It seems like you're referring to IP address classes. In the context of the Internet Protocol (IP), IP addresses are categorized into five classes: A, B, C, D, and E. These classes were initially defined to allocate IP addresses based on the size of the network. However, it's important to note that the concept of IP address classes has been largely superseded by more flexible subnetting techniques and the adoption of Classless Inter-Domain Routing (CIDR).

Here's a brief overview of each IP address class:

1. \*\*Class A:\*\*

- \*\*Range:\*\* 1.0.0.0 to 126.255.255.255

- \*\*Leading Bits:\*\* Starts with 0

- \*\*Network Portion:\*\* First octet

- \*\*Example:\*\* 10.0.0.1

2. \*\*Class B:\*\*

- \*\*Range:\*\* 128.0.0.0 to 191.255.255.255

- \*\*Leading Bits:\*\* Starts with 10

- \*\*Network Portion:\*\* First two octets

- \*\*Example:\*\* 172.16.0.1

3. \*\*Class C:\*\*

- \*\*Range:\*\* 192.0.0.0 to 223.255.255.255

- \*\*Leading Bits:\*\* Starts with 110

- \*\*Network Portion:\*\* First three octets

- \*\*Example:\*\* 192.168.0.1

4. \*\*Class D:\*\*

- \*\*Range:\*\* 224.0.0.0 to 239.255.255.255

- \*\*Leading Bits:\*\* Starts with 1110

- \*\*Purpose:\*\* Reserved for multicast groups, not used for host addressing.

5. \*\*Class E:\*\*

- \*\*Range:\*\* 240.0.0.0 to 255.255.255.255

- \*\*Leading Bits:\*\* Starts with 1111

- \*\*Purpose:\*\* Reserved for experimental purposes.

It's important to note that Class D is reserved for multicast addresses, and Class E is reserved for experimental purposes. Classes A, B, and C are primarily used for host addressing.

CIDR (Classless Inter-Domain Routing) allows for a more flexible allocation of IP addresses by allowing the creation of subnets of varying sizes. As a result, the concept of strict IP address classes is less significant in modern networking.