

**I H C QU C GIA THÀNH PH H CHÍ MINH
TR NG I H C KHOA H C T NHIÊN**

**KHOA CÔNG NGH THÔNG TIN
MÔN:TH C T P M NG MÁY TÍNH**

BÁO CÁO BÀI T P TU N 1

Static Route – Default Route

L p: 09HCA

H tên : Võ Hu nh an

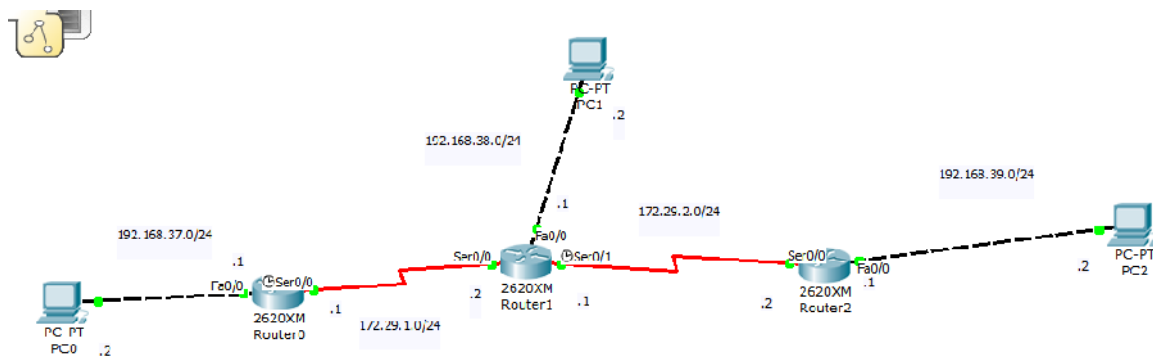
MSSV : 0941037

Yêu cầu:

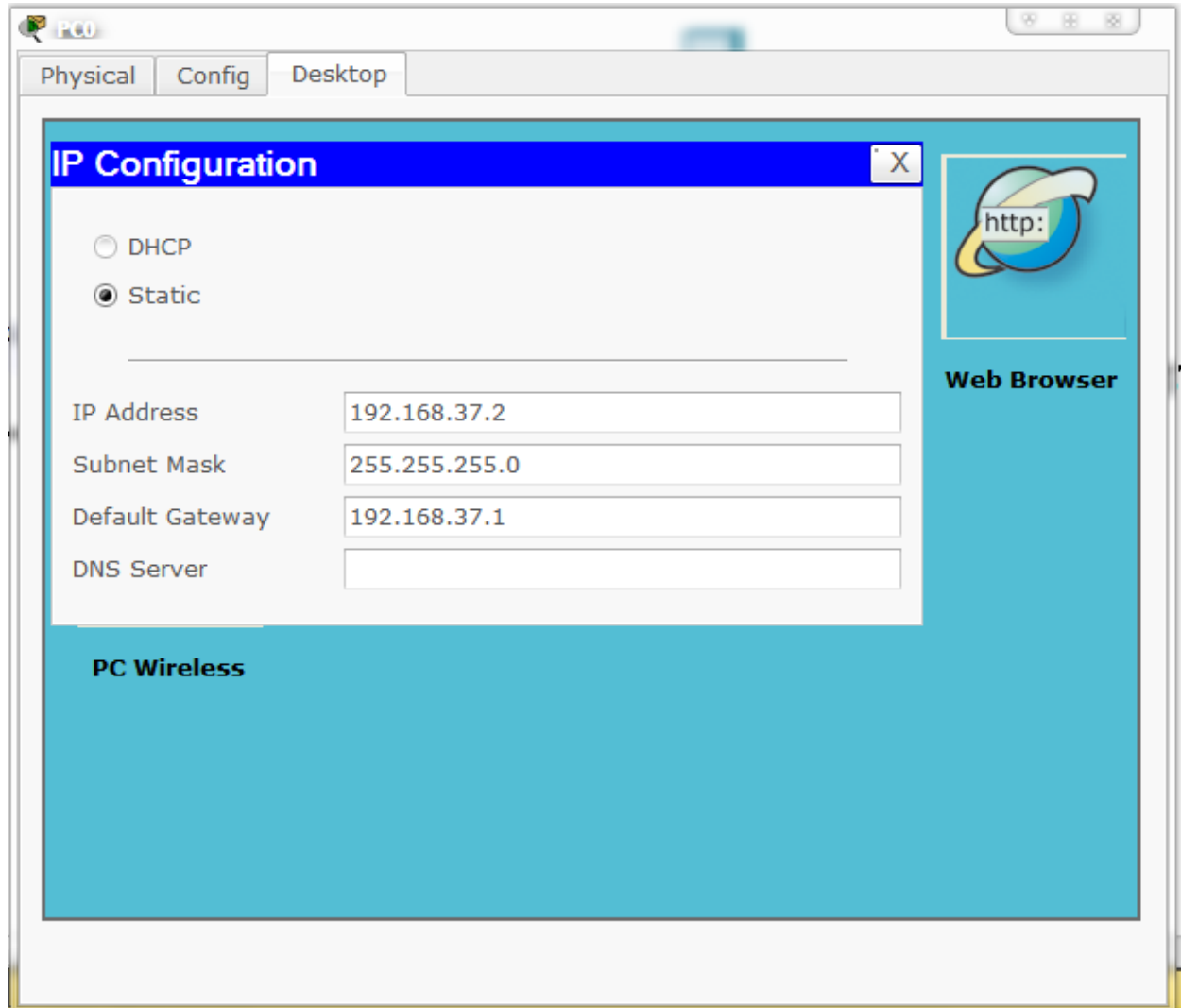
1. Cấu hình địa chỉ IP nhúng hình vẽ. X là 2 số cuối của MSSV.
2. Cấu hình static route trên các router để các PC có thể liên lạc được với nhau.
3. Cấu hình default route trên Router 1 hướng về R2.
4. Trong trường hợp Router có 2 cổng khác nhau thì命名 cách (mặt số命名 khác): mặt số nào là static route, mặt số nào là Default route, cho biết Router sẽ chọn mặt số nào đi?

