#  Number Systems Homework

1. Give the 8-bit binary equivalent of the following decimal integers:

a) 63 = 0011 1111 b) 173 = 1011 0100

2. Give the unsigned decimal equivalent of the following 8-bit binary integers:

a) 10010110 = 150 b) 01110101 = 117

3. Give the signed decimal equivalent of the following 8-bit binary integers:

a) 10001110 = -114 b) 01110011 = 117

4. Translate the following binary digits into hexadecimal notation:

a) 10101000 = 0xA8 b) 00101001= 0x29

5. Convert the following decimal numbers into hexadecimal:

a) 427 = 0x1AB b) 231 = 0xE7

6. Convert the following hexadecimal numbers into decimal:

a) 0x74 = 116 b) 0xABC = 2748

7. Convert the following hexadecimal numbers into binary:

a) 0x4312 = 0100 0011 0001 0010

b) 0xEF51 = 1110 1111 0101 0001

8. Give the two's complement of the following binary numbers:

a) 01111110 = 1000 0010 d) 00000000 = 0000 0000

b) 11100110 = 0001 1010 e) 10000000 = 1000 0000

c) 10000001 = 0111 1111