**Klasse: 2AHIT Name: Bunea**

## Aufgaben zu Subnetting

1. B-Netz 172.16.0.0 / 16 ist zu unterteilen in
   1. zwei Subnetze

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subnetzadr.** | **Mask** | **1. Host** | **letzter Host** | **Broadcastadr.** |
| 172.16.0.0 | /17 | 172.16.0.1 | 172.16.127.254 | 172.16.127.255 |
| 172.16.128.0 | /17 | 172.16.128.1 | 172.16.255.254 | 172.16.255.255 |

* 1. 32 Subnetze Hinweis:in der Tabelle nur 1., 2.,vorletztes u. letztes Netz anführen!

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subnetzadr.** | **Mask** | **1. Host** | **letzter Host** | **Broadcastadr.** |
| 172.16.0.0 | /21 | 172.16.0.1 | 172.7.254 | 172.16.7.255 |
| 172.16.8.0 | /21 | 172.16.8.1 | 172.16.15.254 | 172.16.15.255 |
| 172.16.240.0 | /21 | 172.16.240.1 | 172.16.247.254 | 172.16.247.255 |
| 172.16.248.0 | /21 | 172.16.248.1 | 172.16.255.254 | 172.16.255.255 |

* 1. in Subnetze mit Platz für 100 Hosts

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subnetzadr.** | **Mask** | **1. Host** | **letzter Host** | **Broadcastadr.** |
| 172.16.0.0 | 255.255.255.128 | 172.16.0.1 | 172.16.0.126 | 172.16.0.127 |
| 172.16.0.128 | 255.255.255.128 | 172.16.0.129 | 172.16.0.254 | 172.16.0.255 |
| 172.16.255.0 | 255.255.255.128 | 172.16.255.1 | 172.16.255.126 | 172.16.255.127 |
| 172.16.255.128 | 255.255.255.128 | 172.16.255.129 | 172.16.255.254 | 172.16.255.255 |

1. A-Netz 10.0.0.0 / 8 ist zu unterteilen in
2. vier Subnetze

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subnetzadr.** | **Mask** | **1. Host** | **letzter Host** | **Broadcastadr.** |
| 10.0.0.0 | /10 | 10.0.0.1 | 10.63.255.254 | 10.63.255.255 |
| 10.64.0.0 | /10 | 10.64.0.1 | 10.127.255.254 | 10.127.255.255 |
| 10.128.0.0 | /10 | 10.128.0.1 | 10.191.255.254 | 10.191.255.255 |
| 10.192.0.0 | /10 | 10.192.0.1 | 10.255.255.254 | 10.255.255.255 |

1. in Subnetze mit Platz für 1000 Hosts

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subnetzadr.** | **Mask** | **1. Host** | **letzter Host** | **Broadcastadr.** |
| 10.0.0.0 | 255.255.252.0 | 10.0.0.1 | 10.0.3.254 | 10.0.3.255 |
| 10.0.4.0 | 255.255.252.0 | 10.0.4.1 | 10.0.7.254 | 10.0.7.255 |
| 10.255.248.0 | 255.255.252.0 | 10.255.248.1 | 10.255.251.254 | 10.255.251.255 |
| 10.255.252.0 | 255.255.252.0 | 10.255.252.1 | 10.255.255.254 | 10.255.255.255 |

1. in Subnetze mit Platz für 214 Hosts

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subnetzadr.** | **Mask** | **1. Host** | **letzter Host** | **Broadcastadr.** |
| 10.0.0.0 | 255.255.192.0 | 10.0.0.1 | 10.0.63.254 | 10.0.63.255 |
| 10.0.64.0 | 255.255.192.0 | 10.0.64.1 | 10.0.127.254 | 10.0.127.255 |
| 10.255.128.0 | 255.255.192.0 | 10.255.128.1 | 10.255.191.254 | 10.255.191.255 |
| 10.255.192.0 | 255.255.192.0 | 10.255.192.1 | 10.255.255.254 | 10.255.255.255 |

1. Finde mittels „nslookup“-Befehl in der Kommandozeile die IP-Adresse von [www.sz-ybbs.ac.at](http://www.sz-ybbs.ac.at) heraus! Diese offizielle IP-Adresse hat als Subnetzmaske am SZ-Webserver 255.255.255.240 eingetragen. Welche IP-Adressen liegen noch in diesem Subnetz?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subnetzadr.** | **Mask** | **1. Host** | **letzter Host** | **Broadcastadr.** |
| 192.168.66.0 | 255.255.255.240 | 192.168.66.1 | 192.168.66.14 | 192.168.66.15 |