

Working With Class B Address **128.10.0.0**

Max # Of Subnets	# Of Bits	Subnet #	Host #	Max # Of Hosts	128.10.X.Y
200	8	193	129	254	128.10.193.129

200 Subnets			
Network ID		Subnet	Host
NNNN	NNNN	SSSS SSSS	HHHH HHHH
1000	0000	1100 0001	1000 0001
128	10	193	129

128	64	32	16	8	4	2	1
1	1	0	0	0	0	0	1
1	0	0	0	0	0	0	1

Subnet Mask			
Network ID		Subnet	Host
1111	1111	1111 1111	0000 0000
255	255	255	0

# Of Bits	Max # Of Subnets
2	$2^2 - 2 = 2$
3	$2^3 - 2 = 6$
4	$2^4 - 2 = 14$
5	$2^5 - 2 = 30$
6	$2^6 - 2 = 62$
7	$2^7 - 2 = 126$
8	$2^8 - 2 = 254$
9	$2^9 - 2 = 510$
10	$2^{10} - 2 = 1022$
11	$2^{11} - 2 = 2046$
12	$2^{12} - 2 = 4094$
13	$2^{13} - 2 = 8190$

Working With Class B Address **128.10.0.0**

Max # Of Subnets	# Of Bits	Subnet #	Host #	Max # Of Hosts	128.10.X.Y
120	7	119	68	510	128.10.238.68

120 Subnets			
Network ID		Subnet/Host	Host
NNNN NNNN	NNNN NNNN	SSSS SSSH	HHHH HHHH
1000 0000	0000 1010	11101110	01000100
128	10	238	68

256	128	64	32	16	8	4	2	1
		1	1	1	0	1	1	1
0	0	1	0	0	0	1	0	0

Subnet Mask			
Network ID		Subnet/Host	Host
1111 1111	1111 1111	1111 1110	0000 0000
255	255	254	0

# Of Bits	Max # Of Subnets
2	$2^2 - 2 = 2$
3	$2^3 - 2 = 6$
4	$2^4 - 2 = 14$
5	$2^5 - 2 = 30$
6	$2^6 - 2 = 62$
7	$2^7 - 2 = 126$
8	$2^8 - 2 = 254$
9	$2^9 - 2 = 510$
10	$2^{10} - 2 = 1022$
11	$2^{11} - 2 = 2046$
12	$2^{12} - 2 = 4094$
13	$2^{13} - 2 = 8190$

Working With Class B Address **128.10.0.0**

Max # Of Subnets	# Of Bits	Subnet #	Host #	Max # Of Hosts	128.10.X.Y
120	7	105	352	510	128.10.211.98

120 Subnets					
Network ID		Subnet/Host		Host	
NNNN	NNNN	NNNN	SSSS SSSH	HHHH	HHHH
1000	0000	0000	1101 0011	0110	0000
128		10	211		96

256	128	64	32	16	8	4	2	1
		1	1	0	1	0	0	1
1	0	1	1	0	0	0	0	0

Subnet Mask					
Network ID		Subnet/Host		Host	
1111	1111	1111	1110	0000	0000
255		255	254		0

# Of Bits	Max # Of Subnets
2	$2^2 - 2 = 2$
3	$2^3 - 2 = 6$
4	$2^4 - 2 = 14$
5	$2^5 - 2 = 30$
6	$2^6 - 2 = 62$
7	$2^7 - 2 = 126$
8	$2^8 - 2 = 254$
9	$2^9 - 2 = 510$
10	$2^{10} - 2 = 1022$
11	$2^{11} - 2 = 2046$
12	$2^{12} - 2 = 4094$
13	$2^{13} - 2 = 8190$

Working With Class B Address 128.10.0.0

Max # Of Subnets	# Of Bits	Subnet #	Host #	Max # Of Hosts	128.10.X.Y
58	6	5	98	1022	128.10.180.98

