



*INSTITUTO TECNOLÓGICO DE
CANCÚN*

*INGENIERIA EN SISTEMAS
COMPUTACIONALES*

*FUNDAMENTOS DE
TELECOMUNICACIONES*

CORRECCION DE CALCULO DE REDES 3

Peraza Soberanis Gabriel Alfredo



TECNOLOGICO
NACIONAL DE MEXICO



| 172.16.0.0/19 | BINARIO | DECIMAL PUNTEADO |
|---------------|--|---------------------|
| IP | 10101100.00010000.00000000.00000000 | 72.16.0.0 |
| MASK | 11111111.11111111.11100000.00000000 | 255.255.224.0 |
| ID | 10101100.00010000.00000000.00000000/19 | 172.16 0.0/19 |
| WCARD | 0000000000000000. 00011111. 11111111 | 0.0.31.255 |
| BCAST | 10101100.00010000. 00011111.11111111 | 172.16.31.255 |
| 1ST IP | 10101100.00010000.00000000.00000001 | 172.16.0.1 |
| LAST IP | 10101100.00010000.00000000.11111110 | 172.16.31.254 |

| 172.16.0.0/21 | BINARIO | DECIMAL PUNTEADO |
|---------------|--|---------------------|
| IP | 10101100.00010000.00000000.00000000 | 172.16.0.0 |
| MASK | 11111111.11111111.11111000.00000000 | 255.255.248.0 |
| ID | 10101100.00010000.00000000.00000000/21 | 172.16 0.0/21 |
| WCARD | 0000000000000000. 00000111. 11111111 | 0.0.7.255 |
| BCAST | 10101100.00010000. 00011111.11111111 | 172.16.7.255 |
| 1ST IP | 10101100.00010000.00000000.00000001 | 172.16.0.1 |
| LAST IP | 10101100.00010000.00000111.11111110 | 172.16.7.254 |

| 172.16.8.0/22 | BINARIO | DECIMAL PUNTEADO |
|---------------|--|---------------------|
| IP | 10101100.00010000.00000000.00000000 | 172.16.0.0 |
| MASK | 11111111.11111111.11111100.00000000 | 255.255.248.0 |
| ID | 10101100.00010000.00000000.00000000/22 | 172.16 0.0/22 |
| WCARD | 0000000000000000. 00000011. 11111111 | 0.0.3.255 |
| BCAST | 10101100.00010000. 00011111.11111111 | 172.16.11.255 |
| 1ST IP | 10101100.00010000.00001000.00000001 | 172.16.8.1 |
| LAST IP | 10101100.00010000.00001011.11111110 | 172.16.11.254 |

| 172.16.12.0/22 | BINARIO | DECIMAL PUNTEADO |
|----------------|--|---------------------|
| IP | 10101100.00010000.00001100.00000000 | 172.16.12.0 |
| MASK | 11111111.11111111.11111100.00000000 | 255.255.252.0 |
| ID | 10101100.00010000.00001100.00000000/22 | 172.16 12.0/22 |
| WCARD | 0000000000000000. 00000011. 11111111 | 0.0.3.255 |
| BCAST | 10101100.00010000. 00001111.11111111 | 172.16.15.255 |
| 1ST IP | 10101100.00010000.00001000.00000001 | 172.16.12.1 |
| LAST IP | 10101100.00010000.00010000.11111110 | 172.16.16.254 |



TECNOLOGICO
NACIONAL DE MEXICO



| 172.16.16.0/23 | BINARIO | DECIMAL PUNTEADO |
|----------------|--|---------------------|
| IP | 10101100.00010000.00001100.00000000 | 172.16.16.0 |
| MASK | 11111111.11111111.11111110.00000000 | 255.255.254.0 |
| ID | 10101100.00010000.00010000.00000000/23 | 172.16 16.0/23 |
| WCARD | 0000000000000000. 00000001. 11111111 | 0.0.1.255 |
| BCAST | 10101100.00010000. 00010001.11111111 | 172.16.17.255 |
| 1ST IP | 10101100.00010000.00010000.00000001 | 172.16.16.1 |
| LAST IP | 10101100.00010000.00010001.11111110 | 172.16.17.254 |

