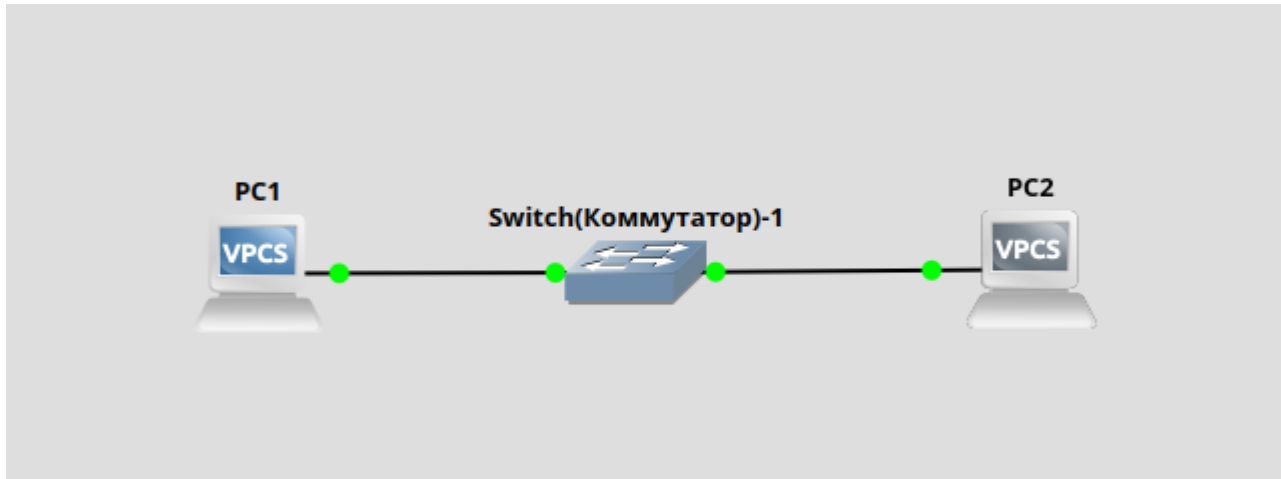2)

PC1> ip 10.1.1.1 255.255.255.0
PC2> ip 10.1.1.2 255.255.255.0
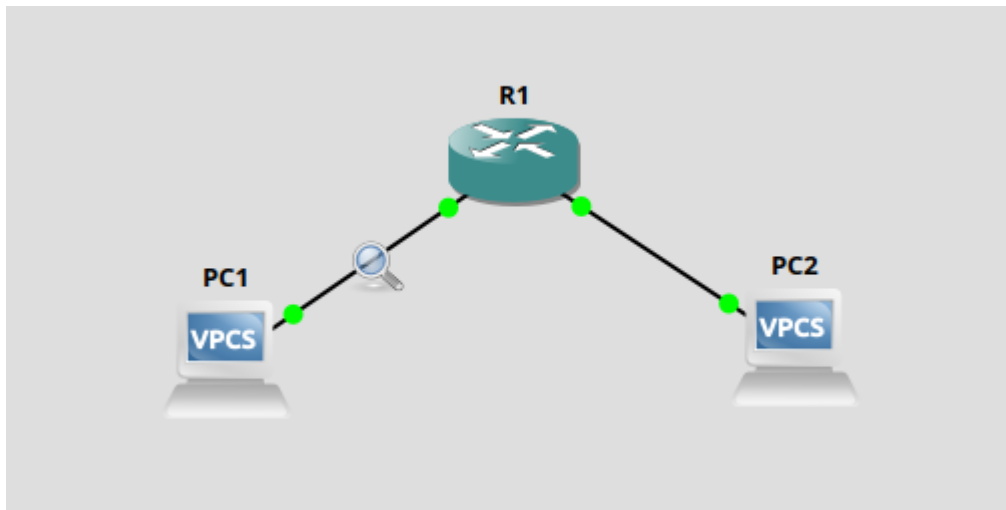
3)

PC1> ping 10.1.1.2


```
PC1> ping 10.1.1.2

84 bytes from 10.1.1.2 icmp_seq=1 ttl=64 time=15.724 ms
84 bytes from 10.1.1.2 icmp_seq=2 ttl=64 time=7.664 ms
84 bytes from 10.1.1.2 icmp_seq=3 ttl=64 time=0.481 ms
84 bytes from 10.1.1.2 icmp_seq=4 ttl=64 time=0.461 ms
84 bytes from 10.1.1.2 icmp_seq=5 ttl=64 time=4.372 ms
```

4)

Capturing from Standard input [PC2 Ethernet0 to Switch1 Ethernet1]

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Apply a display filter ... <Ctrl-/>

