



IP Address Block Size Equivalents

for IPv4 and IPv6

CIDR prefixes in blue boxes are common distribution sizes.

CIDR	IPv4	IPv6
/0	4,294,967,296	2 ^{^128} or 340,282,366,920,938,463,463,374,607,431,768,211,456
/1	2,147,483,648	2 ^{^127} or 170,141,183,460,469,231,731,687,303,715,884,105,728
/2	1,073,741,824	2 ^{^126} or 85,070,591,730,234,615,865,843,651,857,942,052,864
/3	536,870,912	2 ^{^125} or 42,535,295,865,117,307,932,921,825,928,971,026,432
/4	268,435,456	2 ^{^124} or 21,267,647,932,558,653,966,460,912,964,485,513,216
/5	134,217,728	2 ^{^123} or 10,633,823,966,279,326,983,230,456,482,242,756,608
/6	67,108,864	2 ^{^122} or 5,316,911,983,139,663,491,615,228,241,121,378,304
/7	33,554,432	2 ^{^121} or 2,658,455,991,569,831,745,807,614,120,560,689,152
/8	16,777,216	2 ^{^120} or 1,329,227,995,784,915,872,903,807,060,280,344,576
/9	8,388,608	2 ^{^119} or 664,613,997,892,457,936,451,903,530,140,172,288
/10	4,194,304	2 ^{^118} or 332,306,998,946,228,968,225,951,765,070,086,144
/11	2,097,152	2 ^{^117} or 166,153,499,473,114,484,112,975,882,535,043,072
/12	1,048,576	2 ^{^116} or 83,076,749,736,557,242,056,487,941,267,521,536
/13	524,288	2 ^{^115} or 41,538,374,868,534,827,628,530,496,329,220,096
/14	262,144	2 ^{^114} or 20,769,187,434,139,310,514,121,958,316,880,384
/15	131,072	2 ^{^113} or 10,384,593,717,069,655,257,060,992,658,440,192
/16	65,536	2 ^{^112} or 5,192,296,858,534,827,628,530,496,329,220,096
/17	32,768	2 ^{^111} or 2,596,148,429,267,413,814,265,248,164,610,048
/18	16,384	2 ^{^110} or 1,298,074,214,633,706,907,132,624,082,305,024
/19	8,192	2 ^{^109} or 649,037,107,316,853,453,566,312,041,153,512
/20	4,096	2 ^{^108} or 324,518,553,658,426,726,783,156,020,576,256
/21	2,048	2 ^{^107} or 162,259,276,829,213,363,391,578,010,288,128
/22	1,024	2 ^{^106} or 81,129,638,414,606,681,695,789,005,144,064
/23	512	2 ^{^105} or 40,564,819,207,303,340,847,894,502,572,032

CIDR	IPv4	IPv6
/24	256	2 ¹⁰⁴ or 20,282,409,603,651,670,423,947,251,286,016
/25	128	2 ¹⁰³ or 10,141,204,801,825,835,211,973,625,643,008
/26	64	2 ¹⁰² or 5,070,602,400,912,917,605,986,812,821,504
/27	32	2 ¹⁰¹ or 2,535,301,200,456,458,802,993,406,410,752
/28	16	2 ¹⁰⁰ or 1,267,650,600,228,229,401,496,703,205,376
/29	8	2 ⁹⁹ or 633,825,300,114,114,700,748,351,602,688
/30	4	2 ⁹⁸ or 316,912,650,057,057,350,374,175,801,344
/31	2	2 ⁹⁷ or 158,546,325,028,528,675,187,087,900,672
/32	1	2 ⁹⁶ or 79,228,162,514,264,337,593,543,950,336
/33		2 ⁹⁵ or 39,614,081,257,132,168,796,771,975,168
/34		2 ⁹⁴ or 19,807,040,628,566,084,398,385,987,584
/35		2 ⁹³ or 9,903,520,314,283,042,199,192,993,792
/36		2 ⁹² or 4,951,760,157,141,521,099,596,496,896
/37		2 ⁹¹ or 2,475,880,078,570,760,549,798,248,448
/38		2 ⁹⁰ or 1,237,940,039,285,380,274,899,124,224
/39		2 ⁸⁹ or 618,970,019,642,690,137,449,562,112
/40		2 ⁸⁸ or 309,485,009,821,345,068,724,781,056
/41		2 ⁸⁷ or 154,742,504,910,672,534,362,390,528
/42		2 ⁸⁶ or 77,371,252,455,336,267,181,195,264
/43		2 ⁸⁵ or 38,685,626,227,668,133,590,597,632
/44		2 ⁸⁴ or 19,342,813,113,834,066,795,298,816
/45		2 ⁸³ or 9,671,406,556,917,033,397,649,408
/46		2 ⁸² or 4,835,703,278,458,516,698,824,704
/47		2 ⁸¹ or 2,417,851,639,229,258,349,412,352
/48		2 ⁸⁰ or 1,208,925,819,614,629,174,706,176
/49		2 ⁷⁹ or 604,462,909,807,314,587,353,088
/50		2 ⁷⁸ or 302,231,454,903,657,293,676,544
/51		2 ⁷⁷ or 151,115,727,451,828,646,838,772
/52		2 ⁷⁶ or 75,557,863,725,914,323,419,136
/53		2 ⁷⁵ or 37,778,931,862,957,161,709,568

