

**COMPUTER SYSTEMS**  
**UD8: NETWORK COMPUTERS**  
**A02: COMPUTERS IP**

**CFGS DAM**  
**DPT INF**

### Activity 1

Indicate if these IP are right or not

- a) 1.1.1.1
- b) 2.2.2.200
- c) 200.260.0.3
- d) 4.4.4.4.4
- e) 5.0.0.300
- f) 256.244.244.4
- g) 700.1000.100

### Activity 2

Indicate if these IP are masks or not. For IP that are mask, calculate the number of computers that we can connect to them.

- a) 255.0.0.0
- b) 255.255.0.1
- c) 255.255.128.0
- d) 255.255.127.0
- e) 255.255.128.15

### Activity 3

Given an IP and a mask, calculate network ID and broadcast address. If mask is not provided use default mask for IP class:

- a) 18.120.16.250: Mask not provided
- b) 18.120.16.255 / 255.255.0.0:
- c) 155.4.220.39: Mask not provided
- d) 194.209.14.33: Mask not provided

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e) 190.33.109.133 / 255.255.255.0:

### Activity 4

We have a 255.255.0.0 mask and we want to create as much subnets as we can. Each subnet needs at least 47 hosts.

How many subnets can we create?

### Activity 5

Our network address is 80.0.0.0/8.

We need to divide the network into the necessary subnets so that there will be at least 1500 hosts in each subnet.

### Activity 6

Our computer has the IP 201.10.100.10. Indicate:

- a) IP class and default mask.
- b) Mask when net is divided in 3 subnets.
- c) Network ID and broadcast IP of each subnet.
- d) Subnet that our IP belongs to.
- e) Number of host available to each subnet.

### Activity 7

In your company there are:

- 4 servers.
- 5 departments.
- between 100 and 200 computers in each department.

You must create one subnet for each department and one for the servers. How would you divide your net? You must choose the IP, subnet mask, and so on.