

Read in the following dictionary:

x_{52}	-10.0	-6.00 x_1	+3.00 x_2	-5.00 x_3	+6.00 x_4	+4.00 x_5	+9.00 x_6	+10.00 x_7	+3.00 x_8	+4.00 x_9	+
x_{53}	-25.0	-4.00 x_1	+9.00 x_2	+7.00 x_3	-8.00 x_4	+2.00 x_5	-4.00 x_6	+7.00 x_7	-4.00 x_8	+6.00 x_9	+
x_{54}	-62.0	+4.00 x_1	+8.00 x_2	+9.00 x_3	-7.00 x_4	+4.00 x_5	+9.00 x_6	+9.00 x_7	+2.00 x_8	-1.00 x_9	+
x_{55}	-51.0	+9.00 x_1		+7.00 x_3	-4.00 x_4	+10.00 x_5	+7.00 x_6	+6.00 x_7	+10.00 x_8	+7.00 x_9	+
x_{56}	-5.0	+6.00 x_1	-10.00 x_2	+7.00 x_3	+4.00 x_4	+9.00 x_5		-6.00 x_7	-9.00 x_8	-8.00 x_9	+
x_{57}	-10.0	-4.00 x_1	-9.00 x_2	+3.00 x_3	+4.00 x_4	+3.00 x_5	-2.00 x_6	+1.00 x_7	+7.00 x_8	+5.00 x_9	+
x_{58}	0.0	-6.00 x_1	-9.00 x_2	+10.00 x_3	+2.00 x_4	+3.00 x_5	+9.00 x_6	-7.00 x_7	+5.00 x_8	-3.00 x_9	+
x_{59}	-53.0	-4.00 x_1	+6.00 x_2	+5.00 x_3	-8.00 x_4	-2.00 x_5	-1.00 x_6	+8.00 x_7	-8.00 x_8	+7.00 x_9	+
x_{60}	0.0	+1.00 x_1	-5.00 x_2	+5.00 x_3	+3.00 x_4	-10.00 x_5	+4.00 x_6	-2.00 x_7	-3.00 x_8	-9.00 x_9	+
x_{61}	1.0		+1.00 x_2	+3.00 x_3	-8.00 x_4	+10.00 x_5	+9.00 x_6	+7.00 x_7	-4.00 x_8	+9.00 x_9	+
x_{62}	-2.0		-4.00 x_2	-8.00 x_3	-8.00 x_4	-3.00 x_5	+3.00 x_6	+7.00 x_7	+6.00 x_8		+
x_{63}	-4.0	+3.00 x_1	-8.00 x_2	-8.00 x_3	-8.00 x_4	+9.00 x_5	-4.00 x_6	-6.00 x_7	-4.00 x_8	-3.00 x_9	+
x_{64}	24.0	+4.00 x_1	+9.00 x_2	+3.00 x_3	+6.00 x_4	-8.00 x_5	+8.00 x_6	+4.00 x_7	-9.00 x_8	-8.00 x_9	+
x_{65}	-2.0	-5.00 x_1	+6.00 x_2	+1.00 x_3	+9.00 x_4	-9.00 x_5	+5.00 x_6	-1.00 x_7	+1.00 x_8		+
x_{66}	50.0	+10.00 x_1	+3.00 x_2	+7.00 x_3	-6.00 x_4	-7.00 x_5	+7.00 x_6		-2.00 x_8	-6.00 x_9	+
x_{67}	78.0	+9.00 x_1	-1.00 x_2	-10.00 x_3	-8.00 x_4	-4.00 x_5	-1.00 x_6			+8.00 x_9	+
x_{68}	95.0	-10.00 x_1	+4.00 x_2	+5.00 x_3	+1.00 x_4	+5.00 x_5	+2.00 x_6	+5.00 x_7	+2.00 x_8	-4.00 x_9	+
x_{69}	-9.0	-2.00 x_1	+1.00 x_2	+5.00 x_3		+7.00 x_5	-9.00 x_6	-4.00 x_7	-7.00 x_8	+1.00 x_9	+
x_{70}	20.0	+3.00 x_1	+6.00 x_2	-2.00 x_3	+4.00 x_4	-10.00 x_5	+2.00 x_6	+6.00 x_7	+7.00 x_8	+7.00 x_9	+
x_{71}	34.0	-4.00 x_1	+10.00 x_2	-6.00 x_3		+7.00 x_5	-7.00 x_6	+4.00 x_7	-8.00 x_8	+8.00 x_9	+
