1 A technician has been told by a supervisor to always clear any dynamic translations before attempting to troubleshoot a failed NAT connection. Why has the supervisor issued these instructions?

- The supervisor wants to clear any confidential information that may be seen by the technician.
- Because entries can be cached for long periods of time, the supervisor wants to prevent decisions be made based on old data.
- The translation table may be full and is unable to make new translations until space is available.
- **Clearing the translations causes the starting configuration to be reread and may correct transl problems that have occurred.**

2

```
interface Ethernet0
 ip address 10.10.10.1 255.255.255.0
 ip nat inside
 no cdp enable
 hold-queue 32 in
 hold-queue 100 out
!
interface Ethernet1
 ip address dhcp
 ip nat outside
 no cdp enable
!
ip classless
ip http server
!
ip nat inside source list 102 interface Ethernet1 overload
access-list 102 permit ip  10.10.10.0  0.0.0.255  any
no cdp run
!
```

Refer to the exhibit. What is the purpose of the command marked with an arrow shown in the partial configuration output of a Cisco 806 broadband router?

- defines which addresses are allowed out of the router
- defines which addresses are allowed into the router
- **defines which addresses can be translated**
- defines which addresses are assigned to a NAT pool

---

3 After activating IPv6 routing on a Cisco router and programming IPv6 addresses on multiple interfaces, the remaining step to activate RIPng?

- **Enter the ipv6 router rip name command and then use network statements to activate RIPng o interfaces.**
- Enter the **ipv6 router rip name** command and then specify which interfaces run RIPng, which are p and which only receive.
- Enter the interface programming mode for each IPv6 interface and enable IPv6 RIP.
- Enter the interface programming mode for each IPv6 interface and enable the multicast group FF02:

then activate RIPng globally using the **ipv6 router rip name** command.

- Enter the **router rip** command, and then activate RIPng using the **version** command. RIPng then automatically runs on all IPv6 interfaces.

4

```
R1(config)# ip nat pool nat-pool1 209.165.200.225 209.165.200.240
                    netmask 255.255.255.0
R1(config)# ip nat inside source list 1 pool nat-pool1
R1(config)# interface serial 0/0/0
R1(config-if)# ip address 10.1.1.2 255.255.0.0
R1(config-if)# ip nat inside
R1(config)# Interface serial s0/0/2
R1(config-if)# ip address 209.165.200.1 255.255.255.0
R1(config-if)# ip nat outside
R1(config)# access-list 2 permit 192.168.0.0 0.0.0.255
```

Refer to the exhibit. Traffic exiting R1 is failing translation. What part of the configuration is most likely incorrect?

- **ip nat pool** statement
- **access-list statement**
- **ip nat inside** is on the wrong interface
- interface s0/0/2 should be a private IP address

5

```
Router1 (config)# interface serial 0/0/0
Router1 (config-if)# ip address 10.1.2.1 255.255.255.0
Router1 (config-if)# nat inside
Router1 (config)# interface serial 0/0/1
Router1 (config-if)# ip address 10.1.1.1 255.255.255.0
Router1 (config-if)# nat inside
Router1 (config)# interface serial 0/0/2
Router1 (config-if)# ip address 209.165.200.1 255.255.255.0
Router1 (config-if)# ip nat outside
Router1 (config)# ip nat inside source list 1 interface serial 0/0/2 overload
Router1 (config)# access-list 1 permit 10.1.2.1 0.0.0.255
Router1 (config)# access-list 1 permit 10.1.1.1 0.0.0.255
```

Refer to the exhibit. Which two statements about the configuration are true? (Choose two.)

- [ ] **Traffic from the 10.1.1.0 network will be translated.**
- [ ] Traffic from the 209.165.200.0 network will be translated.x
- [ ] **Permitted traffic gets translated to a single inside global IP address.**
- [ ] A pool of inside global IP addresses from the 10.1.1.0 network will be used for translation.

- External users from the 209.165.200.0 network can reach private addresses on the 10.1.1.0 and 10.1 networks.

