Initial Dictionary

# 0.1 Initialization Phase: Dual Problem Solving

New Objective in primal was changed to:

$$\max \sum_{j=1}^{6} -x_j$$

Primal variable  $x_j$  corresponds to dual variable  $y_j$  for j = 1, ..., 13 Dual Dictionary (with objective changed is):

```
+9.00y_7 +8.00y_8 -6.00y_9 -4.00y_{10} -2.00y_{11} -8.00y_{12} +3.00y_{13}
          -7.00y_7 + 7.00y_8 + 1.00y_9 + 5.00y_{10} - 1.00y_{11} + 1.00y_{12}
y_2
          -8.00y_7 -7.00y_8 -5.00y_9 -2.00y_{10} +8.00y_{11} -7.00y_{12}
y_3
     1.0
                                -2.00y_9 -3.00y_{10} +1.00y_{11} -3.00y_{12} +4.00y_{13}
     1.0
           -8.00y_7
y_4
     1.0
          -9.00y_7 -3.00y_8 -10.00y_9 +1.00y_{10} -10.00y_{11} +10.00y_{12} +2.00y_{13}
y_5
     1.0
          +1.00y_7 +4.00y_8 +2.00y_9 -2.00y_{10} -2.00y_{11} +3.00y_{12} +5.00y_{13}
          -1.00y_7 - 22.00y_8 + 9.00y_9 + 3.00y_{10} + 21.00y_{11} - 7.00y_{12} - 29.00y_{13}
```

Initialization succeeded in finding final dual dictionary with 8 pivots

```
-0.40y_9 +0.86y_8 +0.02y_5 -0.10y_1 +1.08y_7 -0.42y_{10} +0.26y_{13}
      0.08
y_{12}
              +2.00y_9 +7.30y_8 +0.10y_5
                                                         -6.10y_7 + 4.90y_{10} + 8.80y_{13}
       0.9
y_2
              -2.20y_9 -2.02y_8 -0.14y_5 + 0.20y_1 - 11.06y_7 - 2.06y_{10} + 3.68y_{13}
      0.94
y_4
              -1.40y_9 \ +0.56y_8 \ -0.08y_5 -0.10y_1 \ +0.18y_7 \ -0.32y_{10} \ +0.46y_{13}
      0.18
y_{11}
      1.88
              -13.40y_9 -8.54y_8 -0.78y_5 -0.10y_1 -14.12y_7 -1.62y_{10} +1.86y_{13}
y_3
      0.88
              +3.60y_9 \ +5.46y_8 \ +0.22y_5 -0.10y_1 \ +3.88y_7 \ -2.62y_{10} \ +4.86y_{13}
y_6
      3.22
              -17.60y_9 - 16.26y_8 - 1.82y_5 - 1.40y_1 - 4.78y_7 - 0.78y_{10} - 21.16y_{13}
```

Primal Dictionary is:

```
17.6
               +0.40x_{12} -2.00x_2 +2.20x_4 +1.40x_{11} +13.40x_3 -3.60x_6
x_9
               -0.86x_{12} - 7.30x_2 + 2.02x_4 - 0.56x_{11} + 8.54x_3 - 5.46x_6
      16.26
x_8
                -0.02x_{12} -0.10x_2 +0.14x_4 +0.08x_{11} +0.78x_3 -0.22x_6
       1.82
x_5
x_1
       1.4
               +0.10x_{12}
                                     -0.20x_4 +0.10x_{11} +0.10x_3 +0.10x_6
       4.78
               -1.08x_{12} + 6.10x_2 + 11.06x_4 - 0.18x_{11} + 14.12x_3 - 3.88x_6
x_7
       0.78
               +0.42x_{12} -4.90x_2 +2.06x_4 +0.32x_{11} +1.62x_3 +2.62x_6
x_{10}
      21.16
               -0.26x_{12} - 8.80x_2 - 3.68x_4 - 0.46x_{11} - 1.86x_3 - 4.86x_6
x_{13}
      -3.22
               -0.08x_{12} - 0.90x_2 - 0.94x_4 - 0.18x_{11} - 1.88x_3 - 0.88x_6
```

Primal Dictionary with original objective is:

```
17.6
               +0.40x_{12} -2.00x_2 +2.20x_4 +1.40x_{11} +13.40x_3 -3.60x_6
x_9
      16.26
               -0.86x_{12} - 7.30x_2 + 2.02x_4 - 0.56x_{11} + 8.54x_3 - 5.46x_6
x_8
               -0.02x_{12} -0.10x_2 +0.14x_4 +0.08x_{11} +0.78x_3 -0.22x_6
x_5
       1.82
       1.4
                                     -0.20x_4 +0.10x_{11} +0.10x_3 +0.10x_6
               +0.10x_{12}
x_1
       4.78
               -1.08x_{12} + 6.10x_2 + 11.06x_4 - 0.18x_{11} + 14.12x_3 - 3.88x_6
x_7
       0.78
               +0.42x_{12} - 4.90x_2 + 2.06x_4 + 0.32x_{11} + 1.62x_3 + 2.62x_6
x_{10}
      21.16
               -0.26x_{12} - 8.80x_2 - 3.68x_4 - 0.46x_{11} - 1.86x_3 - 4.86x_6
x_{13}
      -8.68
               -0.02x_{12} - 2.60x_2 + 1.64x_4 - 0.42x_{11} - 6.22x_3 + 1.78x_6
```

 $x_4$  enters and  $x_{13}$  leaves

```
+0.24x_{12} -7.26x_2 -0.60x_{13} +1.12x_{11} +12.29x_3 -6.51x_6
      30.25
x_9
      27.875
                -1.00x_{12} - 12.13x_2 - 0.55x_{13} - 0.81x_{11} + 7.52x_3 - 8.13x_6
x_8
x_5
      2.625
                -0.03x_{12} -0.43x_2 -0.04x_{13} + 0.06x_{11} + 0.71x_3 -0.40x_6
       0.25
                +0.11x_{12} +0.48x_2 +0.05x_{13} +0.13x_{11} +0.20x_3 +0.36x_6
x_1
      68.375
                -1.86x_{12} - 20.35x_2 - 3.01x_{13} - 1.56x_{11} + 8.53x_3 - 18.49x_6
x_7
      12.625
                +0.27x_{12} -9.83x_2 -0.56x_{13} +0.06x_{11} +0.58x_3 -0.10x_6
x_{10}
       5.75
                -0.07x_{12} -2.39x_2 -0.27x_{13} -0.13x_{11} -0.51x_3 -1.32x_6
       0.75
                -0.14x_{12} -6.52x_2 -0.45x_{13} -0.63x_{11} -7.05x_3 -0.39x_6
```

Final Dictionary Final dictionary after first LP relaxation solve:

```
30.25
                +0.24x_{12} -7.26x_2 -0.60x_{13} +1.12x_{11} +12.29x_3 -6.51x_6
x_9
      27.875
                -1.00x_{12} - 12.13x_2 - 0.55x_{13} - 0.81x_{11} + 7.52x_3 - 8.13x_6
x_8
      2.625
                -0.03x_{12} -0.43x_2 -0.04x_{13} + 0.06x_{11} + 0.71x_3 -0.40x_6
x_5
x_1
       0.25
                +0.11x_{12} +0.48x_2 +0.05x_{13} +0.13x_{11} +0.20x_3 +0.36x_6
      68.375
                -1.86x_{12} - 20.35x_2 - 3.01x_{13} - 1.56x_{11} + 8.53x_3 - 18.49x_6
x_7
                +0.27x_{12} -9.83x_2 -0.56x_{13} +0.06x_{11} +0.58x_3 -0.10x_6
      12.625
x_{10}
                -0.07x_{12} -2.39x_2 -0.27x_{13} -0.13x_{11} -0.51x_3 -1.32x_6
       5.75
x_4
                -0.14x_{12} -6.52x_2 -0.45x_{13} -0.63x_{11} -7.05x_3 -0.39x_6
       0.75
```

```
30.25
                 +0.24x_{12} -7.26x_2 -0.60x_{13} +1.12x_{11} +12.29x_3 -6.51x_6
x_9
      27.875
                 -1.00x_{12} - 12.13x_2 - 0.55x_{13} - 0.81x_{11} + 7.52x_3 - 8.13x_6
x_8
       2.625
                 -0.03x_{12} -0.43x_2 -0.04x_{13} + 0.06x_{11} + 0.71x_3 -0.40x_6
x_5
       0.25
                 +0.11x_{12} +0.48x_2 +0.05x_{13} +0.13x_{11} +0.20x_3 +0.36x_6
x_1
                 -1.86x_{12} - 20.35x_2 - 3.01x_{13} - 1.56x_{11} + 8.53x_3 - 18.49x_6
x_7
      68.375
x_{10}
      12.625
                 +0.27x_{12} -9.83x_2 -0.56x_{13} +0.06x_{11} +0.58x_3 -0.10x_6
       5.75
                 -0.07x_{12} -2.39x_2 -0.27x_{13} -0.13x_{11} -0.51x_3 -1.32x_6
x_4
       -0.25
                 +0.76x_{12} +0.26x_2 +0.60x_{13} +0.88x_{11} +0.71x_3 +0.51x_6
x_{14}
      -0.875
                 +0.00x_{12} +0.13x_2 +0.55x_{13} +0.81x_{11} +0.48x_3 +0.13x_6
x_{15}
x_{16}
      -0.625
                 +0.03x_{12} +0.43x_2 +0.04x_{13} +0.94x_{11} +0.29x_3 +0.40x_6
       -0.25
                 +0.89x_{12} +0.52x_2 +0.95x_{13} +0.88x_{11} +0.80x_3 +0.64x_6
x_{17}
      -0.375
                 +0.86x_{12} +0.35x_2 +0.01x_{13} +0.56x_{11} +0.47x_3 +0.49x_6
x_{18}
      -0.625
                 +0.73x_{12} +0.83x_2 +0.56x_{13} +0.94x_{11} +0.42x_3 +0.10x_6
x_{19}
       -0.75
                 +0.07x_{12} +0.39x_2 +0.27x_{13} +0.13x_{11} +0.51x_3 +0.32x_6
x_{20}
       0.75
                 -0.14x_{12} -6.52x_2 -0.45x_{13} -0.63x_{11} -7.05x_3 -0.39x_6
 z
```