Bài làm:

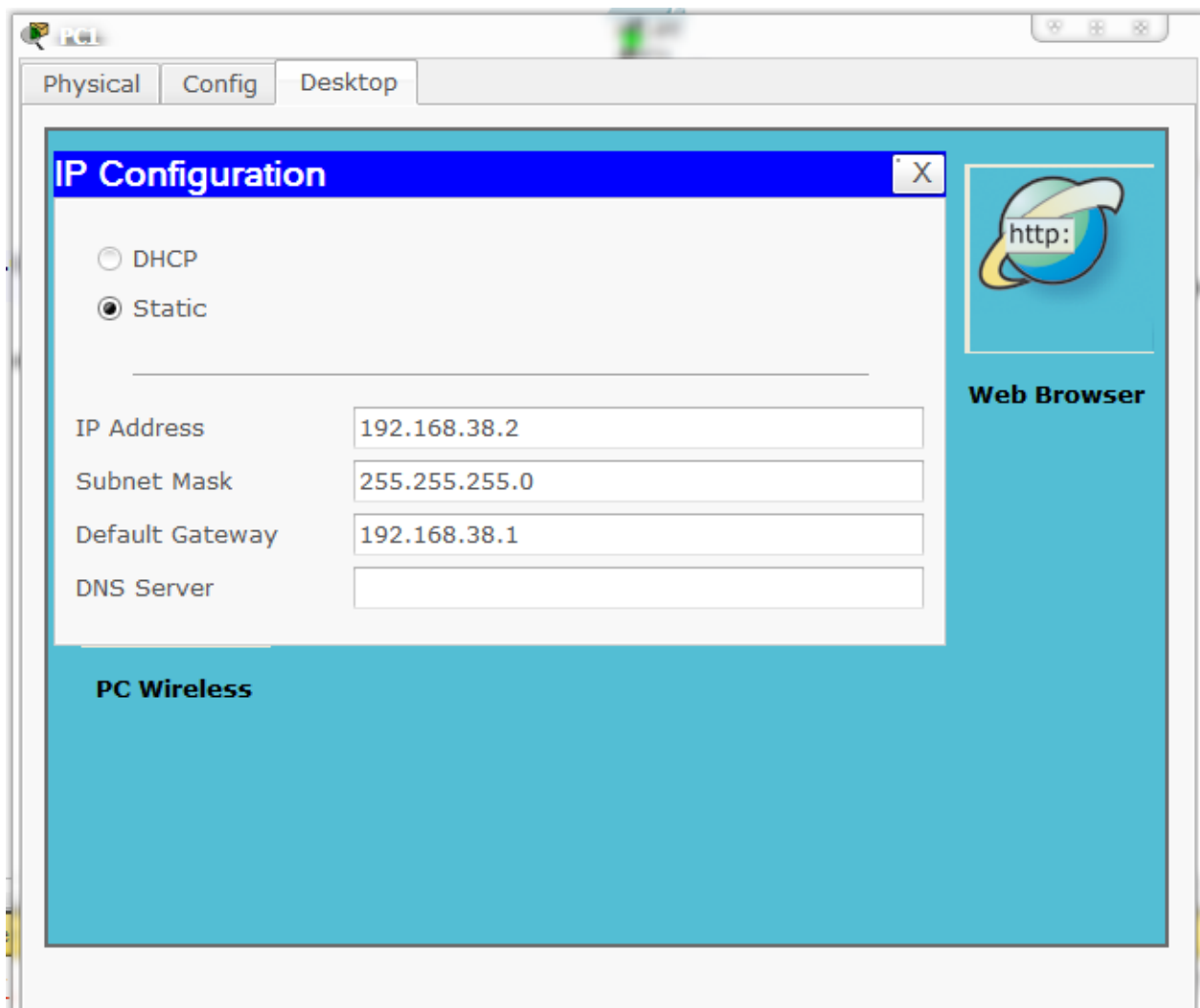
1. Cấu hình địa chỉ IP nhúng hình vẽ. X là 2 số cuối của MSSV.



