**We need to allocate a network address, which is usually given to you as an IP address with a subnet mask.**

**The allocated network address is 48.201.0.0/16**

**Available IP addresses in the major network: 16382**

* **Lan A: 700 hosts 🡪 we need a total of 1022 IP addresses**

**🡪 the subnet mask: /22**

* **Lan B: 6000 hosts 🡪 we need a total of 8190 IP addresses**

**🡪 the subnet mask: /19**

* **Lan C: 50 hosts 🡪 we need a total of 62 IP addresses**

**🡪 the subnet mask: /26**

* **Lan D: 20 hosts 🡪 we need a total of 30 IP addresses**

**🡪 the subnet mask: /27**

* **Lan E: 1500 hosts 🡪 we need a total of 2046 IP addresses**

**🡪 the subnet mask: /21**

* **Lan F: 10 hosts 🡪 we need a total of 14 IP addresses**

**🡪 the subnet mask: /28**

**We need to allocate two IP addresses for the point-to-point links for each connection.**

* **Point-to-point Link 1: 73.69.236.112/30 (The usable host range is between 73.69.236.113 and 73.69.236.115)**
* **Point-to-point Link 2: 73.69.236.116/30 (The usable host range is between 73.69.236.117 and 73.69.236.119)**