



Convert to Decimal	128	64	32	16	8	4	2	1	Decimal
00000110	0	0	0	0	0	1	1	0	6
10101010	1	0	1	0	1	0	1	0	170
11110000	1	1	1	1	0	0	0	0	240
00001111	0	0	0	0	1	1	1	1	15
10001001	1	0	0	0	1	0	0	1	145
00110011	0	0	1	1	0	0	1	1	51
00000100	0	0	0	0	0	1	0	0	4
11100010	1	1	1	0	0	0	1	0	226
11111001	1	1	1	1	1	0	0	1	249
10000001	1	0	0	0	0	0	0	0	129
00111010	0	0	1	1	1	0	1	0	58

Identify the **default** subnet mask for the following IP addresses

IP Address	Subnet Mask
132.10.15.8	255.255.0.0
10.10.15.150	250.0.0.0
192.168.8.200	255.255.255.0
172.18.5.254	255.255.0.0
191.54.85.26	255.255.0.0
125.200.85.4	255.0.0.0
220.200.203.5	255.255.255.0
85.96.74.5	255.0.0.0
138.35.24.1	255.255.0.0
68.35.42.86	255.0.0.0
190.159.252.86	255.255.0.0

If the first number is between 0 and 127 inclusive, the address is class A.  
 If the first number is between 128 and 191 inclusive, the address is class B.  
 If the first number is between 192 and 223 inclusive, the address is class C

IP Address Class	Default Subnet Mask
Class A	255.0.0.0
Class B	255.255.0.0
Class C	255.255.255.0

Every IP address is made up of a Network ID and a Host ID,  
 in the following IP addresses identify the network id  
 from  
 the host id:

IP Address	Network ID	Host ID
192.168.0.5	192.168.0	5
223.248.250.254	223.248.250	254
10.76.25.200	10.	76.25.200
128.54.23.15	128.54	23.15
191.58.46.52	191.58.	46.52
135.5.8.225	135.5	8.225
107.106.105.104	107.	106.105.104
64.85.2.250	64	85.2.250
198.1.1.10	198.1.1	10
90.251.47.202	90	251.47.202
1.1.1.250	1	1.1.250

If the first number is between 0 and 127 inclusive, the address is class A.  
 If the first number is between 128 and 191 inclusive, the address is class B.  
 If the first number is between 192 and 223 inclusive, the address is class C.  
 C

### Network ID and Host ID

**Class A** 0xxx xxxx.xxxx xxxx.xxxx xxxx xxxx xxxx  
Network ID Host ID

**Class B** 10xx xxxx.xxxx xxxx.xxxx xxxx.xxxx xxxx  
Network ID Host ID

**Class C** 110x xxxx.xxxx xxxx.xxxx xxxx.xxxx xxxx  
Network ID Host ID

**Class D** 1110 xxxx.xxxx xxxx.xxxx xxxx.xxxx xxxx  
Network ID

**Class E** 1111 0xxx.xxxx xxxx.xxxx xxxx.xxxx xxxx  
Network ID

What is the subnet mask for the following CIDR:

CIDR	Subnet mask
/8	255.0.0.0
/30	255.255.255.252
/12	255.240.0.0
/24	255.255.255.0
/28	255.255.255.240
/10	255.192.0.0
/16	255.255.0.0
/9	255.128.0.0
/23	255.255.254.0
/17	255.255.128.0
/22	255.255.252.0

CIDR Notation	Convert to 1s and Right Pad	Subnet Mask
/8	11111111.00000000.00000000.00000000	255.0.0.0
/9	11111111.10000000.00000000.00000000	255.128.0.0
/10	11111111.11000000.00000000.00000000	255.192.0.0
/11	11111111.11100000.00000000.00000000	255.224.0.0
/12	11111111.11110000.00000000.00000000	255.240.0.0
/13	11111111.11111000.00000000.00000000	255.248.0.0
/14	11111111.11111100.00000000.00000000	255.252.0.0
/15	11111111.11111110.00000000.00000000	255.254.0.0
/16	11111111.11111111.00000000.00000000	255.255.0.0
/17	11111111.11111111.10000000.00000000	255.255.128.0
/18	11111111.11111111.11000000.00000000	255.255.192.0
/19	11111111.11111111.11100000.00000000	255.255.224.0
/20	11111111.11111111.11110000.00000000	255.255.240.0
/21	11111111.11111111.11111000.00000000	255.255.248.0
/22	11111111.11111111.11111100.00000000	255.255.252.0
/23	11111111.11111111.11111110.00000000	255.255.254.0
/24	11111111.11111111.11111111.00000000	255.255.255.0
/25	11111111.11111111.11111111.10000000	255.255.255.128
/26	11111111.11111111.11111111.11000000	255.255.255.192
/27	11111111.11111111.11111111.11100000	255.255.255.224
/28	11111111.11111111.11111111.11110000	255.255.255.240
/29	11111111.11111111.11111111.11111000	255.255.255.248
/30	11111111.11111111.11111111.11111100	255.255.255.252