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Kelas : Jaringan Komputer D

"Demi Allah bahwa saya mengerjakan sendiri dengan jujur dan tidak menyontek teman"

### UTS Jaringan Komputer

Terdapat 256 PC pada sebuah gedung.

Hitunglah!

- Jumlah maksimum host / subnet
- Jumlah Subnet
- CIDR & Netmask
- Blok Subnet
- Tabel Subnetting

### Jawaban

a.  $256 + 2 = 258 \rightarrow 2^9 = 512 \text{ host} \rightarrow \text{maksudnya } 2^h - 2 = 2^9 - 2 = 512 - 2 = 510 \text{ host}$

b.  $2^8 = 2^7 = 128 \text{ subnet}$

c. 255.255.254.0

11111111.11111111.11111110.00000000 / 23

d.  $256 - 254 = 2$

$(0, 2, 4, 6, 8, 10, 12, \dots, 250, 252, 254) < 255$

e. Tabel Subnetting

NO	IP Network	Range IP Address	IP Broadcast
1	172.1.0.0	172.1.0.1 - 172.1.1.254	172.1.1.255
2	172.1.2.0	172.1.2.1 - 172.1.3.254	172.1.3.255
3	172.1.4.0	172.1.4.1 - 172.1.5.254	172.1.5.255
4	172.1.6.0	172.1.6.1 - 172.1.7.254	172.1.7.255
5	172.1.8.0	172.1.8.1 - 172.1.9.254	172.1.9.255
6	172.1.10.0	172.1.10.1 - 172.1.11.254	172.1.11.255
7	172.1.12.0	172.1.12.1 - 172.1.13.254	172.1.13.255
8	172.1.14.0	172.1.14.1 - 172.1.15.254	172.1.15.255
9	172.1.16.0	172.1.16.1 - 172.1.17.254	172.1.17.255
10	172.1.18.0	172.1.18.1 - 172.1.19.254	172.1.19.255
11	172.1.20.0	172.1.20.1 - 172.1.21.254	172.1.21.255
12	172.1.22.0	172.1.22.1 - 172.1.23.254	172.1.23.255
13	172.1.24.0	172.1.24.1 - 172.1.25.254	172.1.25.255
14	172.1.26.0	172.1.26.1 - 172.1.27.254	172.1.27.255

15	172.1.28.0	172.1.28.1 - 172.1.29.254	172.1.29.255
16	172.1.30.0	172.1.30.1 - 172.1.31.254	172.1.31.255
17	172.1.32.0	172.1.32.1 - 172.1.33.254	172.1.33.255
18	172.1.34.0	172.1.34.1 - 172.1.35.254	172.1.35.255
19	172.1.36.0	172.1.36.1 - 172.1.37.254	172.1.37.255
20	172.1.38.0	172.1.38.1 - 172.1.39.254	172.1.39.255
21	172.1.40.0	172.1.40.1 - 172.1.41.254	172.1.41.255
22	172.1.42.0	172.1.42.1 - 172.1.43.254	172.1.43.255
23	172.1.44.0	172.1.44.1 - 172.1.45.254	172.1.45.255
24	172.1.46.0	172.1.46.1 - 172.1.47.254	172.1.47.255
25	172.1.48.0	172.1.48.1 - 172.1.49.254	172.1.49.255
26	172.1.50.0	172.1.50.1 - 172.1.51.254	172.1.51.255
27	172.1.52.0	172.1.52.1 - 172.1.53.254	172.1.53.255
28	172.1.54.0	172.1.54.1 - 172.1.55.254	172.1.55.255
29	172.1.56.0	172.1.56.1 - 172.1.57.254	172.1.57.255
30	172.1.58.0	172.1.58.1 - 172.1.59.254	172.1.59.255
31	172.1.60.0	172.1.60.1 - 172.1.61.254	172.1.61.255
32	172.1.62.0	172.1.62.1 - 172.1.63.254	172.1.63.255
33	172.1.64.0	172.1.64.1 - 172.1.65.254	172.1.65.255
34	172.1.66.0	172.1.66.1 - 172.1.67.254	172.1.67.255
35	172.1.68.0	172.1.68.1 - 172.1.69.254	172.1.69.255
36	172.1.70.0	172.1.70.1 - 172.1.71.254	172.1.71.255
37	172.1.72.0	172.1.72.1 - 172.1.73.254	172.1.73.255
38	172.1.74.0	172.1.74.1 - 172.1.75.254	172.1.75.255
39	172.1.76.0	172.1.76.1 - 172.1.77.254	172.1.77.255
40	172.1.78.0	172.1.78.1 - 172.1.79.254	172.1.79.255
41	172.1.80.0	172.1.80.1 - 172.1.81.254	172.1.81.255
42	172.1.82.0	172.1.82.1 - 172.1.83.254	172.1.83.255
43	172.1.84.0	172.1.84.1 - 172.1.85.254	172.1.85.255
44	172.1.86.0	172.1.86.1 - 172.1.87.254	172.1.87.255
45	172.1.88.0	172.1.88.1 - 172.1.89.254	172.1.89.255
46	172.1.90.0	172.1.90.1 - 172.1.91.254	172.1.91.255
47	172.1.92.0	172.1.92.1 - 172.1.93.254	172.1.93.255
48	172.1.94.0	172.1.94.1 - 172.1.95.254	172.1.95.255
49	172.1.96.0	172.1.96.1 - 172.1.97.254	172.1.97.255
50	172.1.98.0	172.1.98.1 - 172.1.99.254	172.1.99.255
51	172.1.100.0	172.1.100.1 - 172.1.101.254	172.1.101.255
52	172.1.102.0	172.1.102.1 - 172.1.103.254	172.1.103.255
53	172.1.104.0	172.1.104.1 - 172.1.105.254	172.1.105.255

