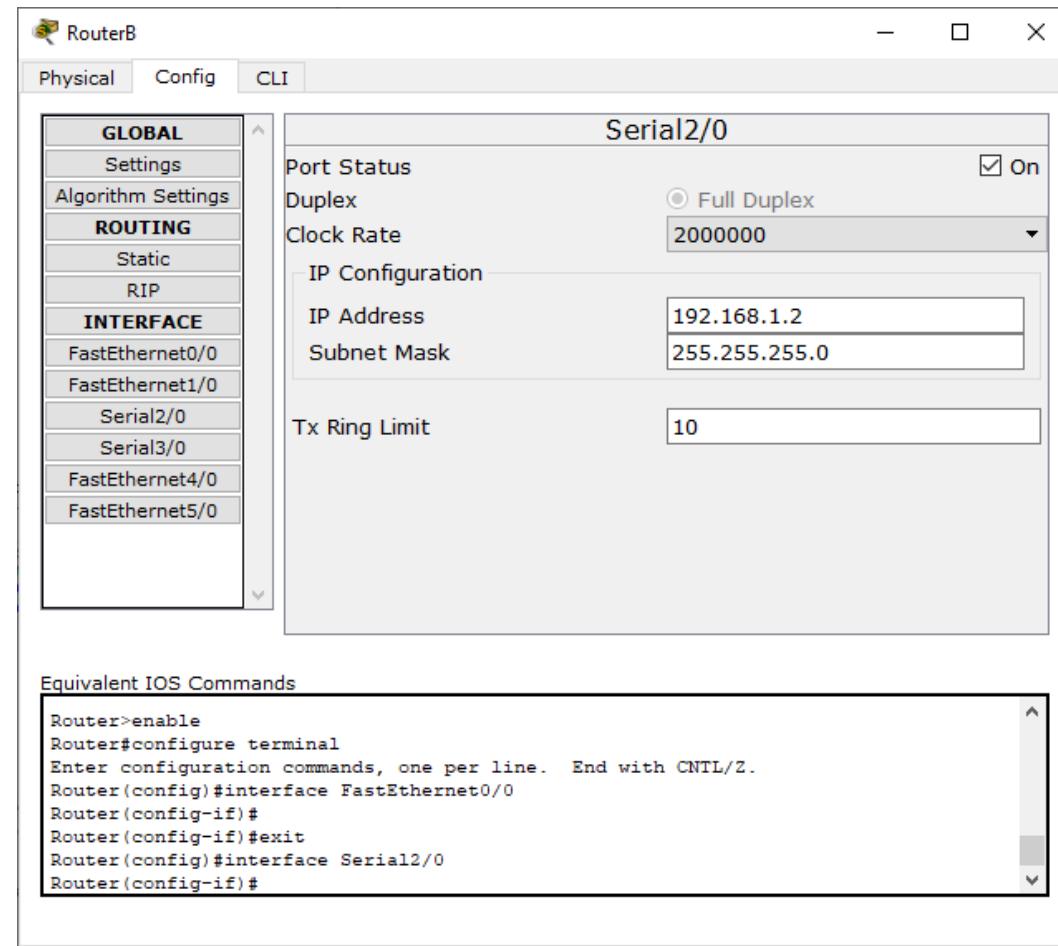


3. ROUTER B

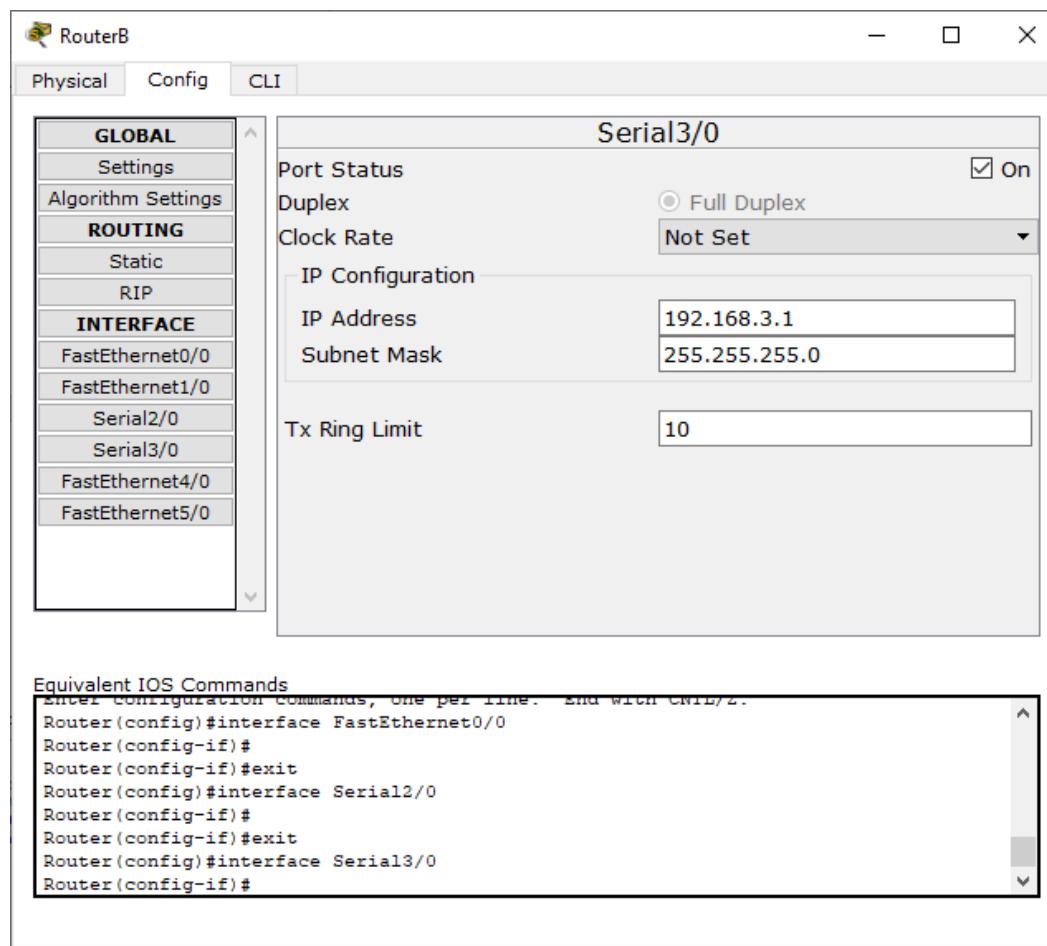
Konfigurasi Fa0/0 Router B



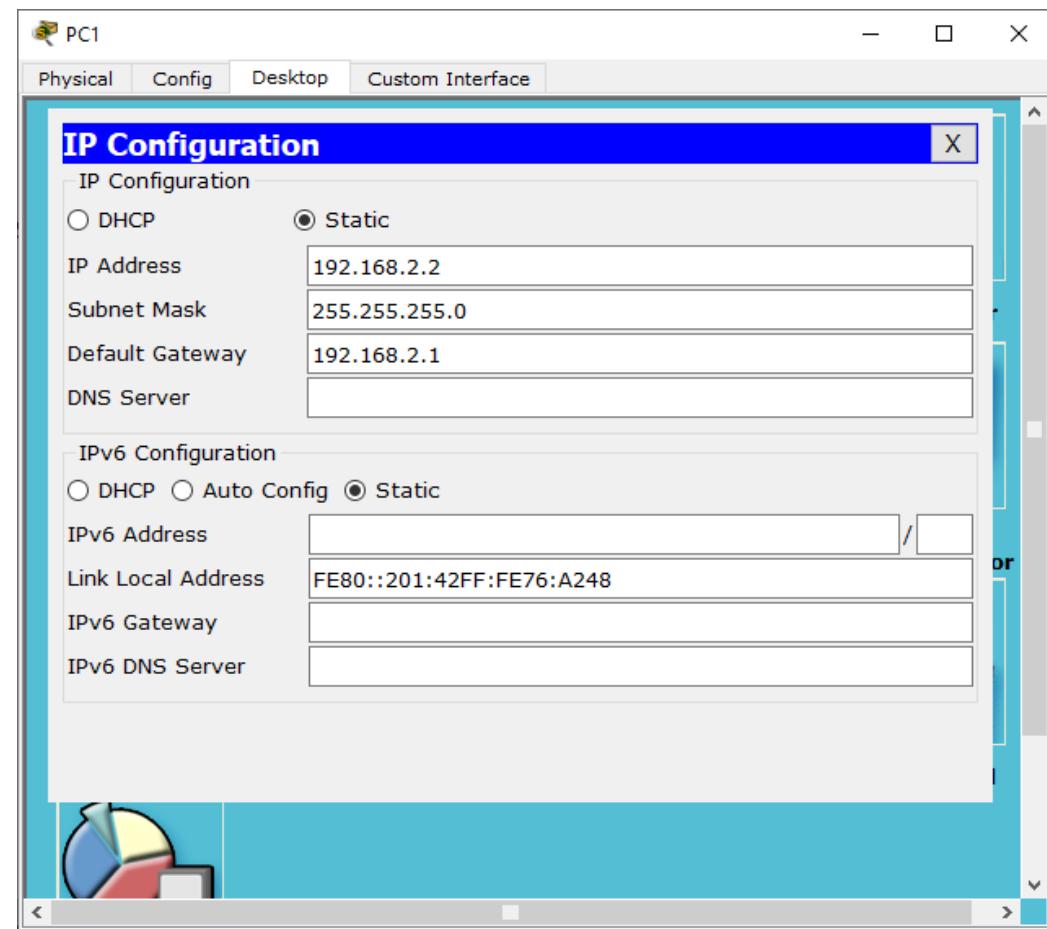
Konfigurasi Serial 2/0 Router B



Konfigurasi Serial 3/0 Router B

