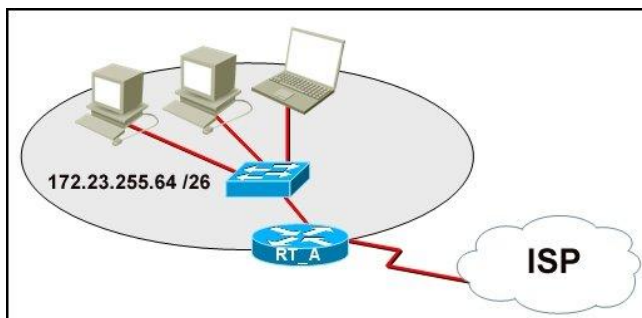


- What is true regarding network layer addressing? (Choose three.)  
**hierarchical**  
**uniquely identifies each host**  
**contains a network portion**
- Which device should be used for enabling a host to communicate with another host on a different network?  
**router**
- Which password is automatically encrypted when it is created?  
**enable secret**
- Which subnet mask should be used for a Class B network that is divided into subnets and will accommodate between 800 hosts and 1000 hosts?  
**255.255.252.0**
- When must a router serial interface be configured with the clock rate command?  
**when the interface is functioning as a DCE device**
- Which service is used when the nslookup command is issued on a computer?  
**DNS**
- 



Refer to the exhibit. What function does router RT\_A need to provide to allow Internet access for hosts in this network?

**address translation**

- A network administrator is asked to design a new addressing scheme for a corporate network. There are 60 users in the main office, 40 users in the branch office, 28 users in manufacturing, 12 in the sales office, and 4 users in the research office. Which VLSM addressing scheme that uses the 192.168.88.0/24 network will fulfill the requirements while wasting the fewest addresses?  
**192.168.88.0/26 main**  
**192.168.88.64/26 branch**  
**192.168.88.128/27 manufacturing**  
**192.168.88.160/28 sales**  
**192.168.88.176/29 research**
- How can ARP be used to help document the network?  
**It can provide a list of physical addresses on the network.**

10.

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

Obtain an IP address automatically

Use the following IP address:

IP address: 192 . 168 . 5 . 98

Subnet mask: 255 . 255 . 255 . 224

Default gateway: 192 . 168 . 5 . 1

Obtain DNS server address automatically

Use the following DNS server addresses:

Preferred DNS server: 128 . 208 . 3 . 254

Alternate DNS server: . . .

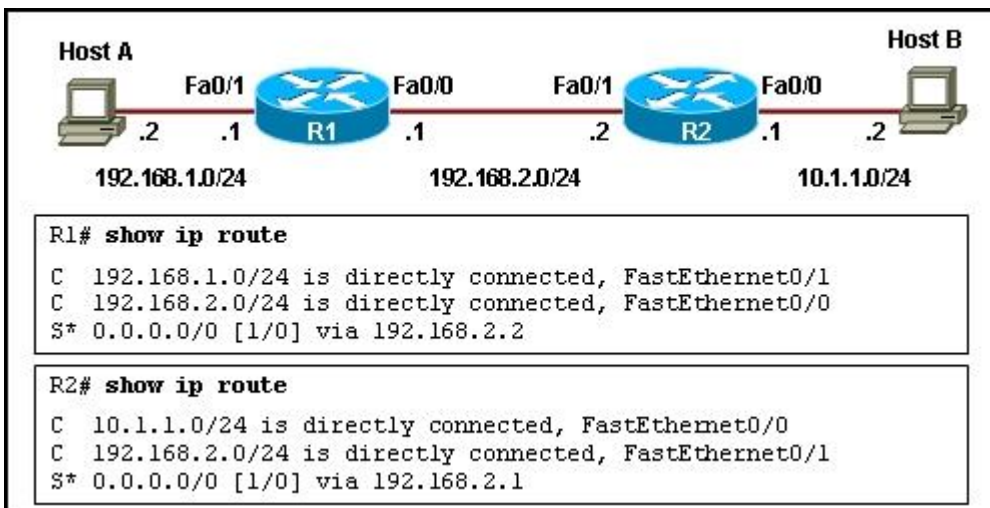
Refer to the exhibit. The network administrator for a small advertising company has chosen to use the 192.168.5.96/27 network for internal LAN addressing. As shown in the exhibit, a static IP address is assigned to the company web server. However, the web server cannot access the Internet. The administrator verifies that local workstations with IP addresses that are assigned by a DHCP server can access the Internet, and the web server is able to ping local workstations. Which component is incorrectly configured?

**subnet mask**

11. A technician wishes to connect two computers to move data from one to the other before reloading the operating system. The NICs on both PCs do not support autosensing feature. Which procedure will satisfy the requirement?