x_{72}	32.0	+1.00 x_1	-4.00 x_2	-6.00 x_3	-7.00 x_4	-3.00 x_5	+9.00 x_6	+8.00 x_7	+2.00 x_8	-3.00 x_9	+
x_{73}	40.0	-7.00 x_1	-10.00 x_2	-8.00 x_3	-8.00 x_4	-9.00 x_5	-5.00 x_6	+7.00 x_7	-4.00 x_8	+10.00 x_9	+
x_{74}	-18.0	-1.00 x_1	+4.00 x_2	-1.00 x_3	-2.00 x_4	-8.00 x_5	+1.00 x_6	-5.00 x_7	-2.00 x_8	-5.00 x_9	+
x_{75}	-35.0	-10.00 x_1	+6.00 x_2	-2.00 x_3	+8.00 x_4	+3.00 x_5	+2.00 x_6	-4.00 x_7	-9.00 x_8	+7.00 x_9	+
x_{76}	38.0	-3.00 x_1	-6.00 x_2	-9.00 x_3	+5.00 x_4	+9.00 x_5	-10.00 x_6	+9.00 x_7		+1.00 x_9	+
x_{77}	-7.0	+8.00 x_1	-8.00 x_2	-5.00 x_3	-6.00 x_4	-9.00 x_5	-8.00 x_6	-7.00 x_7	+2.00 x_8	+2.00 x_9	+
x_{78}	-4.0	+5.00 x_1	-2.00 x_2	-5.00 x_3	+2.00 x_4	-7.00 x_5	-10.00 x_6	-4.00 x_7		-6.00 x_9	+
x_{79}	55.0	-3.00 x_1	-10.00 x_2	-8.00 x_3	+10.00 x_4	-3.00 x_5	-7.00 x_6	-7.00 x_7	+1.00 x_8	-9.00 x_9	+
x_{80}	-5.0	-2.00 x_1	-1.00 x_2		+3.00 x_4	+2.00 x_5	-2.00 x_6	-9.00 x_7	+1.00 x_8	-1.00 x_9	+
x_{81}	-19.0	-10.00 x_1	-7.00 x_2	+6.00 x_3	-5.00 x_4	+6.00 x_5	+8.00 x_6	+5.00 x_7	-3.00 x_8	+3.00 x_9	+
x_{82}	60.0	+8.00 x_1	-10.00 x_2	+6.00 x_3	-8.00 x_4	-8.00 x_5	-6.00 x_6	-6.00 x_7	+9.00 x_8	+4.00 x_9	+
x_{83}	41.0		-6.00 x_2	-1.00 x_3	-9.00 x_4	+8.00 x_5	-9.00 x_6	+10.00 x_7	-8.00 x_8	-4.00 x_9	+
x_{84}	12.0	-3.00 x_1		+7.00 x_3	-2.00 x_4	-3.00 x_5	+5.00 x_6	+7.00 x_7	+1.00 x_8	-6.00 x_9	+
x_{85}	14.0	-2.00 x_1	-2.00 x_2	-8.00 x_3	-5.00 x_4	-3.00 x_5		+10.00 x_7	+3.00 x_8	-10.00 x_9	+
x_{86}	37.0	-8.00 x_1	-4.00 x_2	+9.00 x_3	+4.00 x_4	+8.00 x_5	-3.00 x_6	+4.00 x_7	-6.00 x_8	-1.00 x_9	+
x_{87}	-28.0	+1.00 x_1	-2.00 x_2	-4.00 x_3	-2.00 x_4	+1.00 x_5	-2.00 x_6	+7.00 x_7		-5.00 x_9	+
x_{88}	-3.0	+6.00 x_1	+10.00 x_2	+3.00 x_3	-3.00 x_4	-6.00 x_5	+6.00 x_6		-9.00 x_8	+5.00 x_9	+
x_{89}	-4.0	-9.00 x_1	+2.00 x_2	-6.00 x_3	+8.00 x_4	-7.00 x_5	+5.00 x_6	-10.00 x_7	-3.00 x_8	-3.00 x_9	+
x_{90}	-22.0	+6.00 x_1	+9.00 x_2	+1.00 x_3	+4.00 x_4	-6.00 x_5	+3.00 x_6	-2.00 x_7	+7.00 x_8	+5.00 x_9	+