### Forming the dual dictionary:

The Final Dual Dictionary is:

Final primal dictionary obtained:

```
21.1764705882
                            +1.68x_{12} + 0.68x_2 - 19.03x_{20} + 8.59x_{15} + 18.85x_3 - 3.71x_{16}
x_9
        16.6470588235
                            +0.65x_{12} - 2.35x_2 - 20.94x_{20} + 9.82x_{15} + 15.29x_3 - 6.59x_{16}
x_8
        2.05882352941
                            +0.06x_{12}+0.06x_2 -1.18x_{20} +0.53x_{15} +1.12x_3 -0.24x_{16}
x_5
       0.794117647059
                            +0.04x_{12} +0.04x_2 +0.87x_{20} -0.35x_{15} -0.16x_3 +0.32x_{16}
x_1
x_7
        40.7352941176
                            +1.99x_{12}+1.99x_2-49.96x_{20}+20.12x_{15}+27.72x_3-12.44x_{16}
                            +0.32x_{12} - 9.68x_2 - 0.97x_{20} - 0.59x_{15} + 1.15x_3 + 0.71x_{16}
        11.8235294118
x_{10}
                            +0.21x_{12} -0.79x_2 -3.62x_{20} +1.35x_{15} +0.91x_3 -0.82x_{16}
x_4
        3.70588235294
x_{14}
        1.17647058824
                            +0.68x_{12} - 0.32x_2 + 0.97x_{20} + 0.59x_{15} - 0.15x_3 + 0.29x_{16}
        1.29411764706
                            -0.21x_{12} - 1.21x_2 + 2.62x_{20} - 1.35x_{15} - 0.91x_3 + 0.82x_{16}
x_6
       0.0588235294118
                            +0.06x_{12}+0.06x_2 -1.18x_{20} +0.53x_{15} +0.12x_3 +0.76x_{16}
x_{11}
x_{17}
        1.76470588235
                            +0.76x_{12} -0.24x_2 +1.71x_{20} +0.88x_{15} -0.47x_3 -0.06x_{16}
       0.294117647059
                            +0.79x_{12} -0.21x_2 +0.62x_{20} -0.35x_{15} +0.09x_3 +0.82x_{16}
x_{18}
       0.235294117647
                            +0.74x_{12}+0.74x_2-0.21x_{20}+1.12x_{15}-0.03x_3+0.06x_{16}
x_{19}
                            -0.04x_{12} -0.04x_2 +1.13x_{20} +1.35x_{15} -0.84x_3 -1.32x_{16}
        1.20588235294
x_{13}
                            -0.07x_{12} - 6.07x_2 - 0.78x_{20} - 0.41x_{15} - 6.\overline{40}x_3 - 0.21x_{16}
       -0.323529411765
```

```
21.1764705882
                             +1.68x_{12} + 0.68x_2 - 19.03x_{20} + 8.59x_{15} + 18.85x_3 - 3.71x_{16}
        16.6470588235
                             +0.65x_{12} - 2.35x_2 - 20.94x_{20} + 9.82x_{15} + 15.29x_3 - 6.59x_{16}
x_8
        2.05882352941
x_5
                             +0.06x_{12} +0.06x_2 -1.18x_{20} +0.53x_{15} +1.12x_3 -0.24x_{16}
       0.794117647059
                             +0.04x_{12} +0.04x_2 +0.87x_{20} -0.35x_{15} -0.16x_3 +0.32x_{16}
x_1
        40.7352941176
                             +1.99x_{12} +1.99x_2 -49.96x_{20} +20.12x_{15} +27.72x_3 -12.44x_{16}
x_7
x_{10}
        11.8235294118
                             +0.32x_{12} - 9.68x_2 - 0.97x_{20} - 0.59x_{15} + 1.15x_3 + 0.71x_{16}
        3.70588235294
                             +0.21x_{12} -0.79x_2 -3.62x_{20} +1.35x_{15} +0.91x_3 -0.82x_{16}
x_4
                             +0.68x_{12} -0.32x_2 +0.97x_{20} +0.59x_{15} -0.15x_3 +0.29x_{16}
        1.17647058824
x_{14}
        1.29411764706
                             -0.21x_{12} - 1.21x_2 + 2.62x_{20} - 1.35x_{15} - 0.91x_3 + 0.82x_{16}
x_6
x_{11}
       0.0588235294118
                             +0.06x_{12} +0.06x_2 -1.18x_{20} +0.53x_{15} +0.12x_3 +0.76x_{16}
        1.76470588235
                             +0.76x_{12} -0.24x_2 +1.71x_{20} +0.88x_{15} -0.47x_3 -0.06x_{16}
x_{17}
       0.294117647059
                             +0.79x_{12} -0.21x_2 +0.62x_{20} -0.35x_{15} +0.09x_3 +0.82x_{16}
x_{18}
                             +0.74x_{12} +0.74x_2 -0.21x_{20} +1.12x_{15} -0.03x_3 +0.06x_{16}
       0.235294117647
x_{19}
        1.20588235294
                             -0.04x_{12} - 0.04x_2 + 1.13x_{20} + 1.35x_{15} - 0.84x_3 - 1.32x_{16}
x_{13}
       -0.176470588235
                             +0.32x_{12}+0.32x_2+0.03x_{20}+0.41x_{15}+0.15x_3+0.71x_{16}
x_{21}
       -0.64705882353
                             +0.35x_{12}+0.35x_2+0.94x_{20}+0.18x_{15}+0.71x_3+0.59x_{16}
x_{22}
      -0.0588235294118
                             +0.94x_{12}+0.94x_2+0.18x_{20}+0.47x_{15}+0.88x_3+0.24x_{16}
x_{23}
       -0.794117647059
                             +0.96x_{12}+0.96x_2+0.13x_{20}+0.35x_{15}+0.16x_3+0.68x_{16}
x_{24}
       -0.735294117647
                             +0.01x_{12}+0.01x_2+0.96x_{20}+0.88x_{15}+0.28x_3+0.44x_{16}
x_{25}
                             +0.68x_{12} +0.68x_2 +0.97x_{20} +0.59x_{15} +0.85x_3 +0.29x_{16}
       -0.823529411765
x_{26}
x_{27}
       -0.705882352941
                             +0.79x_{12}+0.79x_2+0.62x_{20}+0.65x_{15}+0.09x_3+0.82x_{16}
       -0.176470588235
                             +0.32x_{12}+0.32x_2+0.03x_{20}+0.41x_{15}+0.15x_3+0.71x_{16}
x_{28}
       -0.294117647059
                             +0.21x_{12}+0.21x_2+0.38x_{20}+0.35x_{15}+0.91x_3+0.18x_{16}
x_{29}
      -0.0588235294118
                             +0.94x_{12} +0.94x_2 +0.18x_{20} +0.47x_{15} +0.88x_3 +0.24x_{16}
x_{30}
      -0.764705882353
                             +0.24x_{12} +0.24x_2 +0.29x_{20} +0.12x_{15} +0.47x_3 +0.06x_{16}
x_{31}
       -0.294117647059
                             +0.21x_{12}+0.21x_2+0.38x_{20}+0.35x_{15}+0.91x_3+0.18x_{16}
x_{32}
       -0.235294117647
                             +0.26x_{12} +0.26x_2 +0.21x_{20} +0.88x_{15} +0.03x_3 +0.94x_{16}
x_{33}
       -0.205882352941
                             +0.04x_{12} +0.04x_2 +0.87x_{20} +0.65x_{15} +0.84x_3 +0.32x_{16}
x_{34}
       -0.323529411765
                             -0.07x_{12} - 6.07x_2 - 0.78x_{20} - 0.41x_{15} - 6.40x_3 - 0.21x_{16}
```

