Read in the following dictionary:

x_9	-2.0	$-3.00x_1$	$-2.00x_2$	$-9.00x_3$	$-5.00x_4$	$+7.00x_5$	$+1.00x_6$	$-9.00x_7$	$-3.00x_8$
x_{10}	3.0	$+4.00x_1$	$+3.00x_2$	$-6.00x_3$	$-6.00x_4$	$-6.00x_5$	$+3.00x_6$	$+8.00x_7$	$-2.00x_8$
x_{11}	3.0	$-8.00x_1$	$+5.00x_2$	$-8.00x_3$	$+2.00x_4$	$-8.00x_5$			$+2.00x_8$
x_{12}	-3.0	$-10.00x_1$	$-10.00x_2$		$-10.00x_4$	$+10.00x_5$	$+4.00x_6$	$-2.00x_7$	$-3.00x_8$
x_{13}	3.0	$-3.00x_1$	$+9.00x_2$	$+6.00x_3$	$+1.00x_4$	$-7.00x_5$	$-3.00x_6$	$+6.00x_7$	$-5.00x_8$
x_{14}	-3.0	$-7.00x_1$	$+6.00x_2$	$+2.00x_3$	$+8.00x_4$	$-5.00x_5$	$+8.00x_6$		$-5.00x_8$
x_{15}	-3.0	$-1.00x_1$	$-9.00x_2$	$-8.00x_3$	$-8.00x_4$	$+6.00x_5$	$+3.00x_6$	$-7.00x_7$	$-9.00x_8$
x_{16}	2.0	$-2.00x_1$	$+6.00x_2$	$+5.00x_3$	$+5.00x_4$	$-8.00x_5$		$+3.00x_7$	$+3.00x_8$
z	0.0	$-1.00x_1$	$+4.00x_2$	$+2.00x_3$	$+5.00x_4$	$+5.00x_5$	$-2.00x_6$	$-3.00x_7$	$-3.00x_8$

0.1 Initialization Phase: Dual Problem Solving

New Objective in primal was changed to :

$$\max \sum_{j=1}^{8} -x_j$$

Primal variable x_j corresponds to dual variable y_j for $j = 1, \ldots, 16$ Dual Dictionary (with objective changed is):

y_1	1.0	$+3.00y_9$	$-4.00y_{10}$	$+8.00y_{11}$	$+10.00y_{12}$	$+3.00y_{13}$	$+7.00y_{14}$	$+1.00y_{15}$	$+2.00y_{16}$
y_2	1.0	$+2.00y_9$	$-3.00y_{10}$	$-5.00y_{11}$	$+10.00y_{12}$	$-9.00y_{13}$	$-6.00y_{14}$	$+9.00y_{15}$	$-6.00y_{16}$
y_3	1.0	$+9.00y_9$	$+6.00y_{10}$	$+8.00y_{11}$		$-6.00y_{13}$	$-2.00y_{14}$	$+8.00y_{15}$	$-5.00y_{16}$
y_4	1.0	$+5.00y_9$	$+6.00y_{10}$	$-2.00y_{11}$	$+10.00y_{12}$	$-1.00y_{13}$	$-8.00y_{14}$	$+8.00y_{15}$	$-5.00y_{16}$
y_5	1.0	$-7.00y_9$	$+6.00y_{10}$	$+8.00y_{11}$	$-10.00y_{12}$	$+7.00y_{13}$	$+5.00y_{14}$	$-6.00y_{15}$	$+8.00y_{16}$
y_6	1.0	$-1.00y_9$	$-3.00y_{10}$		$-4.00y_{12}$	$+3.00y_{13}$	$-8.00y_{14}$	$-3.00y_{15}$	
y_7	1.0	$+9.00y_9$	$-8.00y_{10}$		$+2.00y_{12}$	$-6.00y_{13}$		$+7.00y_{15}$	$-3.00y_{16}$
y_8	1.0	$+3.00y_9$	$+2.00y_{10}$	$-2.00y_{11}$	$+3.00y_{12}$	$+5.00y_{13}$	$+5.00y_{14}$	$+9.00y_{15}$	$-3.00y_{16}$
z	-0	$+2.00y_9$	$-3.00y_{10}$	$-3.00y_{11}$	$+3.00y_{12}$	$-3.00y_{13}$	$+3.00y_{14}$	$+3.00y_{15}$	$-2.00y_{16}$