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	Private_66:68:00	Broadcast	ARP	64	Who has 10.1.1.2? Tell 10.1.1.1
2	0.000167	Private_66:68:01	Private_66:68:00	ARP	64	10.1.1.2 is at 00:50:79:66:68:01
3	0.000760	10.1.1.1	10.1.1.2	ICMP	98	Echo (ping) request id=0x19fb, seq=1/256, ttl=64 (reply in 4)
4	0.000908	10.1.1.2	10.1.1.1	ICMP	98	Echo (ping) reply id=0x19fb, seq=1/256, ttl=64 (request in 3)
5	1.002081	10.1.1.1	10.1.1.2	ICMP	98	Echo (ping) request id=0x1afb, seq=2/512, ttl=64 (reply in 6)
6	1.002425	10.1.1.2	10.1.1.1	ICMP	98	Echo (ping) reply id=0x1afb, seq=2/512, ttl=64 (request in 5)
7	2.003230	10.1.1.1	10.1.1.2	ICMP	98	Echo (ping) request id=0x1bfb, seq=3/768, ttl=64 (reply in 8)
8	2.003495	10.1.1.2	10.1.1.1	ICMP	98	Echo (ping) reply id=0x1bfb, seq=3/768, ttl=64 (request in 7)
9	3.004661	10.1.1.1	10.1.1.2	ICMP	98	Echo (ping) request id=0x1cfb, seq=4/1024, ttl=64 (reply in 10)
10	3.004981	10.1.1.2	10.1.1.1	ICMP	98	Echo (ping) reply id=0x1cfb, seq=4/1024, ttl=64 (request in 9)
11	4.005824	10.1.1.1	10.1.1.2	ICMP	98	Echo (ping) request id=0x1dfb, seq=5/1280, ttl=64 (reply in 12)
12	4.006075	10.1.1.2	10.1.1.1	ICMP	98	Echo (ping) reply id=0x1dfb, seq=5/1280, ttl=64 (request in 11)

Capturing from Standard input [PC1 Ethernet0 to Switch1 Ethernet0]

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Apply a display filter ... <Ctrl-/>

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	Private_66:68:00	Broadcast	ARP	64	Who has 10.1.1.2? Tell 10.1.1.1
2	0.000230	Private_66:68:01	Private_66:68:00	ARP	64	10.1.1.2 is at 00:50:79:66:68:01
3	0.000796	10.1.1.1	10.1.1.2	ICMP	98	Echo (ping) request id=0x19fb, seq=1/256, ttl=64 (reply in 4)
4	0.000964	10.1.1.2	10.1.1.1	ICMP	98	Echo (ping) reply id=0x19fb, seq=1/256, ttl=64 (request in 3)
5	1.002100	10.1.1.1	10.1.1.2	ICMP	98	Echo (ping) request id=0x1afb, seq=2/512, ttl=64 (reply in 6)
6	1.002486	10.1.1.2	10.1.1.1	ICMP	98	Echo (ping) reply id=0x1afb, seq=2/512, ttl=64 (request in 5)
7	2.003257	10.1.1.1	10.1.1.2	ICMP	98	Echo (ping) request id=0x1bfb, seq=3/768, ttl=64 (reply in 8)
8	2.003555	10.1.1.2	10.1.1.1	ICMP	98	Echo (ping) reply id=0x1bfb, seq=3/768, ttl=64 (request in 7)
9	3.004674	10.1.1.1	10.1.1.2	ICMP	98	Echo (ping) request id=0x1cfb, seq=4/1024, ttl=64 (reply in 10)
10	3.005038	10.1.1.2	10.1.1.1	ICMP	98	Echo (ping) reply id=0x1cfb, seq=4/1024, ttl=64 (request in 9)
11	4.005845	10.1.1.1	10.1.1.2	ICMP	98	Echo (ping) request id=0x1dfb, seq=5/1280, ttl=64 (reply in 12)
12	4.006133	10.1.1.2	10.1.1.1	ICMP	98	Echo (ping) reply id=0x1dfb, seq=5/1280, ttl=64 (request in 11)

5)

R1:
conf t
int fa0/0
ip add 10.1.1.2 255.255.255.0
no shut
int fa0/1
ip add 10.1.2.2 255.255.255.0
no shut

PC1> ip 10.1.1.1 255.255.255.0 10.1.1.2
PC2> ip 10.1.2.1 255.255.255.0 10.1.2.2

6)
PC1> ping 10.1.2.1

```
PC1> pin 10.1.2.1

84 bytes from 10.1.2.1 icmp_seq=1 ttl=63 time=30.224 ms
84 bytes from 10.1.2.1 icmp_seq=2 ttl=63 time=17.130 ms
84 bytes from 10.1.2.1 icmp_seq=3 ttl=63 time=15.541 ms
84 bytes from 10.1.2.1 icmp_seq=4 ttl=63 time=17.406 ms
84 bytes from 10.1.2.1 icmp_seq=5 ttl=63 time=18.822 ms
```

7)

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Apply a display filter ... <Ctrl-/>

