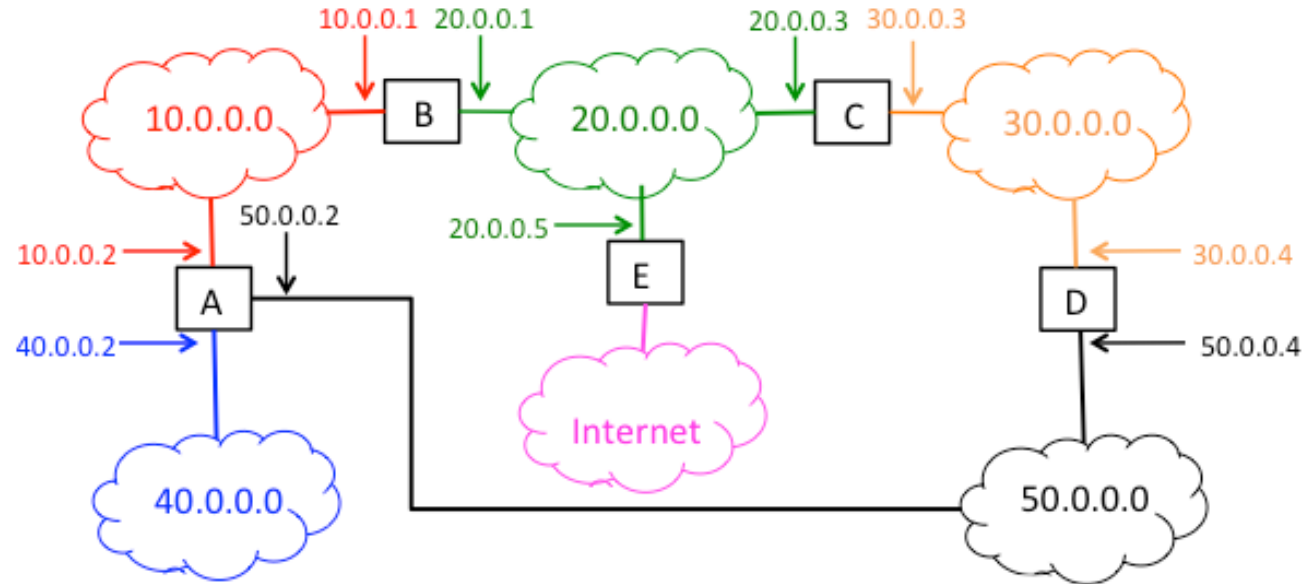


1.



	Router A	Router B	Router C	Router D
Network	Next Hop	Next Hop	Next Hop	Next Hop
10.0.0.0	Direct	Direct	20.0.0.1	50.0.0.2
20.0.0.0	10.0.0.1	Direct	Direct	30.0.0.3
30.0.0.0	50.0.0.4	20.0.0.3	Direct	Direct
40.0.0.0	Direct	10.0.0.2 or 20.0.0.3	20.0.0.1 or 30.0.0.4	50.0.0.2
50.0.0.0	Direct	10.0.0.2	30.0.0.4	Direct
Default	10.0.0.1	20.0.0.5	20.0.0.5	30.0.0.3

3.

a	14			
b	1022			
c	255	255	252	0
	11111111	11111111	11111100	00000000
d	115	215	135	207
	01110011	11010111	10000111	11001111

4.

