Steven Murr

HW 4.2

Problems = { 1, 4, 7 - 12 all, 21 }

1) Convert the decimal expansion of each of these integers to a binary expansion. **See handwritten page

a) 231

11100111

b) 4532

1000110110100

c) 97644

10111110101101100

4) Convert the binary expansion of each of these integers to a decimal expansion.**See handwritten page

a) $(1\,1011)_2$

27

b) $(10\,1011\,0101)_2$

693

c) $(11\,10111110)_2$

958

7) Convert the hexadecimal expansion of each of these integers to a binary expansion.**See handwritten page

a) $(80E)_{16}$

$(1000\,0000\,1110)_2$

b) $(135AB)_{16}$

$(0001\,0011\,0101\,1010\,1011)_2$

c) $(ABBA)_{16}$

$(1010\,1011\,1011\,1010)_2$

d) $(DEFACED)_{16}$

$(1101\,1110\,1111\,1010\,1100\,1110\,1101)_2$

8) Convert $(BADFACED)_{16}$ from its hexadecimal expansion to its binary expansion. **See handwritten page

$(1011\,1010\,1101\,1111\,1010\,1100\,1110\,1101)_2$

9) Convert $(ABCDEF)_{16}$ from its hexadecimal expansion to its binary expansion. **See handwritten page

$(1010\,1011\,1100\,1101\,1110\,1111)_2$

10) Convert each of the integers in Exercise 6 from binary expansion to a hexadecimal expansion. **See handwritten page

a) $(1111\,0111)_2$

F7

b) $(1010\,1010\,1010)_2$

101010

c) $(111\,0111\,0111\,0111)_2$

7777

d) $(0101\,0101\,0101\,0101)_2$

5555

11) Convert $(1011\,0111\,1011)_2$ from its binary expansion to its hexadecimal expansion. **See handwritten page

B7B

12) Convert $(0001\,1000\,0110\,0011)_2$ from its binary expansion to its hexadecimal expansion.**See handwritten page

1863

21) See handwritten page