Name: _____
CS100 Signed and Floating point numbers.
Section 1

a. Convert the following numbers from signed decimal (Base 10) to signed 8-bit binary(Base 2) using 2's complement..
127

-128

-58

-90

90

-1

b. Convert the following numbers from signed 8-bit binary (Base 2) to decimal (Base 10).
11111111

10000000

00001000

01111111

11000011

11110000

Section 2 - Add the following binary numbers, assume they use 2's complement (all binary numbers in this section are SIGNED, answers are to only be 8-bits!)

a. 10001000 + 00010101

b. 11110100 + 11101000

c. 11111111 + 11111111

d. 11111111 + 00000001

Section 3

a. Convert the following numbers from signed decimal point numbers to 32-bit signed binary (Base 2) using the IEEE754 format.

2.5

0.75

-0.0625,

-8.125,

3.5

-10.5

b. Convert the following 32-bit signed binary (Base 2) to signed decimal point numbers.

1	10000000	00000000000000000000000
0	01111110	00100000000000000000000
1	10000001	11100000000000000000000
1	10000011	01100000000000000000000
1	11111111	00000000000000000000000
0	00000000	00000000000000000000000