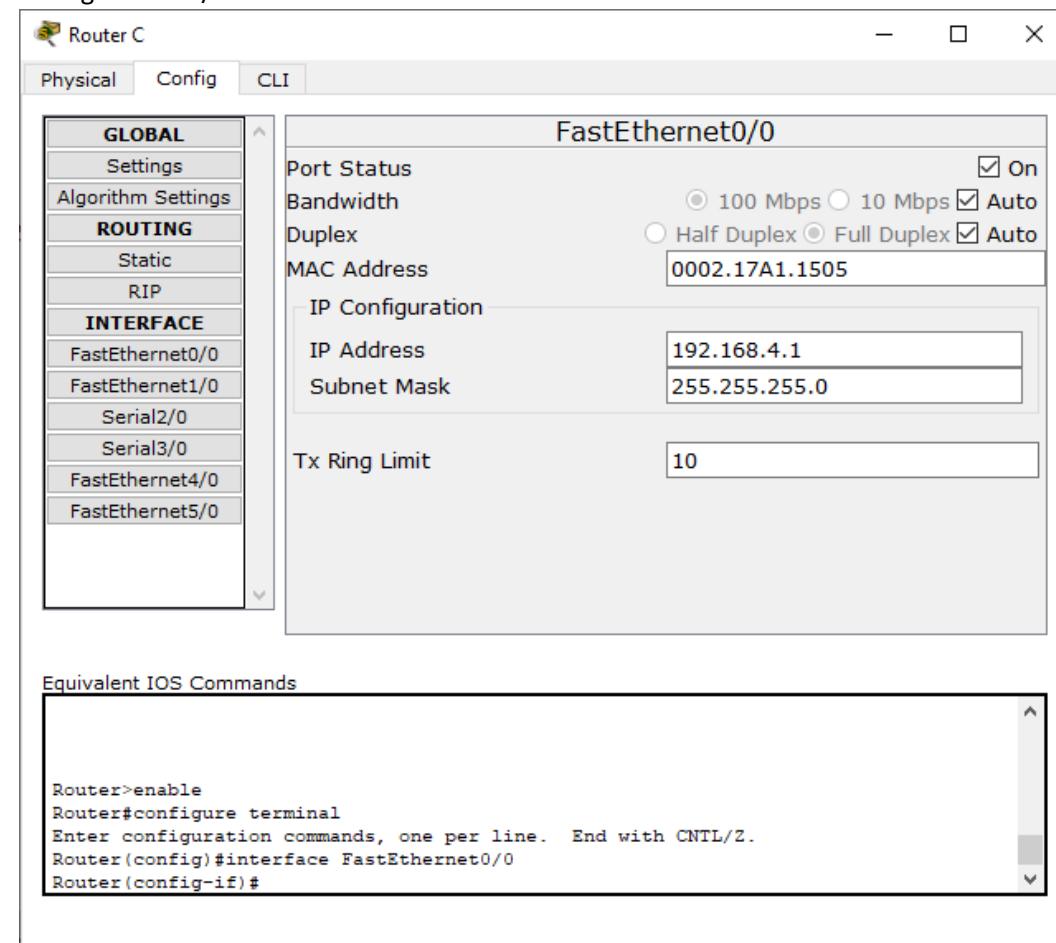


Konfigurasi PC1 Router B

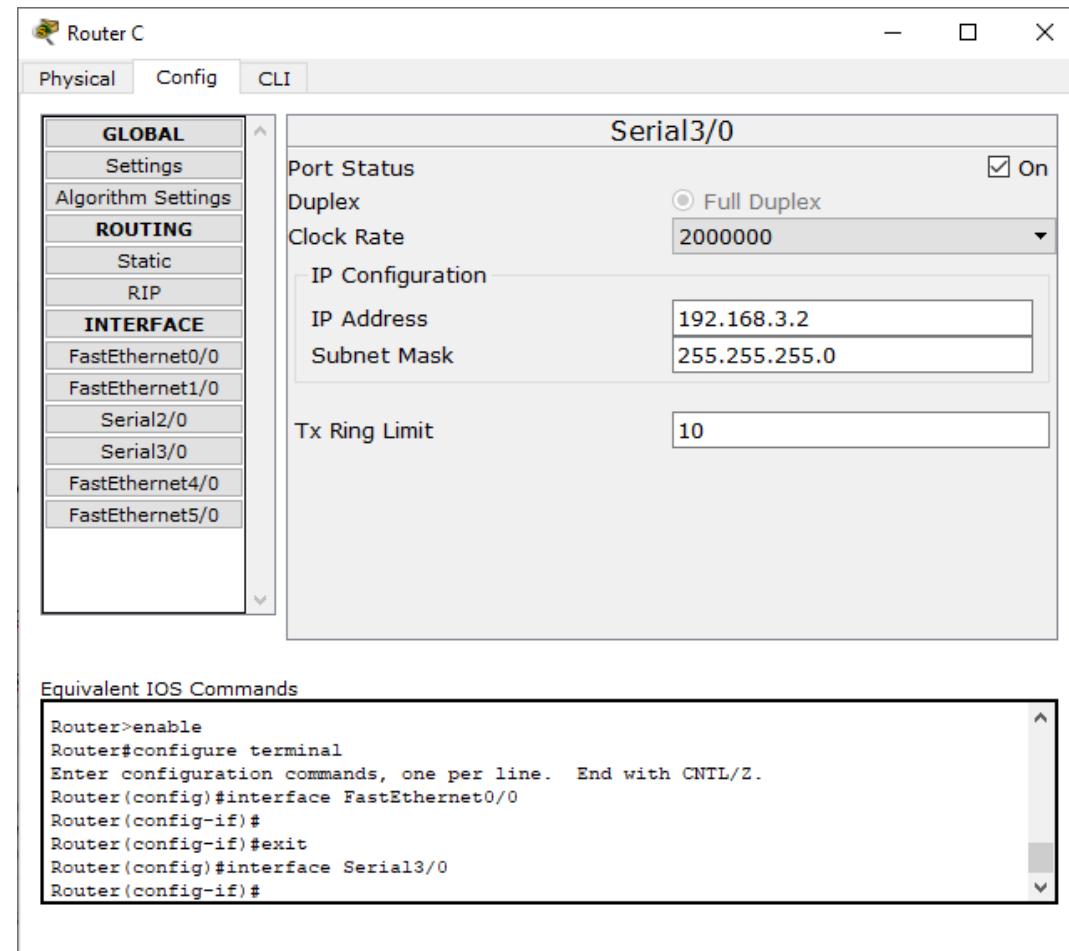


4. Konfigurasi Router C

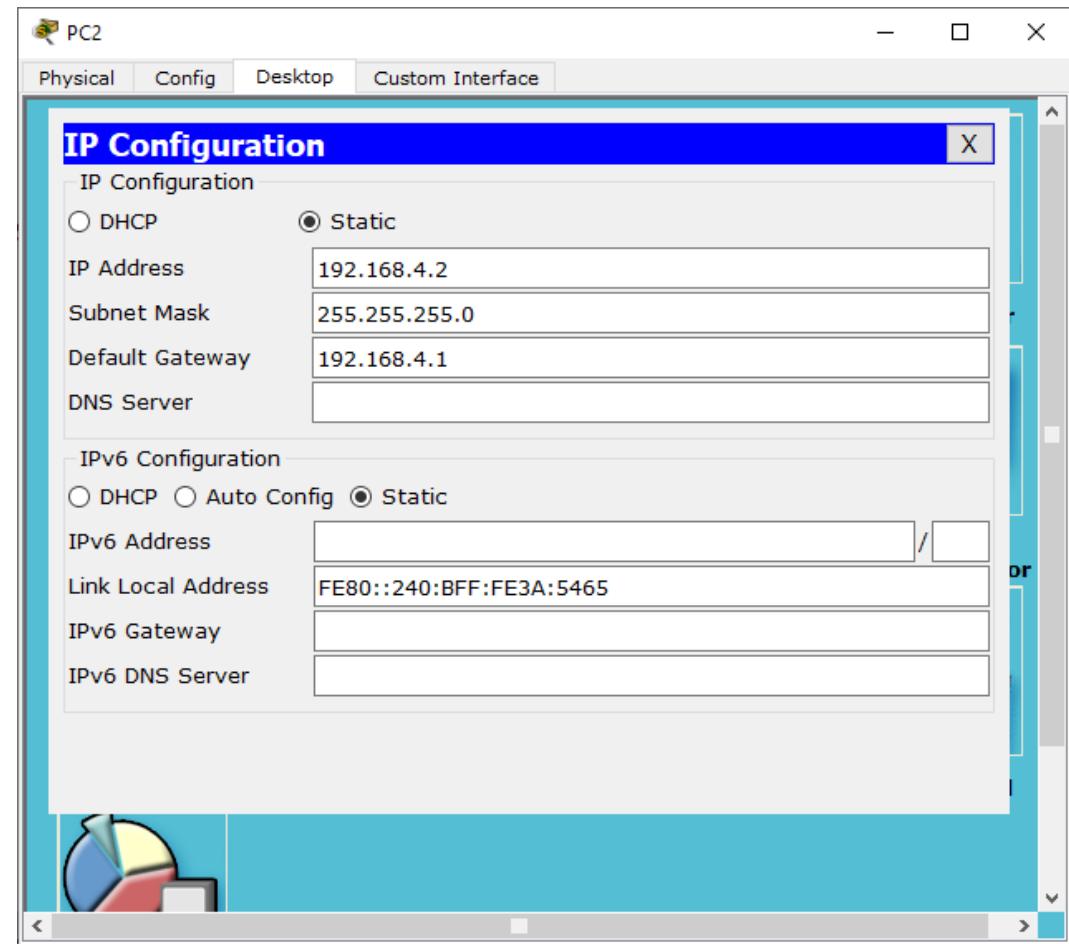
Konfigurasi Fa0/0 Router C



Konfigurasi Serial 3/0 Router C