| 172.16 18.0/23 | BINARIO | DECIMAL PUNTEADO |
|----------------|--|---------------------|
| IP | 10101100.00010000.00010010.00000000 | 172.16.18.0 |
| MASK | 11111111.11111111.11111110.00000000 | 255.255.254.0 |
| ID | 10101100.00010000.00010010.00000000/23 | 172.16 18.0/23 |
| WCARD | 0000000000000000. 00000001. 11111111 | 0.0.1.255 |
| BCAST | 10101100.00010000. 00010010.11111111 | 172.16.18.255 |
| 1ST IP | 10101100.00010000.00010010.00000001 | 172.16.18.1 |
| LAST IP | 10101100.00010000.00010010.11111110 | 172.16.18.254 |

| 172.16.20.0/24 | BINARIO | DECIMAL PUNTEADO |
|----------------|--|---------------------|
| IP | 10101100.00010000.00010100.00000000 | 172.16.20.0 |
| MASK | 11111111.11111111.11111111.00000000 | 255.255.255.0 |
| ID | 10101100.00010000.00010100.00000000/24 | 172.16 20.0/24 |
| WCARD | 0000000000000000. 00000000. 11111111 | 0.0.0.255 |
| BCAST | 10101100.00010000. 00010100.11111111 | 172.16.20.255 |
| 1ST IP | 10101100.00010000.00010100.00000001 | 172.16.20.1 |
| LAST IP | 10101100.00010000.00010100.11111110 | 172.16.20.254 |

| 172.16.21.0/24 | BINARIO | DECIMAL PUNTEADO |
|----------------|--|---------------------|
| IP | 10101100.00010000.00010101.00000000 | 172.16.21.0 |
| MASK | 11111111.11111111.11111111.00000000 | 255.255.255.0 |
| ID | 10101100.00010000.00010101.00000000/24 | 172.16 21.0/24 |
| WCARD | 0000000000000000. 00000000. 11111111 | 0.0.0.255 |
| BCAST | 10101100.00010000. 00010100.11111111 | 172.16.21.255 |
| 1ST IP | 10101100.00010000.00010101.00000001 | 172.16.21.1 |
| LAST IP | 10101100.00010000.00010101.11111110 | 172.16.21.254 |



TECNOLÓGICO
NACIONAL DE MÉXICO



| 172.16.22.0/24 | BINARIO | DECIMAL PUNTEADO |
|-----------------------|--|-----------------------------|
| IP | 10101100.00010000.00010110.00000000 | 172.16.22.0 |
| MASK | 11111111.11111111.11111111.00000000 | 255.255.255.0 |
| ID | 10101100.00010000.00010110.00000000/24 | 172.16 22.0/24 |
| WCARD | 0000000000000000. 00000000. 11111111 | 0.0.0.255 |
| BCAST | 10101100.00010000. 00010110.11111111 | 172.16.22.255 |
| 1ST IP | 10101100.00010000.00010110.00000001 | 172.16.22.1 |
| LAST IP | 10101100.00010000.00010110.11111110 | 172.16.22.254 |

| 172.16.23.0/25 | BINARIO | DECIMAL PUNTEADO |
|-----------------------|--|-----------------------------|
| IP | 10101100.00010000.00010111.00000000 | 172.16.23.0 |
| MASK | 11111111.11111111.11111111.10000000 | 255.255.255.128 |
| ID | 10101100.00010000.00010111.10000000/25 | 172.16 23.0/25 |
| WCARD | 0000000000000000. 00000000. 01111111 | 0.0.0.127 |
| BCAST | 10101100.00010000. 00010111.01111111 | 172.16.23.127 |
| 1ST IP | 10101100.00010000.00010111.00000001 | 172.16.23.1 |
| LAST IP | 10101100.00010000.00010111.11111110 | 172.16.23.126 |

| 172.16.23.128/26 | BINARIO | DECIMAL PUNTEADO |
|-------------------------|--|-----------------------------|
| IP | 10101100.00010000.00010111.10000000 | 172.16.23.128 |
| MASK | 11111111.11111111.11111111.11110000 | 255.255.255.192 |
| ID | 10101100.00010000.00010111.10000000/26 | 172.16.23.128/26 |
| WCARD | 0000000000000000. 00000000. 00111111 | 0.0.0.63 |
| BCAST | 10101100.00010000. 00010111. 10111111 | 172.16.23.191 |
| 1ST IP | 10101100.00010000.00010111. 10000001 | 172.16.23.129 |
| LAST IP | 10101100.00010000.00010111. 1011 1110 | 172.16.23.190 |