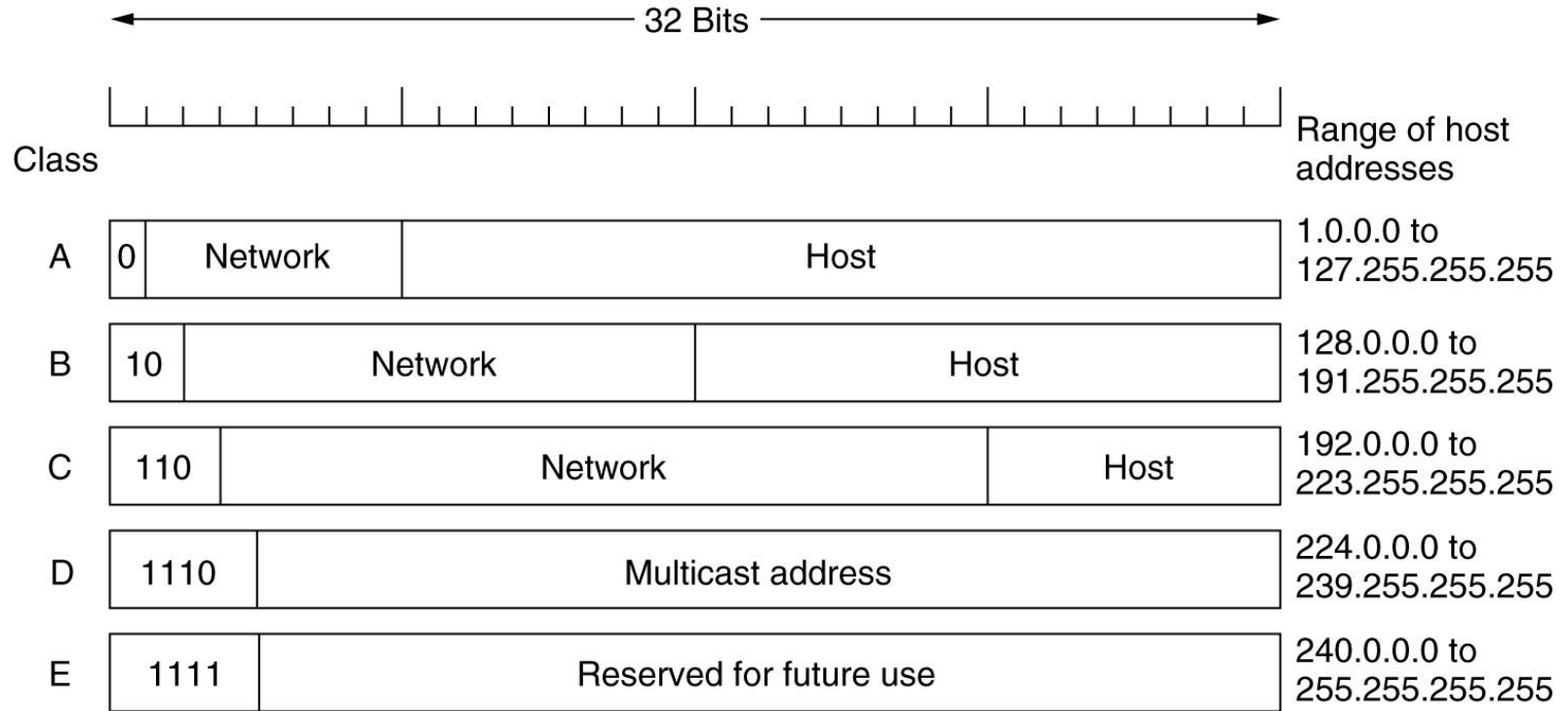


Classful Addressing



	subnet part	host part	# of networks	# of hosts
Class A	8 bits	24 bits	128	16 M
Class B	16 bits	16 bits	16,384	64 K
Class C	24 bits	8 bits	2 M	256

Examples of Subnet Mask

- /24
= 11111111 11111111 11111111 00000000
= 255.255.255.0
- /22
= 11111111 11111111 11111100 00000000
= 255.255.252.0
- /28
= 11111111 11111111 11111111 11110000
= 255.255.255.240

How to use subnet mask?

- Local Forwarding Table

Destination Address	Output Link
10.1.1.0/24	1
10.1.2.0/24	2
10.1.3.0/24	3

- When receiving a datagram with destination address 10.1.2.6, the router computes the following:

	0000	1010	00000000	1	0000000	10	0000001110	←	10.1.2.6
AND	1111	1111	11111111	1	1111111	11	00000000	←	255.255.255.0
<hr/>									
	0000	1010	00000000	1	0000000	10	00000000		

➡ Match 10.1.2.0/24

So this datagram shall be forwarded to Link 2.