STOR 614 - Linear Programming, Spring 2019

Homework No. 9

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Problem 1.

$$G = \begin{bmatrix} 2 & -2 \\ -2 & 4 \end{bmatrix}, c = \begin{bmatrix} -2 \\ -6 \end{bmatrix}.$$

Iteration k	x_k	W_k	q_k	p_k	α_k	*Case*
0	$(0,0)$	$\{3\}$	0	$(0,3/2)$	$2/3$	1.2
1	$(0,1)$	$\{2,3\}$	-4	$(0,0)$		2.2
2	$(0,1)$	$\{2\}$	-4	$(5,5/2)$	$2/15$	1.2
3	$(2/3,4/3)$	$\{1,2\}$	$-64/9$	$(0,0)$		2.2
4	$(2/3,4/3)$	$\{1\}$	$-64/9$	$(2/15,-2/15)$	1	1.1
5	$(4/5,6/5)$	$\{1\}$	$-36/5$	$(0,0)$		2.1

The optimal solution is $x = (4/5, 6/5)$. The optimal value is $-36/5$.