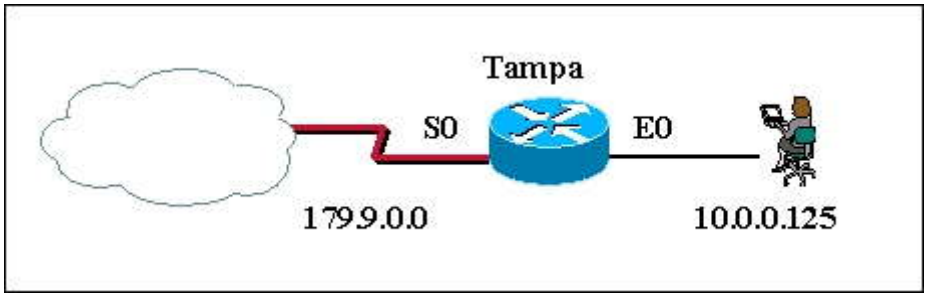
6

```
Router(config)# ip dhcp excluded-addresses 10.0.1.2 10.0.1.16
Router(config)# ip dhcp excluded-addresses 10.0.1.254
Router(config)# ip dhcp pool TEST
Router(dhcp-config)# network 10.0.1.2 255.255.255.0
Router(dhcp-config)# default-router 10.0.1.254
Router(dhcp-config)# dns-server 10.0.1.3
Router(dhcp-config)# domain-name netacad.net
```

Refer to the exhibit. On the basis of the configuration shown, how should the pool of the excluded addre assigned to key hosts on the network, such as router interfaces, printers, and servers?

- **The addresses are statically assigned by the network administrator.**
- The DHCP server dynamically assigns the addresses.
- The addresses must be listed under the DHCP pool of addresses before they are available for static assignment.
- The addresses must be listed under the DHCP pool of addresses before they are available for dynam assignment.

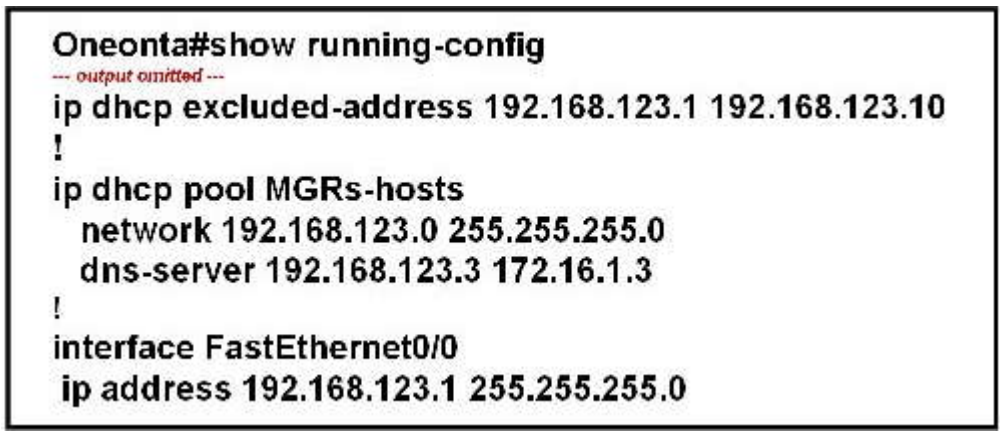
7



Refer to the exhibit. Which two addresses could be assigned to traffic leaving S0 as a result of the statem **nat pool Tampa 179.9.8.96 179.9.8.111 netmask 255.255.255.240**? (Choose two.)

