✓ **Congratulations! You passed!**
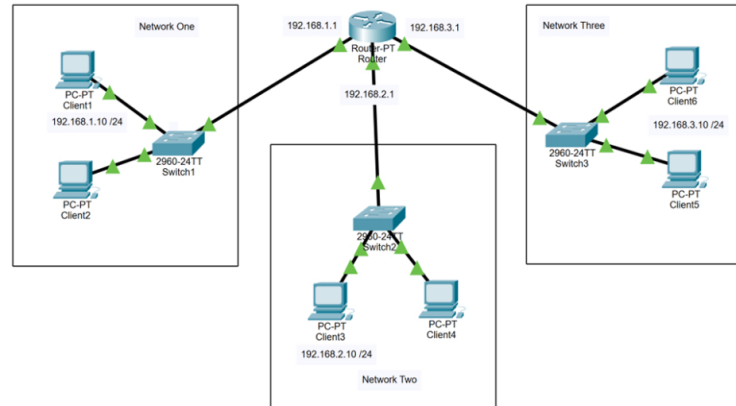
| Grade received 75% | Latest Submission Grade 75% | To pass 75% or higher | **Go to next item** |

---

1. What IP address should you set as the default gateway for client6?

`1 / 1 point`


```
192.168.3.1
```

✓ **Correct**
Correct! The default gateway should be the address of the router that is local to the host. Since client6 has an IP address of 192.168.3.10 /24, the subnet mask is 255.255.255.0 and the network ID is 192.168.3.0. The only address on the router that has the network address of 192.168.3.0 with a /24 CIDR is 192.168.3.1.

---

2. What is the subnet mask if the CIDR is /22?

`1 / 1 point`

```
255.255.252.0
```

✓ **Correct**
Correct! /22 is greater than 8 so the first octet will be 255. The subnet mask so far is 255. The new CIDR is /14. /14 is greater than 8 so the second octet will be 255. The subnet mask so far is 255.255. The new CIDR is /6. /6 is less than 8. 11111100 = 252 in decimal. The third octet will be 252. The subnet mask so far is 255.255.252. Any remaining octets will be 0. The entire subnet mask is 255.255.252.0.

---

3. What is the very first private Class B address that can be assigned to clients that is NOT APIPA or Carrier-grade NAT?

`0 / 1 point`

```
172.16.0.0
```

✗ **Incorrect**
You should consider reviewing IPv4 Classes and Private IP Addresses.

---

4. Local or Remote?

`1 / 1 point`

Sender: 172.30.87.140 /16

Receiver: 172.31.87.177

(Please type your answer in lower case. Example: network)

```
remote
```

✓ **Correct**
Correct! 172.30.87.140 /16 has a subnet mask of 255.255.0.0. The network ID is 172.30.0.0. We use the same subnet mask to evaluate the receiver. The network ID is 172.31.0.0. Since the network addresses are not identical, the devices are remote.