**Interconnect the two PCs with a crossover cable.**

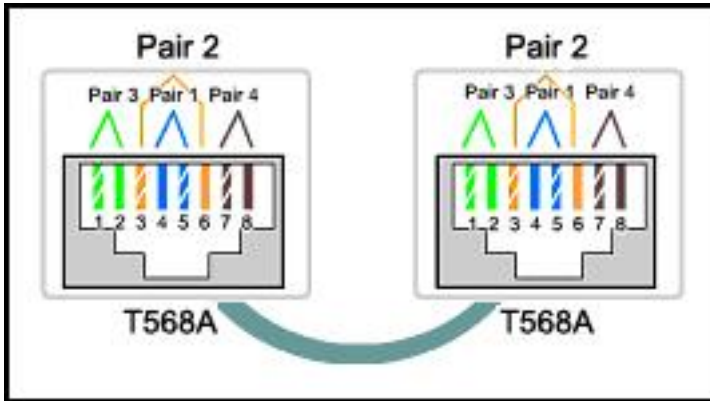
12.



Refer to the exhibit. Host A is configured with the correct IP address for the default gateway of the router R1 FastEthernet0/1 interface. How will a packet that is sent from host A to host B be handled by the devices on the network?

**R1 will forward the packet to its default gateway, the next hop router R2. R2 will forward the packet to the directly connected network 10.1.1.0/24.**

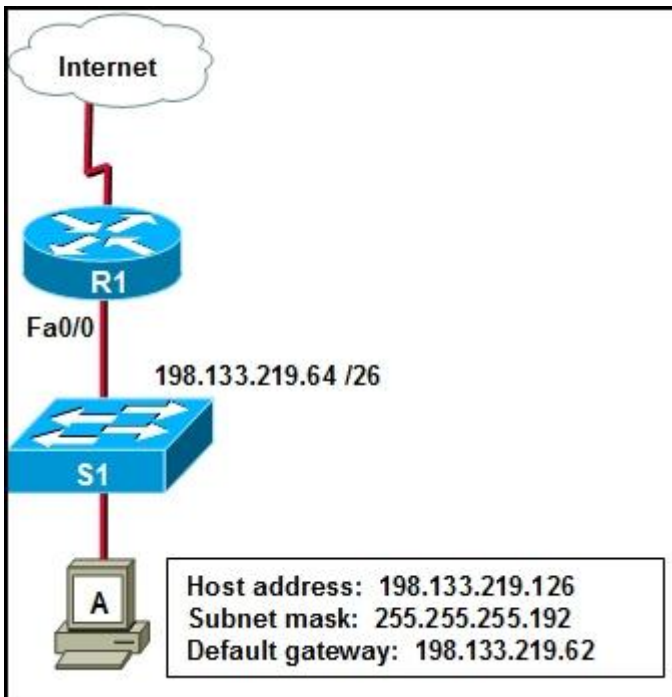
13.



Refer to the exhibit. While configuring a network, a technician wired each end of a Category 5e cable as shown. Which two statements are true about this setup? (Choose two.)

- The cable is suitable for connecting a switch to a router Ethernet port.**
- The cable is suitable for connecting dissimilar types of devices.**

14.



Refer to the exhibit. Host A is able to access resources on the local LAN but is unable to access any resources on the Internet. What is the likely cause of this problem?

- The default gateway is on a different subnet from the host.**

15. To send data through a network, what two flags are used to establish a session? (Choose two.)

- ACK**
- SYN**

16.

```
Router# show version
Cisco IOS Software, 1841 Software (C1841-IPBASE-M), Version 12.3(14)T7, RELEASE
SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2006 by Cisco Systems, Inc.
Compiled Mon 15-May-06 14:54 by pt_team
Image text-base: 0x6007D180, data-base: 0x61400000

Port Statistics for unclassified packets is not turned on.
Cisco 1841 (revision 5.0) with 114688K/16384K bytes of memory.
Processor board ID FTX0947Z18E
M860 processor: part number 0, mask 49
2 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
191K bytes of NVRAM.
31360K bytes of ATA CompactFlash (Read/Write)
Cisco IOS Software, 1841 Software (C1841-IPBASE-M), Version 12.3(14)T7, RELEASE
SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2006 by Cisco Systems, Inc.
Compiled Mon 15-May-06 14:54 by pt_team
```

Refer to the exhibit. What is the total amount of RAM on the router?

**131072 KB**

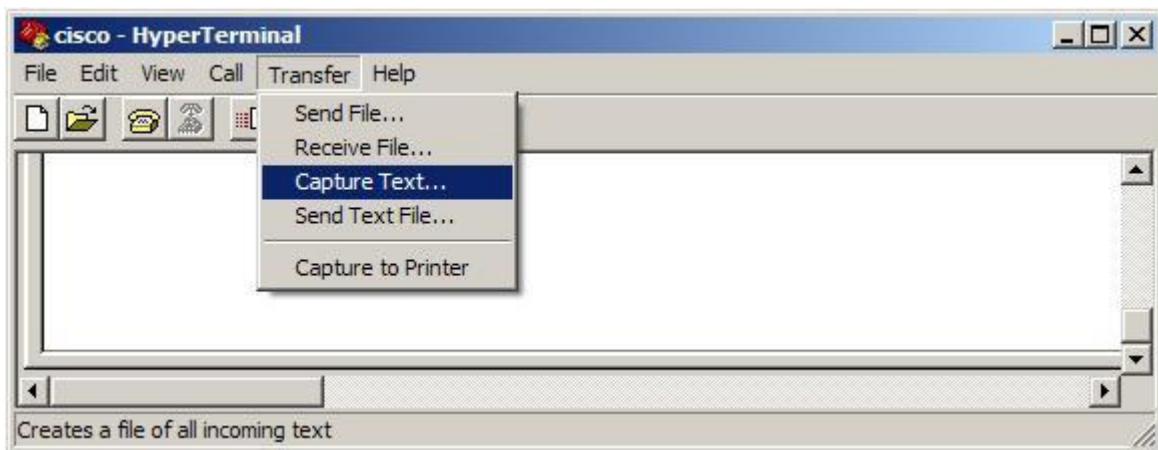
17. By using the ipconfig command, a network administrator determines that a workstation has the address 192.168.3.38 with 29 bits set in the subnet mask. To what network does the workstation belong?

