

IP Addressing #5

Subnet the following class “B” address and apply it to the attached network topology.

168.12.0.0

There are 8 networks in the attached topology, but you need to allow for future growth in the network. It projected in the future that you will need 56 networks.

How many bits will you need to borrow? _____

What is the subnet mask? _____

How many usable subnets will be created? _____

How many usable host will created on each subnet? _____

LAB-A

Ethernet 0 is on subnet 1

What is the network number of the subnet 1? _____

What is the usable range of host on the subnet 1? _____

What is the broadcast number of the subnet 1? _____

Ethernet 1 is on subnet 10

What is the network number of the subnet 10? _____

What is the usable range of host on the subnet 10? _____

What is the broadcast number of the subnet 10? _____

Serial 0 is on subnet 18

What is the network number of the subnet 18? _____

What is the usable range of host on the subnet 18? _____

What is the broadcast number of the subnet 18? _____

LAB-B

Ethernet 0 is on subnet 20

What is the network number of the subnet 20? _____

What is the usable range of host on the subnet 20? _____

What is the broadcast number of the subnet 20? _____

Serial 0 is on subnet 24

What is the network number of the subnet 24? _____

What is the usable range of host on the subnet 24? _____

What is the broadcast number of the subnet 24? _____

Serial 1 is on subnet 18 (attached to S0 on LAB-A)

LAB-C

Ethernet 0 is on subnet 30

What is the network number of the subnet 30? _____

What is the usable range of host on the subnet 30? _____

What is the broadcast number of the subnet 30? _____

Serial 0 is on subnet 34

What is the network number of the subnet 34? _____

What is the usable range of host on the subnet 34? _____

What is the broadcast number of the subnet 34? _____

Serial 1 is on subnet 24 (attached to S0 on LAB-B)

LAB-D

Ethernet 0 is on subnet 40

What is the network number of the subnet 40? _____

What is the usable range of host on the subnet 40? _____

What is the broadcast number of the subnet 40? _____

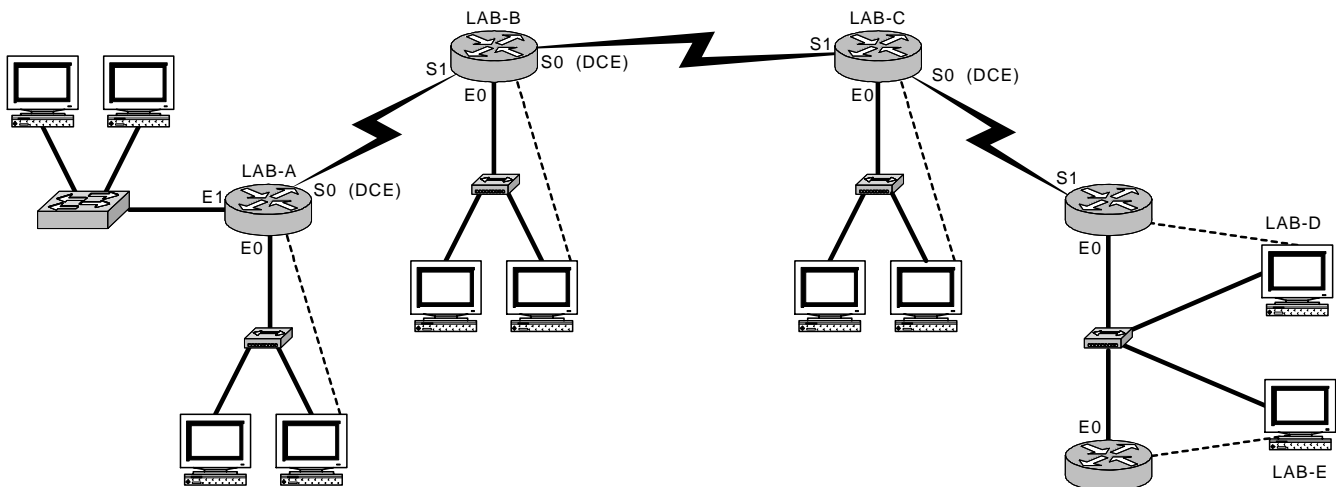
Serial 1 is on subnet 34 (attached to S0 on LAB-C)

LAB-E

Ethernet 0 shares subnet 40 with LAB-D

Apply the address scheme that you calculated. Assign each interface on the router an IP address, beginning with the first usable host address.

Semester 2 - Lab Configuration



Router Name - LAB-A

Router Type - 2514

S0 =

E0 =

E1 =

SM =

Router Name - LAB-B

Router Type - 2503

S0 =

S1 =

E0 =

SM =

Router Name - LAB-E

Router Type - 2501

E0 =

SM =

Router Name - LAB-B

Router Type - 2503

S0 =

S1 =

E0 =

SM =

Router Name - LAB-D

Router Type - 2501

S1 =

E0 =

SM =

Secret Password = class

Console Password = cisco

VTY Password = cisco

Legend



Router



Hub



Switch



**Console
Cable**



Ethernet



Serial