

	<u>Value of Bits by Position</u>								
	2 ⁷	2 ⁶	2 ⁵	2 ⁴	2 ³	2 ²	2 ¹	2 ⁰	
<u>Binary Value</u>	<u>128</u>	<u>64</u>	<u>32</u>	<u>16</u>	<u>8</u>	<u>4</u>	<u>2</u>	<u>1</u>	<u>Decimal Value</u>
1 0000000	1	0	0	0	0	0	0	0	128
11 000000	1	1	0	0	0	0	0	0	192
111 00000	1	1	1	0	0	0	0	0	224
1111 0000	1	1	1	1	0	0	0	0	240
11111 000	1	1	1	1	1	0	0	0	248
111111 00	1	1	1	1	1	1	0	0	252
1111111 0	1	1	1	1	1	1	1	0	254
11111111	1	1	1	1	1	1	1	1	255

Explanations

IP Addressing and Subnetting <https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13788-3.html>

IP Subnetting Made Easy <https://www.techrepublic.com/blog/data-center/ip-subnetting-made-easy-125343/>

Cheatsheets

IPv4 Cheatsheet https://subnettingpractice.com/images/IPv4_cheat_sheet.png

IPv4 Subnetting http://www.genautica.com/cheatsheets/IPv4_Subnetting.jpg

Practice

Cisco Binary Game <https://learningnetwork.cisco.com/docs/DOC-1803>

Subnetting Practice <https://www.subnetting.net/Start.aspx>

IP Subnet Practice Page <https://www.lammle.com/ip-subnet-practice-page/>

Calculators

ipcalc <http://jodies.de/ipcalc>

Subnet Calculator <http://www.subnet-calculator.com/>