

UVa Email ID (no aliases please): apn2my

Name Ashley Nguyen Lab section 102

Lab 4 - Radix Conversion Worksheet

Convert:

1. $0x4F45$ into octal 47505_8
 $= 20,293_{10}$
 $= 20,293/8 = 2536 \text{ r}5$
 $= 2536/8 = 317 \text{ r}0$
 $= 317/8 = 39 \text{ r}5$
 $= 39/8 = 4 \text{ r}7$
 $= 4/8 = 0 \text{ r}4$
 $= 47505_8$

2. 269_{10} into radix 7 533_7
 $= 269/7 = 38 \text{ r}3$
 $= 38/7 = 5 \text{ r}3$
 $= 5/7 = 0 \text{ r}5$

3. 110011011110_2 into decimal 3294_{10}
 $= 2 + 4 + 8 + 16 + 64 + 128 + 1024 + 2048$
 $= 3294$

4. $2BD_{19}$ into decimal 944_{10}
 $= (2 * 19^2) + (11 * 19^1) + (13 * 19^0)$
 $= 944$

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

a) Convert the number to hexadecimal:
0x535d

b) Negate the number.
Binary: 1010 1100 1010 0011
Hex: 0xaca3