1. \((63012)_{10} = (\text{?})_{2}\) (Use 3 bits for the fractional part)

2. \((110101.11)_{2} = (\text{?})_{10}\)

3. What is \(x\) if \(2^x = 64\text{K}\) ?

4. Perform the following binary arithmetic. Assume 2 bits for the fractional part.
   \[
   (11010)_{2} + (1011)_{2} = (\text{?})_{2}
   
   (100001)_{2} - (110)_{2} = (\text{?})_{2}
   
   (1010)_{2} \times (1101)_{2} = (\text{?})_{2}
   
   (110101)_{2} / (101)_{2} = (\text{?})_{2}
   \]

5. Write \((266)_{8}\) in hex, binary, and decimal

6. \((44)_{5} = (\text{?})_{7}\)

7. (a) Calculate \(17_{10} + 4_{10}\) using a 2’s Complement Number System with 5 magnitude bits
   (b) Repeat (a) using a 1’s complement number system with 5 magnitude bits
   (c) Assume you add the positive decimal integers \(A\) and \(B\) using a 2’s Complement Number System with 4 magnitude bits. How large can \(A\) and \(B\) be without producing an overflow?

8. Write \((474)_{8}\) in BCD

9. Perform \(27_{10} + 94_{10}\) using BCD arithmetic.