UVa Email ID (no aliases please):   __cph5wr__

Name __Colin Harfst__   Lab section __103__

Lab 4 - Radix Conversion Worksheet

Convert:

1. 0x4F45   into octal

0x4F45=20,293 base 10=4*8^4+7*8^3+5*8^2+5=47,505 base 8

2. 269_{10} into radix 7

269 base 10=5*7^2+3*7+3=533 base 7

3. 110011011110_2 into decimal

110011011110=2+2^2+2^3+2^4+2^6+2^7+2^10+2^11=3294base10

4. $2BD_{19}$ into decimal

2BD base 19=D+B*19+2*19^2=13+11*19+2*19^2=944 base 10

5. Given the following positive binary integer in two's complement:
   0101001101011101

        a) Convert the number to hexadecimal:

0101001101011101=1+2^2+2^3+2^4+2^6+2^8+2^9+2^12+2^14=21,341base10=
5*16^3+3*16^2+5*16+13=0x535D

        b) Negate the number.

-(0101001101011101) = 1 + 1010110010100010 = 1010110010100011