Class (A, B, C)

Class A :-

Bit	Host	Usable_Host	Subnet_Mask
/8	16777216	16777214	255.0.0.0
/9	8388608	8388606	255.128.0.0
/10	4194304	4194302	255.192.0.0
/11	2097152	2097150	255.224.0.0
/12	1048576	1048574	255.240.0.0
/13	524288	524286	255.248.0.0
/14	262144	262142	255.252.0.0
/15	131072	131070	255.254.0.0

Class B :-

Bit	Host	Usable_Host	Subnet_Mask
/16	65536	65534	255.255.0.0
/17	32768	32766	255.255.128.0
/18	16384	16382	255.255.192.0
/19	8192	8190	255.255.224.0
/20	4096	4094	255.255.240.0
/21	2048	2046	255.255.248.0
/22	1024	1022	255.255.252.0
/23	512	510	255.255.254.0

Class C :-

Bit	Host	Usable_Host	Subnet_Mask
/24	256	254	255.255.255.0
/25	128	126	255.255.255.128
/26	64	62	255.255.255.192
/27	32	30	255.255.255.224
/28	16	14	255.255.255.240
/29	8	6	255.255.255.248
/30	4	2	255.255.255.252
/31	2	2	255.255.255.254
/32	1	1	255.255.255.255

Subnet Calculation

(1) 192.168.60.55/20

128 64 32 16 8 4 2 1 (128+64+32+16+8+4+2+1 = 255)

255 = 8 Bit each OCTET

/20 = 11111111.11111111.11110000.00000000 – 8.8.4.0 – X.X.128+64+32+**16**.X = 255.255.240.0

192.168.60.55 = X.X.00111100.X – X.X.32+16+8+4.X

Compare = Subnet & IP_Address

/20 = 11111111.11111111.11110000.00000000

192.168.60.55 = X . X .00111100. X

Network_IP = X . X .00110000. X - 192.168.**48**.0

48 + 16 = 64 - 1 = 63

Broadcast_IP = 192.168.63.255

Usable_IP = 192.168.48.1 to 192.168.63.254

(2) 172.10.60.16/29

/29 = 11111111.11111111.11111111.11111000 − 8.8.8.5 − X.X.X.128+64+32+16+**8** = 255.255.255.248

172.10.60.16 = X.X.X.00010000 − X.X.X.16

Compare = Subnet & IP_Address

/29 = 11111111.11111111.11111111.11111000

172.10.60.16 = X . X . X .00010000

Network_IP = X . X . X .00010000 - 172.10.60.**16**

16 + 8 = 24 - 1 = 23

Broadcast_IP = 172.10.60.23

Usable_IP = 172.10.60.17 to 172.10.60.22