Konfigurasi PC2 Router C

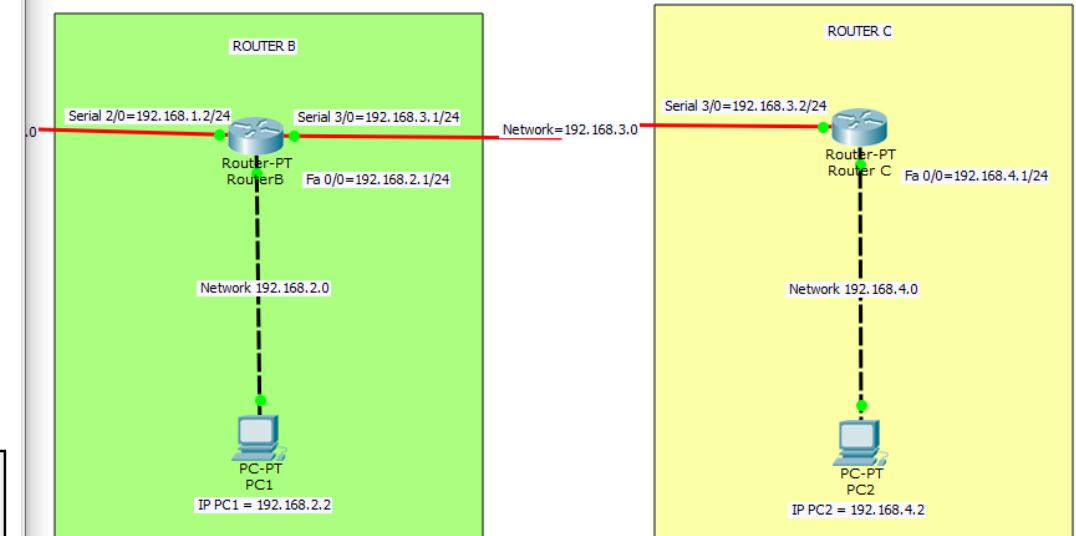
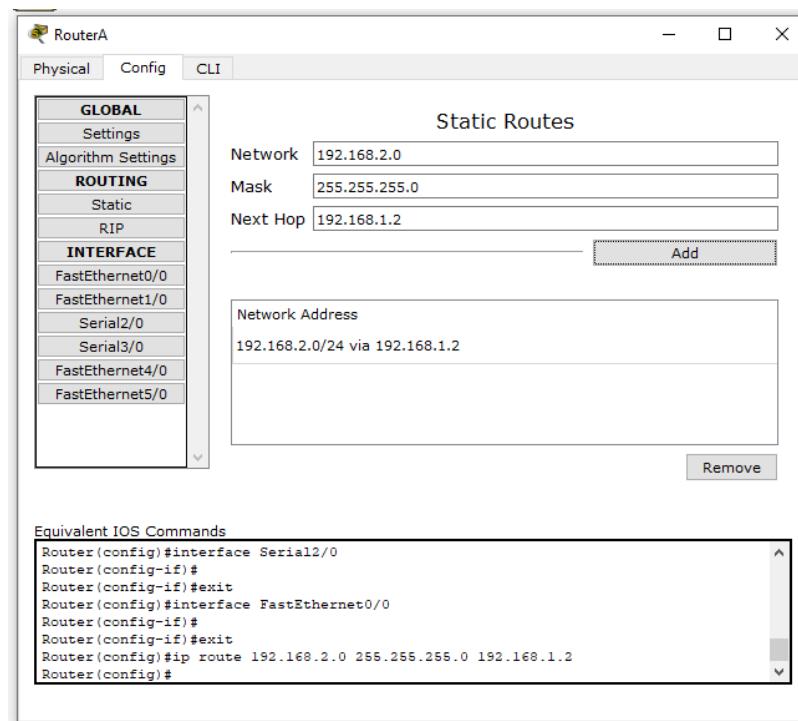


5. Setelah semuanya terkonfigurasi dengan benar, pastikan tidak ada titik yang berwarna merah, pastikan semua titik berwarna hijau.