CIDR	IPv4	IPv6
/54		2^{74} or 18,889,465,931,478,580,854,784
/55		2^{73} or 9,444,732,965,739,290,427,392
/56		2^{72} or 4,722,366,482,869,645,213,696
/57		2^{71} or 2,361,183,241,434,822,606,848
/58		2^{70} or 1,180,591,620,717,411,303,424
/59		2^{69} or 590,295,810,358,705,651,712
/60		2^{68} or 295,147,905,179,352,825,856
/61		2^{67} or 147,573,952,589,676,412,928
/62		2^{66} or 73,786,976,294,838,206,464
/63		2^{65} or 36,893,488,147,419,103,232
/64		2^{64} or 18,446,744,073,709,551,616
/65		2^{63} or 9,223,372,036,854,775,808
/66		2^{62} or 4,611,686,018,427,387,904
/67		2^{61} or 2,305,843,009,213,693,952
/68		2^{60} or 1,152,921,504,606,846,976
/69		2^{59} or 576,460,752,303,423,488
/70		2^{58} or 288,230,376,151,711,744
/71		2^{57} or 144,115,188,075,855,872
/72		2^{56} or 72,057,594,037,927,936
/73		2^{55} or 36,028,797,018,963,968
/74		2^{54} or 18,014,398,509,481,984
/75		2^{53} or 9,007,199,254,740,992
/76		2^{52} or 4,503,599,627,370,496
/77		2^{51} or 2,251,799,813,685,248
/78		2^{50} or 1,125,899,906,842,624
/79		2^{49} or 562,949,953,421,312
/80		2^{48} or 281,474,976,710,656
/81		2^{47} or 140,737,488,355,328
/82		2^{46} or 70,368,744,177,664
/83		2^{45} or 35,184,372,088,832

CIDR	IPv4	IPv6
/84		2^{44} or 17,592,186,044,416
/85		2^{43} or 8,796,093,022,208
/86		2^{42} or 4,398,046,511,104
/87		2^{41} or 2,199,023,255,552
/88		2^{40} or 1,099,511,627,776
/89		2^{39} or 549,755,813,888
/90		2^{38} or 274,877,906,944
/91		2^{37} or 137,438,953,472
/92		2^{36} or 68,719,476,736
/93		2^{35} or 34,359,738,368
/94		2^{34} or 17,179,869,184
/95		2^{33} or 8,589,934,592
/96		2^{32} or 4,294,967,296
/97		2^{31} or 2,147,483,648
/98		2^{30} or 1,073,741,824
/99		2^{29} or 536,870,912
/100		2^{28} or 268,435,456
/101		2^{27} or 134,217,728
/102		2^{26} or 67,108,864
/103		2^{25} or 33,554,432
/104		2^{24} or 16,777,216
/105		2^{23} or 8,388,608
/106		2^{22} or 4,194,304
/107		2^{21} or 2,097,152
/108		2^{20} or 1,048,576
/109		2^{19} or 524,288
/110		2^{18} or 262,144
/111		2^{17} or 131,072
/112		2^{16} or 65,536
/113		2^{15} or 32,768

CIDR	IPv4	IPv6
/114		2^{14} or 16,384
/115		2^{13} or 8,192
/116		2^{12} or 4,096
/117		2^{11} or 2,048
/118		2^{10} or 1,024
/119		2^9 or 512
/120		2^8 or 256
/121		2^7 or 128
/122		2^6 or 64
/123		2^5 or 32
/124		2^4 or 16
/125		2^3 or 8
/126		2^2 or 4
/127		2^1 or 2
/128		2^0 or 1

 CIDR prefixes in blue boxes are common distribution sizes.

Classful addressing has not been used since 1993.
Classful equivalents are:

- A: /8
- B: /16
- C: /24