

Practical Lab on subnetwork mask

Subject:

The purpose of the exercise is to check communication (or not) between the hosts.

Exercise 1 (fixed subnet mask):

PC_1	PC_2	Communication (yes/no)	Explanation
IP 192.168.0.1 Mask 255.255.255.0	IP 192.168.0.200 Mask 255.255.255.0	Yes	Class C
IP 172.16.10.10 Mask 255.255.0.0	IP 172.16.11.10 Mask 255.255.0.0		
IP 10.42.30.6 Mask 255.0.0.0	IP 10.50.30.98 Mask 255.0.0.0		
IP 10.168.55.48 Mask 255.255.255.0	IP 10.168.55.5 Mask 255.0.0.0		
IP 192.168.248.15 Mask 255.255.0.0	IP 192.168.255.254 Mask 255.255.0.0		
172.16.0.1 Mask 255.0.0.0	172.31.255.254 Mask 255.0.0.0		
IP 192.168.1.1 Mask 255.255.255.0	IP 192.168.2.1 Mask 255.255.255.0		
IP 172.16.1.1 Mask 255.255.0.0	IP 172.17.1.2 Mask 255.255.0.0		
IP 11.42.30.6 Mask 255.0.0.0	IP 10.42.31.8 Mask 255.0.0.0		

Exercise 2 (Variable Length Mask):

Determine the hosts IPs address and design that PC1 and PC2 on the same subnet (SR2), while PC 3 will be on a different subnet (SR3).

PC_1 (subnet 2)	PC_2 (subnet 2)	PC_3 (subnet 3)	Number of hôtes per subnet
IP : 10.191.0.1 Mask: 255.224.0.0 soit /	IP : 10.191.0.2 Mask: 255.224.0.0 soit /	IP : 10.192.0.1 Mask: 255.224.0.0 soit /	Class A Range nb = $2^{21}-1$
IP : Mask: 255.240.0.0 soit /	IP : Mask: 255.240.0.0 soit /	IP : Mask: 255.240.0.0 soit /	
IP : Mask: 255.255.192.0 soit /	IP : Mask: 255.255.192.0 soit /	IP : Mask: 255.255.192.0 soit /	
IP : Mask: 255.255.248.0 soit /	IP : Mask: 255.255.248.04 soit /	IP : Mask: 255.255.248.0 soit /	
IP : Mask: 255.255.255.252 soit /	IP : Mask: 255.255.255.252 soit /	IP : Mask: 255.255.255.252 soit /	
IP : Mask: 255.255.255.192 soit /	IP : Mask: 255.255.255.192 soit /	IP : Mask: 255.255.255.192 soit /	