**192.168.3.32**

18. Which answer lists the CLI mode hierarchy from least to most specific?

**user, privileged, global, specific**

19. A network administrator is configuring several switches for a network. The switches have similar configurations and only minor differences. The administrator wants to save all commands that are issued on the first switch to a text file for editing. Which transfer option should be selected in HyperTerminal?



20. Which router component will have contents erased when the command erase startup-config is issued?

**NVRAM**

21. Well-known services and applications use which range of TCP/UDP port numbers?

**0 to 1023**

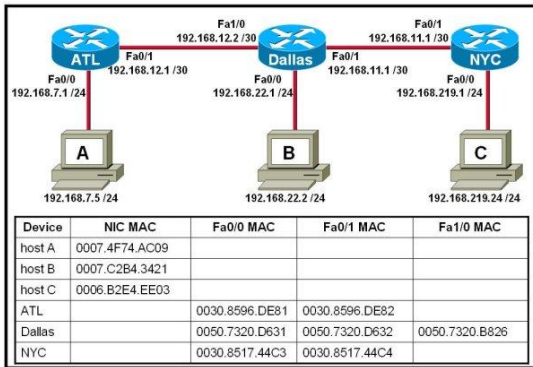
22. What are two purposes for configuring a banner on a router? (Choose two.)

to announce system downtime

**to assist in legal prosecution for unauthorized access**

**to provide a welcome message to users who access the router**

23.



Refer to the exhibit. Host A attempts to establish a TCP/IP session with host C. During this attempt, a frame was captured with the source MAC address 0050.7320.D632 and the destination MAC address 0030.8517.44C4. The packet inside the captured frame has an IP source address 192.168.7.5, and the destination IP address is 192.168.219.24. At which point in the network was this packet captured?

**leaving Dallas**

24. Which statement is true about router hostnames?

**A hostname should be unique on each router.**

25. During the encapsulation process, which identifiers are added at the transport layer?

**two applications communicating the data**

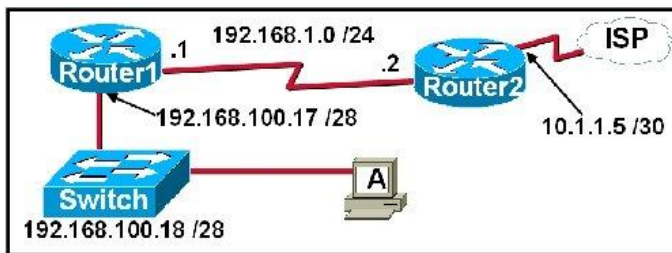
26. Which OSI layer manages data segments?

**transport layer**

27. Which OSI layer addressing is required to route packets between two networks?

**Layer 3**

28.



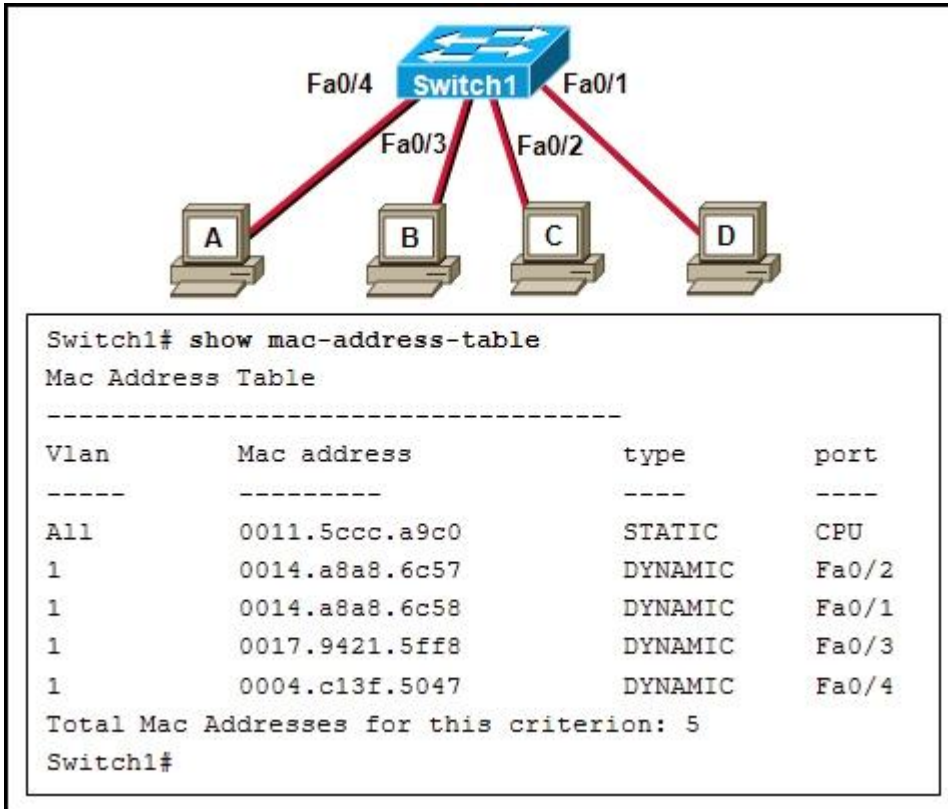
Refer to the exhibit. A network technician is trying to determine the correct IP address configuration for Host A. What is a valid configuration for Host A?

