Note: You will not get full credit unless you show your work (as indicated below). Once you do the work yourself, you can use Google to check your answers by searching something like “0x88 in decimal” or “0b110 in hex”.

1. Show how you would convert each of the following hexadecimal numbers directly into base-2 (binary) numbers using the shortcut we learned in class. Indicate which hex digit corresponds to which chunk of binary, etc.

**6 3 B 1**

**\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_**

**C 1 A 3**

**\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_**

1. Similarly convert each of the following binary numbers directly into hexadecimal numbers. Indicate which chunks of binary numbers correspond to which hex digit, etc.

**1 1 0 0 0 1 0 0 1 1 0 0 1 1 0 0**

**\_ \_ \_ \_**

**1 1 0 1 0 0 1 1 0 1 1 1 0**

**\_ \_ \_ \_**

**1 1 1 1 1 1 1 1 1 1 1 1 1**

**\_ \_ \_ \_**

# Write down the hex number that’s before **and** after each of the following numbers:

**0xF129**

**0xA12F**

**0xD100**

# Convert the following decimal numbers to hex:

**0d17**

**0d256**

# Convert the following hexadecimal numbers to decimal ***AND*** say how many bytes they are:

**0xA1**

**0xFF**