Forming the dual dictionary:

The Final Dual Dictionary is:

```
30.8095238095
                             -5.33x_6 -6.33x_2 -6.95x_{20} + 2.38x_{31} + 12.52x_3 + 1.24x_{25}
x_9
       23.4761904762
                            -7.67x_6 -10.67x_2 + 0.38x_{20} - 3.95x_{31} + 10.19x_3 - 0.10x_{25}
x_8
       2.52380952381
                            -0.33x_6 -0.33x_2 -0.38x_{20} -0.05x_{31} +0.81x_3 +0.10x_{25}
x_5
                            +0.33x_6 +0.33x_2 -0.19x_{20} +0.48x_{31} -0.10x_3 +0.05x_{25}
       0.761904761905
x_1
                            -15.00x_6 - 15.00x_2 - 9.71x_{20} - 4.71x_{31} + 16.14x_3 + 0.43x_{25}
x_7
       56.8571428571
x_{10}
       12.5238095238
                            +0.67x_6 -9.33x_2 -3.38x_{20} +1.95x_{31} +0.81x_3 +0.10x_{25}
              5.0
                             -1.00x_6 -2.00x_2 -1.00x_{20}
                                                                        -0.00x_3 +0.00x_{25}
x_4
       3.57142857143
                            -0.00x_6 -1.00x_2 -0.14x_{20} + 2.86x_{31} -1.57x_3 + 0.29x_{25}
x_{14}
       0.619047619048
                            +0.33x_6 +0.33x_2 -0.90x_{20} +1.76x_{31} +0.05x_3 +0.48x_{25}
x_{22}
x_{11}
       0.761904761905
                             +0.33x_6 +0.33x_2 -3.19x_{20} +0.48x_{31} -0.10x_3 +1.05x_{25}
       4.52380952381
                            -0.33x_6 -1.33x_2 +1.62x_{20} +2.95x_{31} -2.19x_3 +0.10x_{25}
x_{17}
       2.52380952381
                             +0.67x_6 -0.33x_2 -2.38x_{20} +3.95x_{31} -1.19x_3 +0.10x_{25}
x_{18}
                             -0.33x_6 -0.33x_2 -0.52x_{20} + 2.81x_{31} -1.76x_3 +0.38x_{25}
       3.09523809524
x_{19}
x_{13}
       1.6666666667
                             -1.33x_6 -1.33x_2 +5.33x_{20} -1.33x_{31} -1.33x_3 -0.33x_{25}
       0.666666666667
                            -0.33x_6 -0.33x_2 +0.33x_{20} -0.33x_{31} -0.33x_3 +0.67x_{25}
x_{15}
       1.19047619048
                            +0.33x_6 +0.33x_2 -2.05x_{20} +1.62x_{31} -0.52x_3 +0.76x_{25}
x_{21}
x_{23}
              3.0
                                       -0.00x_2 -1.00x_{20} + 4.00x_{31} -1.00x_3 + 0.00x_{25}
       2.333333333333
                            +0.33x_6 +0.33x_2 -2.33x_{20} +4.33x_{31} -1.67x_3 +0.33x_{25}
x_{24}
       0.238095238096
                            +0.67x_6 +0.67x_2 -2.81x_{20} +0.52x_{31} +0.10x_3 +0.95x_{25}
x_{16}
       2.85714285714
                            +0.00x_6 -1.00x_2 -0.71x_{20} +4.29x_{31} -1.86x_3 -0.57x_{25}
x_{12}
                            +0.33x_6 +0.33x_2 -2.05x_{20} +3.62x_{31} -1.52x_3 +0.76x_{25}
x_{27}
       2.19047619048
       1.19047619048
                             +0.33x_6 +0.33x_2 -2.05x_{20} +1.62x_{31} -0.52x_3 +0.76x_{25}
x_{28}
       0.571428571429
                            -0.00x_6 -0.00x_2 -0.14x_{20} + 0.86x_{31} + 0.43x_3 + 0.29x_{25}
x_{29}
                            -0.00x_6 -0.00x_2 -1.00x_{20} + 4.00x_{31} -1.00x_3 + 0.00x_{25}
              3.0
x_{30}
       1.57142857143
                            -0.00x_6 -0.00x_2 -0.14x_{20} + 2.86x_{31} -0.57x_3 + 0.29x_{25}
x_{26}
       0.571428571429
                            -0.00x_6 -0.00x_2 -0.14x_{20} + 0.86x_{31} + 0.43x_3 + 0.29x_{25}
x_{32}
                             +0.33x_6 +0.33x_2 -2.33x_{20} +1.33x_{31} -0.67x_3 +1.33x_{25}
       1.333333333333
x_{33}
                             -0.00x_6 -0.00x_2 +0.14x_{20} +0.14x_{31} +0.57x_3 +0.71x_{25}
       0.428571428572
x_{34}
      -0.857142857143
                             +0.00x_6 -6.00x_2 -0.29x_{20} -0.29x_{31} -6.14x_3 -0.43x_{25}
```

```
30.8095238095
                              -5.33x_6 -6.33x_2 -6.95x_{20} + 2.38x_{31} + 12.52x_3 + 1.24x_{25}
        23.4761904762
                              -7.67x_6 -10.67x_2 + 0.38x_{20} - 3.95x_{31} + 10.19x_3 - 0.10x_{25}
x_8
        2.52380952381
                              -0.33x_6 -0.33x_2 -0.38x_{20} -0.05x_{31} +0.81x_3 +0.10x_{25}
x_5
                              +0.33x_6 +0.33x_2 -0.19x_{20} +0.48x_{31} -0.10x_3 +0.05x_{25}
       0.761904761905
x_1
        56.8571428571
                             -15.00x_6 - 15.00x_2 - 9.71x_{20} - 4.71x_{31} + 16.14x_3 + 0.43x_{25}
x_7
        12.5238095238
                              +0.67x_6 -9.33x_2 -3.38x_{20} +1.95x_{31} +0.81x_3 +0.10x_{25}
x_{10}
                              -1.00x_6 -2.00x_2 -1.00x_{20}
                                                                         -0.00x_3 +0.00x_{25}
               5.0
x_4
        3.57142857143
                              -0.00x_6 -1.00x_2 -0.14x_{20} + 2.86x_{31} -1.57x_3 + 0.29x_{25}
x_{14}
x_{22}
       0.619047619048
                              +0.33x_6 +0.33x_2 -0.90x_{20} +1.76x_{31} +0.05x_3 +0.48x_{25}
       0.761904761905
                              +0.33x_6 +0.33x_2 -3.19x_{20} +0.48x_{31} -0.10x_3 +1.05x_{25}
x_{11}
                              -0.33x_6 -1.33x_2 +1.62x_{20} +2.95x_{31} -2.19x_3 +0.10x_{25}
        4.52380952381
x_{17}
                              +0.67x_6 -0.33x_2 -2.38x_{20} +3.95x_{31} -1.19x_3 +0.10x_{25}
x_{18}
        2.52380952381
x_{19}
        3.09523809524