- 10.0.0.125
- 179.9.8.95
- **179.9.8.98**
- **179.9.8.101**
- 179.9.8.112

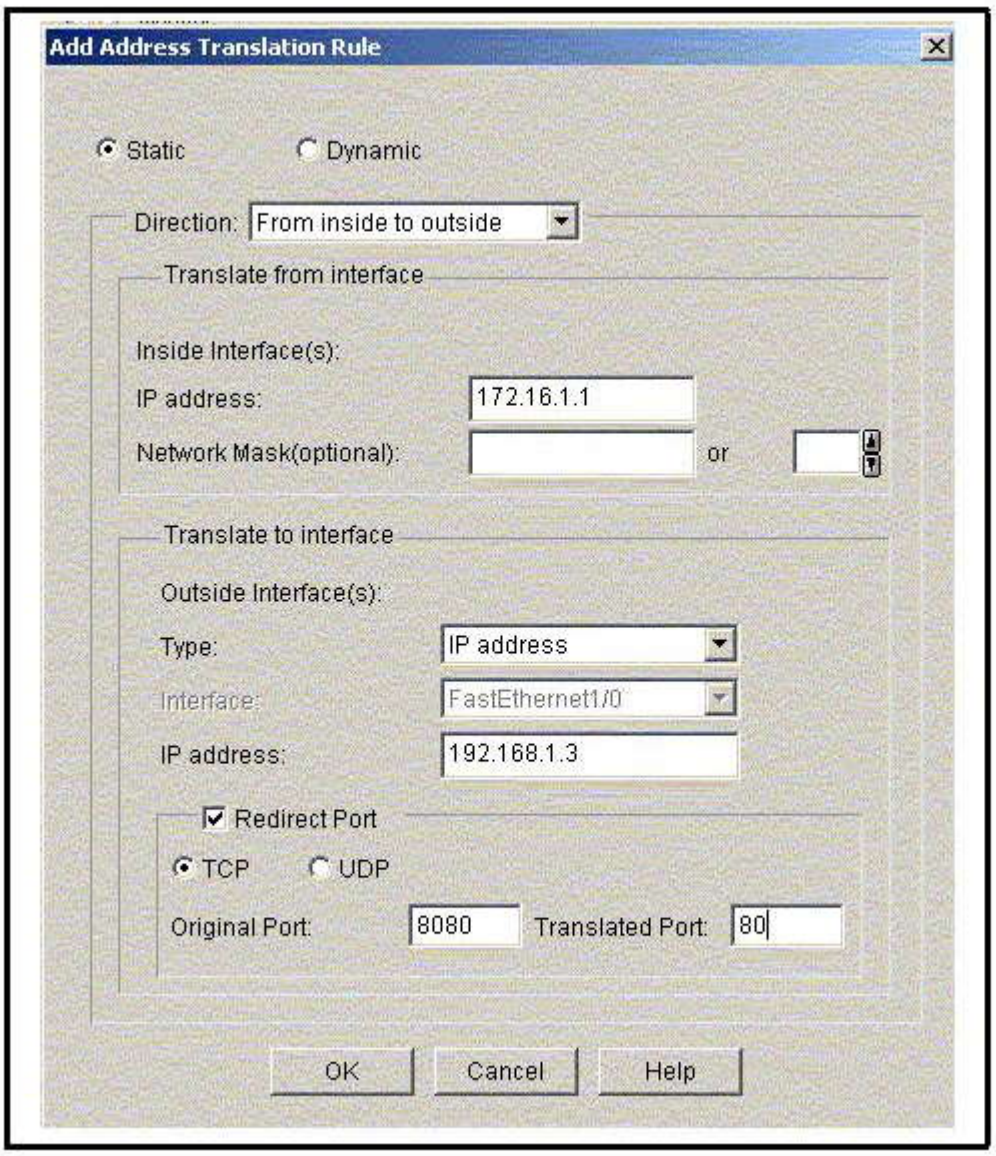
8



Refer to the exhibit. A network technician determines DHCP clients are not working properly. The clien
receiving IP configuration information from a DHCP server configured on the router but cannot access t
From the output in the graphic, what is the most likely problem?

- The DHCP server service is not enabled.
- The inside interface for DCHP is not defined.
- The DHCP pool is not bound to the interface.
- **The pool does not have a default router defined for the clients.**
- All the host addresses have been excluded from the DHCP pool.

9



Refer to the exhibit. A technician used SDM to enter the NAT configuration for a Cisco router. Which st
correctly describes the result of the configuration?

- A user on the inside sees web traffic coming from 192.168.1.3 using port 8080.
- The address 172.16.1.1 is translated into an address from the pool beginning with 192.168.1.3.x
- **A user on the outside network sees a request addressed from 192.168.1.3 using port 80.**
- A user on the outside must address traffic to port 8080 to reach the address 172.16.1.1.

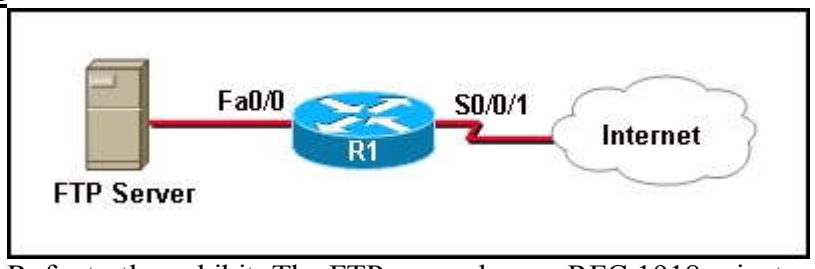
---

10 What is true regarding the differences between NAT and PAT?

- **PAT uses the word "overload" at the end of the access-list statement to share a single register address.**

- Static NAT allows an unregistered address to map to multiple registered addresses.
- Dynamic NAT allows hosts to receive the same global address each time external access is require
- PAT uses unique source port numbers to distinguish between translations.