Initialization succeeded in finding final dual dictionary with 7 pivots

y_1	96.0	$+4.00y_5$	$-325.00y_{10}$	$-137.33y_{11}$	$-28.67y_{12}$	$-22.67y_2$	$-76.33y_6$	$-759.67y_{14}$	$-166.00y_{16}$
y_{13}	21.0	$+1.00y_5$	$-72.00y_{10}$	$-33.00y_{11}$	$-8.00y_{12}$	$-5.00y_2$	$-17.00y_6$	$-171.00y_{14}$	$-38.00y_{16}$
y_3	71.0	$+2.00y_5$	$-222.00y_{10}$	$-89.67y_{11}$	$-39.33y_{12}$	$-16.33y_2$	$-55.67y_6$	$-555.33y_{14}$	$-119.00y_{16}$
y_4	160.0	$+7.00y_5$	$-534.00y_{10}$	$-244.67y_{11}$	$-61.33y_{12}$	$-37.33y_2$	$-128.67y_6$	$-1296.33y_{14}$	$-285.00y_{16}$
y_9	4.0	$-0.00y_5$	$-12.00y_{10}$	$-5.00y_{11}$	$-2.00y_{12}$	$-1.00y_2$	$-3.00y_6$	$-30.00y_{14}$	$-6.00y_{16}$
y_{15}	20.0	$+1.00y_5$	$-69.00y_{10}$	$-31.33y_{11}$	$-8.67y_{12}$	$-4.67y_2$	$-16.33y_6$	$-163.67y_{14}$	$-36.00y_{16}$
y_7	51.0	$+1.00y_5$	$-167.00y_{10}$	$-66.33y_{11}$	$-28.67y_{12}$	$-11.67y_2$	$-39.33y_6$	$-389.67y_{14}$	$-81.00y_{16}$
y_8	298.0	$+14.00y_5$	$-1015.00y_{10}$	$-464.00y_{11}$	$-121.00y_{12}$	$-70.00y_2$	$-241.00y_6$	$-2413.00y_{14}$	$-535.00y_{16}$
z	5.0	$-0.00y_5$	$-18.00y_{10}$	$-8.00y_{11}$	$-3.00y_{12}$	$-1.00y_2$	$-4.00y_6$	$-35.00y_{14}$	$-8.00y_{16}$

Primal Dictionary is:

x_5	$1.16573417586e-15$	$-4.00x_1$	$-1.00x_{13}$	$-2.00x_3$	$-7.00x_4$	$+0.00x_9$	$-1.00x_{15}$	$-1.00x_7$
x_{10}	18.0	$+325.00x_1$	$+72.00x_{13}$	$+222.00x_3$	$+534.00x_4$	$+12.00x_9$	$+69.00x_{15}$	$+167.00x$
x_{11}	8.0	$+137.33x_1$	$+33.00x_{13}$	$+89.67x_3$	$+244.67x_4$	$+5.00x_9$	$+31.33x_{15}$	$+66.33x$
x_{12}	3.0	$+28.67x_1$	$+8.00x_{13}$	$+39.33x_3$	$+61.33x_4$	$+2.00x_9$	$+8.67x_{15}$	$+28.67x$
x_2	1.0	$+22.67x_1$	$+5.00x_{13}$	$+16.33x_3$	$+37.33x_4$	$+1.00x_9$	$+4.67x_{15}$	$+11.67x$
x_6	4.0	$+76.33x_1$	$+17.00x_{13}$	$+55.67x_3$	$+128.67x_4$	$+3.00x_9$	$+16.33x_{15}$	$+39.33x$
x_{14}	35.0	$+759.67x_1$	$+171.00x_{13}$	$+555.33x_3$	$+1296.33x_4$	$+30.00x_9$	$+163.67x_{15}$	$+389.67x$
x_{16}	8.0	$+166.00x_1$	$+38.00x_{13}$	$+119.00x_3$	$+285.00x_4$	$+6.00x_9$	$+36.00x_{15}$	$+81.00x$
z	-5.0	$-96.00x_1$	$-21.00x_{13}$	$-71.00x_3$	$-160.00x_4$	$-4.00x_9$	$-20.00x_{15}$	$-51.00x$

