

TOPIC NAME: \_\_\_\_\_ DAY: \_\_\_\_\_  
TIME: \_\_\_\_\_ DATE: / /

(4)

2nd IP = 172.127.255.253

1st IP = 172.64.0.1

$$\therefore \text{last usable IP} = 172.127.255.253 + 1 \\ = 172.127.255.254$$

$$\therefore \text{Broadcast address} = 172.127.255.254 + 1 \\ = 172.127.255.255.$$

$$\therefore \text{network address} = 172.64.0.1 - 1 \\ = 172.64.0.0$$

172 . 64 . 0 . 0  
10101100 . 01000000 . 00000000 . 00000000

10101100 . 01111111 . 11111111 . 11111111

$$8+2 = 10 \text{ (prefix)}$$

network bits = 10 - set to 1

$$\text{host bit} = 32 - 10 \\ = 22$$

1111111 . 11000000 . 00000000 . 00000000  
255 . 192 . 0 . 0

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$$\therefore \text{possible address} = 2^n$$
$$= 2^{22}$$

$$= 4194304$$

$$\therefore \text{usable host} = 2^{22} - 2$$

$$= 4194302$$

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(5)

Network x PCx2 = 192.16.0.5/22

Network y PCy4 = 172.10.10.10/17

32 - 22 = 10

1111111.1111111.1111100.00000000

255 . 255 . 252 . 0

1100 0000.0001 0000.0000 0000.0000 0101

192 . 16 . 0 . 5

1100 0000 . 0001 0000 . 0000 0000 . 0000 0000

192 . 16 . 0 . 0

∴ network addr = 192.16.0.0/22

∴ subnet mask = 255.255.252.0

GOOD LUCK

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$$\text{network addn} = 102.16.0.0$$

$$2^{10} = 1024$$

$$\therefore \text{Broadcast} = \text{network} + (2^{10}-1)$$

$$= 102.16.0.0 + 1023$$

$$\therefore 102.16.0.255/22$$

$$102.16.0.0 + 500$$

$$= 256 + 244$$

$$= 102.16.1.244/22$$

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32-17

= 15

1111 1111. 1111 1111. 1000 0000. 0000 0000

255      255      128      0

PCY4 = 172. 10. 10. 10 /17

172                  10                  10                  10  
1010 1100. 0000 1010. 0000 1010. 0000 1010

1010 1100. 0000 1010. 0000 0000. 0000 0000

172      10      0      0

∴ network addr = 172. 10. 0. 0

∴ subnet mask = 255. 255. 128. 0

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network addr = 172.10.0.0

$$2^{15} = 32768 - 1$$

$$= 32767$$

$$172 \cdot 10 \cdot 0 \cdot 0 + 32767$$

$$= 127 \times 256 + 255$$

$$\therefore 172 \cdot 10 \cdot 127 \cdot 255 / 17$$

11-06

61

062

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