

Read in the following dictionary:

x_8	-3.0	+5.00 x_1	-6.00 x_2	-8.00 x_3	-10.00 x_4	+6.00 x_5	-6.00 x_6	-6.00 x_7
x_9	-3.0	+4.00 x_1	+2.00 x_2	-3.00 x_3		+3.00 x_5	+1.00 x_6	+9.00 x_7
x_{10}	3.0	+5.00 x_1	-3.00 x_2	+8.00 x_3	+4.00 x_4	+8.00 x_5	-6.00 x_6	+3.00 x_7
x_{11}	1.0	+2.00 x_1	+6.00 x_2	+2.00 x_3	-5.00 x_4	-1.00 x_5		
x_{12}	-2.0	+10.00 x_1	-4.00 x_2	+9.00 x_3	+2.00 x_4	-6.00 x_5	+4.00 x_6	-1.00 x_7
x_{13}	-2.0	-7.00 x_1	-8.00 x_2	-6.00 x_3	-8.00 x_4	-7.00 x_5	+1.00 x_6	+3.00 x_7
x_{14}	3.0	-6.00 x_1	+8.00 x_2	+6.00 x_3	+5.00 x_4	+7.00 x_5	+3.00 x_6	-8.00 x_7
z	0.0	-4.00 x_1		-5.00 x_3	-3.00 x_4	+4.00 x_5	-1.00 x_6	+5.00 x_7

0.1 Initialization Phase: Dual Problem Solving

New Objective in primal was changed to :

$$\max \sum_{j=1}^7 -x_j$$

Primal variable x_j corresponds to dual variable y_j for $j = 1, \dots, 14$ Dual Dictionary (with objective changed is):

y_1	1.0	-5.00 y_8	-4.00 y_9	-5.00 y_{10}	-2.00 y_{11}	-10.00 y_{12}	+7.00 y_{13}	+6.00 y_{14}
y_2	1.0	+6.00 y_8	-2.00 y_9	+3.00 y_{10}	-6.00 y_{11}	+4.00 y_{12}	+8.00 y_{13}	-8.00 y_{14}
y_3	1.0	+8.00 y_8	+3.00 y_9	-8.00 y_{10}	-2.00 y_{11}	-9.00 y_{12}	+6.00 y_{13}	-6.00 y_{14}
y_4	1.0	+10.00 y_8		-4.00 y_{10}	+5.00 y_{11}	-2.00 y_{12}	+8.00 y_{13}	-5.00 y_{14}
y_5	1.0	-6.00 y_8	-3.00 y_9	-8.00 y_{10}	+1.00 y_{11}	+6.00 y_{12}	+7.00 y_{13}	-7.00 y_{14}
y_6	1.0	+6.00 y_8	-1.00 y_9	+6.00 y_{10}		-4.00 y_{12}	-1.00 y_{13}	-3.00 y_{14}
y_7	1.0	+6.00 y_8	-9.00 y_9	-3.00 y_{10}		+1.00 y_{12}	-3.00 y_{13}	+8.00 y_{14}
z	-0	+3.00 y_8	+3.00 y_9	-3.00 y_{10}	-1.00 y_{11}	+2.00 y_{12}	+2.00 y_{13}	-3.00 y_{14}

Unbounded Dictionary! Initialization returns unbounded dual dictionary after 5 pivots

y_9	0.208333333333	-0.15 y_7	+0.50 y_1	-2.44 y_{10}	+1.56 y_{11}	+8.52 y_{12}	-0.56 y_5	-5.77 y_{14}
y_2	2.83333333333	-2.08 y_7	+20.00 y_1	-61.25 y_{10}	+53.75 y_{11}	+324.58 y_{12}	-19.75 y_5	-249.58 y_{14}
y_3	4.04166666667	-2.73 y_7	+22.50 y_1	-86.19 y_{10}	+65.81 y_{11}	+355.60 y_{12}	-22.81 y_5	-278.85 y_{14}
y_4	4.08333333333	-2.96 y_7	+27.00 y_1	-94.88 y_{10}	+86.13 y_{11}	+433.71 y_{12}	-27.13 y_5	-333.21 y_{14}
y_8	0.208333333333	-0.15 y_7	+1.50 y_1	-5.44 y_{10}	+4.56 y_{11}	+24.52 y_{12}	-1.56 y_5	-18.77 y_{14}
y_6	1.91666666667	-0.54 y_7	+7.00 y_1	-19.63 y_{10}	+21.38 y_{11}	+110.79 y_{12}	-7.38 y_5	-92.29 y_{14}
y_{13}	0.125	-0.19 y_7	+1.50 y_1	-4.56 y_{10}	+4.44 y_{11}	+23.81 y_{12}	-1.44 y_5	-17.56 y_{14}
z	1.5	-1.25 y_7	+9.00 y_1	-35.75 y_{10}	+26.25 y_{11}	+148.75 y_{12}	-9.25 y_5	-111.75 y_{14}

Original Problem is Infeasible Infeasible Problem.. Early Exit