

## IP Addressing #4

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

### 201.5.1.0

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 14 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 2

What is the network number of the subnet 2? \_\_\_\_\_

What is the usable range of host on the subnet 2? \_\_\_\_\_

What is the broadcast number of the subnet 2? \_\_\_\_\_

Serial 0 is on subnet 3

What is the network number of the subnet 3? \_\_\_\_\_

What is the usable range of host on the subnet 3? \_\_\_\_\_

What is the broadcast number of the subnet 3? \_\_\_\_\_

### LAB-B

Ethernet 0 is on subnet 4

What is the network number of the subnet 4? \_\_\_\_\_

What is the usable range of host on the subnet 4? \_\_\_\_\_

What is the broadcast number of the subnet 4? \_\_\_\_\_

Serial 0 is on subnet 5

What is the network number of the subnet 5? \_\_\_\_\_

What is the usable range of host on the subnet 5? \_\_\_\_\_

What is the broadcast number of the subnet 5? \_\_\_\_\_

Serial 1 is on subnet 3 (attached to S0 on LAB-A)

### LAB-C

Ethernet 0 is on subnet 6

What is the network number of the subnet 6? \_\_\_\_\_

What is the usable range of host on the subnet 6? \_\_\_\_\_

What is the broadcast number of the subnet 6? \_\_\_\_\_

Serial 0 is on subnet 7

What is the network number of the subnet 7? \_\_\_\_\_

What is the usable range of host on the subnet 7? \_\_\_\_\_

What is the broadcast number of the subnet 7? \_\_\_\_\_

Serial 1 is on subnet 5 (attached to S0 on LAB-B)

## LAB-D

Ethernet 0 is on subnet 8

What is the network number of the subnet 8? \_\_\_\_\_

What is the usable range of host on the subnet 8? \_\_\_\_\_

What is the broadcast number of the subnet 8? \_\_\_\_\_

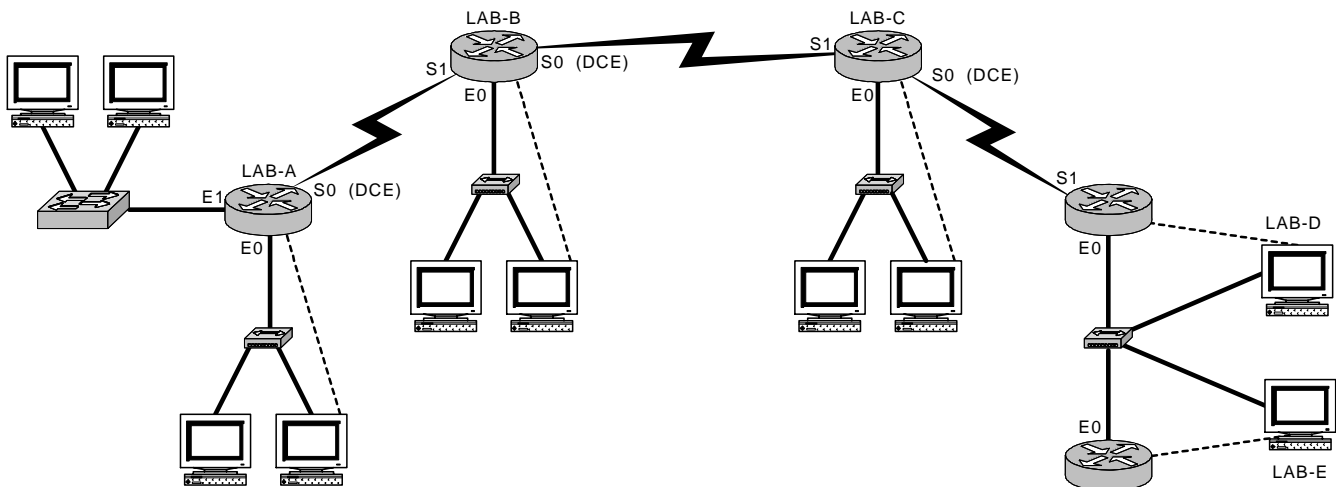
Serial 1 is on subnet 7 (attached to S0 on LAB-C)

## LAB-E

Ethernet 0 shares subnet 8 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