**IP address: 192.168.100.20; Subnet Mask: 255.255.255.240; Default Gateway: 192.168.100.17**

29. A network has grown too large for technicians to configure network addresses and hosts files for name resolution. Which two application layer services should be added to the server to allow these needs to be satisfied dynamically? (Choose two.)

**DNS  
DHCP**

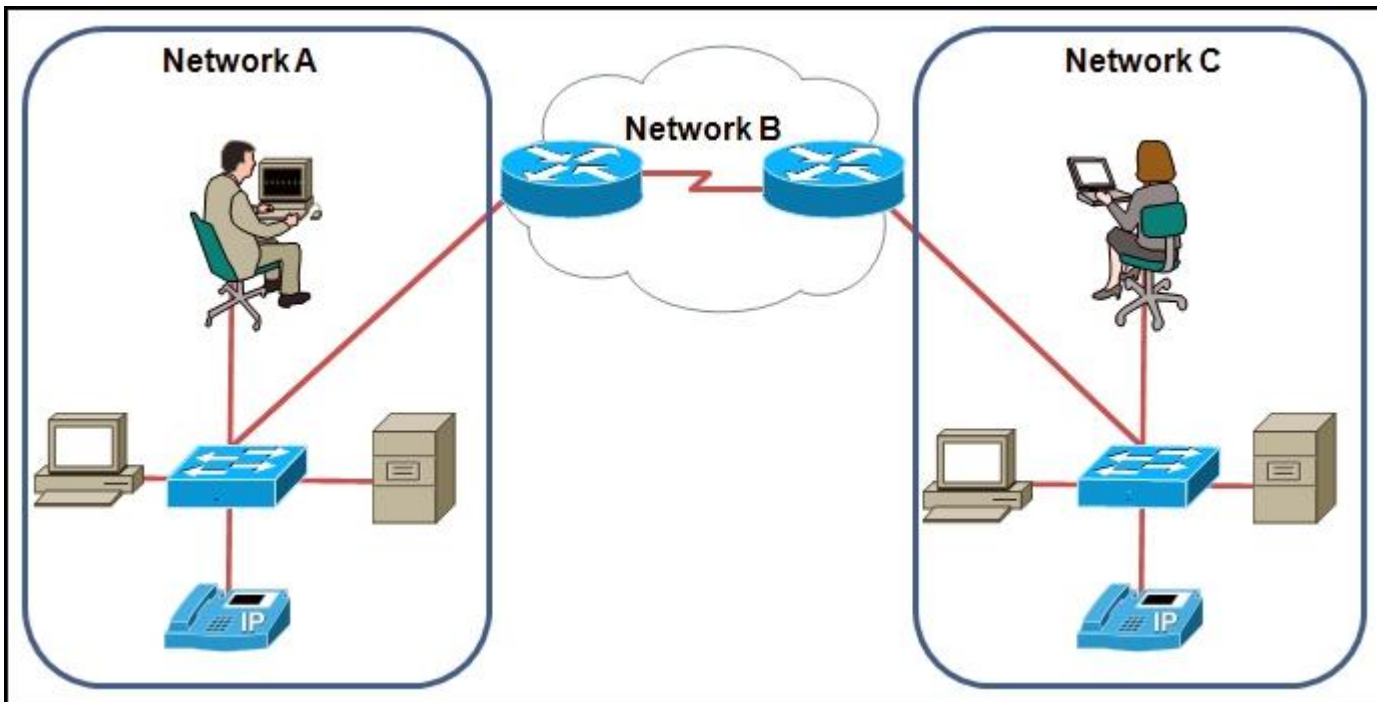
30.



Refer to the exhibit. When host A sends a frame addressed for host D, which hosts will receive the frame?

**only host D**

31.



Refer to the exhibit. Which Layer 2 protocol could be used inside network A and network C?

