

Subnetting Assignment #1

CIS 81/CST 311

120 points

Instructions For all problems:

- 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	

Problem 6

Host IP Address	217.200.3.193
Major Network Mask	255.255.255.224
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	