Scrivere per i seguenti IP

1. **IP NETWORK**

2. **IP BROADCAST**

3. **IP GATEWAY**

4. **QUALI E QUANTI OTTETTI PER NETWORK E PER HOST**

128	64	32	16	8	4	2	1

- **IP 1.1.1.1 / 8**   CLASSE A

IP   00000001.00000001.00000001.00000001

SM   11111111.00000000.00000000.00000000   (255.0.0.0)

NETWORK=8   HOST =24

IPN 00000001.00000000.00000000.00000000

QUINDI:

IP NETWORK: 1.0.0.0/8

IP BROADCAST: 1.255.255.255/8

IP GATEWAY: 1.0.0.1/8

- **IP 128.1.6.5 / 12**   CLASSE B

IP   10000000.00000001.00000110.00000101

SM   11111111.11110000. 00000000.00000000   (255.240.0.0)

NETWORK=12   HOST=20

IPN 10000000.00000000.00000000.00000000

QUINDI:

IP NETWORK: 128.0.0.0/12

IP BROADCAST: 128.15.255.255/12

IP GATEWAY: 128.0.0.1/12

128	64	32	16	8	4	2	1

- **IP 200.1.2.3 / 24** CLASSE C

IP   11001000.00000001.00000010.00000011

SM 11111111.11111111.11111111.00000000 (255.255.255.0)

NETWORK=24   HOST=8

IPN 11001000.00000001.00000010.00000000

QUINDI:

IP NETWORK: 200.1.2.0/24

IP BROADCAST: 200.1.2.255/24

IP GATEWAY: 200.1.2.1/24

- **IP 192.192.1.1 / 22** CLASSE C

IP   11000000.11000000.00000001.00000001

SM 11111111.11111111. 11111100.00000000 (255.255.252.0)

NETWORK=22   HOST=10

IPN 11000000.11000000.00000000.00000000

QUINDI:

IP NETWORK: 192.192.0.0/22

IP BROADCAST: 192.192.3.255/22

IP GATEWAY: 192.192.0.1/22

128	64	32	16	8	4	2	1

- **IP 126.5.4.3 / 9** CLASSE A

IP   011111110.00000101.00000100.00000011

SM 11111111.10000000. 00000000.00000000   (255.128.0.0)

NETWORK=9   HOST=23

IPN 01111110.00000000.00000000.00000000

QUINDI:

IP NETWORK: 126.0.0.0/9

IP BROADCAST: 126.127.255.255/9

IP GATEWAY: 126.0.0.1/9

- **IP 200.1.9.8 / 24** CLASSE C

IP   11001000.00000001.00001001.00001000

SM 11111111.11111111. 111111111.00000000   (255.255.255.0)

NETWORK=24   HOST=8

IPN 11001000.00000001.00001001.00000000

QUINDI:

IP NETWORK: 200.1.9.0/24

IP BROADCAST: 200.1.9.255/24

IP GATEWAY: 200.1.9.1/24

128	64	32	16	8	4	2	1

- **IP <mark>172.</mark>16.0.4 / 16** CLASSE B

IP   10101100.00010000.000000000.00000100

SM   11111111.11111111. 00000000.00000000 (255.255.0.0)

          NETWORK=16   HOST=26

IPN 10101100.00010000.00000000.00000000

QUINDI:

IP NETWORK: 172.16.0.0/16

IP BROADCAST: 172.16.255.255/16

IP GATEWAY: 172.16.0.1/16

ESERCIZIO 1: CLASSIFICA GLI INDIRIZZI IP

192.168.1.1   CLASSE C

150.10.1.1   CLASSE B

10.1.1.1   CLASSE A

223.1.1.1   CLASSE C

172.16.1.1   CLASSE B

ESERCIZIO 2: CALCOLA IL NUMERO DI HOST

255.255.255.192

11111111.11111111.11111111.11<u>000000</u>

256-192=64

64-2= **62**

255.255.252.0

11111111.11111111.111111<u>00.00000000</u>

256x2=512

512x2=1024

1024-2=**1022**

255.255.255.0

11111111.11111111.11111111.<u>00000000</u>

256-2=**254**

ESERCIZIO 3: IDENTIFICA RETE E HOST

IP   **192.168.10.45**   11000000.10101000.00001010.00101101

SM   **255.255.255.0**   11111111.11111111.11111111.00000000

                                      11000000.10101000.00001010.00000000

RETE = 192.168.10.0

HOST = 45

IP   **172.16.25.78**   10101100.00010000.00011001.01001110

SM   **255.255.0.0**   11111111.111111111.00000000.00000000

                                        10101100.00010000.00000000.00000000

RETE = 172.16.0.0

HOST = 25.78

IP   10.0.1.33   00001010.00000000.00000001.00100001

SM 255.255.255.192   11111111.11111111.11111111.11000000

                                00001010.00000000.00000001.00000000

RETE = 10.0.1.0

HOST = 33