

# CS120 - Computer Science I Practice Sheet

Name \_\_\_\_\_

1. Express the following values as 8-bit 2's complement values:

a) +34

b) -73

c) +92

d) -1

2. Determine the decimal values of each of the following bit patterns if they are interpreted as unsigned, 1's complement and 2's complement values:

	Unsigned	1's Complement	2's Complement
a) 0010 1110			

b) 1001 1000

c) 1111 1111

3. Perform the following 2's complement arithmetic. Verify your answer by determining the decimal values of each number in the problem:

a.) 0001 1101  
+ 0110 1001  
-----

b.) 1011 0011  
+ 1110 1011  
-----

c.) 0110 1101  
- 0011 0011  
-----

d.) 1011 1100  
- 0011 1100  
-----