

Assignment 1  
Computer Architecture – COSC 2334, Fall 2021

1. Complete the table by converting the requested number to/from decimal, binary, octal and hexadecimal.

Decimal	Binary Number of bits =8	Octal	Hex
145	1001 0001	221	91
206	11001110	316	CE
236	1110 1100	354	EC
245	11110101	365	F5

2. Convert the following 8 bits signed binary numbers to 1 complement and 2 complements.

Binary (8 bits)	1's Complement	2's complements
10101100	0101 0011	0101 0100
01010010	1010 1101	1010 1110

3. Convert the decimal to binary and then use 2's complements to find result.

$18 + (-9) = ??$

Step 1: Convert 18 to binary:

0001 0010

Step 2: convert -9 to binary

1111 0111

Step 3: Find 2's complement of -9

1111 0111

Step 4: Result

0000 1001