Ethernet

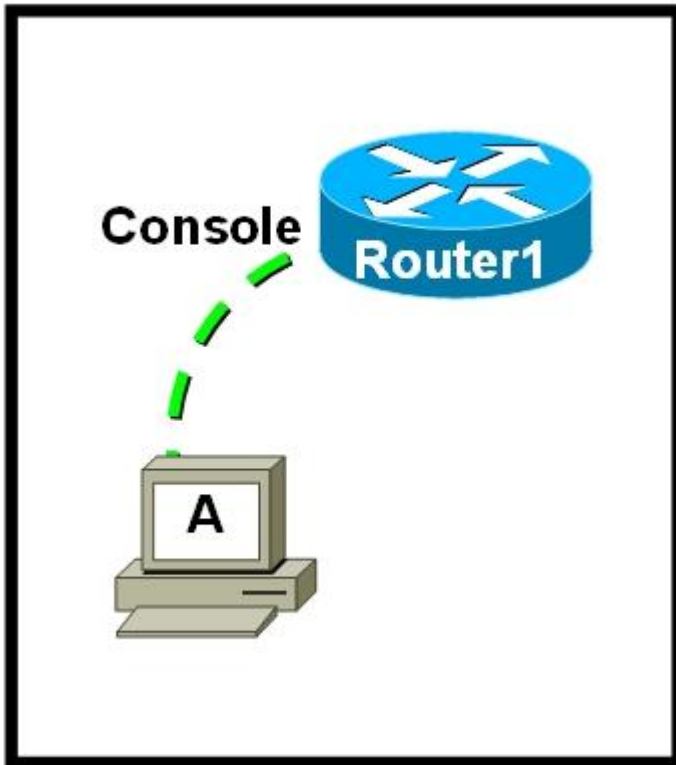
32. Which physical component is used to access and perform the initial configuration on a new unconfigured router?



33. Which basic process is used to select the best path for forwarding data?

**routing**

34.



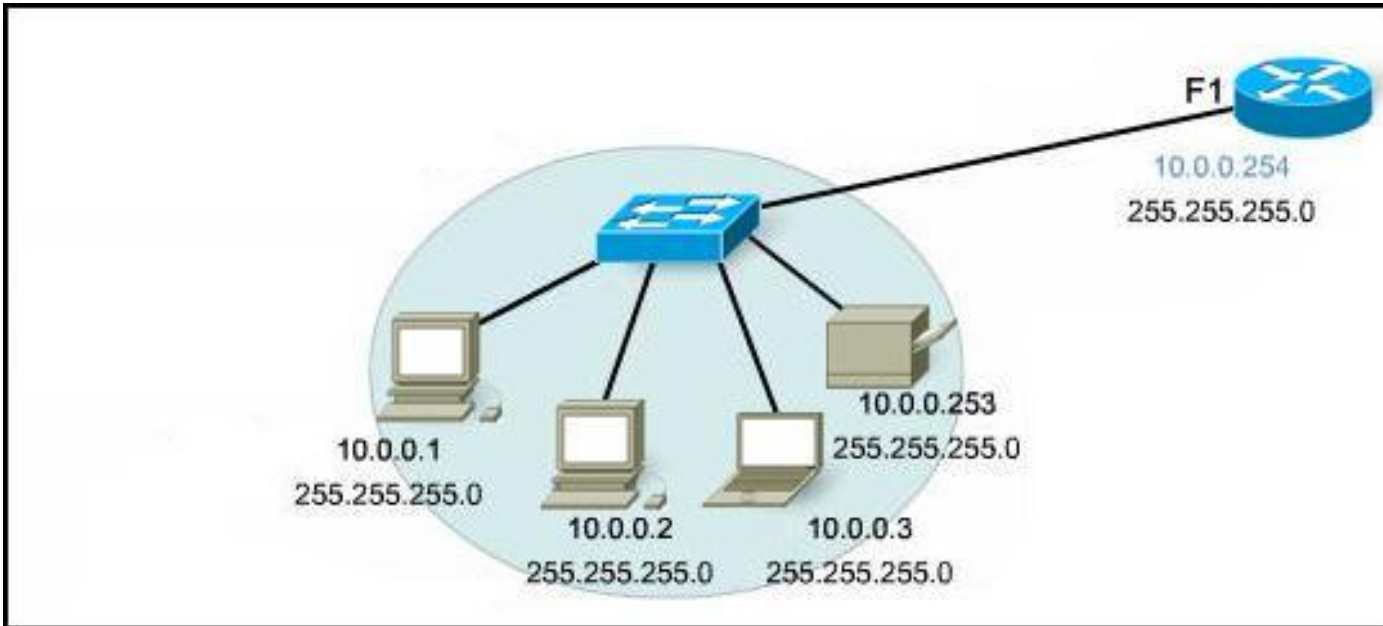
Refer to the exhibit. What is required on host A for a network technician to create the initial configuration on Router1?

**a terminal emulation program**

35. Which router configuration mode would an administrator use to configure the router for SSH or Telnet login access?

**Line**

36.



Refer to the exhibit. A PC is connected to a network. Which action will verify that the PC can communicate with its default gateway?

**use the ping 10.0.0.254 command.**

37. Which three commands will change the current configuration mode of a router? (Choose three.)

**router rip**

**line vty 0 4**

**interface fastethernet 0/1**

38. In which scenario would a crossover cable be required between Ethernet ports on the devices?

**switch to router**

39. A technician is asked to secure the privileged EXEC mode of a switch by requiring a password. Which type of password would require this login and be considered the most secure?