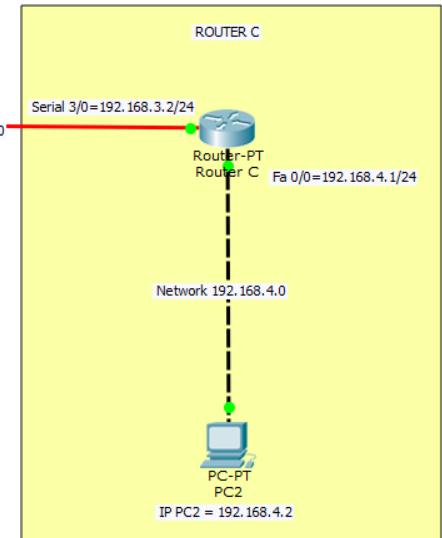
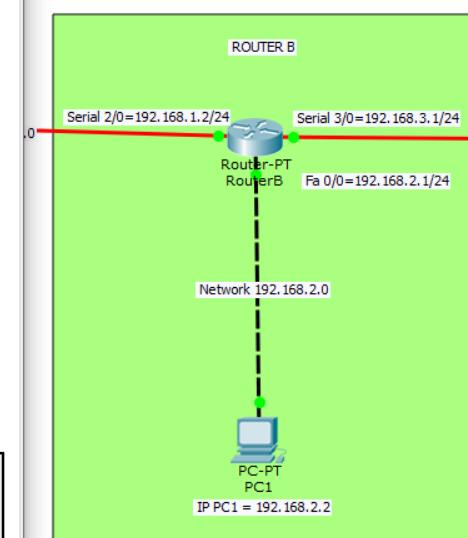
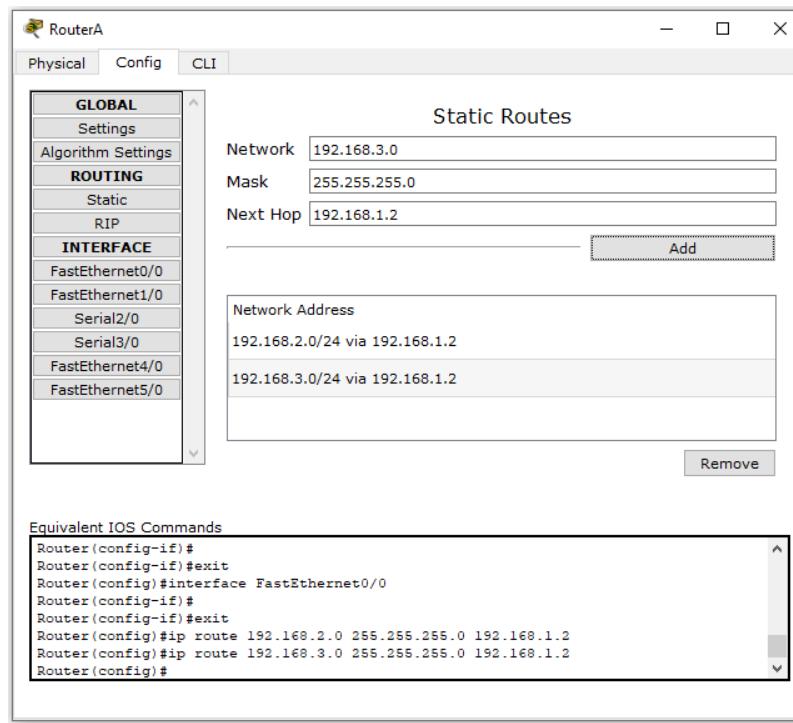
6. Untuk Setting Routing pada Router A yang dilihat Router B dan Router C

Buka Router A, masuk ke config, pilih routing, pilih static,

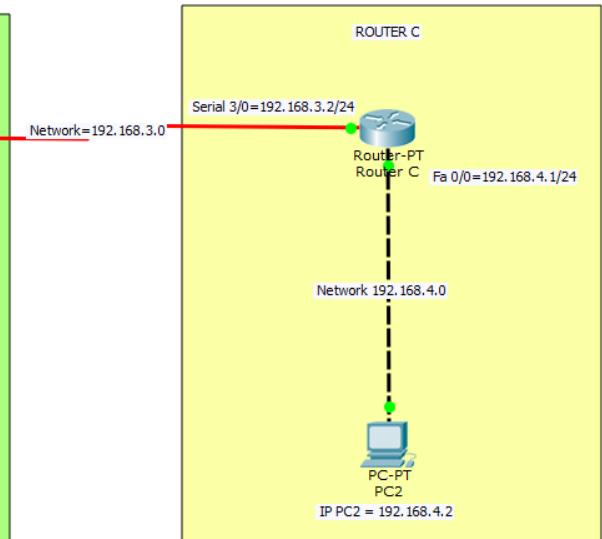
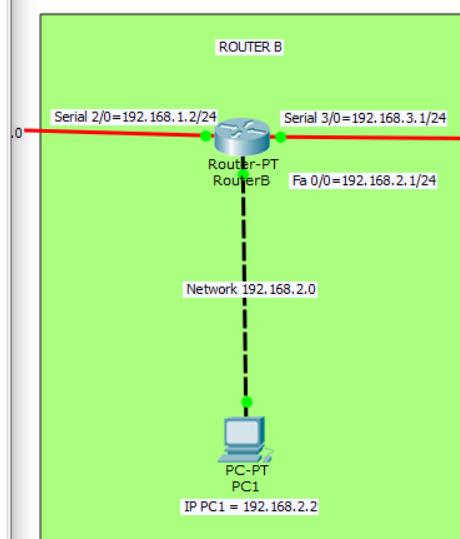
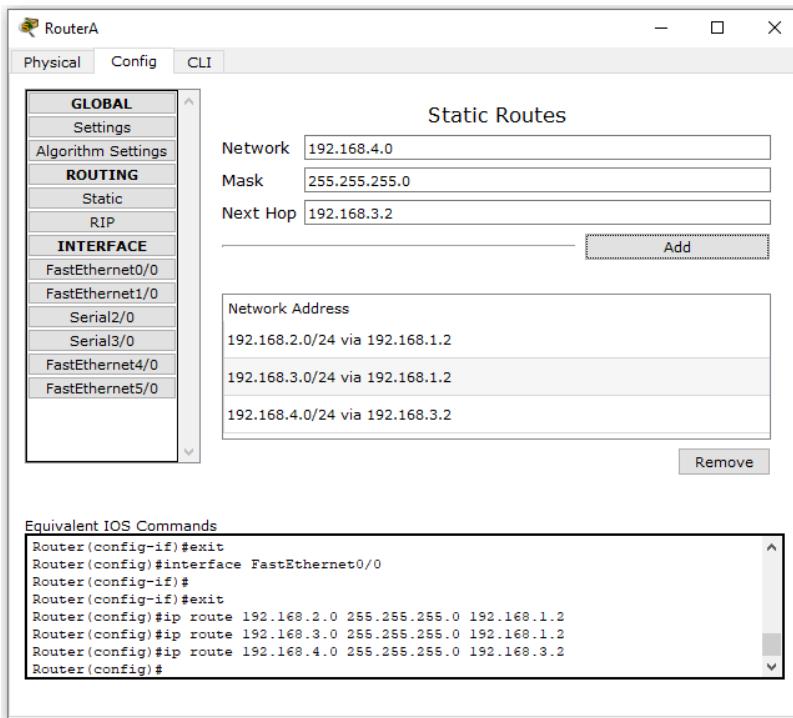
Untuk Semua Network 2.0 dilewatkan di Serial 2/0 = 192.168.1.2



