

## - Subnetting Exercises -

**(Please note:** For all subnetting questions, assume the ‘all-zeroes’ and ‘all-ones’ subnets are usable. Or, in the Cisco vernacular, assume we have “ip subnet-zero” enabled.)

1. Convert the following decimal numbers to binary.

100:

254:

113:

66:

2. Convert the following binary numbers to decimal.

10101010:

00011100:

11101110:

01100111:

3. You have the following address: 192.16.5.133/29

How many **total** bits are being used to identify the network, and how many **total** bits identify the host?

4. What is the full subnet mask for address 172.16.5.10/28?

\* \* \*

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8. You have sub-netted your class C network 200.138.1.0 with a subnet mask of 255.255.255.252. Please list the following: number of networks, number of hosts per network, the full range of the first three networks, and the usable address range from those first three networks. Additionally, identify the broadcast address for each of the first three networks.

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