**ESERCIZIO DEL 09/04/2024 STEFANO CESARONI**

SCRIVERE PER I SEGUENTI IP:

-IP NETWORK, IP GATEWAY, IP BROADCAST, N° OTTETTI HOST E NETWORK

1. **1.1.1.1/8 8 BIT DI RETE E 24 BIT DI HOST**

-IP = 00000001.00000001.00000001.00000001

-NETMASK= **225.0.0.0/8**

-IP NETWORK= 00000001.00000000.00000000.00000000

-IP NETWORK(DECIMALE)= **1.0.0.0/8**

-IP BROADCAST= 00000001.11111111.11111111.11111111

-IP BROADCAST(DECIMALE)= **1.255.255.255/8**

-IP GATEWAY= **1.0.0.1/8**

-N° POSSIBILE DI HOST=2\*24=16'777’216-2=**16'777’214**

-N°POSSIBILE DI RETE=2\*8=256-2=**254**

1. **128.1.6.5/12 12 BIT DI RETE E 20 DI HOST**

-IP = 10000000.0000001.00000110.00000101

- NETMASK= **255.240.0.0/12**

-IP NETWORK= 10000000.00000000.00000000.000000000.

-IP NETWORK(DECIMALE)= **128.0.0.0/12**

-IP BROADCAST= 10000000.00001111.11111111.11111111

-IP BROADCAST(DECIMALE)= **128.15.255.255/12**

IP GATEWAY= **128.0.0.1/12**

-N° POSSIBILE DI RETE=2\*12=**4096**  N°POSSIBILE DI HOST=2\*20=1'048’576-2=**1'048’574**

1. 200.1.2.3/24 24 BIT DI RETE E 8 BIT DI HOST

-IP =11001000.00000001.00000010.00000011

-NETMASK= **255.255.255.0/24**

-IP NETWORK= 11001000.00000001.00000001.00000000

-IP NETWORK(DECIMALE)= **200.1.2.0/24**

-IP BROADCAST= 11001000.00000001.00000010.11111111

-IP BROADCAST(DECIMNALE)= **200.1.2.255/24**

-IP GATEWAY= **200.1.2.1/24**

-N°POSSIBILE DI HOST=2\*8=256-2=**254**  N\*POSSIBILE DI RETE=2\*24=**16'777’216**

1. 192.192.1.1/22 22 BIT DI RETE 10 BIT DI HOST

-IP =11000000.11000000.00000001.00000001

-NETMASK= **255.255.252.0/22**

-IP NETWORK= 11000000.11000000.00000000.00000000.

-IP NETWORK= **192.192.0.0/22**

-IP BROADCAST=11000000.11000000.00000011.11111111

-IP BROADCAST(DECIMALE)=**192.192.3.255/22**

-IP GATEWAY= **192.192.0.1/22**

-N°POSSIBILE DI HOST=2\*10=1024-2=**1022** N°POSSIBILE DI RETE=2\*22=4'194’304-2= **4'194’302**

5) 126.5.4.3/9 9 BIT DI RETE 23 BIT DI HOST

-IP= 11111110.00000101.00000100.00000011

-NETMASK=**255.128.0.0/9**

-IP NETWORK= **126.0.0.0/9**

-IP BROADCAST= **126.127.255.255/9**

-IP GATEWAY=**126.0.0.1/9**

-N°POSSIBILE DI HOST=2\*23=8'388’608-2=**8'388'606**

-N°POSSIBILE DI RETE=2\*9=**512**

6)200.1.9.8/24 24 BIT DI RETE 8 BIT DI HOST

-IP =11001000.00000001.00001001.00001000

-NETMASK=**255.255.255.0/24**

-IP NETWORK= **200.1.9.0/24**

-IP BROADCAST= **200.1.9.255/24**

-IP GATEWAY= **200.1.9.1/24**

-N°POSSIBILE DI HOST=2\*8=256-2=**254**

-N°POSSIBILE DI RETE=2\*24=**16'777’216**

7) 172.16.0.4/16 16 BIT DI RETE 16 BIT DI HOST

-IP=10101100.00010000.00000000.00000100

-NETMASK=**255.255.0.0/16**

-IP NETWORK=**172.16.0.0/16**

-IP BROADCAST=**172.16.255.255/16**

-IP GATEWAY=**172.16.0.1/16**

-N°POSSIBILE DI HOST=2\*16=65536-2=**65534**

-N°POSSIBILE DI RETE=2\*16=**65536**