Packet Tracer -   Ping   Traceroute

		IP /		
R1	G0/0	2001:db8:1:1::1/64		—
	G0/1	10.10.1.97	255.255.255.224	—
	S0/0/1	10.10.1.6	255.255.255.252	—
		2001:db8:1:2::2/64		
		fe80::1		
R2	S0/0/0	10.10.1.5	255.255.255.252	—
		2001:db8:1:2::1/64		
	S0/0/1	10.10.1.9	255.255.255.252	—
		2001:db8:1:3::1/64		
		fe80::2		
R3	G0/0	2001:db8:1:4::1/64		—
	G0/1	10.10.1.17	255.255.255.240	—
	S0/0/1	10.10.1.10	255.255.255.252	—
		2001:db8:1:3::2/64		
		fe80::3		
PC1	NIC	10.10.1.98	255.255.255.224	10.10.1.97
PC2	NIC	2001:DB8:1:1::2		FE80::1
PC3	NIC	10.10.1.18	255.255.255.240	10.10.1.17
PC4	NIC	2001:DB8:1:4::2		FE80::3

1. **IPv4-**
2. **IPv6-**

.

,
.

. — **cisco.**
EXEC — **class.**

1: **IPv4**

1. **ipconfig   ping** .
a. **PC1** **Command Prompt (** **).**

.   **ipconfig /all**   IPv4-   .
                    ,   IPv4-   ,   .

.   **PC3**   **Command Prompt (   ).**

.   **ipconfig /all**   IPv4-   .
                    ,   IPv4-   ,   .

.   **ping**   **PC1   PC3.**   ping
                                              .

```
Pinging 10.10.1.98 with 32 bytes of data:

Reply from 10.10.1.17: Destination host unreachable.
Reply from 10.10.1.17: Destination host unreachable.
Reply from 10.10.1.17: Destination host unreachable.
Reply from 10.10.1.17: Destination host unreachable.

Ping statistics for 10.10.1.98:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

        2.   .

a.   **PC1**   **PC3.**

                              IPv4-   ?

```
Tracing route to 10.10.1.18 over a maximum of 30 hops:

  1    0 ms        0 ms        0 ms        10.10.1.97
  2    0 ms        *           0 ms        10.10.1.97
  3    *           0 ms        *           Request timed out.
  4    0 ms
```

.   30   .
                                ,   **Ctrl+C.**

.   **PC3**   **PC1.**

                              IPv4-   ?

```
C:\>tracert 10.10.1.98

Tracing route to 10.10.1.98 over a maximum of 30 hops:

  1    0 ms        0 ms        0 ms        10.10.1.17
  2    0 ms
```

.   ,   **Ctrl+C.**

.   **R1**.   **ENTER**   .

.   **show ip interface brief,**
                    .   IPv4-   .
              2a.

                              ?

```
Serial0/0/1                10.10.1.6
```

.   **show ip route,**   ,
                    .   ,   **Serial0/0/1**   .

                              ?

```
C       10.10.1.4/30 is directly connected, Serial0/0/1
L       10.10.1.6/32 is directly connected, Serial0/0/1
```

, –
.

. 2 2 R3 .

```
GigabitEthernet0/0          [up/up]
    FE80::3
    2001:DB8:1:4::1
GigabitEthernet0/1          [up/up]
    unassigned
Serial0/0/0                 [administratively down/down]
    unassigned
Serial0/0/1                 [up/up]
    FE80::3
    2001:DB8:1:3::2
Vlan1                       [administratively down/down]
    unassigned
R3#show ip interface brief
Interface            IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0   unassigned      YES unset  up                    up
GigabitEthernet0/1   10.10.1.17      YES manual up                    up
Serial0/0/0          unassigned      YES unset  administratively down down
Serial0/0/1          10.10.1.10      YES manual up                    up
Vlan1                unassigned      YES unset  administratively down down
R3#show ip route
Codes: L - local, C - connected, S - static, 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

     10.0.0.0/8 is variably subnetted, 4 subnets, 3 masks
C        10.10.1.8/30 is directly connected, Serial0/0/1
L        10.10.1.10/32 is directly connected, Serial0/0/1
C        10.10.1.16/28 is directly connected, GigabitEthernet0/1
L        10.10.1.17/32 is directly connected, GigabitEthernet0/1

R3#
```

. R2. ENTER .
. show ip interface brief .
. , .
.

3. .

2 .

?

IP R2 S0/0/0

?

IP 10.10.1.2 10.10.1.5

.

4. .

, 3 .

5. , .
a. PC1 1 PC1.

?

6. _____ .

2. _____ IPv6

1. _____ **ipv6config** __ **ping** _____ .

a. _____ **PC2** _____ **Command Prompt (** _____ **).**

_. _____ **ipv6config /all** _____ IPv6- ____ .
_____ , ____ IPv6- ____ , _____ .

_. _____ **PC4** _____ **Command Prompt (** _____ **).**

_. _____ **ipv6config /all** _____ IPv6- ____ .
_____ , ____ IPv6- ____ , _____ .

_. _____ **PC2** __ **PC4**. _____ ping
_____ .

```
C:\>ping 2001:db8:1:4::2

Pinging 2001:db8:1:4::2 with 32 bytes of data:

Request timed out.
Request timed out.

Ping statistics for 2001:DB8:1:4::2:
    Packets: Sent = 2, Received = 0, Lost = 2 (100% loss),
```

2. _____ .

a. __ **PC2** _____ **PC4.**

_____ IPv6- _____ ?

```
1    0 ms       0 ms       0 ms       2001:DB8:1:1::1
2    1 ms       1 ms       0 ms       2001:DB8:1:2::1
3    2 ms       1 ms       1 ms       2001:DB8:1:3::2
```

_. _____ 30 _____ .
_____ , ____ **Ctrl+C** .

_. __ **PC4** _____ **PC2.**

_____ IPv6- _____ ?

```
1    *
```

_. _____ , _____ **Ctrl+C.**

_. _____ **R3**. _____ **ENTER** _____ .

_. _____ **show ipv6 interface brief,** _____
_____ . _____ IPv6- ____ .
_____ , _____ 1 .

_____ ?

_. _____ , _____ .
_____ .

3.   **.**

                    2   **.**

                    ?

    PC4   ipv6 gateway

                  ?

      FE:80::2   FE:80::3

4.   **.**

          ,   3 .

5.   ,   **.**

a. **PC2**   **PC4.**

 . **PC4**   **PC2.**

               ?

6.   **.**