

## **1 Subnetting /24**

The following IP\_address / mask combination is available to the administrator  
[192.168.10.127/24].

1. Specify the type of the address [network address | usable address | broadcast address].
2. Based on the previous task, write down the network and broadcast address of the network.

Network:\_\_\_\_\_

Broadcast:\_\_\_\_\_

3. The network divide according to the following specifications regarding the number of usable addresses:

L1: 122, L2: 52, L3: 20, L4: 13, L5: 5, L6: 192.168.10.64/30

4. Write down the following information about L4. subnet.
  - a. Network address:\_\_\_\_\_
  - b. First usable address:\_\_\_\_\_
  - c. Last usable address:\_\_\_\_\_
  - d. Broadcast address:\_\_\_\_\_
  - e. Subnet mask:\_\_\_\_\_
  - f. Number of addresses:\_\_\_\_\_

## **2 Subnetting /26**

The following IP\_address / mask combination is available to the administrator  
[9.112.47.192/26].

1. Specify the type of the address [network address | usable address | broadcast address].
2. Based on the previous task, write down the network and broadcast address of the network.

Network:\_\_\_\_\_

Broadcast:\_\_\_\_\_

3. The network (task 2) divide according to the following specifications regarding the number of usable addresses:

L1: 14, L2: 22, L3: 5, L4: 9.112.47.244/30

4. Write down the following information about L3. subnet.

a. Network address:\_\_\_\_\_

b. First usable address:\_\_\_\_\_

c. Last usable address:\_\_\_\_\_

d. Broadcast address:\_\_\_\_\_

e. Subnet mask:\_\_\_\_\_

f. Number of addresses:\_\_\_\_\_

### **3 Subnetting /22**

The following IP\_address / mask combination is available to the administrator  
[47.214.119.0/22].

1. Specify the type of the address [network address | usable address | broadcast address].
2. Based on the previous task, write down the network and broadcast address of the network.

Network:\_\_\_\_\_

Broadcast:\_\_\_\_\_

3. The network (task 2) divide according to the following specifications regarding the number of usable addresses:

L1: 98, L2: 222, L3: 471, L4: 47.214.119.64/26

4. Write down the following information about L1. subnet.

a. Network address:\_\_\_\_\_

b. First usable address:\_\_\_\_\_

c. Last usable address:\_\_\_\_\_

d. Broadcast address:\_\_\_\_\_

e. Subnet mask:\_\_\_\_\_

f. Number of addresses:\_\_\_\_\_

## **4 Subnetting /19**

The following IP\_address / mask combination is available to the administrator  
[147.232.76.255/19].

1. Specify the type of the address [network address | usable address | broadcast address].
2. Based on the previous task, write down the network and broadcast address of the network.

Network:\_\_\_\_\_ Broadcast:\_\_\_\_\_

3. The network divide into 4 equal parts. Write down the network addresses of the created subnets.

\_\_\_\_\_

4. Divide the second of the created subnets (task 3) into 4 equally large parts and write down their network addresses.

\_\_\_\_\_

5. The second subnet (created in task 4) divide according to the following specifications regarding the number of usable addresses:

L1: 120, L2: 200, L3: 62, L4: 22, L5: 12, L6: 147.232.74.96/28

6. Write down the following information about L3. subnet.

- a. Network address:\_\_\_\_\_
- b. First usable address:\_\_\_\_\_
- c. Last usable address:\_\_\_\_\_
- d. Broadcast address:\_\_\_\_\_
- e. Subnet mask:\_\_\_\_\_
- f. Number of addresses:\_\_\_\_\_

## **5 Subnetting /18**

The following IP\_address / mask combination is available to the administrator  
[147.232.171.255/18].

1. Specify the type of the address [network address | usable address | broadcast address].
2. Based on the previous task, write down the network and broadcast address of the network.

Network:\_\_\_\_\_ Broadcast:\_\_\_\_\_

3. The network divide into 4 equal parts. Write down the network addresses of the created subnets.

\_\_\_\_\_

4. Divide the third of the created subnets (task 3) into 4 equally large parts and write down their network addresses.

\_\_\_\_\_

5. The second subnet (created in task 4) divide according to the following specifications regarding the number of usable addresses:

L1: 220, L2: 315, L3: 64, L4: 58, L5: 21, L6: 147.232.165.176/28

6. Write down the following information about L3. subnet.

- a. Network address:\_\_\_\_\_
- b. First usable address:\_\_\_\_\_
- c. Last usable address:\_\_\_\_\_
- d. Broadcast address:\_\_\_\_\_
- e. Subnet mask:\_\_\_\_\_
- f. Number of addresses:\_\_\_\_\_

## **6 Subnetting /5**

The following IP\_address / mask combination is available to the administrator  
[14.255.255.255/5].

1. Specify the type of the address [network address | usable address | broadcast address].
2. Based on the previous task, write down the network and broadcast address of the network.

Network: \_\_\_\_\_ Broadcast: \_\_\_\_\_

3. The network divide into 20 equal parts. Write down the network addresses of the first six created subnets.

\_\_\_\_\_

4. Divide the sixth of the created subnets (task 3) into 15 equally large parts and write down first four network addresses.

\_\_\_\_\_

5. Write down the network and broadcast address of the third created network (task 4). Also write down the number of usable addresses (formula how to compute).

Network: \_\_\_\_\_ Broadcast: \_\_\_\_\_ Formula: \_\_\_\_\_

6. Network created in previous task 5 divide into 33 equally large parts and write down network address and subnet mask of the third network.

Network: \_\_\_\_\_ Mask: \_\_\_\_\_

7. The network (created in task 6) divide according to the following specifications regarding the number of usable addresses:

L1: 800, L2: 245, L3: 2000, L4: 50, L5: 98, L6: 500, L7: 27, L8: 5, L9: 13,  
L10: 9.72.36.4/30

8. Write down the following information about L4. subnet.

- a. Network address: \_\_\_\_\_
- b. First usable address: \_\_\_\_\_
- c. Last usable address: \_\_\_\_\_
- d. Broadcast address: \_\_\_\_\_
- e. Subnet mask: \_\_\_\_\_
- f. Number of addresses: \_\_\_\_\_