

Task-A

Category	IP Address	Binary Format
Address	192.168.100.4	11000000.10101000.01100100.00000100
Netmask	28	11111111.11111111.11111111.11110000
Network address	192.168.100.0	11000000.10101000.01100100.00000000
Broadcast address	192.168.100.15	11000000.10101000.01100100.00001111
First IP	192.168.100.1	11000000.10101000.01100100.00000001
Last IP	192.168.100.14	11000000.10101000.01100100.00001110
Maximum host in the network	$(2^4 - 2) = 14$	

Task-B

Category	IP Address	Binary Format
Address	170.1.0.0	10101010.00000001.00000000.00000000
Netmask	26	11111111.11111111.11111111.11000000
Network address	170.1.0.0	10101010.00000001.00000000.00000000
Broadcast address	170.1.0.63	10101010.00000001.00000000.00111111
First IP	170.1.0.1	10101010.00000001.00000000.00000001
Last IP	170.1.0.62	10101010.00000001.00000000.00111110
Maximum host in the network	$(2^6 - 2) = 62$	

Extra Credit

```
(tiaw@Tia-Kali)-[~]
└─$ ./for_counting.sh
This is the for loop counter script.
0
1
2
3
4
5
6
7
8
9
10

(tiaw@Tia-Kali)-[~]
└─$ ./while_counting.sh
This is the while loop counter script.
0
1
2
3
4
5
6
7
8
9
10

(tiaw@Tia-Kali)-[~]
└─$
```

```
#!/bin/bash
Home 210 MB Vol...
echo "This is the for loop counter script."
for i in {0..10}
do
    echo "$i"
done
```

```
#!/bin/bash
Home 210 MB Vol...
counter=0
echo "This is the while loop counter script."
while [ $counter -le 10 ]
do
    echo "$counter"
    let counter+=1
done
```