

Subnetting

Problem 3

Number of needed usable subnets **1**

Network Address **195.223.50.0**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 2nd usable
subnet range? _____

What is the subnet number
for the 1st usable subnet? _____

What is the subnet
broadcast address for
the 1st usable subnet? _____

What are the assignable
addresses for the 2nd
usable subnet? _____

Show your work for Problem 3 in the space below.

Number of Subnets									Number of Hosts	
	256	128	64	32	16	8	4	2	-	
	2	4	8	16	32	64	128	256		
	128	64	32	16	8	4	2	1	-	Binary values
195. 223 . 50 . 0 0 0 0 0 0 0										

Subnetting

Problem 4

Number of needed usable subnets **750**

Network Address **190.35.0.0**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 14th usable
subnet range? _____

What is the subnet number
for the 12th usable
subnet? _____

What is the subnet
broadcast address for
the 9th usable subnet? _____

What are the assignable
addresses for the 5th
usable subnet? _____

Show your work for Problem 4 in the space below.

Subnetting

Problem 5

Number of needed usable hosts **6**

Network Address **126.0.0.0**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 1st usable
subnet range? _____

What is the subnet number
for the 4th usable subnet? _____

What is the subnet
broadcast address for
the 6th usable subnet? _____

What are the assignable
addresses for the 9th
usable subnet? _____

Show your work for Problem 5 in the space below.

Subnetting

Problem 6

Number of needed usable subnets **10**

Network Address **192.70.10.0**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 8th usable
subnet range? _____

What is the subnet number
for the 3rd usable subnet? _____

What is the subnet
broadcast address for
the 11th usable subnet? _____

What are the assignable
addresses for the 9th
usable subnet? _____

Show your work for Problem 6 in the space below.

Subnetting

Problem 7

Network Address **10.0.0.0 /16**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 10th usable
subnet range? _____

What is the subnet number
for the 5th usable subnet? _____

What is the subnet
broadcast address for
the 1st usable subnet? _____

What are the assignable
addresses for the 8th
usable subnet? _____

Show your work for Problem 7 in the space below.

Subnetting

Problem 8

Number of needed usable subnets **4**

Network Address **172.50.0.0**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 3rd usable
subnet range? _____

What is the subnet number
for the 4th usable subnet? _____

What is the subnet
broadcast address for
the 5th usable subnet? _____

What are the assignable
addresses for the 2nd
usable subnet? _____

Show your work for Problem 8 in the space below.

Subnetting

Problem 9

Number of needed usable hosts **28**

Network Address **172.50.0.0**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 1st usable
subnet range? _____

What is the subnet number
for the 9th usable subnet? _____

What is the subnet
broadcast address for
the 3rd usable subnet? _____

What are the assignable
addresses for the 5th
usable subnet? _____

Show your work for Problem 9 in the space below.

Subnetting

Problem 10

Number of needed usable subnets **45**

Network Address **220.100.100.0**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 4th usable
subnet range? _____

What is the subnet number
for the 3rd usable subnet? _____

What is the subnet
broadcast address for
the 12th usable subnet? _____

What are the assignable
addresses for the 11th
usable subnet? _____

Show your work for Problem 10 in the space below.

Subnetting

Problem 11

Number of needed usable hosts **8,000**

Network Address **135.70.0.0**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 5th usable
subnet range? _____

What is the subnet number
for the 6th usable subnet? _____

What is the subnet
broadcast address for
the 2nd usable subnet? _____

What are the assignable
addresses for the 4th
usable subnet? _____

Show your work for Problem 11 in the space below.

Subnetting

Problem 12

Number of needed usable hosts **45**

Network Address **198.125.50.0**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 1st usable
subnet range? _____

What is the subnet number
for the 1st usable subnet? _____

What is the subnet
broadcast address for
the 2nd usable subnet? _____

What are the assignable
addresses for the 2nd
usable subnet? _____

Show your work for Problem 12 in the space below.

Subnetting

Problem 13

Network Address **165.200.0.0 /26**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 9th usable
subnet range? _____

What is the subnet number
for the 10th usable
subnet? _____

What is the subnet
broadcast address for
the 1022nd usable
subnet? _____

What are the assignable
addresses for the 1021st
usable subnet? _____

Show your work for Problem 13 in the space below.

Subnetting

Problem 14

Number of needed usable hosts **16**

Network Address **200.10.10.0**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 6th usable
subnet range? _____

What is the subnet number
for the 4th usable subnet? _____

What is the subnet
broadcast address for
the 3rd usable subnet? _____

What are the assignable
addresses for the 5th
usable subnet? _____

Show your work for Problem 14 in the space below.

Subnetting

Problem 15

Network Address **93.0.0.0 \19**

Address class _____

Default subnet mask _____

Custom subnet mask _____

Total number of subnets _____

Number of usable subnets _____

Total number of host addresses _____

Number of usable addresses _____

Number of bits borrowed _____

What is the 14th usable
subnet range? _____

What is the subnet number
for the 8th usable subnet? _____

What is the subnet
broadcast address for
the 6th usable subnet? _____

What are the assignable
addresses for the 11th
usable subnet? _____