IPv4 Address....................: 10.10.1.100

Subnet Mask.....................: 255.255.255.224

Default Gateway.................: FE80::1

IPv4 Address....................: 10.10.1.20

Subnet Mask.....................: 255.255.255.240

Default Gateway.................: FE80::3

Link-local IPv6 Address.........: FE80::260:47FF:FECA:4DEE

IPv6 Address....................: 2001:DB8:1:1::A/64

Default Gateway.................: FE80::1

Link-local IPv6 Address.........: FE80::260:70FF:FE34:6930

IPv6 Address....................: 2001:DB8:1:4::A/64

Default Gateway.................: FE80::3

**Step 1: Use ping to verify IPv4 connectivity.**

a.     From **PC1**, ping the IPv4 address for **PC2**.

Question:

Was the result successful?

Yes

b.     From **PC2**, ping the IPv4 address for **PC1**.

Question:

Was the result successful?

Yes

### Step 2: Use ping to verify IPv6 connectivity.

a.     From **PC1**, ping the IPv6 address for **PC2**.

#### Question:

Was the result successful?

Yes

From **PC2**, ping the IPv6 address of **PC1**.

#### Question:

Was the result successful?

Yes

### Step 1: Use tracert to discover the IPv4 path.

a.     From **PC1**, trace the route to **PC2**.

PC> **tracert 10.10.1.20**

#### Questions:

What addresses were encountered along the path?

10.10.1.97

10.10.1.5

10.10.1.10

10.10.1.20

With which interfaces are the four addresses associated?

G0/0 of R1  
 S0/0/0 on R2  
 S0/0/01 on R3  
 NIC of PC2

b.     From **PC2**, trace the route to **PC1**.

#### Questions:

What addresses were encountered along the path?

10.10.1.17  
 10.10.1.9  
 10.10.1.6  
 10.10.1.100

With which interfaces are the four addresses associated?

G0/0 of R3  
 S0/0/1 of R2  
 S0/0/1 of R1  
 NIC of PC1

### Step 2: Use tracert to discover the IPv6 path.

a.     From **PC1**, trace the route to the IPv6 address for **PC2**.

PC> **tracert 2001:db8:1:4::a**

#### Questions:

What addresses were encountered along the path?

2001:db8:1:1::1  
 2001:db8:1:2::1  
 2001:db8:1:3::2  
 2001:db8:1:4::a

With which interfaces are the four addresses associated?

G0/0 of R1  
 S0/0/0 of R2  
 S0/0/1 of R3  
 NIC of PC2

b.     From **PC2**, trace the route to the IPv6 address for **PC1**.

#### Questions:

What addresses were encountered along the path?

2001:db8:1:4::1  
 2001:db8:1:3::1  
 2001:db8:1:2::2  
 2001:db8:1:1::a

With which interfaces are the four addresses associated?

G0/0 of R3  
 S0/0/1 of R2  
 S0/0/1 of R1  
 NIC of PC1