Topics Covered: Logical vs physical addressing,classes of IPv4 address, purpose of subnetting with example, private IP addresses

Problem-01:

For the following IP Addresses-

1. 1.2.3.4
2. 10.15.20.60
3. 130.1.2.3
4. 150.0.150.150
5. 200.1.10.100
6. 220.15.1.10
7. 250.0.1.2
8. 300.1.2.3

Identify the Class, Network IP Address, Direct broadcast address and Limited broadcast address of each IP Address.

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Problem-02:

A host with IP Address 200.100.1.1 wants to send a packet to all the hosts in the same network.
What will be-

1. Source IP Address
2. Destination IP Address

Problem-03:

How many bits are allocated for Network ID and Host ID in 23.192.157.234 address?

Problem-04:h

What is the network ID of the IP Address 230.100.123.70?

Problem-05:

Suppose that instead of using 16 bits for network part of a class B Address, 20 bits have been used. How many class B networks would have been possible?

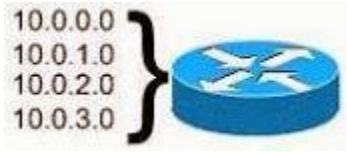
Problem-6:

What is the default mask for 192.0.46.10?

Problem-7

Given the mask 255.255.254.0, how many hosts per subnet does this create?

Problem-8



Refer to the exhibit. What is the most appropriate summarization for these routes?

Problem-9

Given an IP address 172.16.28.252 with a subnet mask of 255.255.240.0, what is the correct network address?

Problem-10

The address of a class B host is to be split into subnets with a 6-bit subnet number. What is the maximum number of subnets and the maximum number of hosts in each subnet?