                              -0.33x_6 -0.33x_2 -0.52x_{20} + 2.81x_{31} -1.76x_3 + 0.38x_{25}
        1.66666666667
                              -1.33x_6 -1.33x_2 +5.33x_{20} -1.33x_{31} -1.33x_3 -0.33x_{25}
x_{13}
                              -0.33x_6 -0.33x_2 +0.33x_{20} -0.33x_{31} -0.33x_3 +0.67x_{25}
       0.666666666667
x_{15}
                              +0.33x_6 +0.33x_2 -2.05x_{20} +1.62x_{31} -0.52x_3 +0.76x_{25}
        1.19047619048
x_{21}
               3.0
                              -0.00x_6 -0.00x_2 -1.00x_{20} + 4.00x_{31} -1.00x_3 + 0.00x_{25}
x_{23}
        2.33333333333
                              +0.33x_6 +0.33x_2 -2.33x_{20} +4.33x_{31} -1.67x_3 +0.33x_{25}
x_{24}
       0.238095238096
                              +0.67x_6 +0.67x_2 -2.81x_{20} +0.52x_{31} +0.10x_3 +0.95x_{25}
x_{16}
        2.85714285714
                              +0.00x_6 -1.00x_2 -0.71x_{20} +4.29x_{31} -1.86x_3 -0.57x_{25}
x_{12}
        2.19047619048
                              +0.33x_6 +0.33x_2 -2.05x_{20} +3.62x_{31} -1.52x_3 +0.76x_{25}
x_{27}
        1.19047619048
                              +0.33x_6 +0.33x_2 -2.05x_{20} +1.62x_{31} -0.52x_3 +0.76x_{25}
x_{28}
                              -0.00x_6 -0.00x_2 -0.14x_{20} + 0.86x_{31} + 0.43x_3 + 0.29x_{25}
       0.571428571429
x_{29}
x_{30}
               3.0
                              -0.00x_6 -0.00x_2 -1.00x_{20} + 4.00x_{31} -1.00x_3 + 0.00x_{25}
        1.57142857143
                              -0.00x_6 -0.00x_2 -0.14x_{20} + 2.86x_{31} -0.57x_3 + 0.29x_{25}
x_{26}
       0.571428571429
                              -0.00x_6 -0.00x_2 -0.14x_{20} + 0.86x_{31} + 0.43x_3 + 0.29x_{25}
x_{32}
                              +0.33x_6 +0.33x_2 -2.33x_{20} +1.33x_{31} -0.67x_3 +1.33x_{25}
        1.33333333333
x_{33}
       0.428571428572
                              -0.00x_6 -0.00x_2 +0.14x_{20} +0.14x_{31} +0.57x_3 +0.71x_{25}
x_{34}
                              +0.33x_6 +0.33x_2 +0.95x_{20} +0.62x_{31} +0.48x_3 +0.76x_{25}
       -0.809523809524
x_{35}
       -0.47619047619
                              +0.67x_6 +0.67x_2 +0.62x_{20} +0.95x_{31} +0.81x_3 +0.10x_{25}
x_{36}
       -0.52380952381
                              +0.33x_6 +0.33x_2 +0.38x_{20} +0.05x_{31} +0.19x_3 +0.90x_{25}
x_{37}
       -0.761904761905
                              +0.67x_6 +0.67x_2 +0.19x_{20} +0.52x_{31} +0.10x_3 +0.95x_{25}
x_{38}
       -0.857142857143
                              +0.00x_6 +0.00x_2 +0.71x_{20} +0.71x_{31} +0.86x_3 +0.57x_{25}
x_{39}
       -0.52380952381
                              +0.33x_6 +0.33x_2 +0.38x_{20} +0.05x_{31} +0.19x_3 +0.90x_{25}
x_{40}
       -0.571428571429
                              +0.00x_6 +0.00x_2 +0.14x_{20} +0.14x_{31} +0.57x_3 +0.71x_{25}
x_{41}
       -0.619047619048
                              +0.67x_6 +0.67x_2 +0.90x_{20} +0.24x_{31} +0.95x_3 +0.52x_{25}
x_{42}
       -0.761904761905
                              +0.67x_6 +0.67x_2 +0.19x_{20} +0.52x_{31} +0.10x_3 +0.95x_{25}
x_{43}
                              +0.33x_6 +0.33x_2 +0.38x_{20} +0.05x_{31} +0.19x_3 +0.90x_{25}
       -0.52380952381
x_{44}
       -0.52380952381
                              +0.33x_6 +0.33x_2 +0.38x_{20} +0.05x_{31} +0.19x_3 +0.90x_{25}
x_{45}
x_{46}
      -0.0952380952383
                              +0.33x_6 +0.33x_2 +0.52x_{20} +0.19x_{31} +0.76x_3 +0.62x_{25}
       -0.6666666666667
                              +0.33x_6 +0.33x_2 +0.67x_{20} +0.33x_{31} +0.33x_3 +0.33x_{25}
x_{47}
                              +0.33x_6 +0.33x_2 +0.67x_{20} +0.33x_{31} +0.33x_3 +0.33x_{25}
       -0.666666666667
x_{48}
       -0.190476190476
                              +0.67x_6 +0.67x_2 +0.05x_{20} +0.38x_{31} +0.52x_3 +0.24x_{25}
x_{49}
       -0.3333333333333
                              +0.67x_6 +0.67x_2 +0.33x_{20} +0.67x_{31} +0.67x_3 +0.67x_{25}
x_{50}
       -0.238095238096
                              +0.33x_6 +0.33x_2 +0.81x_{20} +0.48x_{31} +0.90x_3 +0.05x_{25}
x_{51}
       -0.857142857143
                              +1.00x_6 +1.00x_2 +0.71x_{20} +0.71x_{31} +0.86x_3 +0.57x_{25}
x_{52}
                              +0.67x_6 +0.67x_2 +0.05x_{20} +0.38x_{31} +0.52x_3 +0.24x_{25}
       -0.190476190476
x_{53}
       -0.190476190476
                              +0.67x_6 +0.67x_2 +0.05x_{20} +0.38x_{31} +0.52x_3 +0.24x_{25}
x_{54}
       -0.571428571429
                              +0.00x_6 +0.00x_2 +0.14x_{20} +0.14x_{31} +0.57x_3 +0.71x_{25}
x_{55}
       -0.571428571429
                              +0.00x_6 +0.00x_2 +0.14x_{20} +0.14x_{31} +0.57x_3 +0.71x_{25}
x_{56}
x_{57}
       -0.571428571429
                              +0.00x_6 +0.00x_2 +0.14x_{20} +0.14x_{31} +0.57x_3 +0.71x_{25}
       -0.3333333333334
                              +0.67x_6 +0.67x_2 +0.33x_{20} +0.67x_{31} +0.67x_3 +0.67x_{25}
x_{58}
       -0.428571428572
                              +0.00x_6 +0.00x_2 +0.86x_{20} +0.86x_{31} +0.43x_3 +0.29x_{25}
x_{59}
       -0.857142857143
                              +0.00x_6 -6.00x_2 -0.29x_{20} -0.29x_{31} -6.14x_3 -0.43x_{25}
```