Primal Dictionary with original objective is:

x_5	$1.16573417586e-15$	$-4.00x_1$	$-1.00x_{13}$	$-2.00x_3$	$-7.00x_4$	$+0.00x_9$	$-1.00x_{15}$	$-1.00x_7$
x_{10}	18.0	$+325.00x_1$	$+72.00x_{13}$	$+222.00x_3$	$+534.00x_4$	$+12.00x_9$	$+69.00x_{15}$	$+167.00x$
x_{11}	8.0	$+137.33x_1$	$+33.00x_{13}$	$+89.67x_3$	$+244.67x_4$	$+5.00x_9$	$+31.33x_{15}$	$+66.33x$
x_{12}	3.0	$+28.67x_1$	$+8.00x_{13}$	$+39.33x_3$	$+61.33x_4$	$+2.00x_9$	$+8.67x_{15}$	$+28.67x$
x_2	1.0	$+22.67x_1$	$+5.00x_{13}$	$+16.33x_3$	$+37.33x_4$	$+1.00x_9$	$+4.67x_{15}$	$+11.67x$
x_6	4.0	$+76.33x_1$	$+17.00x_{13}$	$+55.67x_3$	$+128.67x_4$	$+3.00x_9$	$+16.33x_{15}$	$+39.33x$
x_{14}	35.0	$+759.67x_1$	$+171.00x_{13}$	$+555.33x_3$	$+1296.33x_4$	$+30.00x_9$	$+163.67x_{15}$	$+389.67x$
x_{16}	8.0	$+166.00x_1$	$+38.00x_{13}$	$+119.00x_3$	$+285.00x_4$	$+6.00x_9$	$+36.00x_{15}$	$+81.00x$
z	-4.0	$-83.00x_1$	$-19.00x_{13}$	$-54.00x_3$	$-138.00x_4$	$-2.00x_9$	$-19.00x_{15}$	$-40.00x$

1 Optimization Phase Simplex

Starting Dictionary is:

x_5	$1.16573417586e-15$	$-4.00x_1$	$-1.00x_{13}$	$-2.00x_3$	$-7.00x_4$	$+0.00x_9$	$-1.00x_{15}$	$-1.00x_7$
x_{10}	18.0	$+325.00x_1$	$+72.00x_{13}$	$+222.00x_3$	$+534.00x_4$	$+12.00x_9$	$+69.00x_{15}$	$+167.00x$
x_{11}	8.0	$+137.33x_1$	$+33.00x_{13}$	$+89.67x_3$	$+244.67x_4$	$+5.00x_9$	$+31.33x_{15}$	$+66.33x$
x_{12}	3.0	$+28.67x_1$	$+8.00x_{13}$	$+39.33x_3$	$+61.33x_4$	$+2.00x_9$	$+8.67x_{15}$	$+28.67x$
x_2	1.0	$+22.67x_1$	$+5.00x_{13}$	$+16.33x_3$	$+37.33x_4$	$+1.00x_9$	$+4.67x_{15}$	$+11.67x$
x_6	4.0	$+76.33x_1$	$+17.00x_{13}$	$+55.67x_3$	$+128.67x_4$	$+3.00x_9$	$+16.33x_{15}$	$+39.33x$
x_{14}	35.0	$+759.67x_1$	$+171.00x_{13}$	$+555.33x_3$	$+1296.33x_4$	$+30.00x_9$	$+163.67x_{15}$	$+389.67x$
x_{16}	8.0	$+166.00x_1$	$+38.00x_{13}$	$+119.00x_3$	$+285.00x_4$	$+6.00x_9$	$+36.00x_{15}$	$+81.00x$
z	-4.0	$-83.00x_1$	$-19.00x_{13}$	$-54.00x_3$	$-138.00x_4$	$-2.00x_9$	$-19.00x_{15}$	$-40.00x$

Final Dictionary Solution: -4.0 Num Pivots: 1