58 Subnets

Network ID		Subnet/Host	Host
NNNN NNNN	NNNN NNNN	SSSS SSHH	HHHH HHHH
1000 0000	0000 1010	1011 0100	0110 0010
128	10	180	98

512	256	128	64	32	16	8	4	2	1
<del>0</del>				1	0	0	1	0	1
0	0	0	1	1	0	0	0	1	0

Subnet Mask

Network ID		Subnet/Host	Host
1111 1111	1111 1111	1111 1100	0000 0000
255	255	252	0

# Of Bits	Max # Of Subnets
2	$2^2 - 2 = 2$
3	$2^3 - 2 = 6$
4	$2^4 - 2 = 14$
5	$2^5 - 2 = 30$
6	$2^6 - 2 = 62$
7	$2^7 - 2 = 126$
8	$2^8 - 2 = 254$
9	$2^9 - 2 = 510$
10	$2^{10} - 2 = 1022$
11	$2^{11} - 2 = 2046$
12	$2^{12} - 2 = 4094$
13	$2^{13} - 2 = 8190$

Working With Class B Address 128.10.0.0

Max # Of Subnets	# Of Bits	Subnet #	Host #	Max # Of Hosts	128.10.X.Y
58	6	48	598	1022	128.10.194.86

58 Subnets			
Network ID		Subnet/Host	Host
NNNN NNNN	NNNN NNNN	SSSS SSHH	HHHH HHHH
1000 0000	0000 1010	1100 0010	0001 0110
128	10	194	86

512	256	128	64	32	16	8	4	2	1
~~~~~				1	1	0	0	0	0
1	0	0	1	0	1	0	1	1	0

Subnet Mask			
Network ID		Subnet/Host	Host
1111 1111	1111 1111	1111 1100	0000 0000
255	255	252	0

# Of Bits	Max # Of Subnets
2	$2^2 - 2 = 2$
3	$2^3 - 2 = 6$
4	$2^4 - 2 = 14$
5	$2^5 - 2 = 30$
6	$2^6 - 2 = 62$
7	$2^7 - 2 = 126$
8	$2^8 - 2 = 254$
9	$2^9 - 2 = 510$
10	$2^{10} - 2 = 1022$
11	$2^{11} - 2 = 2046$
12	$2^{12} - 2 = 4094$
13	$2^{13} - 2 = 8190$

Working With Class B Address 128.10.0.0

Max # Of Subnets	# Of Bits	Subnet #	Host #	Max # Of Hosts	128.10.X.Y
29	5	28	59	2046	128.10.224.59

29 Subnets			
Network ID		Subnet/Host	Host
NNNN NNNN	NNNN NNNN	SSSH HHHH	HHHH HHHH
1000 0000	0000 1010	1110 0000	0011 1011
128	10	224	59

1024	512	256	128	64	32	16	8	4	2	1
~~~~~						1	1	1	0	0
0	0	0	0	0	1	1	1	0	1	1

Subnet Mask			
ID Network		Subnet/Host	Host
1111 1111	1111 1111	1111 1000	0000 0000
255	255	248	0

# Of Bits	Max # Of Subnets
2	$2^2 - 2 = 2$
3	$2^3 - 2 = 6$
4	$2^4 - 2 = 14$
5	$2^5 - 2 = 30$
6	$2^6 - 2 = 62$
7	$2^7 - 2 = 126$
8	$2^8 - 2 = 254$
9	$2^9 - 2 = 510$
10	$2^{10} - 2 = 1022$
11	$2^{11} - 2 = 2046$
12	$2^{12} - 2 = 4094$
13	$2^{13} - 2 = 8190$

Working With Class B Address 128.10.0.0

Max # Of Subnets	# Of Bits	Subnet #	Host #	Max # Of Hosts	128.10.X.Y
29	5	25	1069	2046	128.10.204.45

