Introduction to Networks and Distributed Computing
CECS 327
Spring 2021
Due Date: Wednesday, March 24, 2021 @ 10:00 PM PST

Assignment 3: Subnetting

Instructions For all problems:

- This is a team assignment
- Use the Subnetting Worksheet to show and record all work for each problem.
- The all 0's subnet is a usable subnet and the all 1's subnet is not a usable subnet.

Problem 1

Host IP Address	**172.30.1.33**
Major Network Mask	**255.255.0.0**
Major (Base) Network Address	
Major Network Broadcast Address	
Total Number of Host Bits Number of Hosts	
Subnet Mask	**255.255.255.0**
Number of Subnet Bits Number of Usable Subnets (zero subnet used)	
Number of Host Bits per Subnet Number of Usable Hosts per Subnet	
Subnet Address for this IP Address	
IP Address of First Host on this Subnet	
IP Address of Last Host on this Subnet	
Broadcast Address for this Subnet	

Problem 2

Host IP Address	172.30.1.33
Major Network Mask	**255.255.255.0**
Major (Base) Network Address	
Major Network Broadcast Address	
Total Number of Host Bits Number of Hosts	
Subnet Mask	**255.255.255.252**
Number of Subnet Bits Number of Usable Subnets (zero subnet used)	
Number of Host Bits per Subnet Number of Usable Hosts per Subnet	
Subnet Address for this IP Address	
IP Address of First Host on this Subnet	
IP Address of Last Host on this Subnet	
Broadcast Address for this Subnet	

Problem 3

Host IP Address	192.192.10.234
Major Network Mask	**255.255.255.0**
Major (Base) Network Address	
Major Network Broadcast Address	
Total Number of Host Bits Number of Hosts	
Subnet Mask	**255.255.255.248**
Number of Subnet Bits Number of Usable Subnets (zero subnet used)	
Number of Host Bits per Subnet Number of Usable Hosts per Subnet	
Subnet Address for this IP Address	
IP Address of First Host on this Subnet	
IP Address of Last Host on this Subnet	
Broadcast Address for this Subnet	

Problem 4

Host IP Address	171.68.99.71
Major Network Mask	**255.255.0.0**
Major (Base) Network Address	
Major Network Broadcast Address	
Total Number of Host Bits Number of Hosts	
Subnet Mask	**255.255.240.0**
Number of Subnet Bits Number of Usable Subnets (zero subnet used)	
Number of Host Bits per Subnet Number of Usable Hosts per Subnet	
Subnet Address for this IP Address	
IP Address of First Host on this Subnet	
IP Address of Last Host on this Subnet	
Broadcast Address for this Subnet	

Problem 5

Host IP Address	**217.200.3.219**
Major Network Mask	**255.255.255.0**
Major (Base) Network Address	
Major Network Broadcast Address	
Total Number of Host Bits Number of Hosts	
Subnet Mask	**255.255.255.224**
Number of Subnet Bits Number of Usable Subnets (zero subnet used)	
Number of Host Bits per Subnet Number of Usable Hosts per Subnet	
Subnet Address for this IP Address	
IP Address of First Host on this Subnet	
IP Address of Last Host on this Subnet	
Broadcast Address for this Subnet	