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Assignment 2

128 64 32 16 8 4 2 1

1.

a. 192 168 22 13

192-1 1 0 0 0 0 0 0

168-1 0 1 0 1 0 0 0

22-0 0 0 1 0 1 1 0

13-0 0 0 0 1 1 0 1

11000000.10101000.00010110.00001101

b. 164 10 200 2

164-1 0 1 0 0 1 0 0

10-0 0 0 0 1 0 1 0

200-1 1 0 0 1 0 0 0

2-0 0 0 0 0 0 1 0

10100100.00001010.11001000.00000010

c. 10 244 116 6

10-0 0 0 0 1 0 1 0

244-1 1 1 1 0 1 0 0

116-0 1 1 1 0 1 0 0

6-0 0 0 0 0 1 0 1

00001010.11110100.01110100.00000101

2. 128 64 32 16 8 4 2 1

a. 1 0 1 1 0 1 0 0 = 180

1 1 1 0 1 0 1 0 = 234

0 0 0 0 1 0 0 0 = 8

1 0 0 1 0 0 0 1 = 145

180 234 8 145

b. 1 0 0 0 1 1 0 1 = 141

1 1 1 1 1 1 1 1 = 255

1 1 0 0 0 0 0 0 = 192

0 0 0 0 0 0 0 1 = 1

141 255 192 1

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Assignment 2

2.c.	128	64	32	16	8	4	2	1	
	0	0	0	1	0	0	0	1	= 17
	1	1	0	0	1	1	0	0	= 396
	1	0	0	0	0	0	0	1	= 129
	0	0	0	1	0	0	1	0	= 18
17, 396, 129, 18									

3.	8	4	2	1	8	4	2	1	
a	1	0	1	1	0	1	0	1	B5
	1	1	1	1	1	0	0	1	F9
	1	1	0	0	1	0	0	0	C8
	1	0	0	1	0	1	1	1	97
B5, F9, C8, 97									

b.	1	0	1	0	1	1	0	0	AC
	1	1	1	1	1	0	0	0	F8
	1	1	0	0	0	0	0	1	C1
	0	1	0	1	0	1	0	1	55
AC, F8, C1, 55									

c.	1	1	0	1	0	0	0	1	D1
	1	0	0	0	1	1	0	0	8C
	0	0	0	1	1	1	0	1	1D
	1	0	0	1	0	1	1	1	97
D1, 8C, 1D, 97									

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a. F2 D3 12 9A

15 2 13 3 12 9 10

11110010.11010011.00010010.10011010

b. cD 94 01 F3

11001101.10010100.00000001.11110011

c. 71 1B B5 AD

01110001.00011011.10110101.11110000

(3)

Assignment 2

	128	64	32	16	8	4	2	1	
5A.	1	1	1	1	1	1	1	1	= 255
	0	1	1	1	1	1	1	1	= 127
	0	1	1	1	0	1	0	0	= 116
	0	0	0	0	0	1	0	0	= 4

FF 7F 74 04

b	0	1	1	0	0	1	0	1	= 101
	1	0	0	1	0	0	0	0	= 144
	0	0	0	0	1	1	1	1	= 15
	0	0	0	0	0	1	1	0	= 6

65. 90. 0F. 06

c	1	0	1	0	1	0	0	0	= 168
	0	1	1	0	1	0	0	1	= 105
	1	1	1	1	1	1	1	0	= 254
	0	0	0	0	1	1	0	0	= 12

A8. 69. FE. 0C

6. a)	30	B8	D3	D0					
	0	0	1	1	0	0	0	0	= 48
	1	0	1	1	1	0	0	0	= 184
	1	1	0	1	0	0	1	1	= 211
	1	1	0	1	0	0	0	0	= 208

48. 184. 211. 208

b)	55	F4	21	A4					
	0	1	0	1	0	1	0	1	= 85
	1	1	1	1	1	0	1	1	= 251
	0	0	1	0	0	0	0	1	= 33
	1	0	1	0	0	1	0	0	= 164

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Assignment 2

b	128	64	32	16	8	4	2	1
C	00	FF	07	51				
	0	0	0	0	0	0	0	0 = 0
	1	1	1	1	1	1	1	1 = 255
	0	0	0	0	0	1	1	1 = 7
	0	1	0	1	0	0	0	1 = 81
	0.255.7.81							

7 a) 192.168.16.13 class C = 192-223

Class C

b) 164.10.241.2 class B = 128-191

Class B

c) 10.244.116.15 class A = 1-126

Class A

8) a) 10110100 . . . = 180 class B

b) 11001100 = 204 class C

c) 00010001 = 17 class A