11



Refer to the exhibit. The FTP server has an RFC 1918 private address. Users on the Internet need to co the FTP server on the Fa0/0 LAN of R1. Which three configurations must be completed on R1? (Choos three.)

- ☐ dynamic NAT
- ☐ NAT with overloading
- ☐ **open port 20**
- ☐ **open port 21**
- ☐ open port 23
- ☐ **NAT with port forwarding**

12

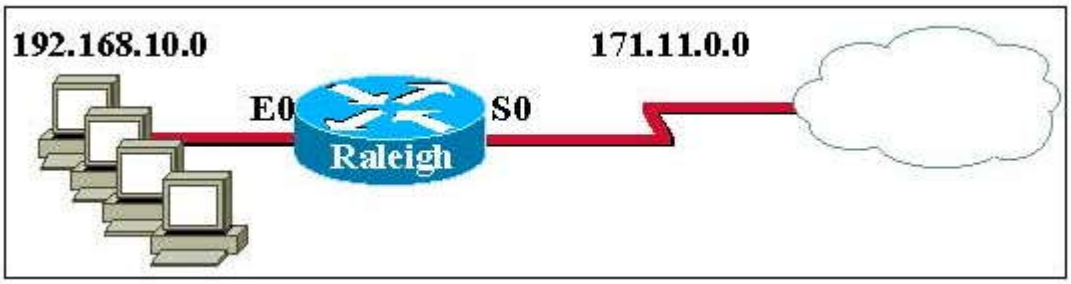
```
Router# show ip dhcp server statistics
<output omitted>
Message                 Received
BOOTREQUEST             0
DHCPDISCOVER            6
DHCPREQUEST             9
DHCPDECLINE             0
DHCPRELEASE             0
DHCPINFORM              0

Message                 Sent
BOOTREPLY               0
DHCPOFFER               7
DHCPACK                 8
DHCPNAK                 1
```

Refer to the exhibit. According to the output, how many addresses have been successfully assigned by DHCP server?

- 1
- 6
- 7

- **8**
- 9

13



Refer to the exhibit. The Raleigh router is configured with PAT. Which two configurations must be cha
the private network is migrated to a 10.0.0.0 network? (Choose two.)

- ☐ E0 interface address
- ☐ S0 interface address
- ☐ **the access-list statement**
- ☐ the NAT outside interface
- ☐ **the NAT inside interface**

14

IPv6 manual tunnel configuration between RT1 and RT3

```
RT1(config)#  interface tunnel0
RT1(config-if)#  tunnel mode ipv6ip
RT1(config-if)#  tunnel source s0/0/0
RT1(config-if)#  tunnel destination 172.16.23.3
RT1(config-if)#  ipv6 address FEC0::13:1/112

RT3(config)# interface tunnel0
RT3(config-if)# tunnel mode ipv6ip
RT3(config-if)# tunnel source s0/0/1
RT3(config-if)# tunnel destination 172.16.12.1
RT3(config-if)# ipv6 add FEC0::13:3/112
```

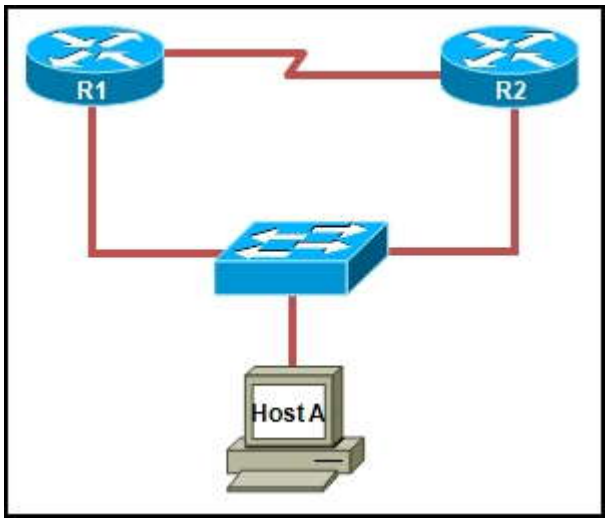
Refer to the exhibit. Which two statements are true when the IPv6 traffic traverses the manual tunnel acr
IPv4 infrastructure? (Choose two.)

- ☐ **IPv6 traffic originating from RT1 is encapsulated by IPv4, and the IPv4 header contains the destination address 172.16.12.1.**
- ☐ IPv6 traffic originating from RT1 is encapsulated by IPv4, and the IPv4 header contains the source a

172.16.12.1.

