Assignment # 10.1 Sample

1. **Recast the decision problem for the Boolean expression (a + b + ~c)(~a + b + b)(a + ~b + c) as a SubsetSum problem using the construction discussed in class. Indicate what rows would need to be chosen for a solution.**

	a	b	c	a + b + ~c	~a + b + b	a + ~b + c
a						
~a						
b						
~b						
c						
~c						
C1						
C1'						
C2						
C2'						
C3						
C3'						
	1	1	1	3	3	3

Assignment # 10.2,3 Sample

2. Recast the SubsetSum problem {15, 7, 12, 4, 11, 6, 4, 12, 3, 2}, G=39 as a Partition Problem using the construction discussed in class. Indicate what values would need to be chosen to equal 39. Indicate the partitions that evenly divide the Partition Problem you posed.

3. Recast the decision problem for the Boolean expression (a + b + ~c + d)(~a + b + ~d)(a + ~b + c) as a 0,1-Integer Linear Programming problem using the construction discussed in class. Indicate what binary (0,1) values of a, b, c and d give rise to a solution to the Integer Linear Programming problem you posed.