**enable secret**

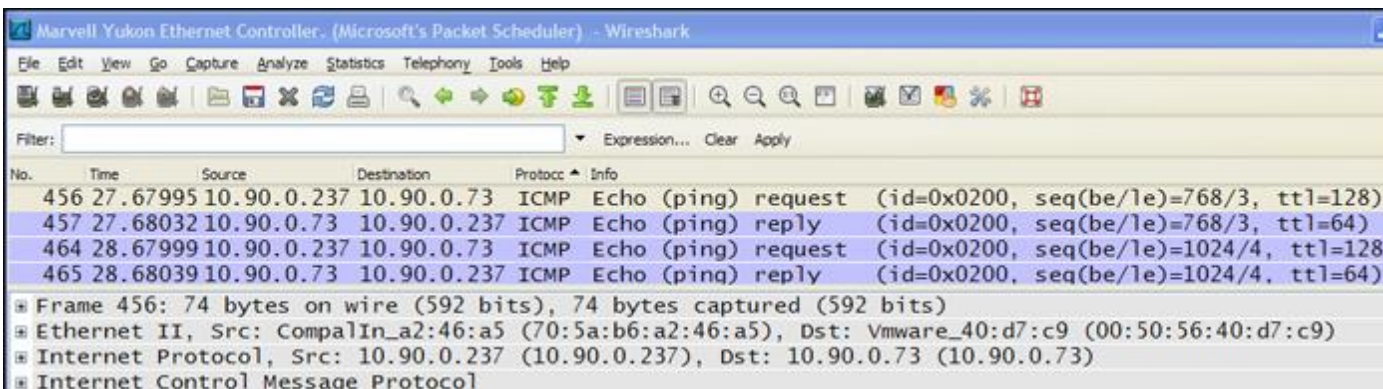
40. Which Layer 4 protocol is used to transport voice packets in a VoIP deployment?

**UDP**

41. What type of network is maintained if a server takes no dedicated role in the network?

**peer-to-peer**

42.



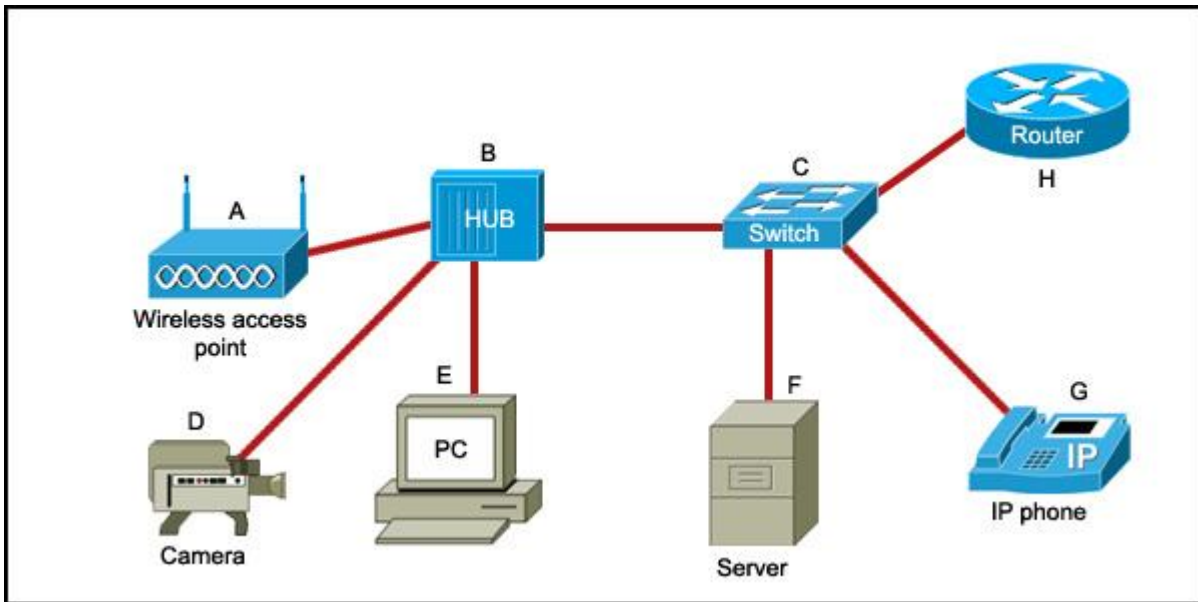
Refer to the exhibit. The Wireshark output shows details of frame 456, which was captured after a ping



command was issued. Based on the output that is shown, what is the Layer 3 address of the source computer?