- [x] **IPv6 traffic originating from IPv6 hosts behind RT1 traverses the tunnel using destination add FEC0::13:3.**
- [ ] IPv6 traffic originating from IPv6 hosts behind RT1 traverses the tunnel using source address FEC0:
- [ ] IPv6 traffic originating from IPv6 hosts behind RT1 is encapsulated by an additional IPv6 header tha use of the IPv6 addresses assigned to the tunnel interfaces.
- [ ] IPv6 traffic from IPv6 hosts traversing the tunnel contains the source and destination IPv6 addresses when the IPv6 packet was created.

15



Refer to the exhibit. How many IPv6 broadcast domains exist in this topology?

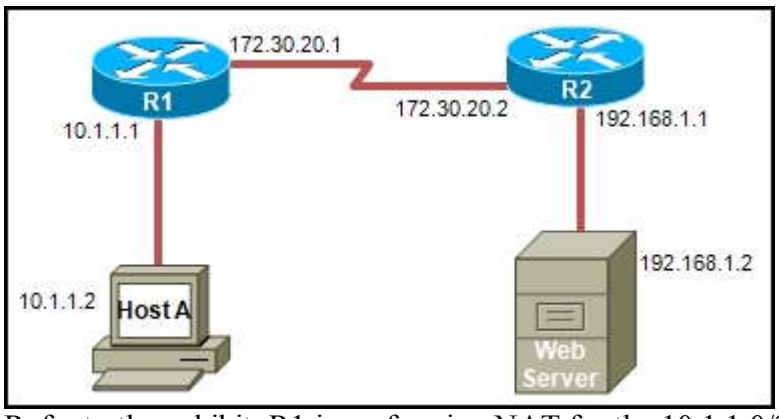
- ● **0**
- ● 1
- ● 2
- ● 3
- ● 4

---

16 Which two statements accurately describe the construction of an IPv6 address? (Choose two.)

- [ ] 9C00 has the same value as 9C.
- [x] **An unspecified address can be written as ::.**
- [ ] Broadcast addresses are written as FFFF:FFFF:FFFF:FFFF:FFFF:FFFF:FFFF:FFFF.
- [ ] It is divided into classes A, B, and C.
- [x] **A 128-bit address that is expressed as a series of eight fields that are 16 bits each.**

17



Refer to the exhibit. R1 is performing NAT for the 10.1.1.0/24 network, and R2 is performing NAT for 192.168.1.2/24 network. What destination IP address will HostA put in its IP header when communicat with the web server?

- 10.1.1.1
- **172.30.20.2**
- 192.168.1.2
- 10.255.255.255

---

18 A network administrator wants to connect two IPv6 islands. The easiest way is through a public networ uses only IPv4 equipment. What simple solution solves the problem?

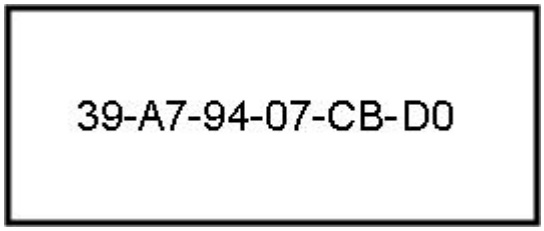
- Replace the devices on the public network with devices that support IPv6.
- Configure RIPng on the border routers of each IPv6 island.
- Configure the routers to take advantage of dual-stack technology.
- **Use tunneling to encapsulate the IPv6 traffic in the IPv4 protocol.**

---

19 What is the purpose of the DHCPDECLINE message?

- If the DHCP client received multiple DHCPOFFERs, it uses the DHCPDECLINE to refuse the off does not use.
- If the DHCP server sends an IP configuration update that the DHCP client does not need, it uses th DHCPDECLINE to refuse the information.
- The DHCP server uses the DHCPDECLINE message to refuse a DHCP client's request for IP configuration information.
- **If the DHCP client detects that the address supplied by the DHCP server is in use on the netw uses the DHCPDECLINE to refuse the offer.**