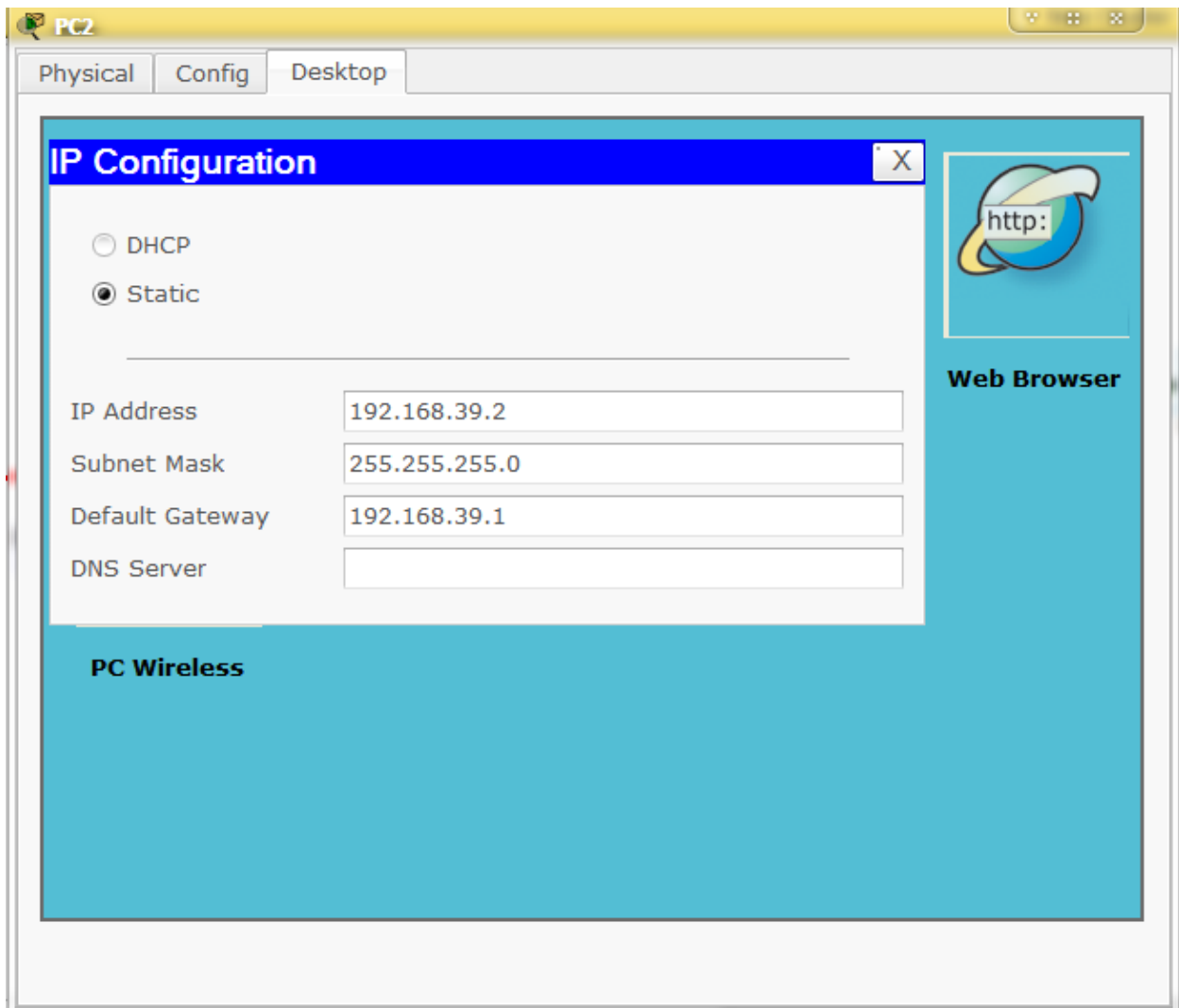
PC 0



PC 1

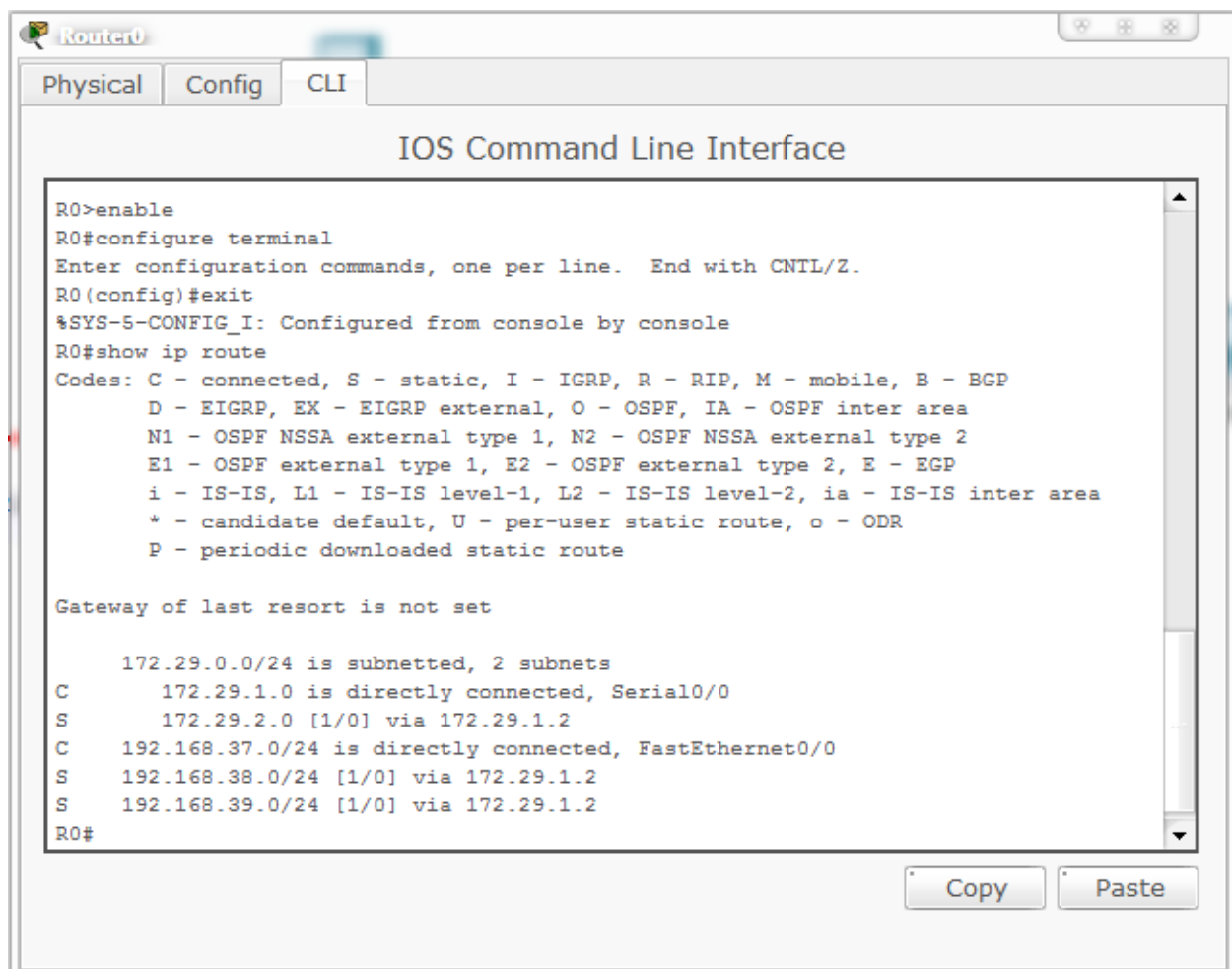


PC 2



2. Cấu hình static route trên các router các PC có thể liên lạc với nhau.

Router 0

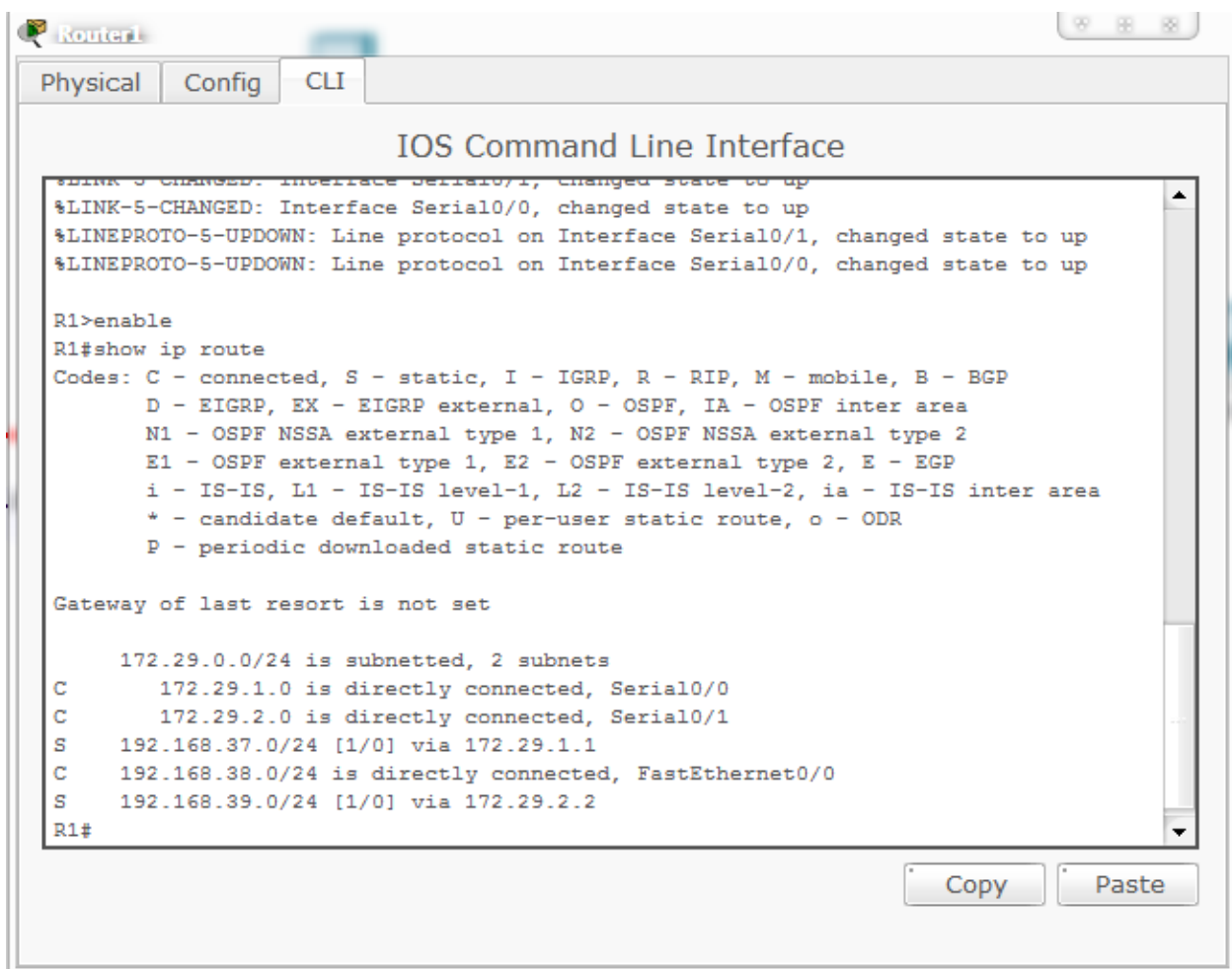


```
R0>enable
