**How to Subnet**

**Let’s use Network: 172.16.0.0 Subnet Mask: 255.255.252.0**

Determine the number of Hosts IP addresses available per subnet

1. Convert the subnet mask to binary code
2. Count the 0s in the subnet mask
3. Using a calculator 2enter the number of 0s counted, then -2 =\_\_\_\_\_\_

Example:

1. 255.255.252.0 converted to binary is 11111111/11111111/11111100/00000000
2. There are 10 zeros in the subnet mask
3. On the calculator in Scientific mode enter 2 xy 10 -2 =

\*The answer will be 1,022 IP addresses per subnet

Determine the number of Networks available

1. Convert the subnet mask to binary code
2. Exclude the default subnet mask bits
3. Count the remaining 1s in the subnet mask
4. Use a calculator 2enter the number of 1s remaining =\_\_\_\_\_\_\_

\*do not subtract 2 for the number of network

Example:

1. 255.255.252.0 converted to binary is 11111111/11111111/11111100/00000000
2. There are 16 ones in the default subnet mask because addresses beginning with 172 are Class B IP addresses, exclude those 11111111/11111111/11111100/00000000
3. Count the remaining ones
4. On the calculator in Scientific mode enter 2 xy 6 =\_\_\_\_\_\_

\*The answer will be 64 subnets