

## CIS 192 - IP Addressing Exercise

1) Given the following ip address and network mask, what is the network address?

IP: 172.30.1.10  
Netmask: 255.255.255.0

- a) 172.30.1.10
- b) 172.30.1.0
- c) 172.30.1.1
- d) 172.30.0.0

2) Given the following ip address and network mask, what is the broadcast address?

IP: 172.30.4.100  
Netmask: 255.255.0.0

- a) 172.30.4.155
- b) 172.30.4.255
- c) 172.30.255.255
- d) 255.255.255.255

3) Given the following network mask, how many bits are being used to represent the network?

Netmask: 255.192.0.0

- a) 192
- b) 16
- c) 10
- d) 8

4) Given the following ip address and network mask, what is the network address?

IP: 192.168.30.100  
Netmask: 255.255.240.0

- a) 192.168.30.0
- b) 192.168.24.0
- c) 192.168.15.0
- d) 192.168.16.0

5) Given the following ip address and network mask, what is the broadcast address?

IP: 192.168.30.100  
Netmask: 255.255.240.0

- a) 192.168.31.255
- b) 192.168.30.255
- c) 192.168.240.255
- d) 192.168.255.255

6) Given the following network mask, how many bits are being used to represent the network?

Netmask: 255.255.255.128

- a) 128
- b) 24
- c) 25
- d) 1

7) Given the following ip address and network mask, what is the network address?

IP: 172.16.10.33  
Netmask: 255.255.255.224

- a) 172.16.10.01
- b) 172.16.10.32
- c) 172.16.10.63
- d) 172.16.10.222

8) Given the following ip address and network mask, what is the broadcast address?

IP: 172.16.10.33  
Netmask: 255.255.255.224

- a) 172.16.10.01
- b) 172.16.10.32
- c) 172.16.10.63
- d) 172.16.10.222

9) Given the following ip address and network mask, what is the network address?

IP: 10.10.10.5  
Netmask: 255.255.255.252

- a) 10.10.10.4
- b) 10.10.10.5
- c) 10.10.10.6
- d) 10.10.10.7

10) Given the following ip address and network mask, what is the broadcast address?

IP: 10.10.10.5  
Netmask: 255.255.255.252

- a) 10.10.10.4
- b) 10.10.10.5
- c) 10.10.10.6
- d) 10.10.10.7

11) Given the following host IP address and network mask, which of the following

IP addresses is on that network?

IP: 172.30.1.100

Network mask: 255.255.255.0

- a) 172.30.1.1
- b) 172.30.2.1
- c) 172.30.3.1
- d) 172.30.4.1

12) Given the following network address, which of the following IP address would

**not** be on that network?

Network: 172.16.0.0

Netmask: 255.240.0.0

- a) 172.15.1.12
- b) 172.16.0.1
- c) 172.20.1.0
- d) 172.30.1.100