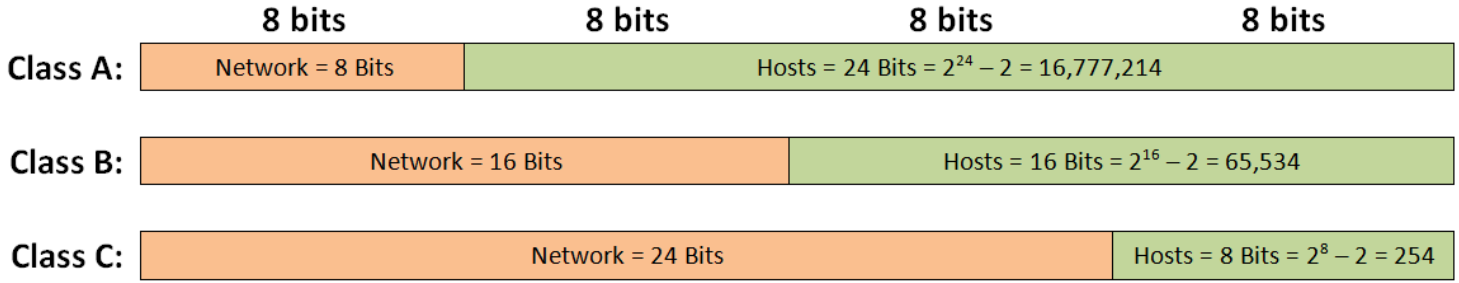
Understanding the Power of 2

- We use the power of 2 in IP addressing and subnetting.
- It's important to memorize the power of 2.

$2^1 = 2$	$2^2 = 4$	$2^3 = 8$	$2^4 = 16$
$2^5 = 32$	$2^6 = 64$	$2^7 = 128$	$2^8 = 256$
$2^9 = 512$	$2^{10} = 1,024$	$2^{11} = 2,048$	$2^{12} = 4,096$

Using Power of 2 to Determine Network Hosts



- **Hosts Per Network** = $2^h - 2$, where *h* is the number of host bits available.
- We subtract two because each network includes a **network address** and **broadcast address** that are not available for use by network end devices.