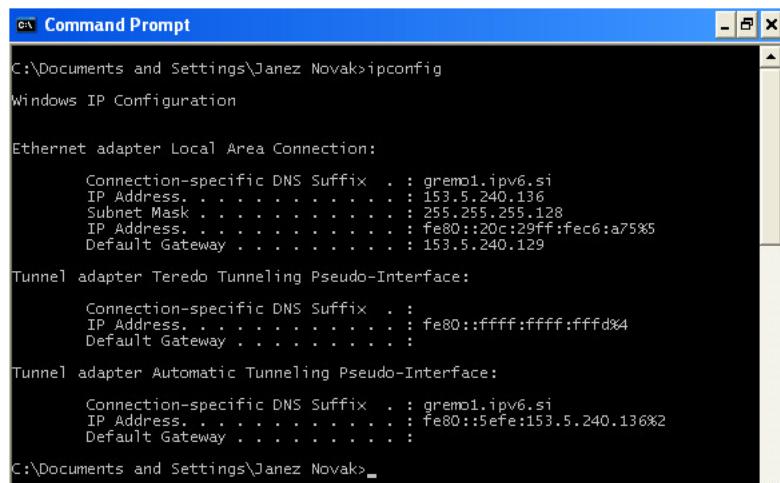


Quiz 6

1. How many bytes¹ are there in an IPv6 address?
 - a. 4
 - b. 8
 - c. 16
 - d. 32
2. What is the prefix length for a local IPv6 network that uses SLAAC?
 - a. /32
 - b. /48
 - c. /64
 - d. /96
3. Which mask (prefix length) is assigned to a client by a DHCPv6 server?
 - a. /32
 - b. /64
 - c. Various (depending on a server configuration)
 - d. DHCPv6 server does not assign a mask to its clients; only single host (/128) addresses are being delegated.
4. In IPv6, which protocol stands instead of ARP?
 - a. ICMPv6
 - b. ARIPv6
 - c. IPv6 Neighbour Discovery (ND)
 - d. IPv6 Router Advertisement (RA)
5. What is the type of the IPv6 address of the default gateway when auto-configuration (SLAAC or DHCPv6) is being used?
 - a. Link-local unicast
 - b. Global unicast
 - c. Multicast group address *all-routers* (ff02::2)
 - d. There is no default gateway for an IPv6 network
6. Are these two systems capable to communicate with remote IPv6 servers in the Internet?
 - a. Yes
 - b. No



The screenshot shows a Windows Command Prompt window titled "Command Prompt". The command "ipconfig" is run, displaying the IP configuration for several network adapters:

- Ethernet adapter Local Area Connection:**
 - Connection-specific DNS Suffix . : gremo1.ipv6.si
 - IP Address : 153.5.240.136
 - Subnet Mask : 255.255.255.128
 - IP Address : fe80::20c:29ff:fed6:a75%5
 - Default Gateway : 153.5.240.129
- Tunnel adapter Teredo Tunneling Pseudo-Interface:**
 - Connection-specific DNS Suffix . :
 - IP Address : fe80::ffff:ffff:ffffd%4
 - Default Gateway :
- Tunnel adapter Automatic Tunneling Pseudo-Interface:**
 - Connection-specific DNS Suffix . : gremo1.ipv6.si
 - IP Address : fe80::5efe:153.5.240.136%2
 - Default Gateway :

The command prompt ends with "C:\Documents and Settings\Janez Novak>".

¹ Remember – one byte consists of 8 bits ☺.

```
janez@ubuntu1204:~$ ifconfig
eth0      Link encap:Ethernet HWaddr 00:0c:29:bf:81:5e
          inet addr:153.5.240.131 Bcast:153.5.240.255 Mask:255.255.255.128
          inet6 addr: fe80::20c:29ff:febf:815e/64 Scope:Link
            UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
            RX packets:150 errors:0 dropped:0 overruns:0 frame:0
            TX packets:194 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1000
            RX bytes:37396 (37.3 KB) TX bytes:22667 (22.6 KB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1 Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
            UP LOOPBACK RUNNING MTU:16436 Metric:1
            RX packets:152 errors:0 dropped:0 overruns:0 frame:0
            TX packets:152 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:0
            RX bytes:13306 (13.3 KB) TX bytes:13306 (13.3 KB)

janez@ubuntu1204:~$
```

7. How is the DNS record that maps host name to a numerical IPv6 address called?
 - a. A
 - b. PTR
 - c. AAAA
 - d. A6
8. Is ICMPv6 important for IPv6 operation?
 - a. Not really, IPv6 connectivity works fine without ICMPv6
 - b. Yes, without ICMPv6 or ICMPv6 being improperly filtered there is no IPv6 connectivity
9. Which ones of these operating systems have no built-in DHCPv6 client?
 - a. Microsoft Windows XP
 - b. Microsoft Windows 7
 - c. Microsoft Windows 8
 - d. Linux Ubuntu (12 or later)
 - e. Apple OS X (10.8 or later)
10. Which ones of these operating systems have no support to reach DNS server/resolver by IPv6 and therefore cannot be used in an IPv6-only network?
 - a. Microsoft Windows XP
 - b. Microsoft Windows 7
 - c. Microsoft Windows 8
 - d. Linux Ubuntu (12 or later)
 - e. Apple OS X (10.8 or later)