**10.90.0.237**

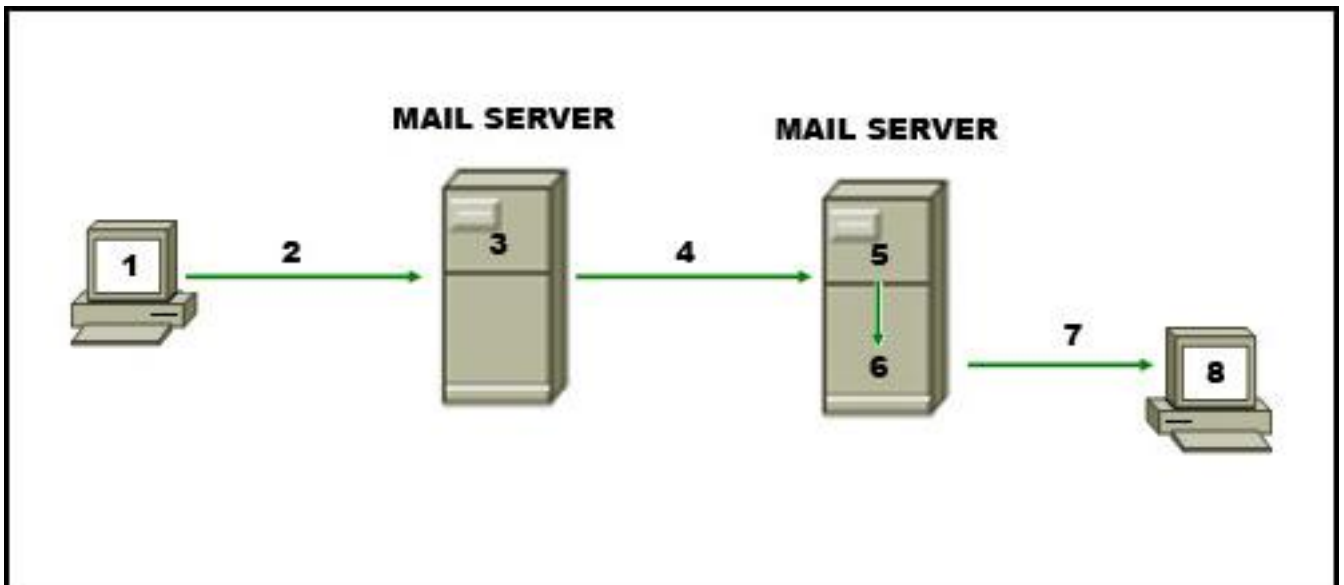
43.



Refer to the exhibit. Which list refers only to end devices?

**D,E,F,G**

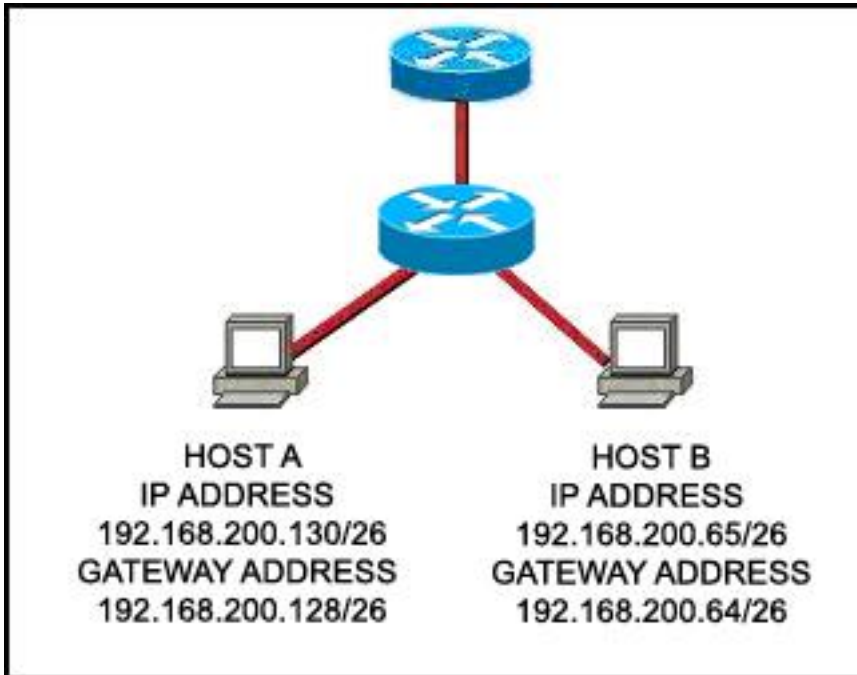
44.



Refer to the exhibit. The diagram represents the process of sending e-mail between clients. Which list correctly identifies the component or protocol used at each numbered stage of the diagram?

**1.MUA 2.SMTP 3.MTA 4.SMTP 5.MTA 6.MDA 7.POP 8.MUA**

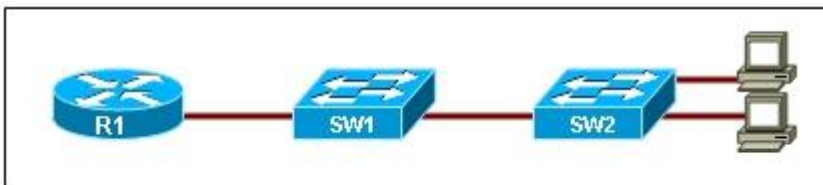
45.