x_{91}	124.0	+5.00 x_1	-6.00 x_2	-7.00 x_3	-2.00 x_4	-9.00 x_5	+6.00 x_6	-3.00 x_7	-9.00 x_8	+5.00 x_9	+
x_{92}	23.0	-9.00 x_1	+5.00 x_2	+7.00 x_3	-9.00 x_4	-2.00 x_5	-2.00 x_6	-4.00 x_7	+7.00 x_8	-5.00 x_9	+
x_{93}	23.0	-6.00 x_1	-6.00 x_2	-3.00 x_3	-6.00 x_4	-9.00 x_5	+1.00 x_6	-7.00 x_7	+7.00 x_8		+
x_{94}	56.0	+9.00 x_1	-6.00 x_2	-2.00 x_3	+6.00 x_4	+5.00 x_5	-2.00 x_6	-2.00 x_7	-7.00 x_8	-9.00 x_9	+
x_{95}	-117.0	-8.00 x_1	+8.00 x_2	-7.00 x_3	+6.00 x_4	-1.00 x_5	+4.00 x_6	+1.00 x_7	+9.00 x_8	+2.00 x_9	+
x_{96}	77.0	-4.00 x_1	-10.00 x_2	-4.00 x_3	-5.00 x_4	-4.00 x_5	-1.00 x_6	-1.00 x_7	+4.00 x_8	+3.00 x_9	+
x_{97}	-64.0	+10.00 x_1	+8.00 x_2	+1.00 x_3	+3.00 x_4	-4.00 x_5	-4.00 x_6	+7.00 x_7	-9.00 x_8	+1.00 x_9	+
x_{98}	1.0	-8.00 x_1	+3.00 x_2	-8.00 x_3	-3.00 x_4	+9.00 x_5	+6.00 x_6	+7.00 x_7	-1.00 x_8	-2.00 x_9	+
x_{99}	-15.0	-6.00 x_1		-7.00 x_3	+8.00 x_4	+5.00 x_5	-6.00 x_6	+5.00 x_7	+4.00 x_8	+5.00 x_9	+
x_{100}	-20.0	-5.00 x_1	-10.00 x_2	-9.00 x_3	-4.00 x_4	+10.00 x_5	-1.00 x_6	-8.00 x_7	+10.00 x_8	+3.00 x_9	+
x_{101}	147.0	-10.00 x_1	+1.00 x_2		+1.00 x_4	-5.00 x_5	-4.00 x_6	+5.00 x_7	-7.00 x_8	-5.00 x_9	+
z	0.0		+1.00 x_2	-2.00 x_3	+4.00 x_4	-1.00 x_5	-4.00 x_6	-4.00 x_7	-4.00 x_8	-5.00 x_9	

1 Optimization Phase Simplex

Starting Dictionary is:

x_{40}	1.74716270108	$-0.03x_1$	$-0.02x_{81}$	$-0.02x_{55}$	$+0.76x_{39}$	$-0.00x_{80}$	$-0.05x_{78}$	$-0.29x_5$	$-0.54x_{34}$	—
x_{32}	0.843223579474	$-2.19x_1$	$+0.02x_{81}$	$+0.04x_{55}$	$+0.24x_{39}$	$+0.00x_{80}$	$+0.06x_{78}$	$-0.19x_5$	$+0.25x_{34}$	+
x_{43}	0.660535783489	$-1.23x_1$	$+0.01x_{81}$	$+0.01x_{55}$	$-0.31x_{39}$	$-0.00x_{80}$	$+0.04x_{78}$	$-0.07x_5$	$+0.66x_{34}$	—
x_{28}	1.40977508295	$+0.21x_1$	$-0.02x_{81}$	$+0.01x_{55}$	$-0.16x_{39}$	$+0.00x_{80}$	$+0.02x_{78}$	$-0.82x_5$	$-0.30x_{34}$	+
x_{49}	2.04552469485	$-0.50x_1$	$+0.01x_{81}$	$+0.00x_{55}$	$+0.59x_{39}$	$+0.01x_{80}$	$+0.01x_{78}$	$-0.04x_5$	$+0.44x_{34}$	+
x_{29}	0.839084439373	$-0.38x_1$	$+0.01x_{81}$	$+0.01x_{55}$	$-0.44x_{39}$	$-0.00x_{80}$	$+0.02x_{78}$	$+0.24x_5$	$+0.44x_{34}$	—
