Exercise 1: Converting between the numbering systems

1. Convert from Decimal to Binary
    a. 79_{10}
    b. 19_{10}
    c. 56_{10}
    d. 129_{10}
    e. 273_{10}

2. Convert from Binary to Decimal
    a. 1101_2
    b. 010111_2
    c. 10010_2
    d. 011110_2
    e. 1011010_2

3. Convert from Hexadecimal to Binary
    a. EB_{16}
    b. $3C_{16}$
    c. BD_{16}
    d. AF_{16}
    e. $9E_{16}$

4. Convert from Binary to Hexadecimal
    a. 11010011_2
    b. 1110011_2
    c. 1011101_2
    d. 10001110_2
    e. 11101011_2

5. Convert from Decimal to Hexadecimal
    a. 36_{10}
    b. 44_{10}
    c. 68_{10}
    d. 120_{10}
    e. 250_{10}

6. Convert from Hexadecimal to Decimal
    a. FF_{16}
    b. $A4_{16}$
    c. $0F_{16}$
    d. $B8_{16}$
    e. EE_{16}

Exercise 2: Problems involving conversion between the number systems.

1. An Easter figolla weighs 230 grams. Convert the weight given in decimal of this Easter figolla into an 8 bit binary number. What is the weight of this Easter figolla in hexadecimal?

2. A class consists of 25 pupils. What is this class size in hexadecimal?

3. Giovanni Curmi Higher Secondary school in Naxxar has a total of 174 teachers. Convert this number into hexadecimal.

4. A computer A sends a hexadecimal number $B7_{16}$ to computer B. What is this hexadecimal number equivalent to binary?

5. Joe the robot sends a binary message 10101010_2 to his circuitry to indicate that he is running low on battery and is going to shut down. Convert this binary number message to decimal.

6. A car speed limit in major roads is 60km/hr. What is this speed limit equivalent to hexadecimal?

7. Last month, a traffic policeman issued 124 traffic tickets. Convert this decimal number into hexadecimal.