Homework 1
Due Wednesday, September 7

BASE CONVERSIONS AND ARITHMETIC

Read Chapter 0.1 - 0.3

1. Convert to decimal:
   a. %10110101
   b. %11111111
   c. $7A
   d. $301C

2. Convert to hexadecimal:
   a. %11110000
   b. %1010001110011101
   c. 34
   d. 500

3. Convert to binary:
   a. $AA
   b. $C00D
   c. 100
   d. 532

4. How many bytes are there in 16 Kbytes?

5. How many bits do you need to represent 3109 in binary?

6. Convert the 8-bit signed twos complement number %11001010 to decimal.

7. Convert the 16-bit signed twos complement number $FF03 to decimal.

8. Convert –7 to an 8-bit signed twos complement binary number.

9. Add: (binary) (hex)

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   101101          30A4
 +  10111        + 2116
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10. Convert 34 to an 8-bit signed twos complement binary number. Convert -9 to an 8-bit signed twos complement binary number. Add your two binary numbers, discarding anything past 8 bits. Convert the result back to decimal.
    You should get 34 - 9 = 25.