x_8	0.525672856687	$-0.29x_1$	$-0.02x_{81}$	$+0.02x_{55}$	$-0.33x_{39}$	$-0.00x_{80}$	$+0.00x_{78}$	$+0.00x_5$	$-0.29x_{34}$	—
x_{56}	4.99685027543	$+67.49x_1$	$-0.16x_{81}$	$-1.67x_{55}$	$+25.81x_{39}$	$+0.06x_{80}$	$-2.03x_{78}$	$+13.33x_5$	$-38.21x_{34}$	—
x_{45}	1.74899984849	$-0.14x_1$	$-0.01x_{81}$	$+0.01x_{55}$	$-0.58x_{39}$	$+0.01x_{80}$	$+0.05x_{78}$	$+0.89x_5$	$+0.02x_{34}$	+
x_{50}	1.20854632668	$+0.37x_1$	$+0.00x_{81}$	$-0.00x_{55}$	$+0.92x_{39}$	$-0.02x_{80}$	$-0.04x_{78}$	$+0.53x_5$	$+0.03x_{34}$	+
x_{42}	0.116964869002	$-0.87x_1$	$+0.02x_{81}$	$+0.01x_{55}$	$-0.90x_{39}$	$+0.02x_{80}$	$+0.05x_{78}$	$-0.07x_5$	$+0.68x_{34}$	—
x_{23}	2.47473411259	$+0.82x_1$	$+0.00x_{81}$	$-0.00x_{55}$	$+0.27x_{39}$	$+0.00x_{80}$	$-0.04x_{78}$	$-0.58x_5$	$-0.33x_{34}$	+
x_9	0.368599828762	$-2.93x_1$	$+0.04x_{81}$	$+0.08x_{55}$	$-1.06x_{39}$	$+0.02x_{80}$	$+0.10x_{78}$	$-0.83x_5$	$+2.30x_{34}$	—
x_{74}	5.61786083259	$+29.93x_1$	$-0.18x_{81}$	$-0.86x_{55}$	$-7.23x_{39}$	$-0.04x_{80}$	$-0.54x_{78}$	$-9.35x_5$	$-12.17x_{34}$	+
x_{26}	1.2567286743	$+0.79x_1$	$-0.02x_{81}$	$-0.01x_{55}$	$-0.03x_{39}$	$+0.00x_{80}$	$-0.03x_{78}$	$+0.22x_5$	$+0.31x_{34}$	—
x_{67}	71.9284609579	$-20.50x_1$	$+0.50x_{81}$	$+0.79x_{55}$	$+4.01x_{39}$	$+0.20x_{80}$	$+0.10x_{78}$	$-17.68x_5$	$+14.51x_{34}$	+
x_{68}	45.3634365866	$-33.78x_1$	$+0.34x_{81}$	$+0.22x_{55}$	$-7.95x_{39}$	$-0.12x_{80}$	$+0.78x_{78}$	$+17.45x_5$	$+4.59x_{34}$	—
x_{41}	1.028278919	$-0.33x_1$	$+0.01x_{81}$	$-0.00x_{55}$	$-0.03x_{39}$	$-0.01x_{80}$	$+0.03x_{78}$	$+0.48x_5$	$+0.57x_{34}$	—
x_{70}	43.509692525	$+10.52x_1$	$+0.11x_{81}$	$-0.06x_{55}$	$-24.73x_{39}$	$-0.19x_{80}$	$+0.70x_{78}$	$-10.69x_5$	$+20.49x_{34}$	—
x_{59}	21.7153475667	$-80.62x_1$	$+0.91x_{81}$	$+1.57x_{55}$	$-17.10x_{39}$	$+0.15x_{80}$	$+3.15x_{78}$	$+6.93x_5$	$+53.13x_{34}$	+
x_{72}	65.0393326076	$+35.95x_1$	$-0.87x_{81}$	$-0.61x_{55}$	$-13.04x_{39}$	$-0.20x_{80}$	$-1.50x_{78}$	$-30.97x_5$	$-29.67x_{34}$	—
