



# CCNA CHEAT SHEET

## IPv4 Vs IPv6 Address Space

IPv4 has 32 binary bits

This means there are  
4 Billion, 294 Million, 967 Thousand, 296  
possible combinations of 1s and 0s  
This accounts for all possible addresses  
from 0.0.0.0  
to 255.255.255.255

IPv6 has 128 binary bits

This means there are  
340 Undecillion, 282 Decillion, 366 Nonillion,  
920 Octillion, 938 Septillion, 463 Sextillion,  
463 Quintillion, 374 Quadrillion, 607 Trillion,  
431 Billion, 768 Million, 211 Thousand, 456  
possible combinations of 1s and 0s  
from 0000:0000:0000:0000:0000:0000:0000:0000  
to FFFF:FFFF:FFFF:FFFF:FFFF:FFFF:FFFF:FFFF