Forming the dual dictionary: The Final Dual Dictionary is:

```
29.5
                                  -0.50x_{13} -1.00x_2 +10.50x_{39} -18.00x_{47} +8.00x_3 +1.50x_{41}
x_9
x_8
           16.166666667
                                  +1.50x_{13} -3.00x_2 +4.17x_{39} -17.00x_{47}+11.33x_3+5.17x_{41}
          2.33333333333
                                  -0.00x_{13} -0.00x_2 +0.33x_{39} -1.00x_{47} +0.67x_3 +0.33x_{41}
x_5
                                  -0.12x_{13} +0.00x_2 +0.29x_{39} +0.50x_{47} -0.42x_3 -0.46x_{41}
          1.291666666667
x_1
          44.4166666667
                                  +1.25x_{13} -0.00x_2 +12.42x_{39} -40.00x_{47} +14.83x_3 +9.92x_{41}
x_7
           14.0833333333
                                  -0.75x_{13} - 10.00x_2 + 2.08x_{39} - 1.00x_{47} - 0.83x_3 - 1.42x_{41}
x_{10}
          4.33333333333
                                  -0.00x_{13} -1.00x_2 +1.33x_{39} -3.00x_{47} -0.33x_3 +0.33x_{41}
x_4
                                  -0.38x_{13} -1.00x_2 +4.54x_{39} -1.50x_{47} -3.92x_3 -2.71x_{41}
          5.541666666667
x_{14}
           2.208333333333
                                  -0.38x_{13} -0.00x_2 +2.21x_{39} -0.50x_{47} -1.58x_3 -1.04x_{41}
x_{22}
           1.83333333333
                                  -0.50x_{13} -0.00x_2 -0.17x_{39} -1.00x_{47} -1.33x_3 +1.83x_{41}
x_{11}
                                  -0.13x_{13} -1.00x_2 +5.29x_{39} -1.50x_{47} -4.42x_3 -3.46x_{41}
          6.29166666667
x_{17}
                                  -0.88x_{13} -1.00x_2 +5.38x_{39} -1.50x_{47} -4.25x_3 -3.87x_{41}
x_{18}
               5.375
x_{19}
               4.875
                                  -0.38x_{13} -0.00x_2 +4.88x_{39} -2.50x_{47} -4.25x_3 -2.37x_{41}
               0.625
                                  -0.12x_{13} -1.00x_2 -1.38x_{39} +2.50x_{47} +0.25x_3 -0.13x_{41}
x_6
          0.7083333333334
                                  +0.12x_{13} -0.00x_2 -0.29x_{39} -0.50x_{47} -0.58x_3 +1.46x_{41}
x_{15}
          2.83333333333
                                  -0.50x_{13} -0.00x_2 +1.83x_{39} -1.00x_{47} -2.33x_3 -0.17x_{41}
x_{21}
          5.458333333333
                                  -0.63x_{13} -0.00x_2 +6.46x_{39} -2.50x_{47} -4.08x_3 -4.29x_{41}
x_{23}
               5.375
                                  -0.88x_{13} -0.00x_2 +6.38x_{39} -2.50x_{47} -5.25x_3 -3.87x_{41}
x_{24}
                                  -0.50x_{13} -0.00x_2 -0.50x_{39} -0.00x_{47} -1.00x_3 +1.50x_{41}
                 1.5
x_{16}
                                  -0.63x_{13} -1.00x_2 +7.12x_{39} -2.50x_{47} -4.75x_3 -5.63x_{41}
               5.125
x_{12}
          5.08333333333
                                  -0.75x_{13} -0.00x_2 +5.08x_{39} -2.00x_{47} -4.83x_3 -2.42x_{41}
x_{27}
          2.83333333333
                                  -0.50x_{13} -0.00x_2 +1.83x_{39} -1.00x_{47} -2.33x_3 -0.17x_{41}
x_{28}
          1.291666666667
                                  -0.13x_{13} -0.00x_2 +1.29x_{39} -0.50x_{47} -0.42x_3 -0.46x_{41}
x_{29}
x_{30}
           5.45833333333
                                  -0.63x_{13} -0.00x_2 +6.46x_{39} -2.50x_{47} -4.08x_3 -4.29x_{41}
                                  -0.38x_{13} -0.00x_2 +4.54x_{39} -1.50x_{47} -2.92x_3 -2.71x_{41}
x_{26}
           3.541666666667
           1.29166666667
                                  -0.13x_{13} -0.00x_2 +1.29x_{39} -0.50x_{47} -0.42x_3 -0.46x_{41}
x_{32}
                                  -0.50x_{13} -0.00x_2 +1.17x_{39} -1.00x_{47} -2.67x_3 +1.17x_{41}
          3.16666666667
x_{33}
                 1.0
                                  -0.00x_{13} -0.00x_2 +0.00x_{39} -0.00x_{47} -0.00x_3 +1.00x_{41}
x_{34}
               0.625
                                  -0.13x_{13} -0.00x_2 +1.63x_{39} -0.50x_{47} -0.75x_3 -1.12x_{41}
x_{31}
                                  -0.12x_{13} +0.00x_2 +0.62x_{39} +1.50x_{47} +0.25x_3 -1.13x_{41}
x_{36}
               0.625
                                  +0.00x_{13} +0.00x_2 +0.33x_{39} +1.00x_{47} -0.33x_3 +0.33x_{41}
          0.333333333333
x_{35}
                                  -0.12x_{13} +0.00x_2 -0.38x_{39} +1.50x_{47} -0.75x_3 +0.87x_{41}
x_{38}
               0.625
         0.3333333333333
                                  +0.00x_{13} +0.00x_2 -0.67x_{39} +1.00x_{47} -0.33x_3 +1.33x_{41}
x_{37}
         0.3333333333333
                                  +0.00x_{13} +0.00x_2 -0.67x_{39} +1.00x_{47} -0.33x_3 +1.33x_{41}
x_{40}
                                  +0.00x_{13} -0.00x_2 -0.33x_{39} -0.00x_{47} -0.67x_3 +1.67x_{41}
         0.666666666667
x_{25}
          0.3333333333333
                                  +0.00x_{13} +0.00x_2 -0.67x_{39} +2.00x_{47} +0.67x_3 +0.33x_{41}
x_{42}
               0.625
                                  -0.12x_{13} +0.00x_2 -0.38x_{39} +1.50x_{47} -0.75x_3 +0.87x_{41}
x_{43}
         0.3333333333333
                                  +0.00x_{13} +0.00x_2 -0.67x_{39} +1.00x_{47} -0.33x_3 +1.33x_{41}
x_{44}
          0.33333333333333
                                  +0.00x_{13} +0.00x_2 -0.67x_{39} +1.00x_{47} -0.33x_3 +1.33x_{41}
x_{45}
         0.66666666666
                                  +0.00x_{13} +0.00x_2 -0.33x_{39} +1.00x_{47} +0.33x_3 +0.67x_{41}
x_{46}
         0.0416666666666
                                  +0.13x_{13} +0.00x_2 +0.04x_{39} +0.50x_{47} +0.08x_3 -0.21x_{41}
x_{20}
                                  +0.00x_{13} +0.00x_2 -0.00x_{39} +1.00x_{47} +0.00x_3 -0.00x_{41}
        2.81177858774e - 13
x_{48}
               0.625
                                  -0.12x_{13} +0.00x_2 -0.38x_{39} +1.50x_{47} +0.25x_3 -0.13x_{41}
x_{49}
          0.9583333333333
                                  -0.12x_{13} +0.00x_2 -0.04x_{39} +1.50x_{47} -0.08x_3 +0.21x_{41}
x_{50}
          0.3333333333333
                                  +0.00x_{13} +0.00x_2 +0.33x_{39} +1.00x_{47} +0.67x_3 -0.67x_{41}
x_{51}
                                  -0.12x_{13} +0.00x_2 -0.38x_{39} +2.50x_{47} +0.25x_3 -0.13x_{41}
               0.625
x_{52}
               0.625
                                  -0.12x_{18} + 0.00x_{2} -0.38x_{39} +1.50x_{47} +0.25x_{3} -0.13x_{41}
x_{53}
x_{54}
               0.625
                                  -0.12x_{13} +0.00x_2 -0.38x_{39} +1.50x_{47} +0.25x_3 -0.13x_{41}
        -6.11432201166e - 15
                                  +0.00x_{13} +0.00x_2 +0.00x_{39} -0.00x_{47} -0.00x_3 +1.00x_{41}
x_{55}
      -2.01355136268e - 14
                                  +0.00x_{13} +0.00x_2 -0.00x_{39} +0.00x_{47} -0.00x_3 +1.00x_{41}
x_{56}
x_{57}
      -2.82106514075e - 14
                                  +0.00x_{13} -0.00x_2 -0.00x_{39} +0.00x_{47} -0.00x_3 +1.00x_{41}
          0.9583333333333
                                  -0.12x_{13} +0.00x_2 -0.04x_{39} +1.50x_{47} -0.08x_3 +0.21x_{41}
x_{58}
         0.333333333333
                                  -0.00x_{13} +0.00x_2 +1.33x_{39} +0.00x_{47} -0.33x_3 -0.67x_{41}
x_{59}
         -1.3333333333333
                                  +0.00x_{13} -6.00x_2 -0.33x_{39} +0.00x_{47} -5.67x_3 -0.33x_{41}
```

