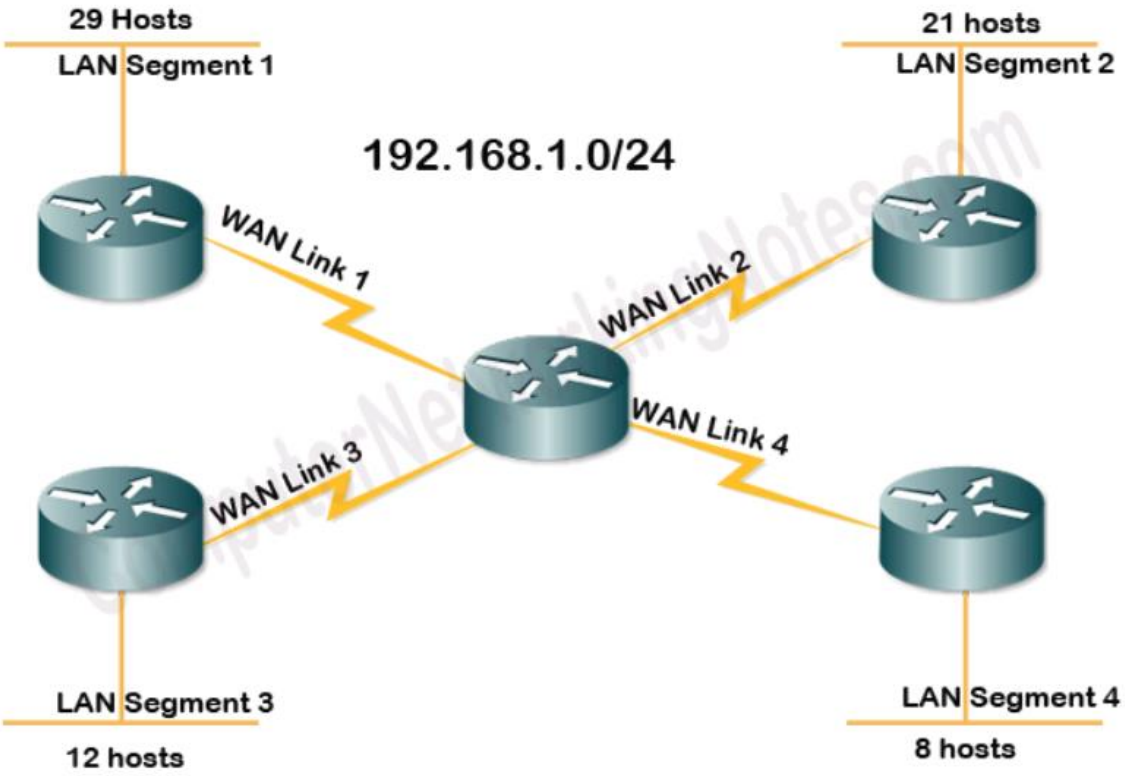
FAST - National University of Computer & Emerging Sciences, Karachi

Computer Network (CS 3001)

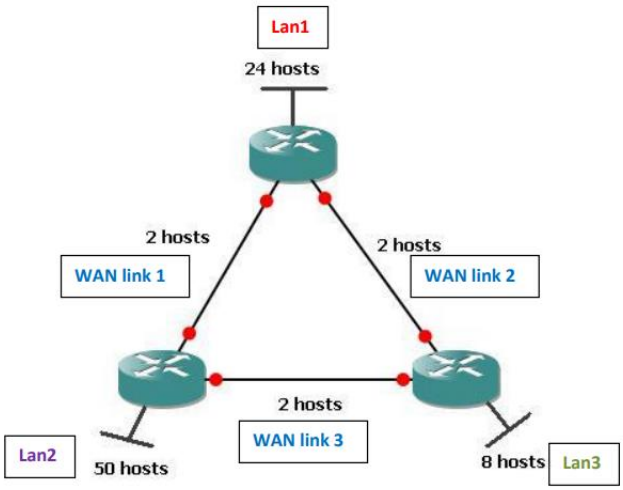
Practice questions – Subnetting and chapter 4

Subnetting

1. The following image shows an example network. Perform VLSM subnetting for this network.



2. The following image shows an example network. Perform VLSM subnetting for this. For this network available IP is 192.168.2.0/24

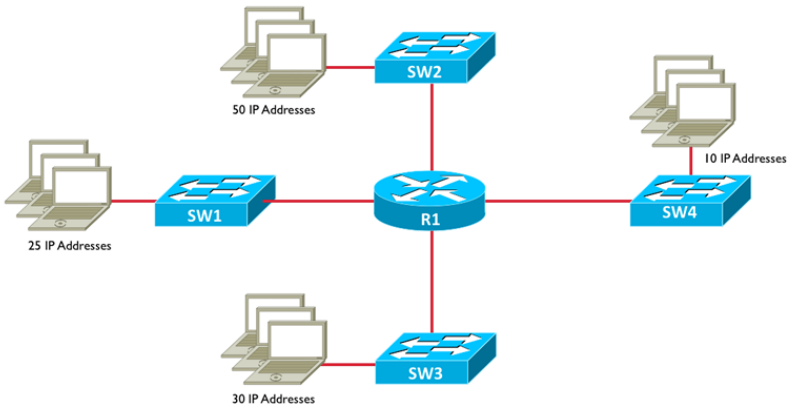


3. Suppose we have been given the network address 192.168.10.0/24, and we need to subnet it into smaller subnets to accommodate the following requirements:
    a. LAN 1: 100 hosts
    b. LAN 2: 50 hosts
    c. LAN 3: 25 hosts
    d. LAN 4: 10 hosts
    e. LAN 5: 5 hosts

4. You are assigning IP addresses to hosts in the 192.168.4.0 /26 subnet. Which two of the following IP addresses are assignable IP addresses that reside in that subnet?

5. You are working with a Class B network with the private IP address of 172.16.0.0 /16. You need to maximize the number of broadcast domains, where each broadcast domain can accommodate 1000 hosts. What subnet mask should you use?

6. What subnet mask should be used to subnet the 192.168.10.0 network to support the number of subnets and IP addresses per subnet shown in the following topology?



7. Given the IP address 192.168.1.0 and the subnet mask 255.255.255.0, you have been asked to create an IP addressing scheme where each subnet has a minimum of 18 IP addresses. Answer the following
    a. What is the new subnet mask?
    b. How many subnets are created?
    c. How many useable IP addresses are available per subnet?
    d. Assuming the use of subnet zero what is the range of useable IP addresses for the 3rd subnet?

8. Text Book Chapter 4: problem P8 to P14
9. Text Book Chapter 4: problem P17 to P22