

Computer Science Fundamentals
CS208

HW 1

Solve each of the following problems showing all the required steps,

1. Convert the following binary numbers to decimal numbers:

a. 01110101

b. 00101001

2. Convert the following decimal numbers to binary numbers:

a. 38

b. 147

3. What ASCII characters are represented by 1100001, 0101010

4. Convert the following decimal numbers to octal numbers

a. 1101

b. 379

5. Convert the following octal numbers to decimal numbers:

a. 507

b. 101

6. Convert the following decimal numbers to hexadecimal numbers:

a. 235

b. 1023

7. Convert the following hexadecimal numbers to decimal numbers:

a. 5A

b. 2B8

8. Convert the following numbers to the new base:

a. 11001110_2
()₈

b. $3C4F_{16}$
()₈

c. 11100110_2
()₁₆

d. 6475_8
()₁₆