54	172.1.106.0	172.1.106.1 - 172.1.107.254	172.1.107.255
55	172.1.108.0	172.1.108.1 - 172.1.109.254	172.1.109.255
56	172.1.110.0	172.1.110.1 - 172.1.111.254	172.1.111.255
57	172.1.112.0	172.1.112.1 - 172.1.113.254	172.1.113.255
58	172.1.114.0	172.1.114.1 - 172.1.115.254	172.1.115.255
59	172.1.116.0	172.1.116.1 - 172.1.117.254	172.1.117.255
60	172.1.118.0	172.1.118.1 - 172.1.119.254	172.1.119.255
61	172.1.120.0	172.1.120.1 - 172.1.121.254	172.1.121.255
62	172.1.122.0	172.1.122.1 - 172.1.123.254	172.1.123.255
63	172.1.124.0	172.1.124.1 - 172.1.125.254	172.1.125.255
64	172.1.126.0	172.1.126.1 - 172.1.127.254	172.1.127.255
65	172.1.128.0	172.1.128.1 - 172.1.129.254	172.1.129.255
66	172.1.130.0	172.1.130.1 - 172.1.131.254	172.1.131.255
67	172.1.132.0	172.1.132.1 - 172.1.133.254	172.1.133.255
68	172.1.134.0	172.1.134.1 - 172.1.135.254	172.1.135.255
69	172.1.136.0	172.1.136.1 - 172.1.137.254	172.1.137.255
70	172.1.138.0	172.1.138.1 - 172.1.139.254	172.1.139.255
71	172.1.140.0	172.1.140.1 - 172.1.141.254	172.1.141.255
72	172.1.142.0	172.1.142.1 - 172.1.143.254	172.1.143.255
73	172.1.144.0	172.1.144.1 - 172.1.145.254	172.1.145.255
74	172.1.146.0	172.1.146.1 - 172.1.147.254	172.1.147.255
75	172.1.148.0	172.1.148.1 - 172.1.149.254	172.1.149.255
76	172.1.150.0	172.1.150.1 - 172.1.151.254	172.1.151.255
77	172.1.152.0	172.1.152.1 - 172.1.153.254	172.1.153.255
78	172.1.154.0	172.1.154.1 - 172.1.155.254	172.1.155.255
79	172.1.156.0	172.1.156.1 - 172.1.157.254	172.1.157.255
80	172.1.158.0	172.1.158.1 - 172.1.159.254	172.1.159.255
81	172.1.160.0	172.1.160.1 - 172.1.161.254	172.1.161.255
82	172.1.162.0	172.1.162.1 - 172.1.163.254	172.1.163.255
83	172.1.164.0	172.1.164.1 - 172.1.165.254	172.1.165.255
84	172.1.166.0	172.1.166.1 - 172.1.167.254	172.1.167.255
85	172.1.168.0	172.1.168.1 - 172.1.169.254	172.1.169.255
86	172.1.170.0	172.1.170.1 - 172.1.171.254	172.1.171.255
87	172.1.172.0	172.1.172.1 - 172.1.173.254	172.1.173.255
88	172.1.174.0	172.1.174.1 - 172.1.175.254	172.1.175.255
89	172.1.176.0	172.1.176.1 - 172.1.177.254	172.1.177.255
90	172.1.178.0	172.1.178.1 - 172.1.179.254	172.1.179.255
91	172.1.180.0	172.1.180.1 - 172.1.181.254	172.1.181.255
92	172.1.182.0	172.1.182.1 - 172.1.183.254	172.1.183.255