Untuk Semua Network 3.0 dilewatkan di Serial 2/0 = 192.168.1.2

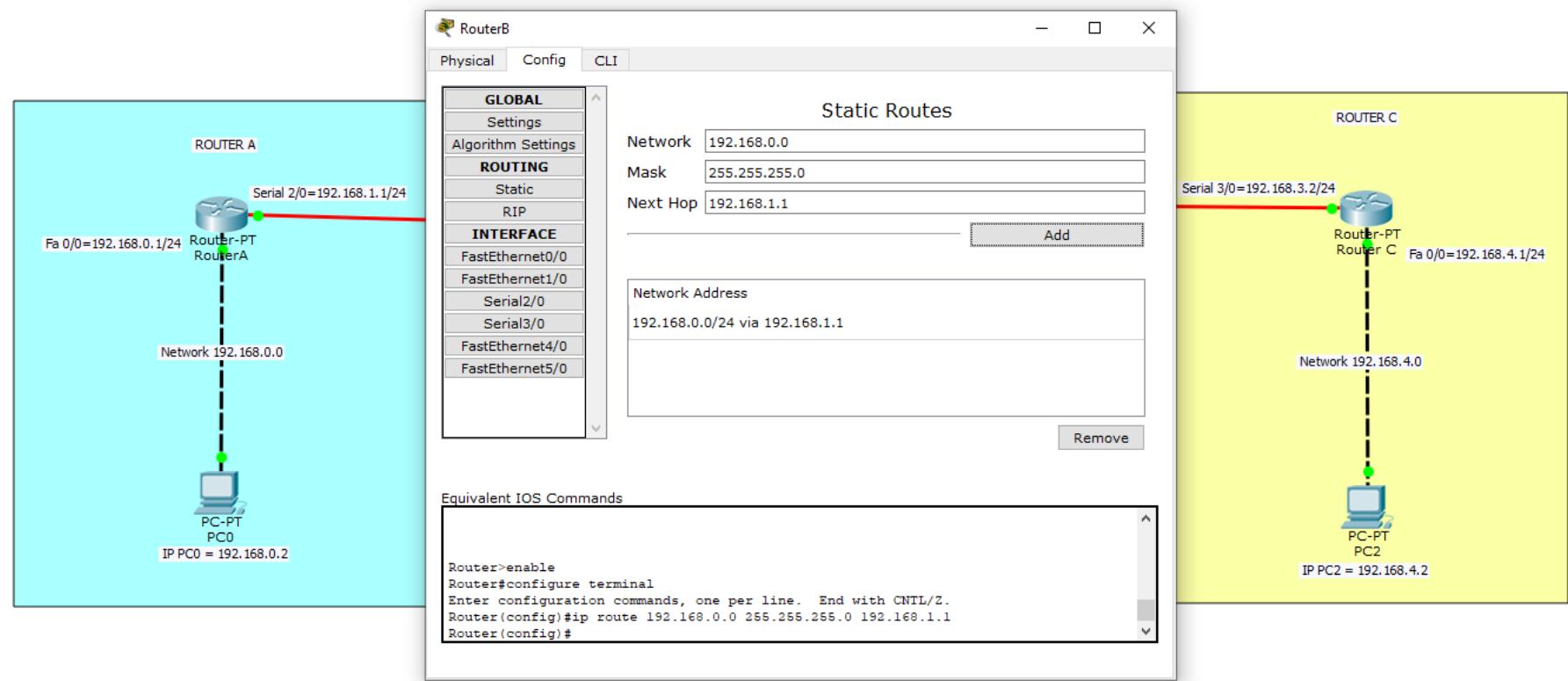


Untuk Semua Network 4.0 dilewatkan di Serial 3/0 = 192.168.3.2

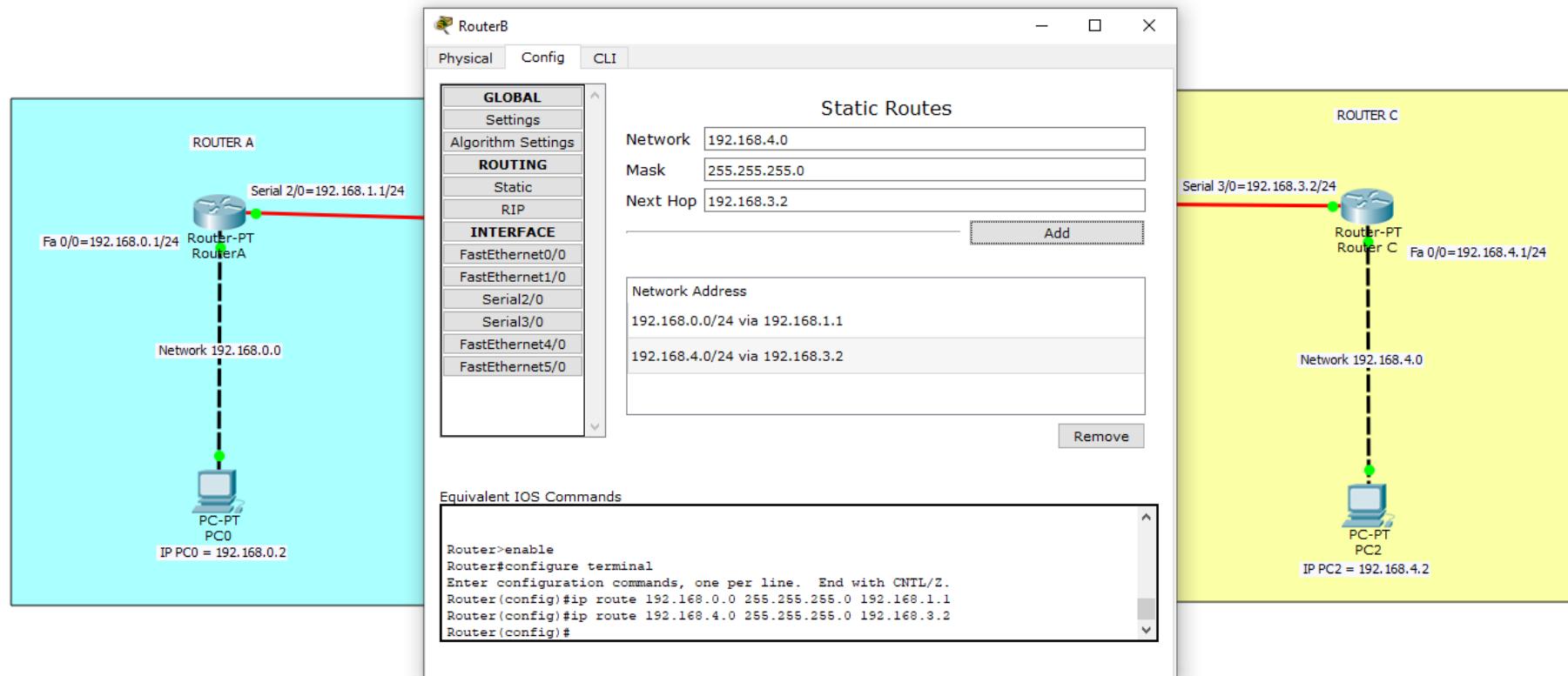


7. Untuk Setting Routing pada Router B, yang dilihat Router A dan Router C
Buka Router B, masuk ke config, pilih routing, pilih static

Semua Network 0.0 akan dilewatkan di Serial 2/0 = 192.168.1.1



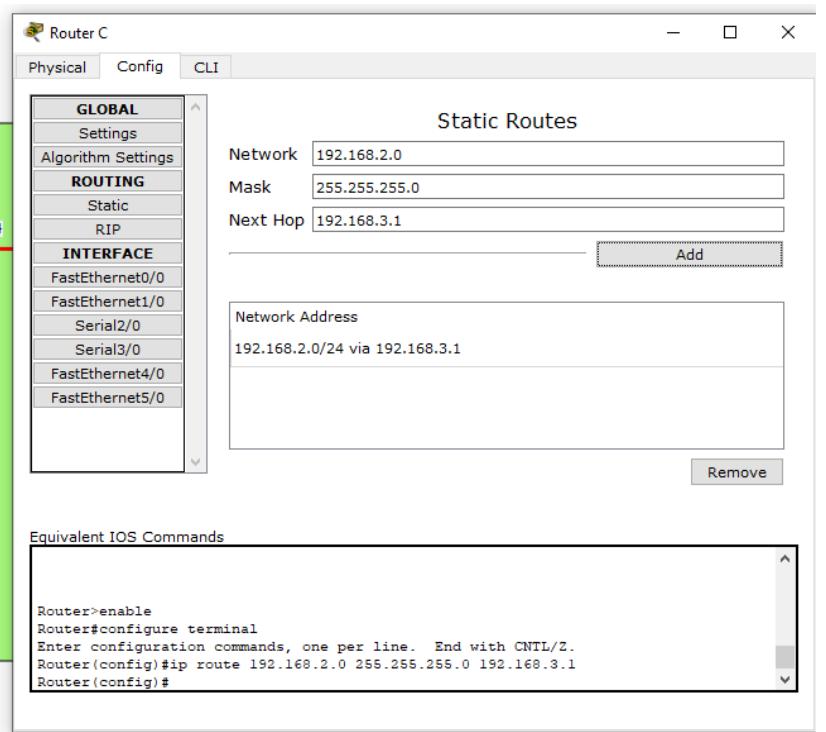
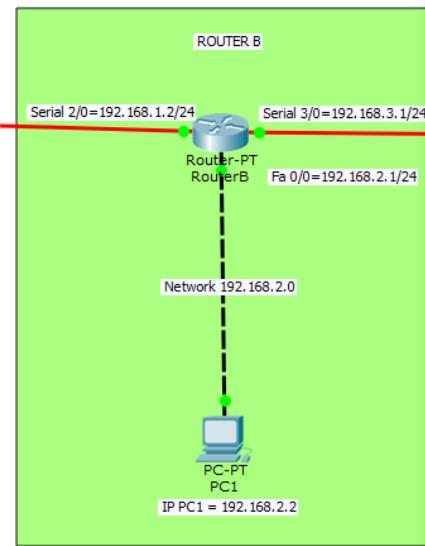
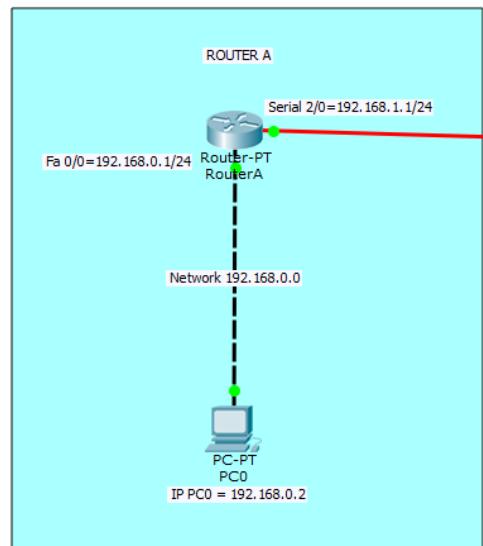
Semua Network 4.0 akan dilewatkan di Serial 3/0 = 192.168.3.2



