

Justin Huckles
COSC330 9/13/21

Homework #2

2-8: # 37, 39, 40

37. a. 0X38

00111000

b. 0X59

01011001

c. 0XA14

101000010100

d. 0X5C8

010111001000

e. 0X4100

0100000100000000

f. 0XF817

1111101100010111

g. 0XA9D

1000101010011101

39. a. 0×23

$$2 \times 16^1 + 3 \times 16^0 \\ = 35$$

b. 0×92

$$9 \times 16^1 + 2 \times 16^0 \\ = 146$$

c. $0 \times 1A$

$$1 \times 16^1 + 10 \times 16^0 \\ = 26$$

d. $0 \times 8D$

$$8 \times 16^1 + 13 \times 16^0 \\ = 141$$

e. $0 \times F3$

$$15 \times 16^1 + 3 \times 16^0 \\ = 243$$

f. $0 \times EB$

$$14 \times 16^1 + 11 \times 16^0 \\ = 235$$

g. $0 \times 5C2$

$$5 \times 16^2 + 12 \times 16^1 + 2 \times 16^0 \\ = 1474$$

h. 0×700

$$7 \times 16^2 + 0 + 0 \\ = 1792$$

4a. a) $16 \sqrt{8}$ e) $16 \sqrt{284}$ g) $16 \sqrt{4019}$

$$\begin{array}{r} 0 \\ -0 \\ \hline 8 \end{array} \quad \begin{array}{r} 17 \\ 272 \\ \hline 12 \end{array} \quad \begin{array}{r} 251 \\ 4016 \\ \hline 3 \end{array}$$

b) $16 \sqrt{14}$ f) $16 \sqrt{112}$ h) $16 \sqrt{251}$

$$\begin{array}{r} 0 \\ -0 \\ \hline 14 \end{array} \quad \begin{array}{r} 16 \\ 16 \\ \hline 0 \end{array} \quad \begin{array}{r} 15 \\ 240 \\ \hline 110 \end{array}$$

c) $16 \sqrt{33}$ OXF11C OXFEB3

$$\begin{array}{r} 2 \\ 32 \\ \hline 1 \end{array} \quad \begin{array}{r} 180 \\ 2880 \\ \hline 10 \end{array} \quad \begin{array}{r} 406 \\ 6496 \\ \hline 4 \end{array}$$

d) $16 \sqrt{52}$ i) $16 \sqrt{180}$ l) $16 \sqrt{406}$

$$\begin{array}{r} 3 \\ 48 \\ \hline 4 \end{array} \quad \begin{array}{r} 11 \\ 176 \\ \hline 4 \end{array} \quad \begin{array}{r} 25 \\ 400 \\ \hline 6 \end{array}$$

e) $16 \sqrt{4}$ j) $16 \sqrt{11}$ m) $16 \sqrt{25}$

$$\begin{array}{r} 0 \\ -0 \\ \hline 4 \end{array} \quad \begin{array}{r} 1 \\ 11 \\ \hline 11 \end{array} \quad \begin{array}{r} 16 \\ 9 \\ \hline 7 \end{array}$$

f) $16 \sqrt{34}$ n) $16 \sqrt{1964}$

2-10,450

50. a) $\overbrace{0001}^{8}$

$\begin{array}{r} 1 \\ 6 \end{array}$

b) $\overbrace{0110}^{6}$

c) $\overbrace{1001}^{6}$

$\begin{array}{r} 9 \\ 1 \end{array}$

d) $\overbrace{0001}^{9} \overbrace{1000}^{8}$

18

e) $\overbrace{0001}^{9} \overbrace{1001}^{8}$

19

$\begin{array}{r} 3 \\ 2 \end{array}$

f) $\overbrace{0011}^{19} \overbrace{0010}^{2}$

32

$\begin{array}{r} 4 \\ 5 \end{array}$

g) $\overbrace{0100}^{4} \overbrace{0101}^{5}$

45

$\begin{array}{r} 8 \\ 9 \end{array}$

h) $\overbrace{1001}^{45} \overbrace{1000}^{8}$

98

2-11: #56, 57, 60

56. a. 11011

1+1+0+1+1

10110

1+1+0+1+1+0

b. 1001010

1+0+0+1+0+1+0

1101110

c. 111101101110

1+1+1+1+0+1+1+1+1+0+1+1+1+0

1000110011001

57. a. 1010

1+1+1+1

1100

b. 00010

1+1+1+1

00011

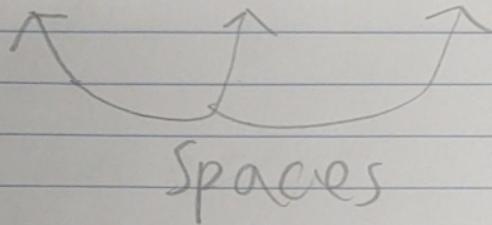
c. 11000010001

1+1+0+0+0+0+1+0+0+1

10000011110

60,100100011001011011001101100110111010110
010000010010001101111110110100000110001
11100101100101010000011110011101111110101
0111111

Hello. How are you?



2-12:#63

a. 100110010
1 2 3 4

Not an error

b. 011101010
1 2 3 4 5

This is an error

c. 1011111010001010
1 2 3 4 5 6 7 8 9 10

Not an error