

1

148.32.127.0 /20

~~0x2<sup>0</sup>~~  
~~0x2<sup>1</sup>~~  
~~0x2<sup>2</sup>~~  
~~0x2<sup>3</sup>~~  
~~0x2<sup>4</sup>~~  
~~1x2<sup>5</sup> = 16~~  
~~1x2<sup>6</sup> = 32~~  
~~1x2<sup>7</sup> = 64~~  
~~1x2<sup>8</sup> = 128~~  
240

Mask: 11111111.11111111.11110000.00000000  
 255 . 255 . 240 . 0

IP: 148.32.127.0

011111.0

ID: .0111000.0

BR: .011111.1

127 - 64 = 63 1  
 63 - 32 = 31 1  
 31 - 16 = 15 1  
 15 - 8 = 7 1  
 7 - 4 = 3 1  
 3 - 2 = 1 1  
 1 - 1 = 0 1

Mask 255, 255, 240, 0

IP: 148.32.112.0

BR: 148.32.127.255

1H: 148.32.112.1

BR: 148.32.127.255

0-0=0 0

ID	BR
<del>0x2<sup>0</sup></del>	1x2 <sup>0</sup> = 1
<del>0x2<sup>1</sup></del>	1x2 <sup>1</sup> = 2
<del>0x2<sup>2</sup></del>	1x2 <sup>2</sup> = 4
<del>0x2<sup>3</sup></del>	1x2 <sup>3</sup> = 8
1x2 <sup>4</sup> = 16	1x2 <sup>4</sup> = 16
1x2 <sup>5</sup> = 32	1x2 <sup>5</sup> = 32
1x2 <sup>6</sup> = 64	1x2 <sup>6</sup> = 64
<del>0x2<sup>7</sup></del>	<del>0x2<sup>7</sup></del>
<u>112</u>	<u>127</u>

② 201.34.32.4/26

/26: MMMM.MMMM.MMMM.11000000

Mask: 255. 255 . 255 . 192

<sup>total</sup>  
ID: 201.34.32.4 : 84 = 0000100

- Mask: 255. 255. 255. 192      MMMM
- ID: 201.34.32.0      000000
- SR: 201.34.32.63
- IH: 201.34.32.1
- UH: 201.34.32.62

③ 228.132.128.8/27

/27: MMMM.MMMM.MMMM.11100000  
255. 255 . ~~255~~  
255. 224

<sup>total</sup>  
IP: 228.132.128.8

8 = 00001000

- ID: 228.132.128.0      11111
- SR: 228.132.128.31      00000
- IH: 228.132.128.1
- UH: 228.132.128.30
- Mask: 255.255.255.224



II

168.135.34.0/24

/24 = 1111111.1111111.1111111.0000000

$2^n - 27/24$  ~~x~~

$2^5 - 27/24$

$30/24$

120

60

24

10

$2^x/4$   $x=2$

$2^2/4$

$4/4$

①  $2^n - 27/120$

$2^7 - 27/120$

$128 - 27/120$

$126/120$

②  $\therefore (32 - 24) - 7 = 1$

1111111.1111111.1111111.1000000

255 . 255 . 255 . 127

③  $2^n - 27/60$

$2^6 - 27/60$

$62/60$

③  $\therefore (32 - 24) - 6 = 2$

1111111.1111111.1111111.1000000

255 . 255 . 255 . 192

④  $2^n - 27/24$

$2^5 - 27/24$

$30/24$

④  $\therefore (32 - 24) - 5 = 3$

1111111.1111111.1111111.1100000

255 . 255 . 255 . 224

⑤  $2^n - 27/10$

$2^3 - 27/10$

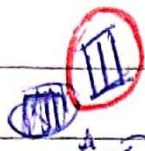
$8/10$

⑤  $\therefore (32 - 24) - 3 = 5$

1111111.1111111.1111111.1111000

255 . 255 . 255 . 248





- ① Ctd subRedes : 8  $2^3 = 8$
- ② Se piden 3 bit prestados.  $2^3 = 8$
- ③ Por sub Red hay 14 Host disp.  $2^4 - 2 = 14$
- ④  $128 = 11111111.11111111.11111111.11110000$
- ⑤ Las subRedes disp es igual a 0.

	IP	1H	UH	BR	$0 = 00000000$
0	146.36.192.0	.1	.30	.31	$.32 = 0001$
1	.32	.33	.62	.63	$.64 = 010$
2	.64	.65	.95	.96	$.96 = 011$
3	.96	.97	.126	.127	$.128 = 100$
4	.128	.128	.158	.159	$.160 = 101$
5	.160	.161	.190	.191	$.192 = 110$
6	.192	.193	.222	.223	$.224 = 111$
7	.224	.225	.253	.254	
8					
9					
10					
11					
12					
13					