x_{83}	10.0435663199	$+80.49x_1$	$-0.55x_{81}$	$-2.08x_{55}$	$+26.25x_{39}$	$-0.05x_{80}$	$-2.44x_{78}$	$+28.71x_5$	$-36.76x_{34}$	—
x_{19}	0.515339216855	$+0.46x_1$	$-0.01x_{81}$	$-0.01x_{55}$	$-0.01x_{39}$	$-0.00x_{80}$	$-0.01x_{78}$	$+0.76x_5$	$+0.05x_{34}$	+
x_7	2.18445617068	$+1.80x_1$	$-0.01x_{81}$	$-0.04x_{55}$	$+0.29x_{39}$	$-0.02x_{80}$	$-0.04x_{78}$	$-0.32x_5$	$-0.96x_{34}$	—
x_2	1.45100055021	$-0.95x_1$	$+0.00x_{81}$	$+0.03x_{55}$	$-0.43x_{39}$	$-0.01x_{80}$	$+0.03x_{78}$	$+0.71x_5$	$+0.71x_{34}$	+
x_{20}	2.23288094795	$+0.69x_1$	$-0.00x_{81}$	$+0.00x_{55}$	$-0.28x_{39}$	$-0.00x_{80}$	$+0.01x_{78}$	$-0.91x_5$	$-0.70x_{34}$	+
x_{90}	22.3933294168	$+10.30x_1$	$+0.21x_{81}$	$+0.46x_{55}$	$-19.82x_{39}$	$+0.09x_{80}$	$+1.38x_{78}$	$+12.73x_5$	$+12.44x_{34}$	+
x_{79}	34.6462153618	$+22.69x_1$	$-0.02x_{81}$	$-0.89x_{55}$	$+11.45x_{39}$	$+0.42x_{80}$	$-0.21x_{78}$	$+6.94x_5$	$-10.88x_{34}$	—
x_{22}	1.23303160981	$+2.67x_1$	$-0.01x_{81}$	$-0.05x_{55}$	$+1.05x_{39}$	$-0.00x_{80}$	$-0.08x_{78}$	$+0.08x_5$	$-1.47x_{34}$	+
x_{71}	21.3873376046	$-38.59x_1$	$+0.46x_{81}$	$+0.66x_{55}$	$-10.36x_{39}$	$-0.52x_{80}$	$+0.50x_{78}$	$-3.65x_5$	$+39.44x_{34}$	+
x_{85}	17.0202637845	$+68.99x_1$	$-1.01x_{81}$	$-1.67x_{55}$	$+23.12x_{39}$	$+0.22x_{80}$	$-2.18x_{78}$	$-4.04x_5$	$-50.69x_{34}$	—
x_{76}	52.152159656	$+3.58x_1$	$-0.05x_{81}$	$-0.09x_{55}$	$-4.61x_{39}$	$-0.51x_{80}$	$+0.42x_{78}$	$+4.89x_5$	$-5.06x_{34}$	+
x_{84}	28.9489225095	$+54.94x_1$	$-0.35x_{81}$	$-1.06x_{55}$	$-10.36x_{39}$	$-0.45x_{80}$	$-0.47x_{78}$	$+25.20x_5$	$-17.84x_{34}$	—
x_{73}	10.4768424517	$+3.65x_1$	$+0.23x_{81}$	$-0.39x_{55}$	$-10.52x_{39}$	$+0.20x_{80}$	$+0.29x_{78}$	$-9.38x_5$	$+24.97x_{34}$	—
x_{62}	52.9779664998	$-20.03x_1$	$-0.21x_{81}$	$+0.28x_{55}$	$-1.65x_{39}$	$+0.01x_{80}$	$-0.09x_{78}$	$-25.06x_5$	$+5.15x_{34}$	—
x_{33}	2.02189073119	$-0.32x_1$	$+0.02x_{81}$	$+0.03x_{55}$	$-0.45x_{39}$	$-0.01x_{80}$	$+0.05x_{78}$	$-0.22x_5$	$+0.42x_{34}$	+