R0#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
R0(config)#exit
%SYS-5-CONFIG_I: Configured from console by console
R0#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

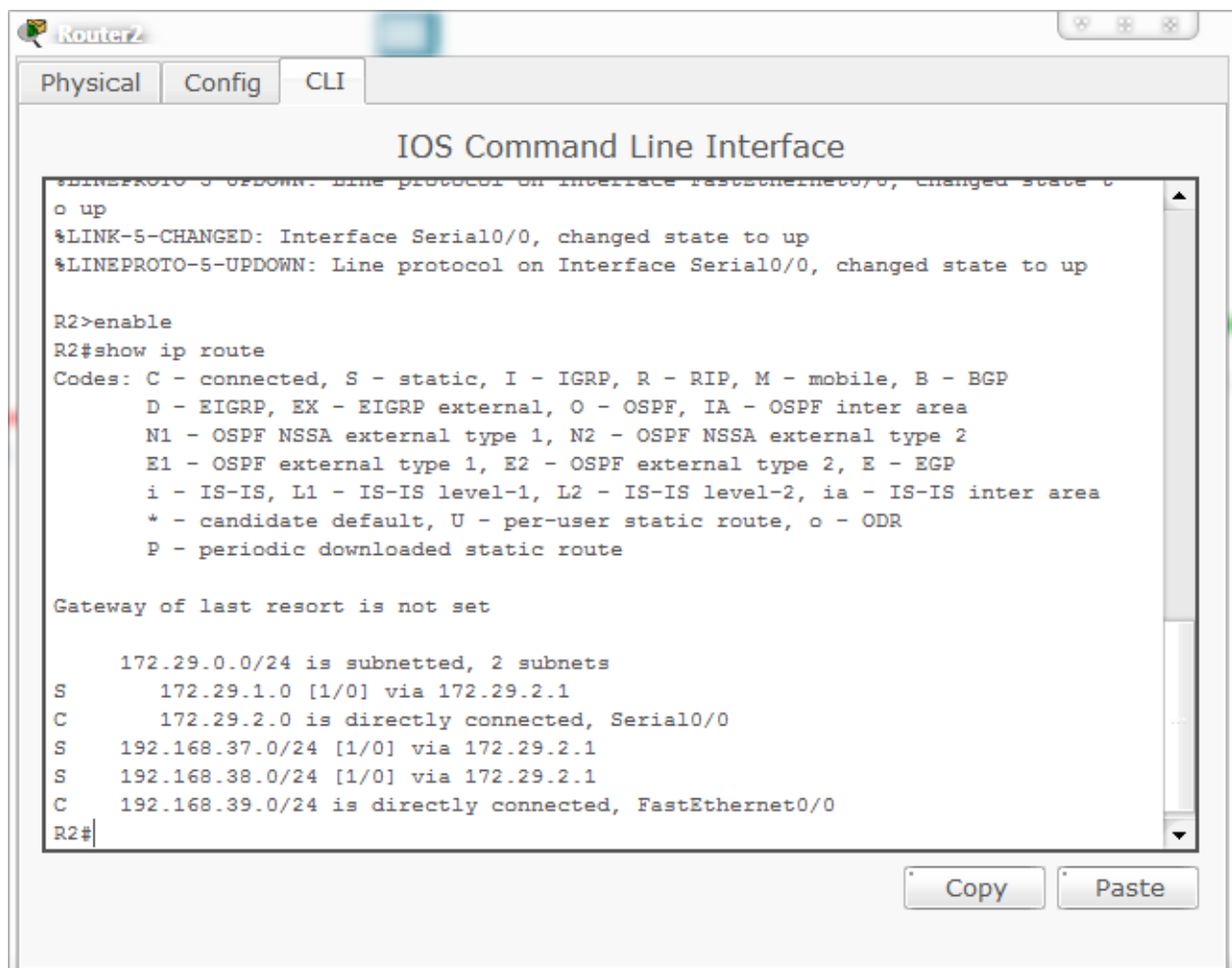
Gateway of last resort is not set

      172.29.0.0/24 is subnetted, 2 subnets
C       172.29.1.0 is directly connected, Serial0/0
S       172.29.2.0 [1/0] via 172.29.1.2
C     192.168.37.0/24 is directly connected, FastEthernet0/0
S     192.168.38.0/24 [1/0] via 172.29.1.2
S     192.168.39.0/24 [1/0] via 172.29.1.2
R0#
```

