

UNIVERSITY OF MASSACHUSETTS

Isenberg School of Management

Department of Finance and Operations Management

FOMGT 353-Introduction to Management Science

Homework #4 – The Simplex Method.

Show your work completely and in an organized manner to receive maximum credit. Correct answers without supporting calculations or diagrams will not receive credit. Incorrect answers using the correct method and a good presentation will receive substantial credit.

My name is:

Solve the following linear program in the steps outlined in parts 1. to 6.

Minimize $152x_1 + 140x_2$

(1): $1.2x_1 + 1.4x_2 \geq 10$

(2): $1.4x_1 + 0.8x_2 \geq 10$

(3): $1.5x_1 + 0.2x_2 \geq 7.1$

(4): $-x_1 - x_2 \Rightarrow -15$

$x_1, x_2 \Rightarrow 0$

1. Convert the LP to Standard Form.

		x1	x2	s1	s2	s3	s4	a1	a2	a3	
Basis	Cj										Bi
	Zj										
	Cj-Zj										

		x1	x2	s1	s2	s3	s4	a1	a2	a3	
Basis	Cj										Bi
	Zj										
	Cj-Zj										

The Optimal Solution is: