

## CSCI 2150 – Binary Representations Homework

Name: \_\_\_\_\_

1. Fill in the blank cells of the table below with the correct numeric format. *For cells representing binary values, only 8-bit values are allowed!* If a value for a cell is invalid or cannot be represented in that format, write "X".

Decimal	2's complement binary	Signed magnitude binary	Unsigned binary
			<b>11000011</b>
	<b>10110100</b>		
<b>-2</b>			
		<b>01101001</b>	

2. Convert  $101011101101000100100011_2$  to hexadecimal.
3. Convert the binary value 110.0111 to decimal. (Note the binary point!)
4. Convert the 32-bit floating-point number 110000101010010111000000000000 to its binary exponential format, e.g.,  $1.1010110 \times 2^{-12}$ , (which, by the way, is not even close to the right answer).