

## IP address classes

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Class	1 <sup>st</sup> Octet Decimal Range	1 <sup>st</sup> Octet High Order Bits	Network/Host ID (N=Network, H=Host)	Default Subnet Mask	Number of Networks	Hosts per Network (Usable Addresses)
A	1 – 126*	0	N.H.H.H	255.0.0.0	126 ( $2^7 - 2$ )	16,777,214 ( $2^{24} - 2$ )
B	128 – 191	10	N.N.H.H	255.255.0.0	16,382 ( $2^{14} - 2$ )	65,534 ( $2^{16} - 2$ )
C	192 – 223	110	N.N.N.H	255.255.255.0	2,097,150 ( $2^{21} - 2$ )	254 ( $2^8 - 2$ )
D	224 – 239	1110	Reserved for Multicasting			
E	240 – 254	1111	Experimental; used for research			

**Note:** Class A addresses 127.0.0.0 to 127.255.255.255 cannot be used and is reserved for loopback and diagnostic functions.

## Private IP Addresses

Class	Private Networks	Subnet Mask	Address Range
A	10.0.0.0	255.0.0.0	10.0.0.0 - 10.255.255.255
B	172.16.0.0 - 172.31.0.0	255.240.0.0	172.16.0.0 - 172.31.255.255
C	192.168.0.0	255.255.0.0	192.168.0.0 - 192.168.255.255

Hosted at [Novgorod State University](#).