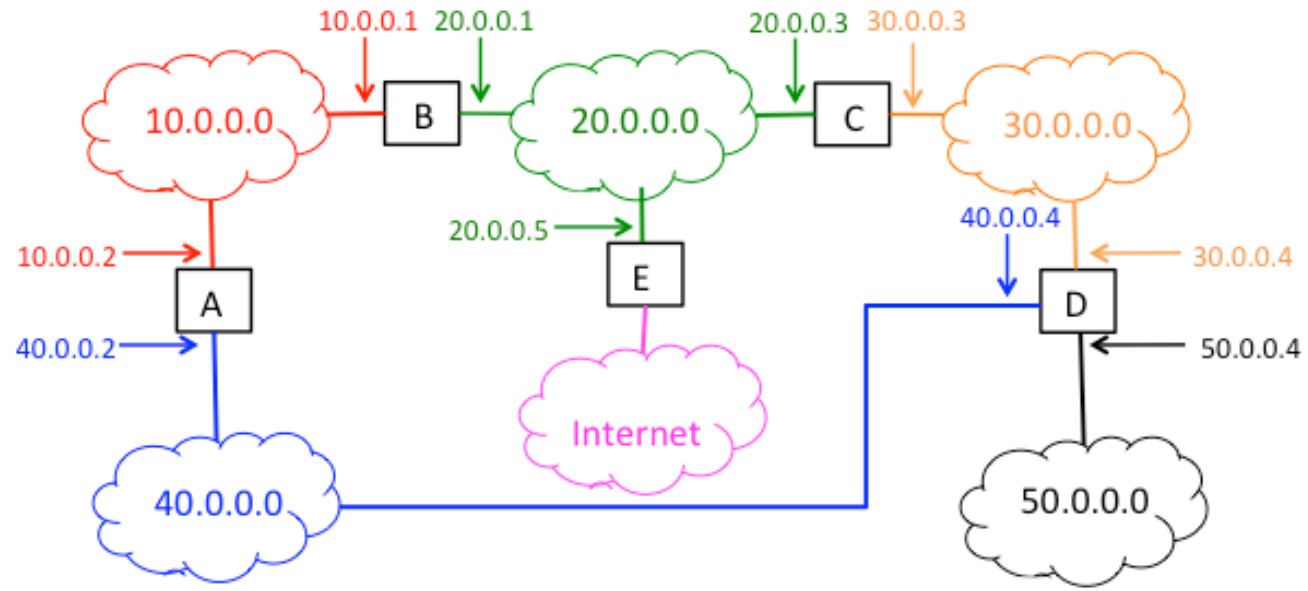
IP Address	175	233	197	241
	10101111	11101001	11000101	11110001
Subnet Mask	255	255	252	0
	11111111	11111111	11111100	00000000
a	Network	45,033		
b	Subnet	49		
c	Host	497		

5.

42	C7	E7	CE	C5	8D	81	81	E5	75	C8	E5	08	00	45	A3
00	72	C8	6C	6C	AA	2F	ED	E0	D3	A4	88	6B	80	DE	9C
A4	2E	3C	98	13	45	86	4D	0E	5F	60	55	6D	F6	C4	F6
D9	69	46	D3	35	D0	40	A3	21	5F	5A	2F	2B	11	75	7B
AC	25	25	FF	3E	42	9A	16	E2	A3	2D	AF	D7	06	DF	C4
6D	9A	1E	34	0B	71	31	CD	CD	F3	94	9A	41	35	60	CC
E5	E5	84	D5	13	BC	A1	74	10	28	02	92	66	63	51	49
1E	57	E9	E0	E9	F2	26	A7	FB	A7	5D	48	20	7A	82	F8

Destination Hardware Address	42 C7 E7 CE C5 8D	01000010 11000111 11100111 11001110 11000101 10001101
Source Hardware Address	81 81 E5 75 C8 E5	10000001 10000001 11100101 01110101 11001000 11100101
Frame Type	08 00	00001000 00000000
Vers & Len	45	01000101
Type Of Service	A3	10100011
Total Length	00 72	00000000 01110010
Ident	C8 6C	11001000 01101100
Flags & Fragment Offset	6C AA	01101100 10101010
Flags	Don't Fragment More Fragments	
Fragment Offset	0C AA	00001100 10101010
TTL	2F	00101111
Type	ED	11101101
Header Checksum	E0 D3	11100000 11010011
Source IP Address	A4 88 6B 80	10100100 10001000 01101011 10000000
Class	B	
Network	A4 88	10100100 10001000
Host	6B 80	01101011 10000000
Source IP Address (Decimal)	164 136 107 128	
Destination IP Address	DE 9C A4 2E	11011110 10011100 10100100 00101110
Class	C	
Network	DE 9C A4	11011110 10011100 10100100
Host	2E	00101110
Destination IP Address (Decimal)	222 156 164 46	
Payload Data	3C 98 13 45 86	00111100 10011000 00010011 01000101 10000110

1.



	Router A	Router B	Router C	Router D
Network	Next Hop	Next Hop	Next Hop	Next Hop
10.0.0.0	Direct	Direct	20.0.0.1	40.0.0.2
20.0.0.0	10.0.0.1	Direct	Direct	30.0.0.3
30.0.0.0	40.0.0.4	20.0.0.3	Direct	Direct
40.0.0.0	Direct	10.0.0.2	30.0.0.4	Direct
50.0.0.0	40.0.0.4	10.0.0.2 or 20.0.0.3	30.0.0.4	Direct
Default	10.0.0.1	20.0.0.5	20.0.0.5	30.0.0.3

3.

a	14			
b	1022			
c	255	255	252	0
	11111111	11111111	11111100	00000000
d	117	227	191	233
	01110101	11100011	10111111	11101001

4.