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	ca:01:63:98:00:06	CDP/VTP/DTP/PAgP/UD...	CDP	349	Device ID: R1 Port ID: FastEthernet0/1
2	6.589753	ca:01:63:98:00:06	ca:01:63:98:00:06	LOOP	60	Reply
3	11.952887	10.1.1.1	10.1.2.1	ICMP	98	Echo (ping) request id=0x791b, seq=1/256, ttl=63 (reply in 6)
4	11.953091	Private_66:68:01	Broadcast	ARP	64	Who has 10.1.2.2? Tell 10.1.2.1
5	11.962977	ca:01:63:98:00:06	Private_66:68:01	ARP	60	10.1.2.2 is at ca:01:63:98:00:06
6	11.963729	10.1.2.1	10.1.1.1	ICMP	98	Echo (ping) reply id=0x791b, seq=1/256, ttl=64 (request in 3)
7	12.980275	10.1.1.1	10.1.2.1	ICMP	98	Echo (ping) request id=0x7a1b, seq=2/512, ttl=63 (reply in 8)
8	12.980614	10.1.2.1	10.1.1.1	ICMP	98	Echo (ping) reply id=0x7a1b, seq=2/512, ttl=64 (request in 7)
9	13.997090	10.1.1.1	10.1.2.1	ICMP	98	Echo (ping) request id=0x7b1b, seq=3/768, ttl=63 (reply in 10)
10	13.997444	10.1.2.1	10.1.1.1	ICMP	98	Echo (ping) reply id=0x7b1b, seq=3/768, ttl=64 (request in 9)
11	15.015059	10.1.1.1	10.1.2.1	ICMP	98	Echo (ping) request id=0x7c1b, seq=4/1024, ttl=63 (reply in 12)
12	15.015478	10.1.2.1	10.1.1.1	ICMP	98	Echo (ping) reply id=0x7c1b, seq=4/1024, ttl=64 (request in 11)
13	16.034541	10.1.1.1	10.1.2.1	ICMP	98	Echo (ping) request id=0x7d1b, seq=5/1280, ttl=63 (reply in 14)
14	16.034692	10.1.2.1	10.1.1.1	ICMP	98	Echo (ping) reply id=0x7d1b, seq=5/1280, ttl=64 (request in 13)
15	16.246255	ca:01:63:98:00:06	ca:01:63:98:00:06	LOOP	60	Reply

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Apply a display filter ... <Ctrl-/>

No.	Time	Source	Destination	Protocol	Length	Info
19	70.492775	ca:01:63:98:00:08	ca:01:63:98:00:08	LOOP	60	Reply
20	80.752651	ca:01:63:98:00:08	ca:01:63:98:00:08	LOOP	60	Reply
21	91.015922	ca:01:63:98:00:08	ca:01:63:98:00:08	LOOP	60	Reply
22	94.635777	ca:01:63:98:00:08	CDP/VTP/DTP/PAgP/UD...	CDP	349	Device ID: R1 Port ID: FastEthernet0/0
23	101.219422	ca:01:63:98:00:08	ca:01:63:98:00:08	LOOP	60	Reply
24	111.266067	ca:01:63:98:00:08	ca:01:63:98:00:08	LOOP	60	Reply
25	116.651156	Private_66:68:00	Broadcast	ARP	64	Who has 10.1.1.2? Tell 10.1.1.1
26	116.659475	ca:01:63:98:00:08	Private_66:68:00	ARP	60	10.1.1.2 is at ca:01:63:98:00:08
27	116.660017	10.1.1.1	10.1.2.1	ICMP	98	Echo (ping) request id=0x791b, seq=1/256, ttl=64 (reply in 28)
28	116.689944	10.1.2.1	10.1.1.1	ICMP	98	Echo (ping) reply id=0x791b, seq=1/256, ttl=63 (request in 27)
29	117.690361	10.1.1.1	10.1.2.1	ICMP	98	Echo (ping) request id=0x7a1b, seq=2/512, ttl=64 (reply in 30)
30	117.707207	10.1.2.1	10.1.1.1	ICMP	98	Echo (ping) reply id=0x7a1b, seq=2/512, ttl=63 (request in 29)
31	118.708715	10.1.1.1	10.1.2.1	ICMP	98	Echo (ping) request id=0x7b1b, seq=3/768, ttl=64 (reply in 32)
32	118.723986	10.1.2.1	10.1.1.1	ICMP	98	Echo (ping) reply id=0x7b1b, seq=3/768, ttl=63 (request in 31)
33	119.724732	10.1.1.1	10.1.2.1	ICMP	98	Echo (ping) request id=0x7c1b, seq=4/1024, ttl=64 (reply in 34)
34	119.741975	10.1.2.1	10.1.1.1	ICMP	98	Echo (ping) reply id=0x7c1b, seq=4/1024, ttl=63 (request in 33)
35	120.742883	10.1.1.1	10.1.2.1	ICMP	98	Echo (ping) request id=0x7d1b, seq=5/1280, ttl=64 (reply in 36)
36	120.761539	10.1.2.1	10.1.1.1	ICMP	98	Echo (ping) reply id=0x7d1b, seq=5/1280, ttl=63 (request in 35)