

2а) разбить сеть 10.0.1.0/24 на 2 подсети, на 4, на 8. Для каждого разбиения указать адрес сети, первого узла, последнего узла и широковещательный.

Две сети

1)

Network:	10.0.1.0/25	00001010.00000000.00000001.0 0000000
HostMin:	10.0.1.1	00001010.00000000.00000001.0 0000001
HostMax:	10.0.1.126	00001010.00000000.00000001.0 1111110
Broadcast:	10.0.1.127	00001010.00000000.00000001.0 1111111

2)

Network:	10.0.1.128/25	00001010.00000000.00000001.1 0000000
HostMin:	10.0.1.129	00001010.00000000.00000001.1 0000001
HostMax:	10.0.1.254	00001010.00000000.00000001.1 1111110
Broadcast:	10.0.1.255	00001010.00000000.00000001.1 1111111

Четыре сети

1)

Network:	10.0.1.0/26	00001010.00000000.00000001.00 000000
HostMin:	10.0.1.1	00001010.00000000.00000001.00 000001
HostMax:	10.0.1.62	00001010.00000000.00000001.00 111110
Broadcast:	10.0.1.63	00001010.00000000.00000001.00 111111

2)

Network:	10.0.1.64/26	00001010.00000000.00000001.01 000000
HostMin:	10.0.1.65	00001010.00000000.00000001.01 000001
HostMax:	10.0.1.126	00001010.00000000.00000001.01 111110
Broadcast:	10.0.1.127	00001010.00000000.00000001.01 111111

3)

Network:	10.0.1.128/26	00001010.00000000.00000001.10 000000
HostMin:	10.0.1.129	00001010.00000000.00000001.10 000001
HostMax:	10.0.1.190	00001010.00000000.00000001.10 111110
Broadcast:	10.0.1.191	00001010.00000000.00000001.10 111111

4)

Network:	10.0.1.192/26	00001010.00000000.00000001.11 000000
HostMin:	10.0.1.193	00001010.00000000.00000001.11 000001
HostMax:	10.0.1.254	00001010.00000000.00000001.11 111110
Broadcast:	10.0.1.255	00001010.00000000.00000001.11 111111

Восемь сетей:

1)

Network:	10.0.1.0/27	00001010.00000000.00000001.000 00000
HostMin:	10.0.1.1	00001010.00000000.00000001.000 00001
HostMax:	10.0.1.30	00001010.00000000.00000001.000 11110
Broadcast:	10.0.1.31	00001010.00000000.00000001.000 11111

2)

Network: 10.0.1.32/27 00001010.00000000.00000001.001 00000
HostMin: 10.0.1.33 00001010.00000000.00000001.001 00001
HostMax: 10.0.1.62 00001010.00000000.00000001.001 11110
Broadcast: 10.0.1.63 00001010.00000000.00000001.001 11111

3)

Network: 10.0.1.64/27 00001010.00000000.00000001.010 00000
HostMin: 10.0.1.65 00001010.00000000.00000001.010 00001
HostMax: 10.0.1.94 00001010.00000000.00000001.010 11110
Broadcast: 10.0.1.95 00001010.00000000.00000001.010 11111

4)

Network: 10.0.1.96/27 00001010.00000000.00000001.011 00000
HostMin: 10.0.1.97 00001010.00000000.00000001.011 00001
HostMax: 10.0.1.126 00001010.00000000.00000001.011 11110
Broadcast: 10.0.1.127 00001010.00000000.00000001.011 11111

5)

Network: 10.0.1.128/27 00001010.00000000.00000001.100 00000
HostMin: 10.0.1.129 00001010.00000000.00000001.100 00001
HostMax: 10.0.1.158 00001010.00000000.00000001.100 11110
Broadcast: 10.0.1.159 00001010.00000000.00000001.100 11111

6)

Network: 10.0.1.160/27 00001010.00000000.00000001.101 00000
HostMin: 10.0.1.161 00001010.00000000.00000001.101 00001
HostMax: 10.0.1.190 00001010.00000000.00000001.101 11110
Broadcast: 10.0.1.191 00001010.00000000.00000001.101 11111

7)

Network: 10.0.1.192/27 00001010.00000000.00000001.110 00000
HostMin: 10.0.1.193 00001010.00000000.00000001.110 00001
HostMax: 10.0.1.222 00001010.00000000.00000001.110 11110
Broadcast: 10.0.1.223 00001010.00000000.00000001.110 11111

8)

Network: 10.0.1.224/27 00001010.00000000.00000001.111 00000
HostMin: 10.0.1.225 00001010.00000000.00000001.111 00001
HostMax: 10.0.1.254 00001010.00000000.00000001.111 11110
Broadcast: 10.0.1.255 00001010.00000000.00000001.111 11111

2б) сколько хостов будет в сети 172.16.1.0/25,

Hosts/Net: 126

в сети 10.0.0.0/26 ?

Hosts/Net: 62

2в) какой будет бродкаст адрес в сети 10.0.0.0/30,

Broadcast: 10.0.0.3 00001010.00000000.00000000.000000 11

в сети 10.255.255.124/30 ?

Broadcast: 10.255.255.127 00001010.11111111.11111111.011111 11