87	172.1.184.0	172.1.184.1 - 172.1.185.254	172.1.185.255
88	172.1.186.0	172.1.186.1 - 172.1.187.254	172.1.187.255
89	172.1.188.0	172.1.188.1 - 172.1.189.254	172.1.189.255
90	172.1.190.0	172.1.190.1 - 172.1.191.254	172.1.191.255
91	172.1.192.0	172.1.192.1 - 172.1.193.254	172.1.193.255
92	172.1.194.0	172.1.194.1 - 172.1.195.254	172.1.195.255
93	172.1.196.0	172.1.196.1 - 172.1.197.254	172.1.197.255
100	172.1.198.0	172.1.198.1 - 172.1.199.254	172.1.199.255
101	172.1.200.0	172.1.200.1 - 172.1.201.254	172.1.201.255
102	172.1.202.0	172.1.202.1 - 172.1.203.254	172.1.203.255
103	172.1.204.0	172.1.204.1 - 172.1.205.254	172.1.205.255
104	172.1.206.0	172.1.206.1 - 172.1.207.254	172.1.207.255
105	172.1.208.0	172.1.208.1 - 172.1.209.254	172.1.209.255
106	172.1.210.0	172.1.210.1 - 172.1.211.254	172.1.211.255
107	172.1.212.0	172.1.212.1 - 172.1.213.254	172.1.213.255
108	172.1.214.0	172.1.214.1 - 172.1.215.254	172.1.215.255
109	172.1.216.0	172.1.216.1 - 172.1.217.254	172.1.217.255
110	172.1.218.0	172.1.218.1 - 172.1.219.254	172.1.219.255
111	172.1.220.0	172.1.220.1 - 172.1.221.254	172.1.221.255
112	172.1.222.0	172.1.222.1 - 172.1.223.254	172.1.223.255
113	172.1.224.0	172.1.224.1 - 172.1.225.254	172.1.225.255
114	172.1.226.0	172.1.226.1 - 172.1.227.254	172.1.227.255
115	172.1.228.0	172.1.228.1 - 172.1.229.254	172.1.229.255
116	172.1.230.0	172.1.230.1 - 172.1.231.254	172.1.231.255
117	172.1.232.0	172.1.232.1 - 172.1.233.254	172.1.233.255
118	172.1.234.0	172.1.234.1 - 172.1.235.254	172.1.235.255
119	172.1.236.0	172.1.236.1 - 172.1.237.254	172.1.237.255
120	172.1.238.0	172.1.238.1 - 172.1.239.254	172.1.239.255
121	172.1.240.0	172.1.240.1 - 172.1.241.254	172.1.241.255
122	172.1.242.0	172.1.242.1 - 172.1.243.254	172.1.243.255
123	172.1.244.0	172.1.244.1 - 172.1.245.254	172.1.245.255
124	172.1.246.0	172.1.246.1 - 172.1.247.254	172.1.247.255
125	172.1.248.0	172.1.248.1 - 172.1.249.254	172.1.249.255
126	172.1.250.0	172.1.250.1 - 172.1.251.254	172.1.251.255
127	172.1.252.0	172.1.252.1 - 172.1.253.254	172.1.253.255
128	172.1.254.0	172.1.254.1 - 172.1.255.254	172.1.255.255