

§4.13 (PART 2): THE TWO-PHASE SIMPLEX METHOD

1.] Consider the following LP:

$$\text{Maximize: } z = 3x_1 + 2x_2 + 3x_3$$

$$\text{Subject to: } 2x_1 + x_2 + x_3 = 2$$

$$x_1 + 3x_2 + x_3 = 6$$

$$3x_1 + 4x_2 + 2x_3 = 8$$

$$x_1, x_2, x_3 \geq 0$$

a.) Set up Phase I and solve it.

Row	Basic		RHS
0	w		
1			
2			
3			

Row	Basic		RHS
0'	w		
1'			
2'			
3'			

Row	Basic		RHS
0''	w		
1''			
2''			
3''			

2.] Write down the associated LP for Phase II. Then construct the initial tableau and solve it.

Row	Basic		RHS
0	z		
1			
2			
3			

Row	Basic		RHS
0	z		
1			
2			

Row	Basic		RHS
0'	z		
1'			
2'			