Number Systems

1.1 Number Systems

1. What is another name for the base-2 number system?
2. To make reading and writing large numbers easier we use _____ notation.
3. Convert the following numbers from binary to decimal (base-10).
   a. 110
   b. 1001

   c. 10011
   d. 11010

4. List the numerals that make up the hexadecimal (hex) number system.

5. Convert the following numbers from hex to decimal.
   a. E
   b. 16

   c. 5C
   d. A1

1.2 Number Conversion

6. Convert the following numbers from binary to decimal.
   a. 110101
   b. 10001001

7. Convert the following binary numbers to hex.
   a. 110110111
   b. 101100111100

8. Convert the following decimal numbers to binary using ladder technique.

    a. 40   b. 157

9. Convert the following decimal numbers to binary using positional notation technique.

    a. 37   b. 257

10. Convert the following hexadecimal numbers to binary.

    a. F6   b. 3BC