آی پی های زیر را به n سابنت تقسیم کنید.

| 1)   192.168.1.0/24 | n = 4 |

2 ^ n >= 4 → n = 2

11111111.11111111.11111111.00000000	11111111.11111111.11111111.11000000
255.255.255.0	255.255.255.192
192.168.1.0/24	192.168.1.0/26

2 ^ 6 = 64 → Our usable IP = 64 – 2 = 62

Subnet #	Start Range	End of Range	Usable Range
1	192.168.1.0	192.168.1.63	192.168.1.1-192.168.1.62
2	192.168.1.64	192.168.1.127	192.168.1.65-192.168.1.126
3	192.168.1.128	192.168.1.191	192.168.1.129-192.168.1.190
4	192.168.1.192	192.168.1.255	192.168.1.193-192.168.1.254

| 2)   172.16.0.0/16 | n = 16 |

2 ^ n >= 16 → n = 4

11111111.11111111.00000000.00000000	11111111.11111111.11110000.00000000
255.255.255.0	255.255.240.0
172.16.0.0/16	172.16.0.0/20

2 ^ 12 = 4096 → Our usable IP = 4096 – 2 = 4094

4096 / 256 = 16

Subnet #	Start Range	End of Range	Usable Range
1	172.16.0.0	172.16.15.255	172.16.0.1 - 172.16.15.254
2	172.16.16.0	172.16.31.255	172.16.16.1 - 172.16.31.254
3	172.16.32.0	172.16.47.255	172.16.32.1 - 172.16.47.254
4	172.16.48.0	172.16.63.255	172.16.48.1 - 172.16.63.254
5	172.16.64.0	172.16.79.255	172.16.64.1 - 172.16.79.254

3)   10.0.0.0/8   n = 64

2 ^ n >= 64 → n = 6

11111111.00000000.00000000.00000000	11111111.11111100.00000000.00000000
255.0.0.0	255.252.0.0
10.0.0.0/8	10.0.0.0/14

2 ^ 18 = 262,144→ Our usable IP = 262,144– 2 = 262,142

262,144 / 256 = 1,024 / 256 = 4

Subnet #	Start Range	End of Range	Usable Range
1	10.0.0.0/14	10.3.255.255	10.0.0.1 - 10.3.255.254
2	10.4.0.0/14	10.7.255.255	10.4.0.1 - 10.7.255.254
3	10.8.0.0/14	10.11.255.255	10.8.0.1 - 10.11.255.254
4	10.12.0.0/14	10.15.255.255	10.12.0.1 - 10.15.255.254
5	10.16.0.0/14	10.19.255.255	10.16.0.1 - 10.19.255.254

4)   192.168.10.0/24   n = 8

2 ^ n >= 8 → n = 3

11111111.11111111.1111111111.00000000	11111111.11111111.11111111.11100000
255.255.255.0	255.255.224.0
192.168.10.0/24	192.168.10.0/27

2 ^ 5 = 32 → Our usable IP = 32– 2 = 30

Subnet #	Start Range (Network)	End of Range (Broadcast)	Usable Range
1	192.168.10.0/27	192.168.10.31	192.168.10.1 - 192.168.10.30
2	192.168.10.32/27	192.168.10.63	192.168.10.33 - 192.168.10.62
3	192.168.10.64/27	192.168.10.95	192.168.10.65 - 192.168.10.94
4	192.168.10.96/27	192.168.10.127	192.168.10.97 - 192.168.10.126
5	192.168.10.128/27	192.168.10.159	192.168.10.129 - 192.168.10.158

5)   172.31.0.0/16   n = 128

$2 \wedge n >= 128 \rightarrow n = 7$

11111111.11111111.00000000.00000000	11111111.11111111.11111110.00000000
255.255.0.0	255.255.254.0
172.31.0.0/16	172.31.0.0/23

$2 \wedge 9 = 512 \rightarrow$ Our usable IP = 512– 2 = 510

512 / 256 = 2

Subnet #	Start Range (Network)	End of Range (Broadcast)	Usable Range
1	172.31.0.0/23	172.31.1.255	172.31.0.1 - 172.31.1.254
2	172.31.2.0/23	172.31.3.255	172.31.2.1 - 172.31.3.254
3	172.31.4.0/23	172.31.5.255	172.31.4.1 - 172.31.5.254
4	172.31.6.0/23	172.31.7.255	172.31.6.1 - 172.31.7.254
5	172.31.8.0/23	172.31.9.255	172.31.8.1 - 172.31.9.254

6)   10.10.0.0/16   n = 1000

$2 \wedge n >= 1000 \rightarrow n = 10$

11111111.11111111.00000000.00000000	11111111.11111111.11111111.11000000
255.255.0.0	255.255.255.192
10.10.0.0/16	10.10.0.0/26

$2 \wedge 6 = 64 \rightarrow$ Our usable IP = 64 – 2 = 62

Subnet #	Start Range (Network)	End of Range (Broadcast)	Usable Range
1	10.10.0.0/26	10.10.0.63	10.10.0.1 - 10.10.0.62
2	10.10.0.64/26	10.10.0.127	10.10.0.65 - 10.10.0.126
3	10.10.0.128/26	10.10.0.191	10.10.0.129 - 10.10.0.190
4	10.10.0.192/26	10.10.0.255	10.10.0.193 - 10.10.0.254
5	10.10.1.0/26	10.10.1.63	10.10.1.1 - 10.10.1.62

7) 192.168.0.0/16	n = 1024

$2 \wedge n \geq 1024 \rightarrow n = 10$

11111111.11111111.00000000.00000000	11111111.11111111.11111111.11000000
255.255.0.0	255.255.255.192
192.168.0.0/16	192.168.0.0/26

$2 \wedge 6 = 64 \rightarrow$ Our usable IP = 64 – 2 = 62

Subnet #	Start Range (Network)	End of Range (Broadcast)	Usable Range
1	192.168.0.0/26	192.168.0.63	192.168.0.1 - 192.168.0.62
2	192.168.0.64/26	192.168.0.127	192.168.0.65 - 192.168.0.126
3	192.168.0.128/26	192.168.0.191	192.168.0.129 - 192.168.0.190
4	192.168.0.192/26	192.168.0.255	192.168.0.193 - 192.168.0.254
5	192.168.1.0/26	192.168.1.63	192.168.1.1 - 192.168.1.62