IP Addressing Exercises

Exercise 1. Using the IP address and netmask shown write out the network address in CIDR format:

IP Address	Netmask	Network Address
188.10.18.2	255.255.0.0	
223.69.230.250	255.255.240.0	
192.149.24.191	255.224.0.0	
150.203.23.19	255.128.0.0	

Exercise 2. Using the IP address and netmask shown write out the network address in CIDR format::

IP Address	Netmask	Network Address
222.49.49.11	255.255.255.0	
128.23.230.19	255.255.240.0	
117.15.2.51	255.224.0.0	
48.21.25.54	255.128.0.0	

Exercise 3. Given the address 192.168.10.19/28, which of the following are valid host addresses on this net?

A. 192.168.10.29
B. 192.168.10.16
C. 192.168.10.17
D. 192.168.10.31
E. 192.168.10.0

Exercise 4. Which of the following IP addresses fall into the CIDR block of 115.64.4.0/22?

A. 115.64.8.32
B. 115.64.7.64
C. 115.64.6.255
D. 115.64.3.255
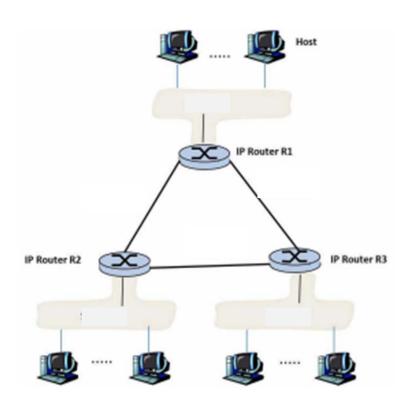E. 115.64.5.128
F. 115.64.12.128

Exercise 5. What are the network address, broadcast address, and the netmask for a host with the IP Address below?

IP Address:	218	3	90	32	/ 21
Network Address:					
Broadcast Address:					
Netmask:					

IP Address:	217	192	121	26	/ 30
Network Address:					
Broadcast Address:					
Subnet Mask:					

IP Address:	102	233	54	136	/ 23
Network Address:					
Broadcast Address:					
Subnet Mask:					

IP Address:	214	180	46	20	/ 29
Network Address:					
Broadcast Address:					
Subnet Mask:					

Exercise 6. Are the following IP addresses valid? If so, indicate the type of address (host, network, special, or private address).

IP address	Type of address
192.1.1.128/25	
158.42.181.255/23	
10.0.0.7/30	
192.168.1.0/24	
192.168.1.128/24	
192.168.1.128/25	
85.25.135.45/16	
158.42.256.181/16	
224.1.2.3/4	
80.200.40.4/30	
80.200.40.5/30	
80.200.40.6/30	
80.200.40.7/30	

Exercise 7.

Consider the network shown above. Our task is to assign addresses to all interfaces. All addresses must be allocated from the network addresses 223.1.1.0/24 to 223.1.9.0/24.