Router 1

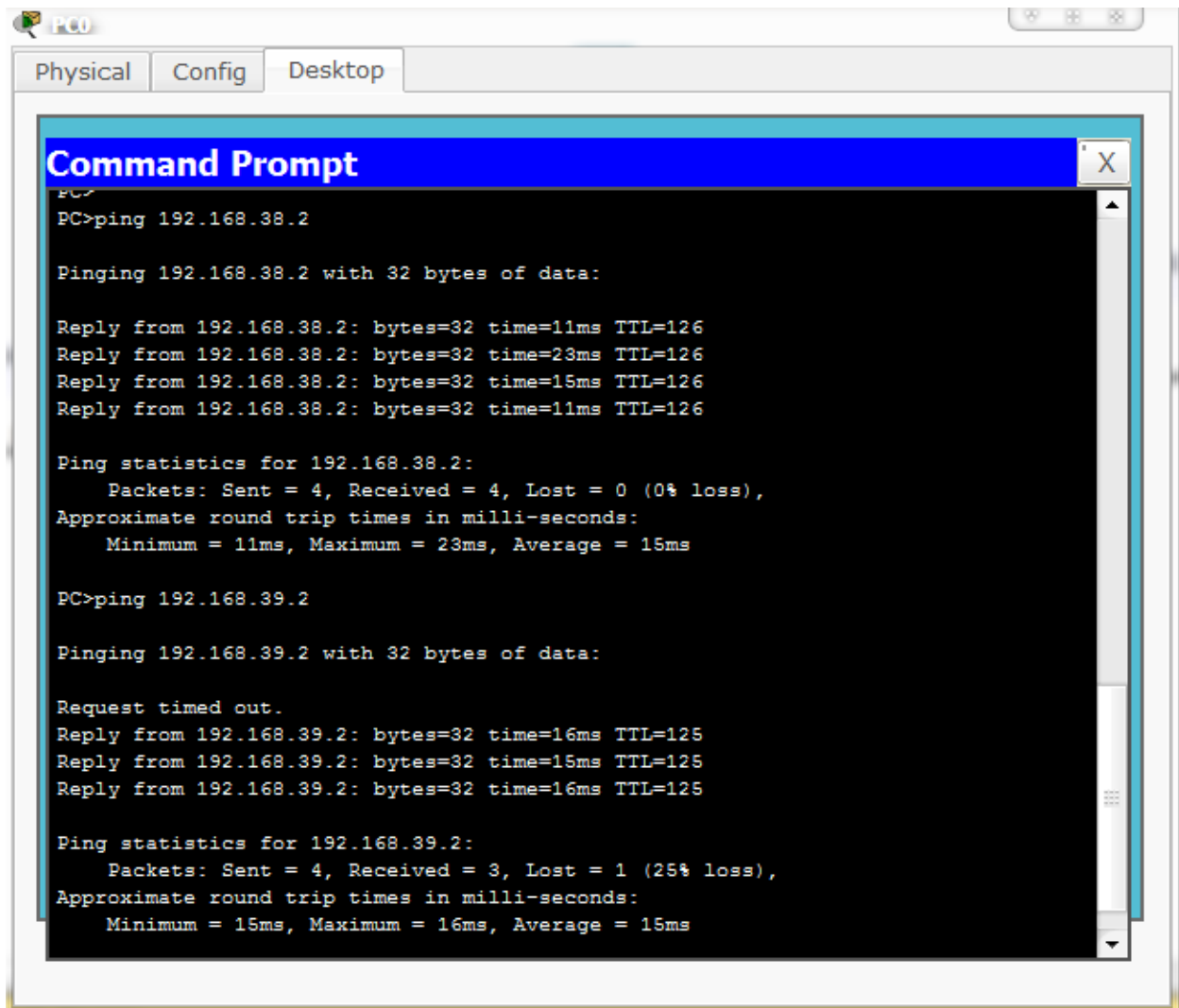


Router 2



Màn hình Ping

PC0



The screenshot shows a virtual PC0 desktop with three tabs: Physical, Config, and Desktop. The Desktop tab is active, displaying a Command Prompt window. The Command Prompt has a blue title bar and a black background. It shows the results of two ping commands. The first command is 'ping 192.168.38.2', which shows four successful replies with varying times (11ms, 23ms, 15ms, 11ms) and a 0% loss. The second command is 'ping 192.168.39.2', which shows three successful replies (16ms, 15ms, 16ms) and one 'Request timed out', resulting in a 25% loss.

```
PC0
Physical Config Desktop

Command Prompt
PC>ping 192.168.38.2

Pinging 192.168.38.2 with 32 bytes of data:

Reply from 192.168.38.2: bytes=32 time=11ms TTL=126
Reply from 192.168.38.2: bytes=32 time=23ms TTL=126
Reply from 192.168.38.2: bytes=32 time=15ms TTL=126
Reply from 192.168.38.2: bytes=32 time=11ms TTL=126

Ping statistics for 192.168.38.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 11ms, Maximum = 23ms, Average = 15ms

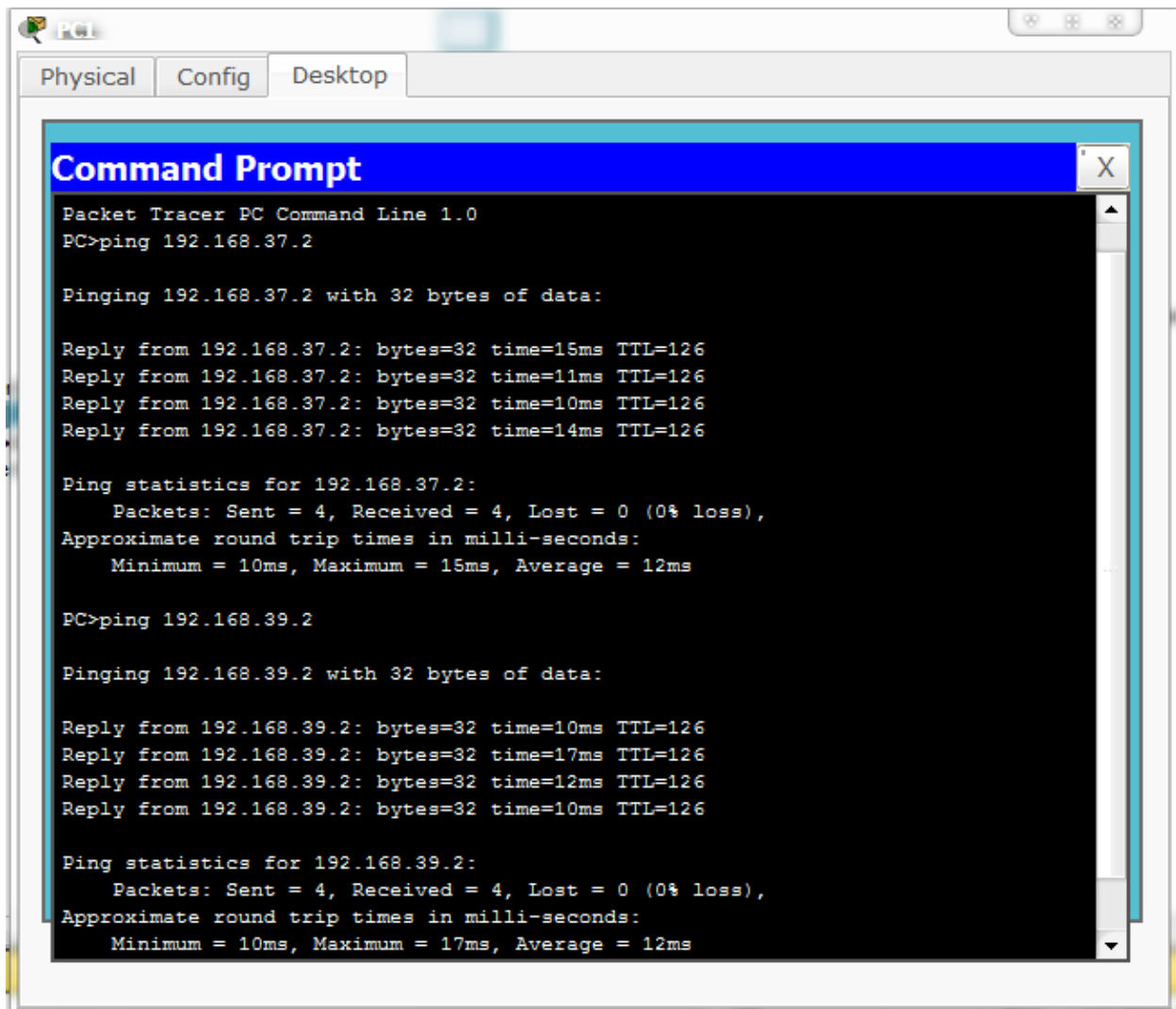
PC>ping 192.168.39.2

Pinging 192.168.39.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.39.2: bytes=32 time=16ms TTL=125
Reply from 192.168.39.2: bytes=32 time=15ms TTL=125
Reply from 192.168.39.2: bytes=32 time=16ms TTL=125

Ping statistics for 192.168.39.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 15ms, Maximum = 16ms, Average = 15ms
```