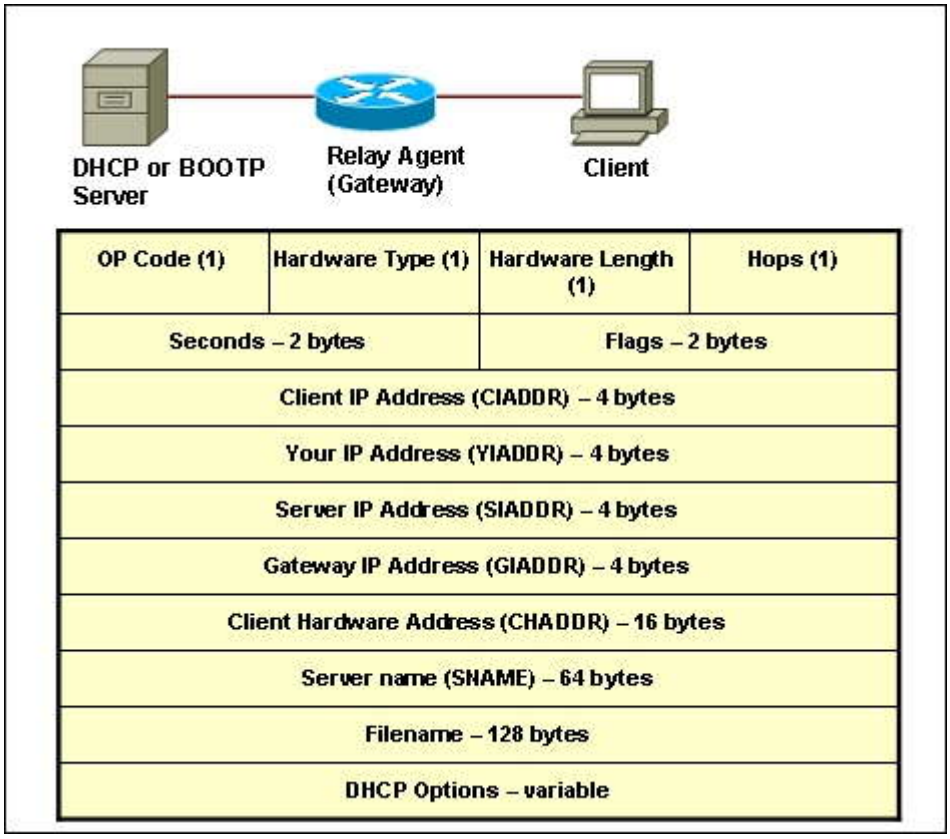
20



Refer to the exhibit. For the MAC address of a router Fast Ethernet interface shown, which three interf commands result in identical IPv6 addresses assigned to the interface? (Choose three.)

- [ ] Router(config-if)# **ipv6 address 2001:DB8::/64 eui-64**
- [ ] Router(config-if)# **ipv6 address 2001:DB8:: 39A7:94FF:FE07:CBD0/64**
- [ ] Router(config-if)# **ipv6 address 2001:DB8:: 3BA7:94FF:FE07:CBD0/64**
- [ ] Router(config-if)# **ipv6 address 2001:0DB8::39A7:9407:CBD0/64**
- [ ] Router(config-if)# **ipv6 address 2001:0DB8:3BA7:9407:CBD0::/64**
- [ ] Router(config-if)# **ipv6 address 2001:0DB8:0:0::/64 eui-64**

21



Refer to the exhibit. Which IP address is included in the YIADDR field of the DHCPOFFER message fo

- **IP address assigned to the client by the DHCP server**
- IP address of the DHCP relay agent

- IP address of the default gateway
- IP address that the client has previously leased from the DHCP server

---

22 Which two traffic types are supported by Cisco IOS NAT? (Choose two.)

- ☐ Routing table updates
- ☐ **ICMP**
- ☐ **FTP**
- ☐ BOOTP
- ☐ SNMP

---

23 What are two benefits of NAT? (Choose two.)

- ☐ **It saves public IP addresses.**
- ☐ **It adds a degree of privacy and security to a network.**
- ☐ It increases routing performance.
- ☐ It makes troubleshooting routing issues easier.
- ☐ It makes tunneling with IPsec less complicated.

---

24 What type of NAT should a network administrator use to ensure that a web server on the inside networ always available to the outside network?

- NAT overload
- **static NAT**
- dynamic NAT
- PAT

25

```
Router1 (config)# ip nat inside source static 192.168.0.100 209.165.20.25
Router1 (config)# interface serial0/0/0
Router1 (config-if)# ip nat inside
Router1 (config-if)# ip address 10.1.1.2 255.255.255.0
Router1 (config)# interface serial 0/0/2
Router1 (config-if)# ip address 209.165.20.25  255.255.255.0
Router1 (config-if)# ip nat outside
```

Refer to the exhibit. Which address or addresses represent the inside global address?

- 10.1.1.2
- 192.168.0.100

- **209.165.20.25**
- any address in the 10.1.1.0 network