

St. Mary's University
Department of Computer Science
Introduction to Computing Science - Worksheet 1

1. Convert the following decimal numbers to their corresponding binary, octal, and hexadecimal number.
 - a. 689
 - b. 2022
 - c. -79 (use all 3 methods)
 - d. -12 (use all 3 methods)
 - e. 36.75
 - f. -21.0859375 (use all 3 methods)
 - g. 114.078125
 - h. -10.675 (use all 3 methods)
2. Convert the following binary numbers to their corresponding decimal, octal, and hexadecimal number.
 - a. Signed with Sign and Magnitude
 - i. 1000111010110
 - ii. 111101010111
 - iii. 011001110.01101
 - iv. 11011101.1011
 - b. 1's Complement
 - i. 10011001110101
 - ii. 1111111
 - iii. 10000001
 - iv. 101011011011
 - c. 2's complement
 - i. 1010101100
 - ii. 1110100101
 - iii. 1010011001
 - iv. 1010100011
3. Convert the following octal numbers to their corresponding decimal, binary, and hexadecimal number.
 - a. -75
 - b. 1776
 - c. -43
 - d. 25
4. Convert the following hexadecimal numbers to their corresponding decimal, binary and octal numbers.
 - a. 00FF00
 - b. -845104
 - c. FF0000
 - d. -1213416
 - e. -9547