PC1



The screenshot shows a Packet Tracer PC Command Prompt window. The window has three tabs: 'Physical', 'Config', and 'Desktop'. The 'Desktop' tab is active, displaying a black command prompt with a blue title bar labeled 'Command Prompt'. The text in the command prompt shows two ping operations. The first ping is to 192.168.37.2, which results in four successful replies with varying round trip times (15ms, 11ms, 10ms, 14ms) and a TTL of 126. The statistics for this ping show 4 packets sent, 4 received, 0 lost (0% loss), and an average round trip time of 12ms. The second ping is to 192.168.39.2, which also results in four successful replies with round trip times of 10ms, 17ms, 12ms, and 10ms, and a TTL of 126. The statistics for this ping show 4 packets sent, 4 received, 0 lost (0% loss), and an average round trip time of 12ms.

```
Packet Tracer PC Command Line 1.0
PC>ping 192.168.37.2

Pinging 192.168.37.2 with 32 bytes of data:

Reply from 192.168.37.2: bytes=32 time=15ms TTL=126
Reply from 192.168.37.2: bytes=32 time=11ms TTL=126
Reply from 192.168.37.2: bytes=32 time=10ms TTL=126
Reply from 192.168.37.2: bytes=32 time=14ms TTL=126

Ping statistics for 192.168.37.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 10ms, Maximum = 15ms, Average = 12ms

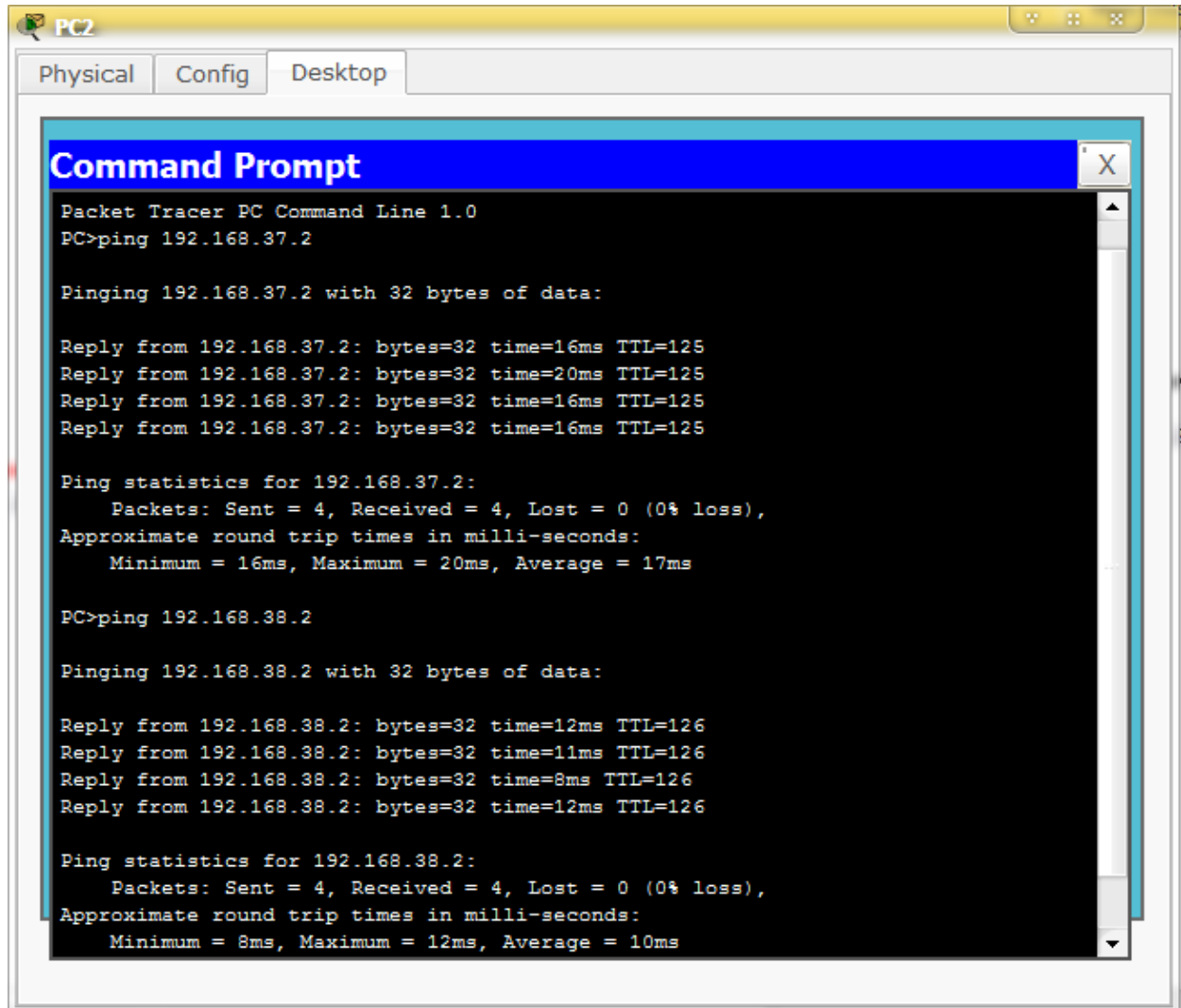
PC>ping 192.168.39.2

Pinging 192.168.39.2 with 32 bytes of data:

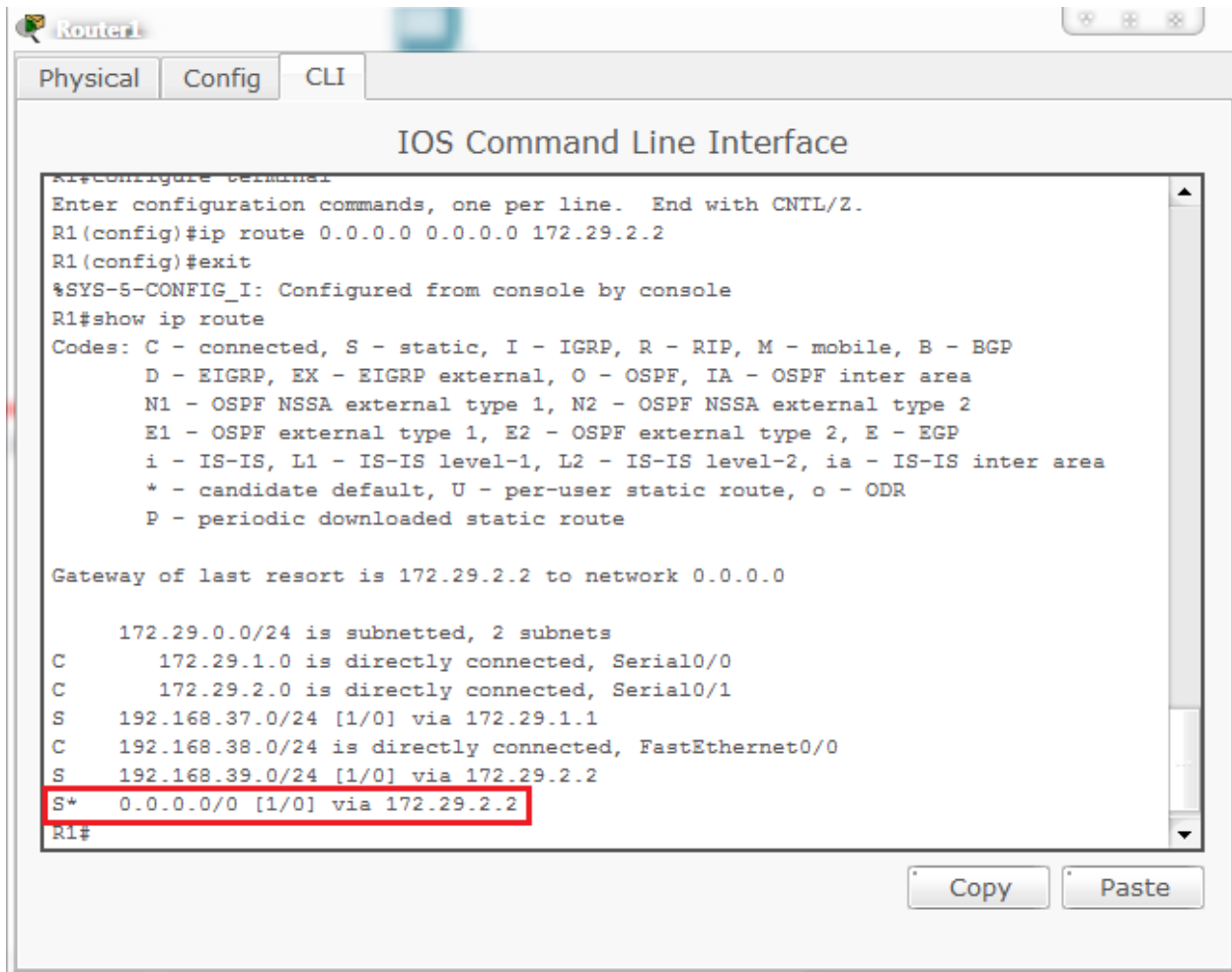
Reply from 192.168.39.2: bytes=32 time=10ms TTL=126
Reply from 192.168.39.2: bytes=32 time=17ms TTL=126
Reply from 192.168.39.2: bytes=32 time=12ms TTL=126
Reply from 192.168.39.2: bytes=32 time=10ms TTL=126

Ping statistics for 192.168.39.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 10ms, Maximum = 17ms, Average = 12ms
```

PC2



3. Cấu hình default route trên Router 1 và Router R2



4. Trong trường hợp Router có 2 đường khác nhau đến mạng đích (mạng đích khác): một đường là static route, một đường là Default route, cho biết Router sẽ chọn đường nào đi?

Router sẽ chọn đường Static Route đi. Vì đây là đường mà đã thiết lập sẵn nên rất an toàn. Trong trường hợp Router không tìm thấy Static Route thì mới chọn đường đi mặc định là Default Route đi (đường đi này dự định hình như sẽ gặp nhiều rủi ro).

(Router sẽ chọn đường nào có Subnet Mask dài nhất --> chọn đường static route.)