09999999999

```
29.5
                                  -0.50x_{13} -1.00x_2 +10.50x_{39} -18.00x_{47} +8.00x_3 +1.50x_{41}
x_9
                                  +1.50x_{13} -3.00x_2 +4.17x_{39} -17.00x_{47} +11.33x_3 +5.17x_{41}
x_8
           16.166666667
           2.33333333333
                                  -0.00x_{13} -0.00x_2 +0.33x_{39} -1.00x_{47} +0.67x_3 +0.33x_{41}
x_5
                                  -0.12x_{13} +0.00x_2 +0.29x_{39} +0.50x_{47} -0.42x_3 -0.46x_{41}
           1.291666666667
x_1
           44.4166666667
                                  +1.25x_{13} -0.00x_2 +12.42x_{39} -40.00x_{47} +14.83x_3 +9.92x_{41}
x_7
                                  -0.75x_{13} - 10.00x_2 + 2.08x_{39} - 1.00x_{47} - 0.83x_3 - 1.42x_{41}
           14.0833333333
x_{10}
                                  -0.00x_{13} -1.00x_2 +1.33x_{39} -3.00x_{47} -0.33x_3 +0.33x_{41}
           4.33333333333
x_4
                                  -0.38x_{13} -1.00x_2 +4.54x_{39} -1.50x_{47} -3.92x_3 -2.71x_{41}
           5.541666666667
x_{14}
           2.20833333333
                                  -0.38x_{13} -0.00x_2 +2.21x_{39} -0.50x_{47} -1.58x_3 -1.04x_{41}
x_{22}
           1.83333333333
                                  -0.50x_{13} -0.00x_2 -0.17x_{39} -1.00x_{47} -1.33x_3 +1.83x_{41}
x_{11}
                                  -0.13x_{13} -1.00x_2 +5.29x_{39} -1.50x_{47} -4.42x_3 -3.46x_{41}
           6.291666666667
x_{17}
                                  -0.88x_{13} -1.00x_2 +5.38x_{39} -1.50x_{47} -4.25x_3 -3.87x_{41}
x_{18}
                5.375
                4.875
                                  -0.38x_{13} -0.00x_2 +4.88x_{39} -2.50x_{47} -4.25x_3 -2.37x_{41}
x_{19}
                0.625
                                  -0.12x_{13} -1.00x_2 -1.38x_{39} +2.50x_{47} +0.25x_3 -0.13x_{41}
x_6
                                  +0.12x_{13} -0.00x_2 -0.29x_{39} -0.50x_{47} -0.58x_3 +1.46x_{41}
          0.7083333333334
x_{15}
                                  -0.50x_{13} -0.00x_2 +1.83x_{39} -1.00x_{47} -2.33x_3 -0.17x_{41}
           2.83333333333
x_{21}
           5.45833333333
                                  -0.63x_{13} -0.00x_2 +6.46x_{39} -2.50x_{47} -4.08x_3 -4.29x_{41}
x_{23}
                5.375
                                  -0.88x_{13} -0.00x_2 +6.38x_{39} -2.50x_{47} -5.25x_3 -3.87x_{41}
x_{24}
                                  -0.50x_{13} -0.00x_2 -0.50x_{39} -0.00x_{47} -1.00x_3 +1.50x_{41}
                 1.5
x_{16}
                5.125
                                  -0.63x_{13} -1.00x_2 +7.12x_{39} -2.50x_{47} -4.75x_3 -5.63x_{41}
x_{12}
           5.08333333333
                                  -0.75x_{13} -0.00x_2 +5.08x_{39} -2.00x_{47} -4.83x_3 -2.42x_{41}
x_{27}
           2.83333333333
                                  -0.50x_{13} -0.00x_2 +1.83x_{39} -1.00x_{47} -2.33x_3 -0.17x_{41}
x_{28}
           1.29166666667
                                  -0.13x_{13} -0.00x_2 +1.29x_{39} -0.50x_{47} -0.42x_3 -0.46x_{41}
x_{29}
           5.45833333333
                                  -0.63x_{13} -0.00x_2 +6.46x_{39} -2.50x_{47} -4.08x_3 -4.29x_{41}
x_{30}
                                  -0.38x_{13} -0.00x_2 +4.54x_{39} -1.50x_{47} -2.92x_3 -2.71x_{41}
           3.54166666667
x_{26}
           1.29166666667
                                  -0.13x_{13} -0.00x_2 +1.29x_{39} -0.50x_{47} -0.42x_3 -0.46x_{41}
x_{32}
                                  -0.50x_{13} -0.00x_2 +1.17x_{39} -1.00x_{47} -2.67x_3 +1.17x_{41}
           3.16666666667
x_{33}
                 1.0
                                  -0.00x_{13} -0.00x_2 +0.00x_{39} -0.00x_{47}
                                                                                -0.00x_3 +1.00x_{41}
x_{34}
                0.625
                                  -0.13x_{13} -0.00x_2 +1.63x_{39} -0.50x_{47} -0.75x_3 -1.12x_{41}
x_{31}
                                  -0.12x_{13} +0.00x_2 +0.62x_{39} +1.50x_{47} +0.25x_3 -1.13x_{41}
                0.625
x_{36}
                                  +0.00x_{13} +0.00x_2 +0.33x_{39} +1.00x_{47} -0.33x_3 +0.33x_{41}
          0.3333333333333
x_{35}
                                  -0.12x_{13} +0.00x_2 -0.38x_{39} +1.50x_{47} -0.75x_3 +0.87x_{41}
x_{38}
                0.625
          0.3333333333333
                                  +0.00x_{13} +0.00x_2 -0.67x_{39} +1.00x_{47} -0.33x_3 +1.33x_{41}
x_{37}
          0.33333333333333
                                  +0.00x_{13} +0.00x_2 -0.67x_{39} +1.00x_{47} -0.33x_3 +1.33x_{41}
x_{40}
                                  +0.00x_{13} -0.00x_2 -0.33x_{39} -0.00x_{47} -0.67x_3 +1.67x_{41}
          0.666666666667
x_{25}
          0.333333333333
                                  +0.00x_{13} +0.00x_2 -0.67x_{39} +2.00x_{47} +0.67x_3 +0.33x_{41}
x_{42}
                0.625
                                  -0.12x_{13} +0.00x_2 -0.38x_{39} +1.50x_{47} -0.75x_3 +0.87x_{41}
x_{43}
          0.333333333333
                                  +0.00x_{13} +0.00x_2 -0.67x_{39} +1.00x_{47} -0.33x_3 +1.33x_{41}
x_{44}
          0.33333333333333
                                  +0.00x_{13} +0.00x_2 -0.67x_{39} +1.00x_{47} -0.33x_3 +1.33x_{41}
x_{45}
x_{46}
          0.66666666666
                                  +0.00x_{13} +0.00x_2 -0.33x_{39} +1.00x_{47} +0.33x_3 +0.67x_{41}
         0.041666666666
                                  +0.13x_{13} +0.00x_2 +0.04x_{39} +0.50x_{47} +0.08x_3 -0.21x_{41}
x_{20}
                                  +0.00x_{13} +0.00x_2 -0.00x_{39} +1.00x_{47} +0.00x_3 -0.00x_{41}
        -2.81177858774e - 13
x_{48}
                0.625
                                  -0.12x_{13} +0.00x_2 -0.38x_{39} +1.50x_{47} +0.25x_3 -0.13x_{41}
x_{49}
          0.9583333333333
                                  -0.12x_{13} +0.00x_2 -0.04x_{39} +1.50x_{47}
                                                                                -0.08x_3 +0.21x_{41}
x_{50}
          0.3333333333333
                                  +0.00x_{13} +0.00x_2 +0.33x_{39} +1.00x_{47} +0.67x_3 -0.67x_{41}
x_{51}
                                  -0.12x_{13} +0.00x_2 -0.38x_{39} +2.50x_{47} +0.25x_3 -0.13x_{41}
                0.625
x_{52}
x_{53}
                0.625
                                  -0.12x_{93} +0.00x_2 -0.38x_{39} +1.50x_{47} +0.25x_3 -0.13x_{41}
                                  -0.12x_{13} +0.00x_2 -0.38x_{39} +1.50x_{47} +0.25x_3 -0.13x_{41}
                0.625
x_{54}
       -6.11432201166e - 15
                                  +0.00x_{13} +0.00x_2 +0.00x_{39} -0.00x_{47} -0.00x_3 +1.00x_{41}
x_{55}
       -2.01355136268e - 14
                                  +0.00x_{13} +0.00x_2 -0.00x_{39} +0.00x_{47} -0.00x_3 +1.00x_{41}
x_{56}
x_{57}
       -2.82106514075e -
                                  +0.00x_{13} -0.00x_2 -0.00x_{39} +0.00x_{47}
                                                                                -0.00x_3 +1.00x_{41}
          0.9583333333333
                                  -0.12x_{13} +0.00x_2 -0.04x_{39} +1.50x_{47}
                                                                                -0.08x_3 +0.21x_{41}
x_{58}
                                  -0.00x_{13} +0.00x_2 +1.33x_{39} +0.00x_{47} -0.33x_3 -0.67x_{41}
          0.333333333333
x_{59}
                                  +0.50x_{13} +0.00x_2 +0.50x_{39} +0.00x_{47} +0.00x_3 +0.50x_{41}
x_{60}
         -0.5000000000003
          -0.16666666667
                                  +0.50x_{13} +0.00x_2 +0.83x_{39} +0.00x_{47} +0.67x_3 +0.83x_{41}
x_{61}
         -0.33333333333334
                                  +0.00x_{13} +0.00x_2 +0.67x_{39} +0.00x_{47} +0.33x_3 +0.67x_{41}
x_{62}
                                  +0.12x_{13} +1.00x_2 +0.71x_{39} +0.50x_{47} +0.42x_3 +0.46x_{41}
         -0.2916666666667
x_{63}
         -0.416666666673
                                  +0.75x_{13} +0.00x_2 +0.58x_{39} +0.00x_{47} +0.17x_3 +0.08x_{41}
x_{64}
```

