Assignment 1

1. Convert the decimal number 250.5 to base 3, base 4 base 7 and base 8, 16
2. Convert the following decimal to binary 12.0625, 104, 673.23 and 198
3. Covert the following binary numbers to decimal 10.10001, 101110.0101, 1110101.110, 1101101.111

Assignment 2

Convert the following numbers from the given base to the bases indicated:

1. Decimal 225.225 to binary, octal and hexadecimal
2. Binary 11010111.110 to decimal, octal and hexadecimal
3. Octal 62377 to decimal binary and hexadecimal
4. Hexadecimal 2AC5.D to decimal, octal and binary
5. Convert the following numbers to decimal:
   (i) $(1001001.011)_2$
   (ii) $(12121)_3$
   (iii) $(1032.2)_4$
   (iv) $(4310)_5$

Applications

- A CD-ROM stores 650 megabytes of digital data. How many bits of data is this?
- Determine the odd parity bit required for each of the following 7 bit ASCII codes:
  - 1001010
  - 0101101
  - 0110101
- Determine the even parity bit required for each 7 bit ASCII code listed above.