UVa Email ID (no aliases please): **yh3ra**

Name **Yingqing Huang** **Lab section** **106**

Lab 4 - Radix Conversion Worksheet

Convert:

1. 0x4F45 into octal
   $=4*16^3 + 15*16^2 + 4*16 + 5 = 20293_{10}$
   $= 8^4*4 + 3909 = 8^4*4 + 8^3*7 + 8^2*5 + 8*0 + 5 = 47405_8$

2. 269_{10} into radix 7
   $=7^2*5 + 7*3 + 3$
   $=533_7$

3. 110011011110_2 into decimal
   $=2 + 4 + 8 + 16 + 64 + 128 + 1024 + 2048$
   $=3294$

4. $2BD_{19}$ into decimal
   $=13 + 11*19 + 2*19^2$
   $=944$

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

   a) Convert the number to hexadecimal:
      =0x535D

   b) Negate the number.
      Flip 0 and 1
      1010 1100 1010 0010
      Add one
      1010 1100 1010 0011