

Assignment 4 Solution

(1)

a) 4 fragments

b)

	Fragment 1	Fragment 2	Fragment 3	Fragment 4
Total Length (in decimal, in units of 1-byte)	500	500	500	160
M Flag	1	1	1	0
Fragmentation Offset (in decimal, in units of 8-bytes)	0	60	120	180

(2)

a) $2^{20} = 1048576$ IP addresses

b) 1st subnet:

a. First: 00001100 10100000 00000000 00000000 / 12.160.0.0

b. Last: 00001100 10100000 00000000 01111111 / 12.160.0.127

c) 100th subnet:

a. First: 00001100 10100000 00110001 10000000 / 12.160.49.128

b. Last: 00001100 10100000 00110001 11111111 / 12.160.49.255

(3)

a) i) A, D and E

ii) A

b) i) D and E

ii) D

c) i) D and E

ii) D

(4)

A	B	C	D
0	7	10	8
7	0	3	4
10	3	0	7
8	4	7	0

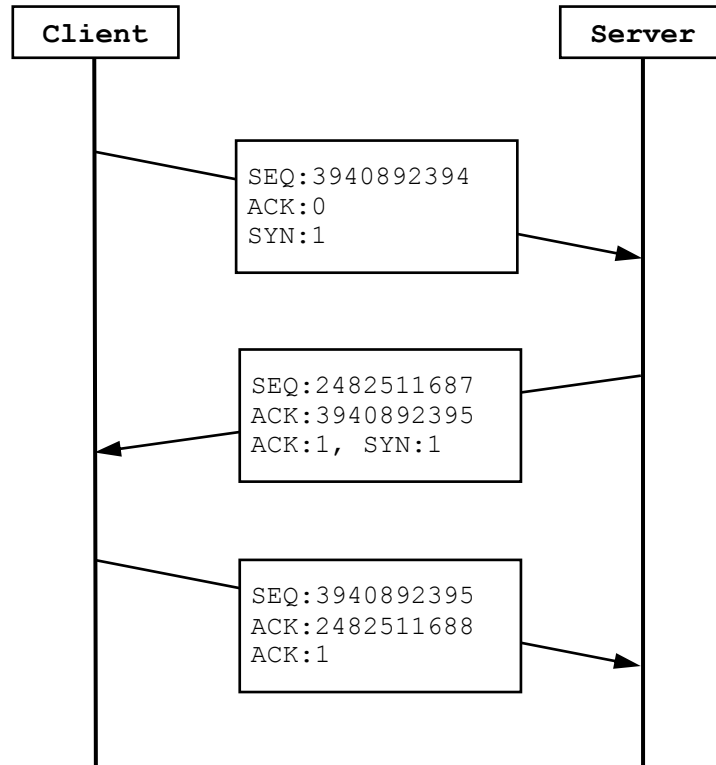
(5)

A: A -> A (0)
B: A -> B (2)
C: A -> C (1)
D: A -> E -> F -> D (5)
E: A -> E (3)
F: A -> E -> F (4)

(6)

- a) 192.168.1.100:59818
 - b) 128.119.245.12:80
 - c) 20 Bytes
 - d) 0xB877
 - e) 3940892394
- SYN flag = 1

f)



g)

