

ای پی های زیر را به n سابت تقسیم کنید

- $192.168.1.0/24, n=4$

$$1) 2^n = 4 \rightarrow n=2 \rightarrow 2^n = 2 | n = 2$$

$$2) 11111111.11111111.11111111.11111111$$

$$192.168.1.0/26$$

$$255.255.255.192$$

$$3) 2^n - 2 \Rightarrow 2^6 - 2 = 62$$

$$4) 192.168.1.0 - 192.168.1.63$$

$$192.168.1.64 - 192.168.1.127$$

$$192.168.1.128 - 192.168.1.191$$

$$192.168.1.192 - 192.168.1.255$$

$$172.16.0.0/16, n=16$$

$$1) 2^n = 16 \rightarrow n=4 \rightarrow 2^n = 2 | n = 2$$

$$2) 11111111.11111111.11111111.11111111$$

$$172.16.0.0/20$$

$$255.255.240.0$$

$$3) 2^n - 2 \rightarrow 2^{12} - 2 = 4096 - 2 = 4094$$

$$4) 172.16.0.0 - 172.16.15.255$$

$$172.16.16.0 - 172.16.31.255$$

$$172.16.32.0 - 172.16.47.255$$

$$172.16.48.0 - 172.16.63.255$$

$$172.16.64.0 - 172.16.79.255$$

10...18, n=64

$$1) 2^n = 64 \rightarrow n=6 \rightarrow 2^n = x \mid n>=x$$

2) 11111111.11111100.

10...14

255.252...

$$3) 2^n - 2 \rightarrow 2^{18} - 2 = 262142$$

192.168.10.../24, n=8

$$1) 2^n = 8 \rightarrow n=3 \rightarrow 2^n = x \mid n>=x$$

2) 11111111.11111111.11111111.11100000

192.168.10.../27

255.255.255.224

$$3) 2^n - 2 \rightarrow 2^5 - 2 = 3$$

$$4) 192.168.10... - 192.168.10.31$$

$$192.168.10.32 - 192.168.10.63$$

$$192.168.10.64 - 192.168.10.95$$

$$192.168.10.96 - 192.168.10.127$$

$$192.168.10.128 - 192.168.10.159$$

$$192.168.10.160 - 192.168.10.191$$

$$192.168.10.192 - 192.168.10.223$$

172.31.0.0/16, n=128 -

1) $2^n = 128 \rightarrow n = 7$

2) 11111111.11111111.11111111.0.0.0.0.0.0

172.31.0.0/23

255.255.254.0

3) $2^n - 2 \rightarrow 2^9 - 2 = 510$

4) 172.31.0.0 - 172.31.1.255

172.31.2.0 - 172.31.3.255

172.31.4.0 - 172.31.5.255

172.31.6.0 - 172.31.7.255

172.31.8.0 - 172.31.9.255



اسفند

February

۳ شعبان ۱۴۴۴

24 Friday 2023

10.10.0.0/16, n=1000 -

1) $2^n = 1000 \rightarrow n \approx 10$

2) 11111111.11111111.11111111.11.0.0.0.0

10.10.0.0/26

255.255.255.192

3) $2^n - 2 \rightarrow 2^6 - 2 = 62$

4) 10.10.0.0 - 10.10.0.63

10.10.0.64 - 10.10.0.127

10.10.0.128 - 10.10.0.191

10.10.0.192 - 10.10.0.255

ولادت حضرت امام حسین علیه السلام (۴ هـ ق) و روز پاسدار - روز بزرگداشت خواجه نصیر الدین طوسی - روز مهندسی

192.168.0.0/16, n=1024 -

1) $2^n = 1024 \rightarrow n = 10$

2) ||||| . ||||| . ||||| . ||

192.168.0.0/26

255.255.255.192

3) $2^n - 2 \rightarrow 2^6 - 2 = 62$

4) 192.168.0.0 - 192.168.0.63

192.168.0.64 - 192.168.0.127

192.168.0.128 - 192.168.0.191

192.168.0.192 - 192.168.0.255

0001 = 1, 0110 = 6, 0101 = 5

ولادت حضرت ابو الفضل العباس عليه السلام (۲۶ هـ ق) و روز جانباز