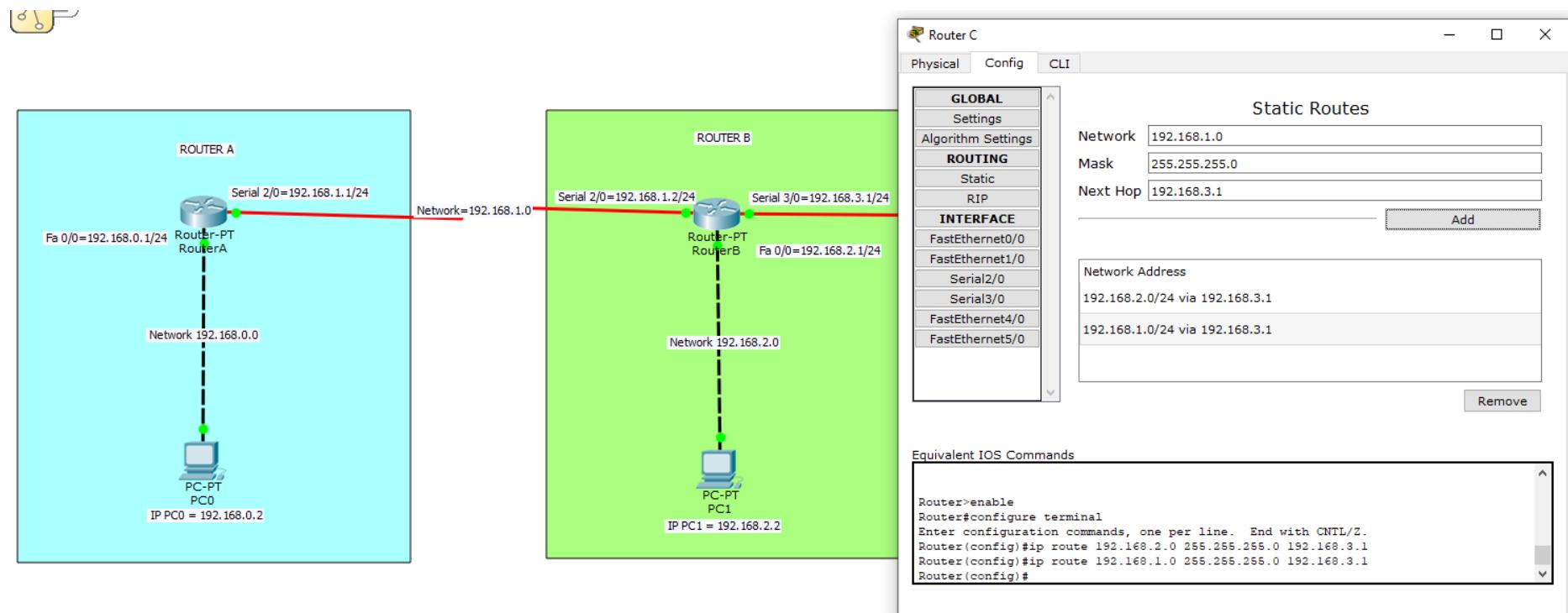
8. Untuk Setting Routing pada Router C lihat Router B dan Router A

Buka Router C, masuk ke config, pilih routing, pilih static,

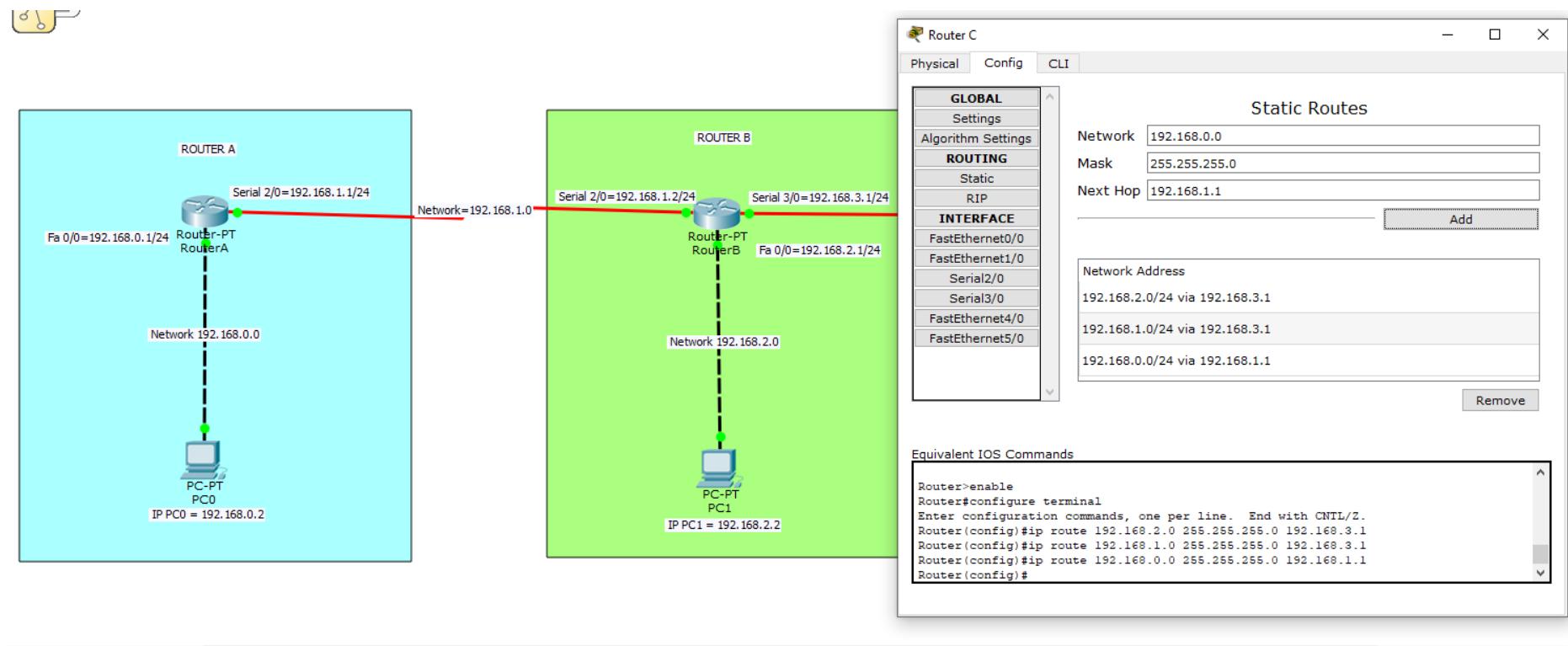
Untuk Semua Network 2.0 dilewatkan di Serial 3/0 = 192.168.3.1



Untuk Semua Network 1.0 dilewatkan di Serial 3/0 = 192.168.3.1



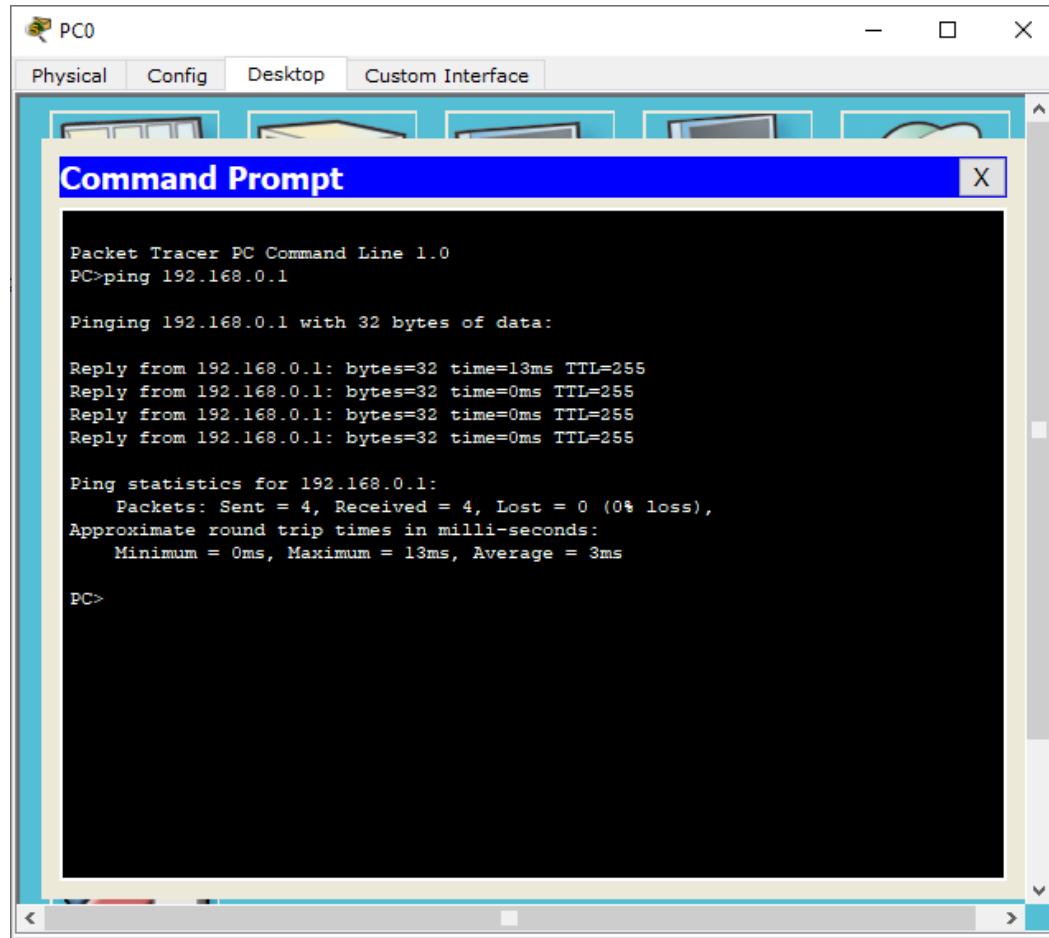
Untuk Semua Network 0.0 dilewatkan di Serial 2/0 = 192.168.1.1



