Read in the following dictionary:

x_4	15.0	$-6.00x_1$		$-6.00x_3$
x_5	12.0	$-2.00x_1$	$-3.00x_2$	$-10.00x_3$
x_6	5.0	$+9.00x_1$	$-10.00x_2$	$+2.00x_3$
x_7	-1.0	$+5.00x_1$	$+1.00x_2$	$+9.00x_3$
x_8	-1.0	$+9.00x_1$	$-5.00x_2$	$-10.00x_3$
z	0.0	$-3.00x_1$	$+1.00x_2$	$-5.00x_3$

0.1 Initialization Phase: Dual Problem Solving

New Objective in primal was changed to :

$$\max \sum_{j=1}^{3} -x_j$$

Primal variable x_j corresponds to dual variable y_j for $j = 1, \ldots, 8$ Dual Dictionary (with objective changed is):

y_1	1.0	$+6.00y_4$	$+2.00y_5$	$-9.00y_6$	$-5.00y_7$	$-9.00y_8$
y_2	1.0		$+3.00y_5$	$+10.00y_6$	$-1.00y_7$	$+5.00y_8$
y_3	1.0	$+6.00y_4$	$+10.00y_5$	$-2.00y_6$	$-9.00y_7$	$+10.00y_8$
z	-0	$-15.00y_4$	$-12.00y_5$	$-5.00y_6$	$+1.00y_7$	$+1.00y_8$

Initialization succeeded in finding final dual dictionary with 3 pivots

y_8	0.030534351145	$+0.18y_4$	$-0.24y_5$	$-0.54y_6$	$+0.04y_3$	$-0.07y_1$
y_2	1.00763358779	$+0.05y_4$	$+0.94y_5$	$+8.11y_6$	$+0.26y_3$	$-0.27y_1$
y_7	0.145038167939	$+0.87y_4$	$+0.84y_5$	$-0.82y_6$	$-0.07y_3$	$-0.08y_1$
z	0.175572519084	$-13.95y_4$	$-11.40y_5$	$-6.37y_6$	$-0.03y_3$	$-0.15y_1$

Primal Dictionary is:

x_4	13.9465648855	$-0.18x_8$	$-0.05x_2$	$-0.87x_7$
x_5	11.4045801527	$+0.24x_8$	$-0.94x_2$	$-0.84x_7$
x_6	6.36641221374	$+0.54x_8$	$-8.11x_2$	$+0.82x_7$
x_3	0.030534351145	$-0.04x_8$	$-0.26x_2$	$+0.07x_7$
x_1	0.145038167939	$+0.07x_8$	$+0.27x_2$	$+0.08x_7$
z	-0.175572519084	$-0.03x_8$	$-1.01x_2$	$-0.15x_7$

Primal Dictionary with original objective is:

x_4	13.9465648855	$-0.18x_8$	$-0.05x_2$	$-0.87x_7$
x_5	11.4045801527	$+0.24x_8$	$-0.94x_2$	$-0.84x_7$
x_6	6.36641221374	$+0.54x_8$	$-8.11x_2$	$+0.82x_7$
x_3	0.030534351145	$-0.04x_8$	$-0.26x_2$	$+0.07x_7$
x_1	0.145038167939	$+0.07x_8$	$+0.27x_2$	$+0.08x_7$
z	-0.587786259542	$-0.02x_8$	$+1.50x_2$	$-0.57x_7$

1 Optimization Phase Simplex

Starting Dictionary is:

x_4	13.9465648855	$-0.18x_8 -0.05x_2 -0.87x_7$
x_5	11.4045801527	$+0.24x_8 -0.94x_2 -0.84x_7$
x_6	6.36641221374	$+0.54x_8 -8.11x_2 +0.82x_7$
x_3	0.030534351145	$-0.04x_8 -0.26x_2 +0.07x_7$
x_1	0.145038167939	$+0.07x_8 +0.27x_2 +0.08x_7$
z	-0.587786259542	$-0.02x_8 +1.50x_2 -0.57x_7$

x_2 enters and x_3 leaves

x_4	13.9411764706	$-0.18x_8 +0.18x_3 -0.88x_7$
x_5	11.2941176471	$+0.38x_8 +3.62x_3 -1.09x_7$
x_6	5.41176470588	$+1.74x_8 +31.26x_3 -1.32x_7$
x_2	0.117647058824	$-0.15x_8 -3.85x_3 +0.26x_7$
x_1	0.176470588235	$+0.03x_8 -1.03x_3 +0.15x_7$
z	-0.411764705882	$-0.24x_8 -5.76x_3 -0.18x_7$

Final Dictionary Solution: -0.411764705882 Num Pivots: 2