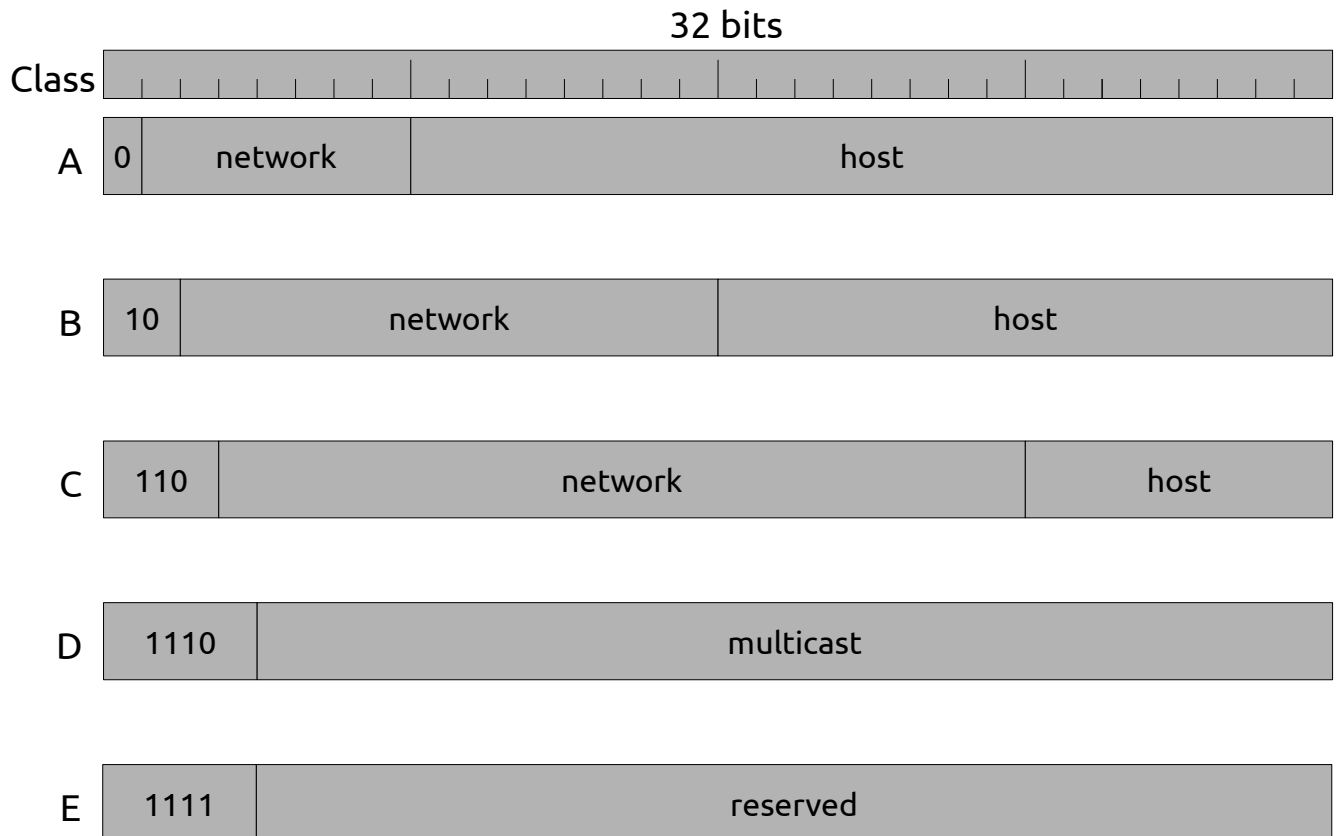


CENG334

COMPUTER NETWORKS

LABORATORY MANUAL IV

In this weeks laboratory manual, we will study about how subnet masks can be used to define different networks. First of all, study the chart given below. This chart demonstrates how bits are arranged for IPv4's network classifications.



Subnet masks, along with IP addresses, can be expressed as (for example) **192.168.1.0/255.255.255.0** or **192.168.1.0/24**; 192.168.1.0 is the network and 24 is the number of 1 bits in subnet mask. While 1's mean the network part, 0's mean the host part.

Exercises:

1. Which classes do the following IP addresses belong to?

- a) 147.192.101.13 b) 220.68.192.80 c) 186.172.27.120 d) 198.47.186.22
e) 193.129.104.85 f) 133.60.58.47 g) 95.126.35.47 h) 240.128.1.15

2. What are the maximum number of hosts the following subnet masks can handle?

- a) 255.255.255.0 b) 255.255.240.0 c) 255.255.0.0 d) 255.255.255.128
e) 255.255.252.0 f) 255.255.128.0 g) 255.255.255.248 h) 255.255.192.0