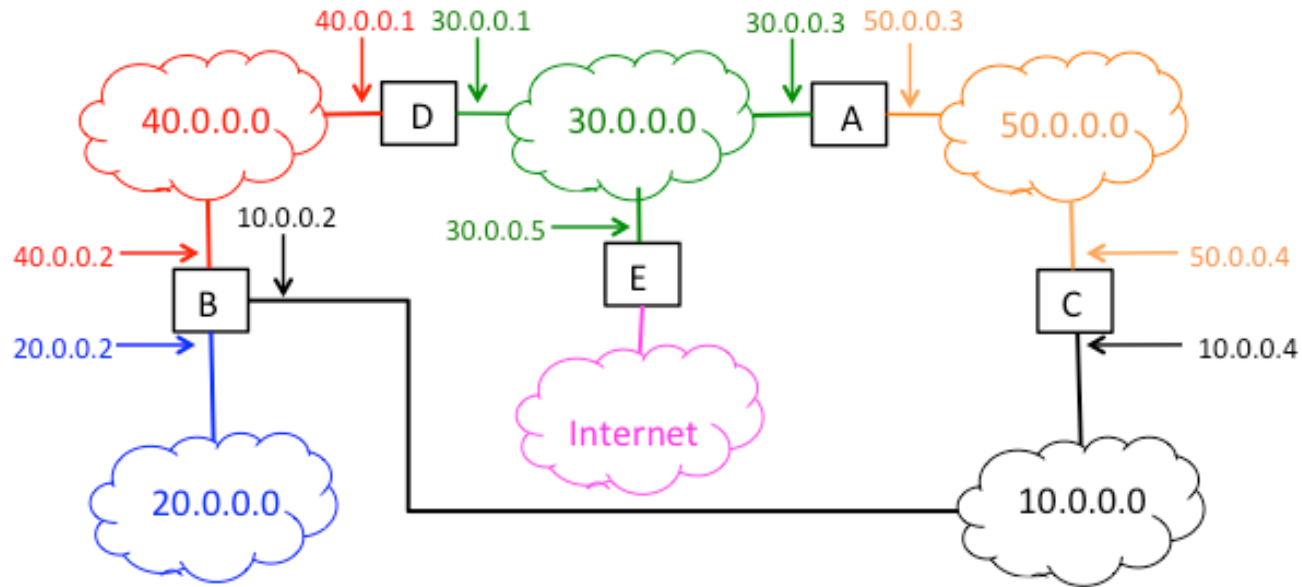
IP Address	183	239	229	251
	10110111	11101111	11100101	11111011
Subnet Mask	255	255	252	0
	11111111	11111111	11111100	00000000
a	Network	47,087		
b	Subnet	57		
c	Host	507		

5.

C9	BC	18	C9	91	75	F5	C3	C5	36	02	72	08	00	45	2A
00	72	A0	72	7B	AD	F6	0B	BE	83	20	9B	12	D0	B8	0B
FC	1D	71	35	B5	D9	FE	5B	34	62	2F	9D	D0	0A	B2	42
BF	89	3D	4B	10	72	DE	F0	5E	85	6E	71	A2	BC	AE	8A
DF	C7	91	9A	55	D0	7D	A2	2D	2E	C0	1C	30	D2	67	BE
52	E0	71	FA	13	FE	3A	6D	77	E0	B2	C2	6E	14	95	51
41	7E	0A	21	40	42	C4	D3	F0	C5	74	D5	BC	51	40	43
59	B6	82	AF	6E	2B	3F	D4	06	EA	2D	B7	64	69	92	89

Destination Hardware Address	C9 BC 18 C9 91 75	11001001 10111100 00011000 11001001 10010001 01110101
Source Hardware Address	F5 C3 C5 36 02 72	11110101 11000011 11000101 00110110 00000010 01110010
Frame Type	08 00	00001000 00000000
Vers & Len	45	01000101
Type Of Service	2A	00101010
Total Length	00 72	00000000 01110010
Ident	A0 72	10100000 01110010
Flags & Fragment Offset	7B AD	01111011 10101101
Flags	Don't Fragment More Fragments	
Fragment Offset	1B AD	00011011 10101101
TTL	F6	11110110
Type	0B	00001011
Header Checksum	BE 83	10111110 10000011
Source IP Address	20 9B 12 D0	00100000 10011011 00010010 11010000
Class	A	
Network	20	00100000
Host	9B 12 D0	10011011 00010010 11010000
Source IP Address (Decimal)	32 155 18 208	
Destination IP Address	B8 0B FC 1D	10111000 00001011 11111100 00011101
Class	B	
Network	B8 0B	10111000 00001011
Host	FC 1D	11111100 00011101
Destination IP Address (Decimal)	184 11 252 29	
Payload Data	71 35 B5 D9 FE	01110001 00110101 10110101 11011001 11111110

1.



