

Answers to Homework #1

5.1

a)

Sol: $(0111011110)_2 = (2^8 + 2^7 + 2^6 + 2^4 + 2^3 + 2^2 + 2^1)_{10} = (478)_{10}$

b)

Sol: $(1011100111)_2 = (2^9 + 2^7 + 2^6 + 2^5 + 2^2 + 2^1 + 2^0)_{10} = (743)_{10}$

c)

Sol: $(3751)_8 = (3 \times 8^3 + 7 \times 8^2 + 5 \times 8^1 + 1 \times 8^0)_{10} = (2025)_{10}$

d)

Sol: $(A25F)_{16} = (10 \times 16^3 + 2 \times 16^2 + 5 \times 16^1 + 15 \times 16^0)_{10} = (41567)_{10}$

e)

Sol: $(F0F0)_{16} = (15 \times 16^3 + 0 \times 16^2 + 15 \times 16^1 + 0 \times 16^0)_{10} = (61680)_{10}$