 $\perp 0.02m$ 

 $\perp \cap \cap \cap \cap \infty$ 

Forming the dual dictionary: The Final Dual Dictionary is:

1 975

1 1 50<sub>~</sub>

0.25

10.20

10.25~

```
11.5
                                     +8.00x_{69} +44.00x_2 +38.50x_{62} -9.00x_{31} -10.50x_3 -45.00x_{101}
x_9
            1.62500000001
                                    +11.50x_{69} +44.25x_2 +38.63x_{62} -13.25x_{31} -11.38x_3 -47.25x_{101}
x_8
                 1.375
                                     +0.50x_{69}
                                                 +2.75x_2 +2.38x_{62} -0.75x_{31} -0.63x_3
                                                                                                    -2.75x_{101}
x_5
                                                             -1.38x_{62} +0.75x_{31} +0.63x_3
                 1.625
                                                  -1.75x_2
                                                                                                    +1.75x_{101}
x_1
                                     -0.50x_{69}
            6.875000000002
                                    +22.50x_{69} + 108.75x_2 + 89.88x_{62} - 28.75x_{31} - 35.13x_3 - 108.75x_{101}
x_7
                                                              +1.00x_{62} +1.00x_{31} +0.00x_3
                                                                                                    -1.00x_{101}
                  12.0
                                     -1.00x_{69}
                                                  -9.00x_2
x_{10}
                                                  +6.75x_2
                 1.375
                                                              +6.38x_{62} -1.75x_{31} -3.63x_3
                                     +1.50x_{69}
                                                                                                    -7.75x_{101}
x_4
                 3.75
                                     +0.00x_{69}
                                                  -0.50x_2
                                                              +0.75x_{62} +2.50x_{31} -2.25x_3
                                                                                                    -0.50x_{101}
x_{14}
                 1.375
                                     -0.50x_{69}
                                                  -0.25x_2
                                                              +0.37x_{62} +1.25x_{31} -0.62x_3
                                                                                                    +0.25x_{101}
x_{22}
                                                              +4.38x_{62} -1.75x_{31} -3.63x_3
           0.375000000001
                                     -0.50x_{69}
                                                  +3.75x_2
                                                                                                    -3.75x_{101}
x_{11}
                                                              -0.12x_{62} +3.25x_{31} -2.13x_{3}
                 4.875
                                     +0.50x_{69}
                                                  -1.25x_2
                                                                                                    +0.25x_{101}
x_{17}
                                                              -0.25x_{62} +3.50x_{31} -1.25x_3
x_{18}
                 2.75
                                     -1.00x_{69}
                                                  -1.50x_2
                                                                                                    +0.50x_{101}
                                                              +3.13x_{62} +1.75x_{31} -3.88x_3
x_{19}
                 2.125
                                     +0.50x_{69}
                                                  +3.25x_2
                                                                                                    -3.25x_{101}
                 0.25
                                     +0.00x_{69}
                                                  +0.50x_{2}
                                                              +1.25x_{62} -0.50x_{31} -0.75x_3
                                                                                                    -0.50x_{101}
x_{41}
                                                              +2.63x_{62} -1.25x_{31} -2.38x_3
                                                                                                    -2.25x_{101}
           0.625000000001
                                     +0.50x_{69}
                                                  +2.25x_2
x_{15}
                                     -0.50x_{69}
                                                  +1.75x_2
                                                              +2.38x_{62} +0.25x_{31} -2.63x_3
                 1.375
                                                                                                    -1.75x_{101}
x_{21}
                 2.25
                                     +0.00x_{69}
                                                  +1.50x_2
                                                              +1.25x_{62} +3.50x_{31}
                                                                                      -1.75x_3
                                                                                                    -1.50x_{101}
x_{23}
                                                                                                    -1.75x_{101}
                 1.875
                                     -0.50x_{69}
                                                  +1.75x_2
                                                              +1.88x_{62} +3.25x_{31} -3.13x_3
x_{24}
                                     -1.00x_{69}
                                                  +1.00x_2
                                                              +2.00x_{62} -1.00x_{31} -2.00x_3
                                                                                                    -1.00x_{101}
x_{16}
                  1.0
                                                               -1.88x_{62} +0.75x_{31} +1.13x_3
                                                                                                    +2.75x_{101}
                 1.125
                                     -0.50x_{69}
                                                  -2.75x_2
x_{47}
                 2.375
                                     -0.50x_{69}
                                                  +1.75x_2
                                                              +2.38x_{62} +2.25x_{31}
                                                                                        -3.63x_3
                                                                                                    -1.75x_{101}
x_{27}
                                     -0.50x_{69}
                 1.375
                                                  +1.75x_2
                                                              +2.38x_{62} +0.25x_{31} -2.63x_3
                                                                                                    -1.75x_{101}
x_{28}
                                                              +0.75x_{62} +0.50x_{31} -0.25x_{3}
                 0.75
                                     +0.00x_{69}
                                                  +0.50x_2
                                                                                                    -0.50x_{101}
x_{29}
x_{30}
                  2.25
                                     +0.00x_{69}
                                                  +1.50x_2
                                                              +1.25x_{62} +3.50x_{31} -1.75x_3
                                                                                                    -1.50x_{101}
                  1.75
                                                  +0.50x_2
                                                              +0.75x_{62} +2.50x_{31} -1.25x_3
x_{26}
                                     +0.00x_{69}
                                                                                                    -0.50x_{101}
                                     +0.00x_{69}
                                                                                                    -0.50x_{101}
                 0.75
                                                  +0.50x_2
                                                              +0.75x_{62} +0.50x_{31} -0.25x_3
x_{32}
                                                              +3.88x_{62} -0.75x_{31} -4.13x_3
                 1.875
                                     -0.50x_{69}
                                                  +2.75x_2
                                                                                                    -2.75x_{101}
x_{33}
                                                              +1.25x_{62} -0.50x_{31}
                                                                                       -0.75x_3
                                                                                                    -0.50x_{101}
                  1.25
                                     +0.00x_{69}
                                                  +0.50x_2
x_{34}
                                                              -0.75x_{62} +0.50x_{31} +1.25x_{3}
                 0.25
                                     -0.00x_{69}
                                                  -0.50x_2
                                                                                                    +1.50x_{101}
x_{73}
                                     -1.00x_{69}
                                                  -5.00x_2
                                                              -4.00x_{62} +2.00x_{31} +3.00x_3
                  2.0
                                                                                                    +5.00x_{101}
x_{36}
                 1.625
                                     -0.50x_{69}
                                                  -2.75x_2
                                                             -1.38x_{62} +0.75x_{31} +0.63x_3
                                                                                                    +2.75x_{101}
x_{35}
                 2.25
                                     -1.00x_{69}
                                                  -3.50x_2
                                                             -1.75x_{62} +0.50x_{31} +0.25x_3
                                                                                                    +3.50x_{101}
x_{38}
                 1.625
                                     -0.50x_{69}
                                                  -1.75x_2
                                                              -0.38x_{62} -0.25x_{31} -0.37x_3
                                                                                                    +1.75x_{101}
x_{37}
                 1.625
                                                              -0.38x_{62} -0.25x_{31} -0.37x_3
                                     -0.50x_{69}
                                                  -1.75x_2
                                                                                                    +1.75x_{101}
x_{40}
                                                              +2.00x_{62} -1.00x_{31} -2.00x_3
                  1.0
                                     +0.00x_{69}
                                                  +1.00x_2
                                                                                                    -1.00x_{101}
x_{25}
                  2.5
                                     -1.00x_{69}
                                                  -5.00x_2
                                                              -3.50x_{62} +1.00x_{31} +2.50x_{3}
                                                                                                    +5.00x_{101}
x_{42}
                  2.25
                                     -1.00x_{69}
                                                  -3.50x_2
                                                              -1.75x_{62} +0.50x_{31} +0.25x_{3}
                                                                                                    +3.50x_{101}
x_{43}
                                                              -0.38x_{62} -0.25x_{31} -0.37x_3
                                                                                                    +1.75x_{101}
                 1.625
                                     -0.50x_{69}
                                                  -1.75x_2
x_{44}
                 1.625
                                     -0.50x_{69}
                                                  -1.75x_2
                                                              -0.38x_{62} -0.25x_{31}
                                                                                       -0.37x_3
                                                                                                    +1.75x_{101}
x_{45}
x_{46}
                 1.875
                                     -0.50x_{69}
                                                  -2.25x_2
                                                              -1.13x_{62} +0.25x_{31} +0.88x_3
                                                                                                    +2.25x_{101}
                 0.75
                                     -0.00x_{69}
                                                  -1.50x_2
                                                              -1.25x_{62} +0.50x_{31} +0.75x_3
                                                                                                    +1.50x_{101}
x_{20}
                                                              -1.88x_{62} +0.75x_{31} +1.13x_3
                 1.125
                                     -0.50x_{69}
                                                  -2.75x_2
                                                                                                    +2.75x_{101}
x_{48}
                                                              -3.00x_{62} +1.00x_{31} +2.00x_3
                  2.0
                                     -1.00x_{69}
                                                  -4.00x_2
                                                                                                    +4.00x_{101}
x_{49}
                                                  -4.00x_2
                  2.5
                                     -1.00x_{69}
                                                              -2.50x_{62} +1.00x_{31} +1.50x_3
                                                                                                    +4.00x_{101}
x_{50}
                 1.375
                                     -0.50x_{69}
                                                  -3.25x_2
                                                              -2.63x_{62} +1.25x_{31} +2.38x_3
                                                                                                    +3.25x_{101}
x_{51}
                                                              -4.88x_{62} +1.75x_{31} +3.13x_3
                 3.125
                                     -1.50x_{69}
                                                  -6.75x_2
                                                                                                    +6.75x_{101}
x_{52}
                  2.0
                                                             -3.00x_{62} +1.00x_{31} +2.00x_3
x_{53}
                                     -1.00 x_{69}
                                                  -4.00x_2
                                                                                                    +4.00x_{101}
                  2.0
                                     -1.00x_{69}
                                                              -3.00x_{62} +1.00x_{31} +2.00x_3
                                                  -4.00x_2
                                                                                                    +4.00x_{101}
x_{54}
                                                                                                    -0.50x_{101}
                  0.25
                                     +0.00x_{69}
                                                  +0.50x_2
                                                              +1.25x_{62} -0.50x_{31} -0.75x_3
x_{55}
                                                              +1.25x_{62} -0.50x_{31} -0.75x_3
                  0.25
                                     +0.00x_{69}
                                                  +0.50x_2
                                                                                                    -0.50x_{101}
x_{56}
                                                              +1.25x_{62} -0.50x_{31}
                                                                                       -0.75x_3
x_{57}
                  0.25
                                     +0.00x_{69}
                                                  +0.50x_2
                                                                                                    -0.50x_{101}
                                                              -2.50x_{62} +1.00x_{31} +1.50x_3
                                                                                                    +4.00x_{101}
                  2.5
                                     -1.00x_{69}
                                                  -4.00x_2
x_{58}
                                     -0.00x_{69}
                  0.5
                                                  -1.00x_2
                                                              -0.50x_{62} +1.00x_{31} +0.50x_3
                                                                                                    +1.00x_{101}
x_{59}
                                     +2.00x_{69}
                                                              -0.50x_{62} -0.00x_{31} -0.50x_3
                  1.5
                                                  +0.00x_2
                                                                                                    -0.00x_{101}
x_{13}
x_{61}
           0.999999999999
                                     +1.00x_{69}
                                                  -0.00x_2
                                                              +1.00x_{62} +0.00x_{31} +0.00x_3
                                                                                                    +0.00x_{101}
                 0.25
                                     -0.00x_{69}
                                                  -0.50x_2
                                                              +0.25x_{62} +0.50x_{31} +0.25x_3
                                                                                                    +0.50x_{101}
x_{39}
                                     -0.00x_{69}
                                                              -0.25x_{62} +0.50x_{31} +0.75x_3
                 0.75
                                                  -0.50x_2
                                                                                                    +1.50x_{101}
x_{63}
           0.874999999998
                                     +1.50x_{69}
                                                  -0.25x_2
                                                              -0.13x_{62} +0.25x_{31}
                                                                                       -0.12x_3
                                                                                                    +0.25x_{101}
x_{64}
```

