

Introduction to Digital System

Homework #1

(due **Mar. 9**, 2004)

- 1-8 Convert the following binary numbers to hexadecimal and to decimal:
(a) 1.11010, (b) 1110.10.
Explain why the decimal answer in (b) is 8 times that of (a).
- 1-9 Convert the hexadecimal number 68BE to binary and then from binary convert it to octal.
- 1-20 Convert decimal +61 and +27 to binary using the signed-2's complement representation and enough digits to accommodate the numbers. Then perform the binary equivalent of $(+27) + (-61)$, $(-27) + (+61)$, and $(-27) + (-61)$. Convert the answers back to decimal and verify that they are correct.