

$$\frac{64}{2^2} = 16$$

# Create Subnets – Network Requirements

216.21.5.0 – Class C Mask  
5 networks

224  
128 | 64 | 32 | 16 | 8 | 4 | 2 | 1  
Incriment 2<sup>2</sup> 2<sup>1</sup> 2<sup>0</sup>

$$2^N \geq \text{req.}$$

1.) Determine the number of networks and convert them to binary

$$5 = 0000101 = 3 \text{ bits}$$

$$2^3 = 8$$

2.) Reserve bits in the subnet and find your increments

→ 255.255.255.0 / 24  
11111111.11111111.11111111.00000000  
→ 255.255.255.254 / 24  
11111111.11111111.11111111.11000000

Net ID	Host	Broadcast
216.21.5.0	.1	.31
216.21.5.32	.33	.63
216.21.5.64	.65	.95
216.21.5.96	.97	.127
216.21.5.128	.129	.159
→ 160		

3.) Use increment to find your network ranges

CCNA Time