	Router A	Router B	Router C	Router D
Network	Next Hop	Next Hop	Next Hop	Next Hop
10.0.0.0	50.0.0.4	Direct	Direct	40.0.0.2
20.0.0.0	50.0.0.4 or 30.0.0.1	Direct	10.0.0.2	40.0.0.2
30.0.0.0	Direct	40.0.0.1	50.0.0.3	Direct
40.0.0.0	30.0.0.1	Direct	10.0.0.2	Direct
50.0.0.0	Direct	10.0.0.4	Direct	30.0.0.3
Default	30.0.0.5	40.0.0.1	50.0.0.3	30.0.0.5

3.

a	14			
b	1022			
c	255	255	252	0
	11111111	11111111	11111100	00000000
d	121	239	135	191
	01111001	11101111	10000111	10111111

4.

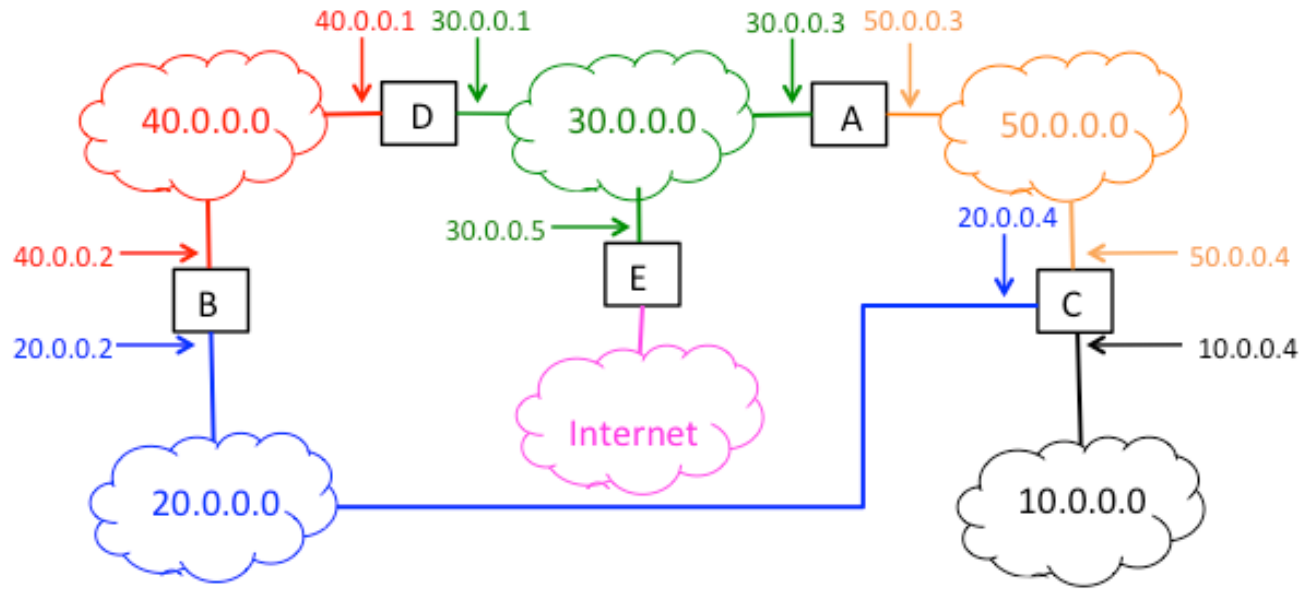
IP Address	189	243	215	195
	10111101	11110011	11010111	11000011
Subnet Mask	255	255	252	0
	11111111	11111111	11111100	00000000
a	Network	48,627		
b	Subnet	53		
c	Host	963		

5.

7A	F4	A1	8C	BB	DC	76	65	34	66	7C	A6	08	00	45	97
00	72	2A	D9	77	65	73	9F	04	79	DD	3B	0C	01	5A	5A
16	CC	4D	B8	7E	FD	C4	1A	3E	9F	6F	60	EC	D6	54	2C
17	60	0A	BA	80	55	69	3B	C0	46	EA	9B	A6	8F	73	71
33	F2	22	2F	8B	42	F5	2F	6C	8F	1F	5E	79	D6	DB	F6
44	F0	29	FC	CA	79	2B	25	C9	02	AA	6D	F7	78	F8	03
06	91	14	00	B0	71	B6	58	56	22	EE	B6	99	5F	B5	E4
9A	20	AC	AF	F0	7B	E3	CD	26	BB	89	A1	69	70	90	B4

