**IP Subnetting Small Group Exercise**

**Activity:**

This is a group activity consisting of an IP subnetting exercise that includes determining class, CIDR bits, and determining number of subnets and hosts.

**Description of fields:**

* Address Class = Either A, B, or C address space
* # CIDR Bits = Number of bits utilized from the host area based on the default class subnet. Or if the address utilize default class mask then the answer would be zero.
* # Bits for Hosts = Number of bit remaining for host addressing purposed after CIDR.
* # Subnets = Number of subnets created by utilizing CIDR or default class netmask. Assume that that the use of “ip subnet zero” is applied.
* # Hosts per Subnet = Number of usable hosts per subnet.
* Subnet ID = Subnet ID of the subnet\*

\* Bonus field, attempt to answer.

**\*\*\*\*\*\*\*\*Show your work on the following blank pages\*\*\*\*\*\*\*\*\***

**Questions:**

1. IP address and netmask: **36.182.162.56/255.255.0.0**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| # Bits for Hosts |  | Subnet ID |  |

1. IP address and netmask: **128.172.35.9/255.255.255.0**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |

1. IP address and netmask: **204.167.98.45/255.255.255.192**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |

1. IP address and netmask **201.1.97.143/255.255.255.192**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |

1. IP address and netmask **213.156.59.109/255.255.255.255.224**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |

1. IP address and netmask **199.15.201.77/255.255.255.240**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |

1. IP address and netmask **18.141.56.142/255.255.255.128**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |

1. IP address and netmask **165.191.4.67/255.255.255.192**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |

1. IP address and netmask **161.212.7.129/255.255.255.252**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |
| Ordinal Subnet # |  | Broadcast Address |  |

1. IP address and netmask **164.7.115.7/255.255.252.0**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |

1. IP address and netmask **156.27.129.174/255.255.240.0**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |

1. IP address and netmask **212.11.26.193/255.255.248.0**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |
| Ordinal Subnet # |  | Broadcast Address |  |

1. IP address and netmask **13.156.59.109/255.255.192.0**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |

1. IP address and netmask **172.16.45.95/255.255.224.0**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |

1. IP address and netmask **172.31.65.1/255.255.255.224**

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| Address Class |  | # Subnets |  |
| # CIDR Bits |  | # Hosts per Subnet |  |
| Bits for Hosts |  | Subnet ID |  |

**IP Subnetting Work:**

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