- Setelah terisi semuanya coba cek dengan perintah ping, dari PC0 atau dari PC1 atau dari PC2

10. Ping di tiap titik,
misalkan dari PC0

PC0 PING ke Fa0/0 (Router A)



```
Packet Tracer PC Command Line 1.0
PC>ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

Reply from 192.168.0.1: bytes=32 time=13ms TTL=255
Reply from 192.168.0.1: bytes=32 time=0ms TTL=255
Reply from 192.168.0.1: bytes=32 time=0ms TTL=255
Reply from 192.168.0.1: bytes=32 time=0ms TTL=255

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 13ms, Average = 3ms

PC>
```

PC0 PING ke Serial 2/0 (Router A)

PC0

Physical Config Desktop Custom Interface

Command Prompt X

```
PC>ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

Reply from 192.168.0.1: bytes=32 time=13ms TTL=255
Reply from 192.168.0.1: bytes=32 time=0ms TTL=255
Reply from 192.168.0.1: bytes=32 time=0ms TTL=255
Reply from 192.168.0.1: bytes=32 time=0ms TTL=255

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 13ms, Average = 3ms

PC>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=0ms TTL=255

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>
```

PC0 PING ke Serial 2/0 (Router B)

The screenshot shows a software interface for managing network nodes. At the top, there's a toolbar with icons for Physical, Config, Desktop, and Custom Interface. Below it, a row of icons represents different node types. A main window titled "Command Prompt" contains the following terminal session:

```
PC>ping 192.168.1.1
Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time=0ms TTL=255

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>ping 192.168.1.2
Pinging 192.168.1.2 with 32 bytes of data:
Reply from 192.168.1.2: bytes=32 time=13ms TTL=254
Reply from 192.168.1.2: bytes=32 time=7ms TTL=254
Reply from 192.168.1.2: bytes=32 time=15ms TTL=254
Reply from 192.168.1.2: bytes=32 time=1ms TTL=254

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 15ms, Average = 9ms

PC>
```

PC0 PING ke Fa0/0 (Router B)

PC0

Physical Config Desktop Custom Interface

Command Prompt

```
PC>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time=13ms TTL=254
Reply from 192.168.1.2: bytes=32 time=7ms TTL=254
Reply from 192.168.1.2: bytes=32 time=15ms TTL=254
Reply from 192.168.1.2: bytes=32 time=1ms TTL=254

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 15ms, Average = 9ms

PC>ping 192.168.2.1

Pinging 192.168.2.1 with 32 bytes of data:

Reply from 192.168.2.1: bytes=32 time=14ms TTL=254
Reply from 192.168.2.1: bytes=32 time=1ms TTL=254
Reply from 192.168.2.1: bytes=32 time=1ms TTL=254
Reply from 192.168.2.1: bytes=32 time=3ms TTL=254

Ping statistics for 192.168.2.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 14ms, Average = 4ms

PC>
```

PC0 PING ke PC1 (Router B)

PC0

Physical Config Desktop Custom Interface

Command Prompt

```
PC>ping 192.168.2.2

Pinging 192.168.2.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.2.2: bytes=32 time=1ms TTL=126
Reply from 192.168.2.2: bytes=32 time=23ms TTL=126
Reply from 192.168.2.2: bytes=32 time=16ms TTL=126

Ping statistics for 192.168.2.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 23ms, Average = 13ms

PC>ping 192.168.2.2

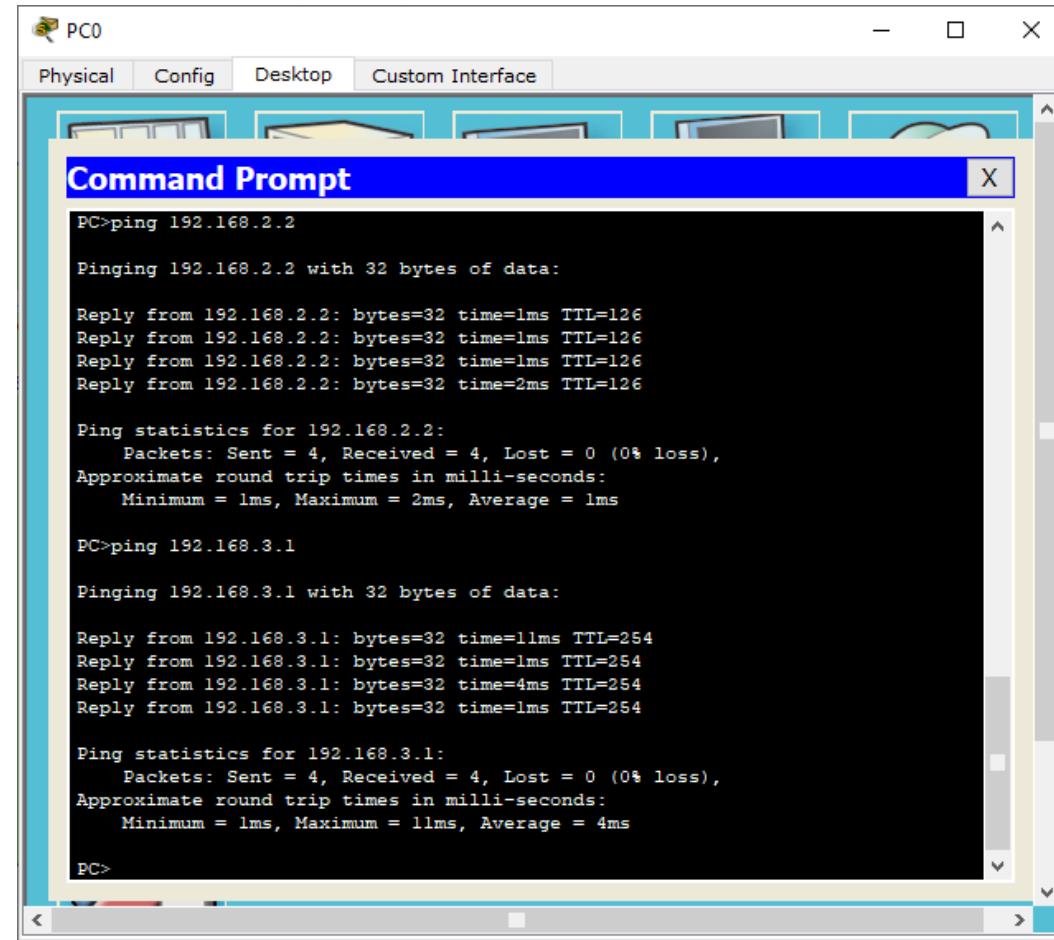
Pinging 192.168.2.2 with 32 bytes of data:

Reply from 192.168.2.2: bytes=32 time=1ms TTL=126
Reply from 192.168.2.2: bytes=32 time=1ms TTL=126
Reply from 192.168.2.2: bytes=32 time=1ms TTL=126
Reply from 192.168.2.2: bytes=32 time=2ms TTL=126

Ping statistics for 192.168.2.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 2ms, Average = 1ms

PC>
```