Destination Hardware Address	7A	F4	A1	8C	BB	DC	01111010	11110100	10100001	10001100	10111011	11011100
Source Hardware Address	76	65	34	66	7C	A6	01110110	01100101	00110100	01100110	01111100	10100110
Frame Type	08	00	00001000	00000000								
Vers & Len	45	01000101										
Type Of Service	97	10010111										
Total Length	00	72	00000000	01110010								
Ident	2A	D9	00101010	11011001								
Flags & Fragment Offset	77	65	01110111	01100101								
Flags	Don't Fragment	More Fragments										
Fragment Offset	17	65	00010111	01100101								
TTL	73	01110011										
Type	9F	10011111										
Header Checksum	04	79	00000100	01111001								
Source IP Address	DD	3B	0C	01	11011101	00111011	00001100	00000001				
Class	C											
Network	DD	3B	0C	11011101	00111011	00001100						
Host	01	00000001										
Source IP Address (Decimal)	221	59	12	1								
Destination IP Address	5A	5A	16	CC	01011010	01011010	00010110	11001100				
Class	A											
Network	5A	01011010										
Host	5A	16	CC	01011010	00010110	11001100						
Destination IP Address (Decimal)	90	90	22	204								
Payload Data	4D	B8	7E	FD	C4	01001101	10111000	01111110	11111101	11000100		

1.



	Router A	Router B	Router C	Router D
Network				
10.0.0.0	50.0.0.4	20.0.0.4	Direct	40.0.0.2 or 30.0.0.3
20.0.0.0	50.0.0.4	Direct	Direct	40.0.0.2
30.0.0.0	Direct	40.0.0.1	50.0.0.3	Direct
40.0.0.0	30.0.0.1	Direct	20.0.0.2	Direct
50.0.0.0	Direct	20.0.0.4	Direct	30.0.0.3
Default	30.0.0.5	40.0.0.1	50.0.0.3	30.0.0.5

3.

a	14			
b	1022			
c	255	255	252	0
	11111111	11111111	11111100	00000000
d	123	239	15	242
	01111011	11101111	00001111	11110010

4.

IP Address	179	233	223	211
	10110011	11101001	11011111	11010011
Subnet Mask	255	255	252	0
	11111111	11111111	11111100	00000000
a	Network	46,057		
b	Subnet	55		
c	Host	979		

5.

D3	E4	5E	8E	AC	07	86	EE	8D	24	62	35	08	00	45	51
00	72	E5	CE	78	02	FD	93	49	EE	AA	15	D0	79	13	1E
18	77	F5	FB	0F	5B	C1	E9	E6	4B	E5	64	2C	FF	2D	A8
35	BF	99	D4	E3	11	58	34	FE	49	1C	AD	81	82	D5	C0
E5	6A	CD	FC	66	04	8E	F8	38	F5	C2	BB	9B	8B	FD	A7
18	79	F5	6C	31	67	93	3A	88	CD	79	C8	1F	91	50	09
22	3D	21	33	32	39	35	3F	61	E4	5C	2C	7B	CC	DB	4A
45	0A	AA	2F	D2	0E	E3	83	8C	B2	37	D0	A6	0A	A4	E2

Destination Hardware Address	D3	E4	5E	8E	AC	07	11010011	11100100	01011110	10001110	10101100	00000111
Source Hardware Address	86	EE	8D	24	62	35	10000110	11101110	10001101	00100100	01100010	00110101
Frame Type	08	00	00001000 00000000									
Vers & Len	45	01000101										
Type Of Service	51	01010001										
Total Length	00	72	00000000 01110010									
Ident	E5	CE	11100101 11001110									
Flags & Fragment Offset	78	02	01111000 00000010									
Flags	Don't Fragment		More Fragments									
Fragment Offset	18	02	00011000 00000010									
TTL	FD	11111101										
Type	93	10010011										
Header Checksum	49	EE	01001001 11101110									
Source IP Address	AA	15	D0	79	10101010 00010101 11010000 01111001							
Class	B											
Network	AA	15	10101010 00010101									
Host	D0	79	11010000 01111001									
Source IP Address (Decimal)	170	21	208	121								
Destination IP Address	13	1E	18	77	00010011 00011110 00011000 01110111							
Class	A											
Network	13	00010011										
Host	1E	18	77	00011110 00011000 01110111								
Destination IP Address (Decimal)	19	30	24	119								
Payload Data	F5	FB	0F	5B	C1	11110101 11111011 00001111 01011011 11000001						