x_{88}	42.0741028492	$-16.11x_1$	$+1.10x_{81}$	$+0.92x_{55}$	$-31.49x_{39}$	$-0.07x_{80}$	$+1.94x_{78}$	$-13.96x_5$	$+19.43x_{34}$	+
x_{17}	1.61010716795	$-0.59x_1$	$+0.01x_{81}$	$+0.02x_{55}$	$+0.79x_{39}$	$+0.03x_{80}$	$-0.01x_{78}$	$-0.36x_5$	$-0.40x_{34}$	—
x_{53}	39.1375922373	$-64.45x_1$	$+0.74x_{81}$	$+1.71x_{55}$	$-9.64x_{39}$	$+0.08x_{80}$	$+1.70x_{78}$	$+3.26x_5$	$+24.32x_{34}$	+
x_{91}	26.4638865411	$-10.21x_1$	$-0.10x_{81}$	$-0.12x_{55}$	$-12.99x_{39}$	$+0.19x_{80}$	$-0.46x_{78}$	$-17.95x_5$	$+0.16x_{34}$	—
x_{65}	20.5701542973	$-14.76x_1$	$-0.27x_{81}$	$+0.29x_{55}$	$+1.84x_{39}$	$+0.30x_{80}$	$+0.48x_{78}$	$-6.12x_5$	$+3.21x_{34}$	+
x_{96}	11.6752517423	$-20.33x_1$	$+0.32x_{81}$	$+0.28x_{55}$	$+11.27x_{39}$	$+0.03x_{80}$	$-0.57x_{78}$	$-14.82x_5$	$+7.80x_{34}$	—
x_{94}	39.6716449495	$+13.41x_1$	$-0.10x_{81}$	$-0.51x_{55}$	$+27.46x_{39}$	$+0.47x_{80}$	$-0.82x_{78}$	$+11.87x_5$	$-13.10x_{34}$	+
x_{58}	22.7572846603	$+34.12x_1$	$-0.10x_{81}$	$-0.65x_{55}$	$+6.61x_{39}$	$+0.22x_{80}$	$-1.05x_{78}$	$-4.07x_5$	$-19.03x_{34}$	+
x_{92}	18.5505211207	$+3.12x_1$	$+0.30x_{81}$	$-0.44x_{55}$	$+27.61x_{39}$	$-0.08x_{80}$	$-1.34x_{78}$	$-5.13x_5$	$-12.82x_{34}$	+
x_{16}	1.34594318171	$+2.57x_1$	$-0.03x_{81}$	$-0.07x_{55}$	$+0.86x_{39}$	$+0.00x_{80}$	$-0.09x_{78}$	$+0.02x_5$	$-1.26x_{34}$	—
x_{98}	48.8934651809	$-40.72x_1$	$+0.52x_{81}$	$+0.86x_{55}$	$-29.73x_{39}$	$-0.14x_{80}$	$+2.06x_{78}$	$-11.41x_5$	$+23.94x_{34}$	+
x_{64}	5.0381268919	$+15.66x_1$	$-0.39x_{81}$	$-0.56x_{55}$	$+11.61x_{39}$	$-0.73x_{80}$	$-0.46x_{78}$	$-8.30x_5$	$-12.21x_{34}$	+
x_{93}	11.0105501484	$-32.58x_1$	$+0.35x_{81}$	$+0.92x_{55}$	$-17.53x_{39}$	$+0.23x_{80}$	$+1.31x_{78}$	$-10.67x_5$	$+21.58x_{34}$	—
x_{101}	106.23872961	$-32.61x_1$	$+0.36x_{81}$	$+0.14x_{55}$	$-14.51x_{39}$	$+0.06x_{80}$	$+1.24x_{78}$	$+21.11x_5$	$+16.62x_{34}$	—
z	12.6808167171	$+14.87x_1$	$-0.25x_{81}$	$-0.42x_{55}$	$+20.78x_{39}$	$-0.33x_{80}$	$-0.68x_{78}$	$+8.57x_5$	$-8.19x_{34}$	+

Solution: 315.840036772 Num Pivots: 317