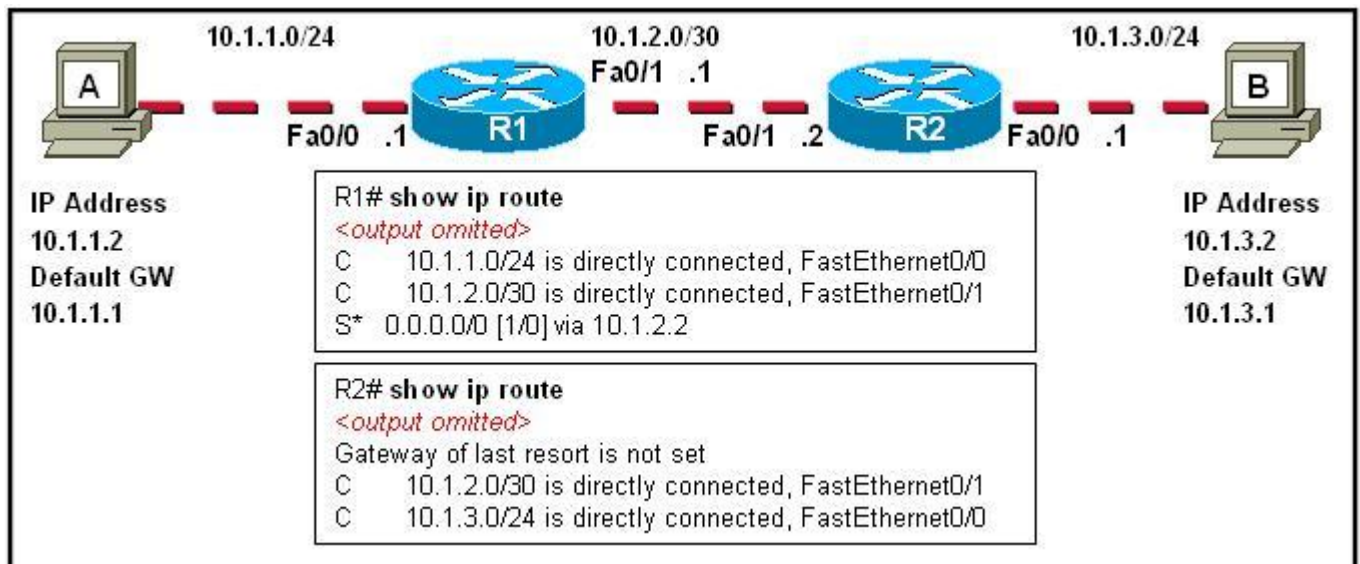
Refer to the exhibit. Host A and B are unable to communicate with each other. What is the reason for this?

**The gateway addresses are network addresses.**

46. Which topology represents a collision-free environment?



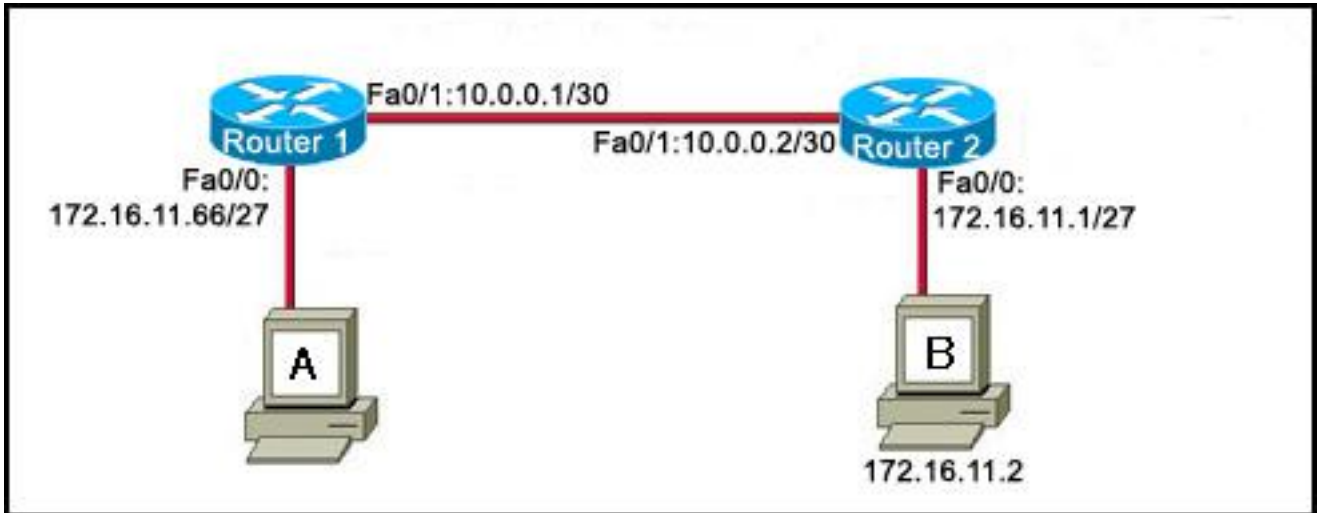
47.



The **tracert 10.1.3.2** command was issued on computer A. Computer A can ping other addresses on the local subnet. Computer A sent the first ICMP packet toward computer B with a TTL value of 1. A protocol analyzer that was running on computer B showed that the packet never reached its destination. Why did the packet not reach the destination?

**The TTL for the packet was decreased to zero by R1.**

48.



Refer to the exhibit. Host A wants to connect to host B on a different network. Which three IP addresses can be assigned to host A to enable this connectivity? (Choose three.)

**172.16.11.88**

**172.16.11.70**

**172.16.11.67**

49.

```
Router(config)# int serial 0/0/0
Router(config-if)# clock rate 56000
Router(config-if)# no shutdown
Router(config-if)# exit
Router(config)#
```

Refer to the exhibit. The serial interface of the router was configured with the use of the commands that are shown. The router cannot ping the router that is directly connected to interface serial 0/0/0. What should the network technician do to solve this problem?

**Configure an IP address on interface serial 0/0/0**

50. UDP is the transport layer protocol for which application?

**TFTP**