PC0 PING ke Serial 3/0 (Router B)



The screenshot shows a software interface titled "PC0" with a "Command Prompt" window open. The window displays the output of several "ping" commands. The first two lines show pings to 192.168.2.2, and the last two lines show pings to 192.168.3.1. Each ping command includes the IP address, byte count (32), time (lms or ms), and TTL (126 or 254). Ping statistics at the end of each block show 0% loss and average round-trip times.

```
PC>ping 192.168.2.2
Pinging 192.168.2.2 with 32 bytes of data:
Reply from 192.168.2.2: bytes=32 time=lms TTL=126
Reply from 192.168.2.2: bytes=32 time=lms TTL=126
Reply from 192.168.2.2: bytes=32 time=lms TTL=126
Reply from 192.168.2.2: bytes=32 time=2ms TTL=126

Ping statistics for 192.168.2.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = lms, Maximum = 2ms, Average = lms

PC>ping 192.168.3.1
Pinging 192.168.3.1 with 32 bytes of data:
Reply from 192.168.3.1: bytes=32 time=11ms TTL=254
Reply from 192.168.3.1: bytes=32 time=lms TTL=254
Reply from 192.168.3.1: bytes=32 time=4ms TTL=254
Reply from 192.168.3.1: bytes=32 time=lms TTL=254

Ping statistics for 192.168.3.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = lms, Maximum = 11ms, Average = 4ms

PC>
```

PC0 PING ke Serial 3/0 (Router C)

PC0

Physical Config Desktop Custom Interface

Command Prompt

```
PC>ping 192.168.3.1
Pinging 192.168.3.1 with 32 bytes of data:
Reply from 192.168.3.1: bytes=32 time=1ms TTL=254
Reply from 192.168.3.1: bytes=32 time=1ms TTL=254
Reply from 192.168.3.1: bytes=32 time=4ms TTL=254
Reply from 192.168.3.1: bytes=32 time=1ms TTL=254

Ping statistics for 192.168.3.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 11ms, Average = 4ms

PC>ping 192.168.3.2
Pinging 192.168.3.2 with 32 bytes of data:
Reply from 192.168.3.2: bytes=32 time=2ms TTL=253
Reply from 192.168.3.2: bytes=32 time=34ms TTL=253
Reply from 192.168.3.2: bytes=32 time=2ms TTL=253
Reply from 192.168.3.2: bytes=32 time=2ms TTL=253

Ping statistics for 192.168.3.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 34ms, Average = 10ms

PC>
```

PC0 PING ke Fa0/0 (Router C)

PC0

Physical Config Desktop Custom Interface

Command Prompt

```
PC>ping 192.168.3.2
Pinging 192.168.3.2 with 32 bytes of data:
Reply from 192.168.3.2: bytes=32 time=2ms TTL=253
Reply from 192.168.3.2: bytes=32 time=34ms TTL=253
Reply from 192.168.3.2: bytes=32 time=2ms TTL=253
Reply from 192.168.3.2: bytes=32 time=2ms TTL=253

Ping statistics for 192.168.3.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 34ms, Average = 10ms

PC>ping 192.168.4.1
Pinging 192.168.4.1 with 32 bytes of data:
Reply from 192.168.4.1: bytes=32 time=2ms TTL=253
Reply from 192.168.4.1: bytes=32 time=24ms TTL=253
Reply from 192.168.4.1: bytes=32 time=15ms TTL=253
Reply from 192.168.4.1: bytes=32 time=4ms TTL=253

Ping statistics for 192.168.4.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 24ms, Average = 11ms

PC>
```

PC0 PING ke PC2 (Router C)

```
PC>ping 192.168.4.2

Pinging 192.168.4.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.4.2: bytes=32 time=2ms TTL=125
Reply from 192.168.4.2: bytes=32 time=2ms TTL=125
Reply from 192.168.4.2: bytes=32 time=4ms TTL=125

Ping statistics for 192.168.4.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 4ms, Average = 2ms

PC>ping 192.168.4.2

Pinging 192.168.4.2 with 32 bytes of data:

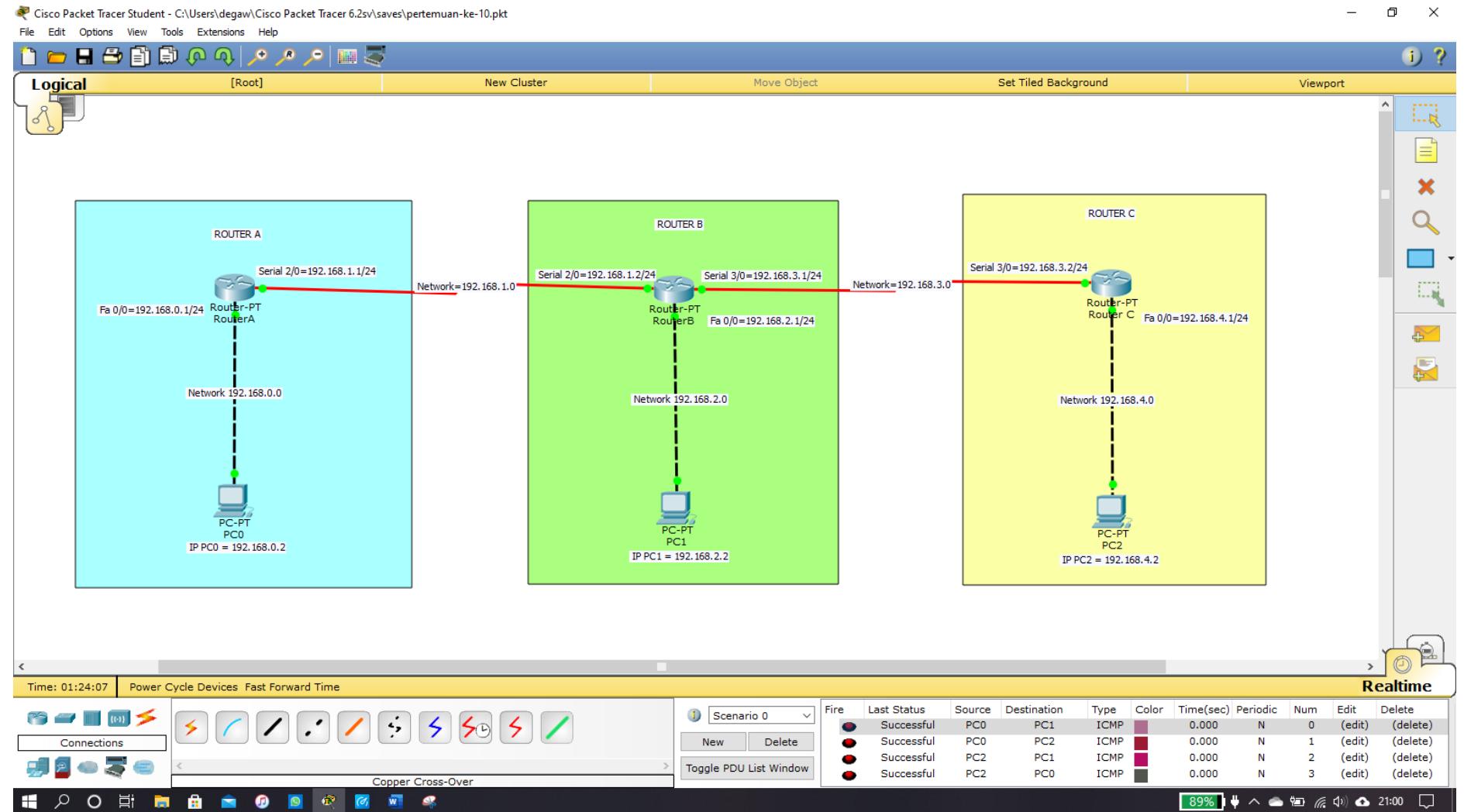
Reply from 192.168.4.2: bytes=32 time=14ms TTL=125
Reply from 192.168.4.2: bytes=32 time=4ms TTL=125
Reply from 192.168.4.2: bytes=32 time=2ms TTL=125
Reply from 192.168.4.2: bytes=32 time=4ms TTL=125

Ping statistics for 192.168.4.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 14ms, Average = 6ms

PC>
```

11. Setelah semuanya bias terPING, lakukan simulasi pengiriman packet

Dari PC0 ke PC1 dan PC2 dan dari PC2 Ke PC1 dan PC0



12. Kalau sudah melakukan PING sudah reply dan simulasi pengiriman paket hasilnya successful berarti ROUTING STATIC sudah bekerja