29 Subnets			
Network ID		Subnet/Host	Host
NNNN NNNN	NNNN NNNN	SSSS S HHH	HHHH HHHH
1000 0000	0000 1010	1000 1100	0010 1101
128	10	204	45

1024	512	256	128	64	32	16	8	4	2	1
~~~~~						1	1	0	0	1
1	0	0	0	0	1	0	1	1	0	1

Subnet Mask			
ID Network		Subnet/Host	Host
1111 1111	1111 1111	1111 1000	0000 0000
255	255	248	0

# Of Bits	Max # Of Subnets
2	$2^2 - 2 = 2$
3	$2^3 - 2 = 6$ (2x2) + 2 = 6
4	$2^4 - 2 = 14$ (4x2) + 2 = 14
5	$2^5 - 2 = 30$ (14x2) + 2 = 30
6	$2^6 - 2 = 62$ (30x2) + 2 = 62
7	$2^7 - 2 = 126$
8	$2^8 - 2 = 254$
9	$2^9 - 2 = 510$
10	$2^{10} - 2 = 1022$
11	$2^{11} - 2 = 2046$
12	$2^{12} - 2 = 4094$
13	$2^{13} - 2 = 8190$

(2x2) + 2 = 6  
 (4x2) + 2 = 14  
 (14x2) + 2 = 30  
 (30x2) + 2 = 62

Working With Class B Address 9.0.0.0

Max # Of Subnets	# Of Bits	Subnet #	Host #	Max # Of Hosts	128.10.X.Y
2000	11	1953	1119	8190	9.244.36.95

2000 Subnets

Network ID	Subnet	Subnet/Host	Host
NNNN NNNN	SSSS SSSS	SSSH HHHH	HHHH HHHH
0000 1001	1111 0100	0010 0100	0101 1111
9	244	36	95

4096	2048	1024	512	256	128	64	32	16	8	4	2	1
<del>0</del>	<del>0</del>	1	1	1	1	0	1	0	0	0	0	1
0	0	1	0	0	0	1	0	1	1	1	1	1

Subnet Mask

Network ID	Subnet	Subnet/Host	Host
1111 1111	1111 1111	1110 0000	0000 0000
255	255	224	0

# Of Bits	Max # Of Subnets
2	$2^2 - 2 = 2$
3	$2^3 - 2 = 6$
4	$2^4 - 2 = 14$
5	$2^5 - 2 = 30$
6	$2^6 - 2 = 62$
7	$2^7 - 2 = 126$
8	$2^8 - 2 = 254$
9	$2^9 - 2 = 510$
10	$2^{10} - 2 = 1022$
11	$2^{11} - 2 = 2046$
12	$2^{12} - 2 = 4094$
13	$2^{13} - 2 = 8190$



Working With Class B Address 9.0.0.0

Max # Of Subnets	# Of Bits	Subnet #	Host #	Max # Of Hosts	128.10.X.Y
2000	7	1949	704	8190	9.243.162.192

2000 Subnets			
Network ID	Subnet	Subnet/Host	Host
NNNN NNNN	SSSS SSSS	SSSH HHHH	HHHH HHHH
0000 1001	1111 0011	1010 0010	1100 0000
9	243	162	192

4096	2048	1024	512	256	128	64	32	16	8	4	2	1
0	0	0	1	1	1	0	0	1	1	1	0	1
0	0	0	1	0	1	1	0	0	0	0	0	0

Subnet Mask			
Network ID	Subnet	Subnet/Host	Host
1111 1111	1111 1111	1110 0000	0000 0000
255	255	224	0

# Of Bits	Max # Of Subnets
2	$2^2 - 2 = 2$
3	$2^3 - 2 = 6$
4	$2^4 - 2 = 14$
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8	$2^8 - 2 = 254$
9	$2^9 - 2 = 510$
10	$2^{10} - 2 = 1022$
11	$2^{11} - 2 = 2046$
12	$2^{12} - 2 = 4094$
13	$2^{13} - 2 = 8190$