1 975

1 1 50<sub>~</sub>

0.25

10.20

10.25~

```
11.5
                                     +8.00x_{69} +44.00x_2 +38.50x_{62} -9.00x_{31} -10.50x_3 -45.00x_{101}
x_9
            1.62500000001
                                    +11.50x_{69} +44.25x_2 +38.63x_{62} -13.25x_{31} -11.38x_3 -47.25x_{101}
x_8
                 1.375
                                     +0.50x_{69}
                                                 +2.75x_2 +2.38x_{62} -0.75x_{31} -0.63x_3
                                                                                                    -2.75x_{101}
x_5
                                                              -1.38x_{62} +0.75x_{31} +0.63x_3
                 1.625
                                                  -1.75x_2
                                                                                                    +1.75x_{101}
x_1
                                     -0.50x_{69}
            6.875000000002
                                    +22.50x_{69} + 108.75x_2 + 89.88x_{62} - 28.75x_{31} - 35.13x_3 - 108.75x_{101}
x_7
                                                              +1.00x_{62} +1.00x_{31} +0.00x_3
                                                                                                    -1.00x_{101}
                  12.0
                                     -1.00x_{69}
                                                  -9.00x_2
x_{10}
                                                  +6.75x_2
                 1.375
                                                              +6.38x_{62} -1.75x_{31} -3.63x_3
                                     +1.50x_{69}
                                                                                                    -7.75x_{101}
x_4
                 3.75
                                     +0.00x_{69}
                                                  -0.50x_2
                                                              +0.75x_{62} +2.50x_{31} -2.25x_3
                                                                                                    -0.50x_{101}
x_{14}
                 1.375
                                     -0.50x_{69}
                                                  -0.25x_2
                                                              +0.37x_{62} +1.25x_{31} -0.62x_3
                                                                                                    +0.25x_{101}
x_{22}
                                                              +4.38x_{62} -1.75x_{31} -3.63x_3
           0.375000000001
                                     -0.50x_{69}
                                                  +3.75x_2
                                                                                                    -3.75x_{101}
x_{11}
                                                              -0.12x_{62} +3.25x_{31} -2.13x_{3}
                 4.875
                                     +0.50x_{69}
                                                  -1.25x_2
                                                                                                    +0.25x_{101}
x_{17}
                                                              -0.25x_{62} +3.50x_{31} -1.25x_3
x_{18}
                 2.75
                                     -1.00x_{69}
                                                  -1.50x_2
                                                                                                    +0.50x_{101}
                                                              +3.13x_{62} +1.75x_{31} -3.88x_3
x_{19}
                 2.125
                                     +0.50x_{69}
                                                  +3.25x_2
                                                                                                    -3.25x_{101}
                 0.25
                                     +0.00x_{69}
                                                  +0.50x_{2}
                                                              +1.25x_{62} -0.50x_{31} -0.75x_3
                                                                                                    -0.50x_{101}
x_{41}
                                                              +2.63x_{62} -1.25x_{31} -2.38x_3
                                                                                                    -2.25x_{101}
           0.625000000001
                                     +0.50x_{69}
                                                  +2.25x_2
x_{15}
                                     -0.50x_{69}
                                                  +1.75x_2
                                                              +2.38x_{62} +0.25x_{31} -2.63x_3
                 1.375
                                                                                                    -1.75x_{101}
x_{21}
                 2.25
                                     +0.00x_{69}
                                                  +1.50x_2
                                                              +1.25x_{62} +3.50x_{31}
                                                                                       -1.75x_3
                                                                                                    -1.50x_{101}
x_{23}
                                                                                                    -1.75x_{101}
                 1.875
                                     -0.50x_{69}
                                                  +1.75x_2
                                                              +1.88x_{62} +3.25x_{31} -3.13x_3
x_{24}
                                     -1.00x_{69}
                                                  +1.00x_2
                                                               +2.00x_{62} -1.00x_{31} -2.00x_3
                                                                                                    -1.00x_{101}
x_{16}
                  1.0
                                                               -1.88x_{62} +0.75x_{31} +1.13x_3
                                                                                                    +2.75x_{101}
                 1.125
                                     -0.50x_{69}
                                                  -2.75x_2
x_{47}
                 2.375
                                     -0.50x_{69}
                                                  +1.75x_2
                                                               +2.38x_{62} +2.25x_{31}
                                                                                        -3.63x_3
                                                                                                    -1.75x_{101}
x_{27}
                                     -0.50x_{69}
                 1.375
                                                  +1.75x_2
                                                               +2.38x_{62} +0.25x_{31} -2.63x_3
                                                                                                    -1.75x_{101}
x_{28}
                                                               +0.75x_{62} +0.50x_{31} -0.25x_{3}
                 0.75
                                     +0.00x_{69}
                                                  +0.50x_2
                                                                                                    -0.50x_{101}
x_{29}
x_{30}
                  2.25
                                     +0.00x_{69}
                                                  +1.50x_2
                                                              +1.25x_{62} +3.50x_{31} -1.75x_3
                                                                                                    -1.50x_{101}
                  1.75
                                                  +0.50x_2
                                                               +0.75x_{62} +2.50x_{31} -1.25x_3
x_{26}
                                     +0.00x_{69}
                                                                                                    -0.50x_{101}
                                     +0.00x_{69}
                                                                                                    -0.50x_{101}
                 0.75
                                                  +0.50x_2
                                                              +0.75x_{62} +0.50x_{31} -0.25x_3
x_{32}
                                                               +3.88x_{62} -0.75x_{31} -4.13x_3
                 1.875
                                     -0.50x_{69}
                                                  +2.75x_2
                                                                                                    -2.75x_{101}
x_{33}
                                                              +1.25x_{62} -0.50x_{31}
                                                                                        -0.75x_3
                                                                                                    -0.50x_{101}
                  1.25
                                     +0.00x_{69}
                                                  +0.50x_2
x_{34}
                 0.25
                                     -0.00x_{69}
                                                  -0.50x_2
                                                               -0.75x_{62} +0.50x_{31} +1.25x_3
                                                                                                    +1.50x_{101}
x_{73}
                                     -1.00x_{69}
                                                  -5.00x_2
                                                              -4.00x_{62} +2.00x_{31} +3.00x_3
                  2.0
                                                                                                    +5.00x_{101}
x_{36}
                 1.625
                                     -0.50x_{69}
                                                  -2.75x_2
                                                              -1.38x_{62} +0.75x_{31} +0.63x_3
                                                                                                    +2.75x_{101}
x_{35}
                 2.25
                                     -1.00x_{69}
                                                  -3.50x_2
                                                              -1.75x_{62} +0.50x_{31} +0.25x_3
                                                                                                    +3.50x_{101}
x_{38}
                 1.625
                                     -0.50x_{69}
                                                  -1.75x_2
                                                              -0.38x_{62} -0.25x_{31} -0.37x_3
                                                                                                    +1.75x_{101}
x_{37}
                 1.625
                                                              -0.38x_{62} -0.25x_{31} -0.37x_3
                                     -0.50x_{69}
                                                  -1.75x_2
                                                                                                    +1.75x_{101}
x_{40}
                                                              +2.00x_{62} -1.00x_{31} -2.00x_3
                  1.0
                                     +0.00x_{69}
                                                  +1.00x_2
                                                                                                    -1.00x_{101}
x_{25}
                  2.5
                                     -1.00x_{69}
                                                  -5.00x_2
                                                               -3.50x_{62} +1.00x_{31} +2.50x_{3}
                                                                                                    +5.00x_{101}
x_{42}
                  2.25
                                     -1.00x_{69}
                                                  -3.50x_2
                                                               -1.75x_{62} +0.50x_{31} +0.25x_{3}
                                                                                                    +3.50x_{101}
x_{43}
                                                              -0.38x_{62} -0.25x_{31} -0.37x_3
                                                                                                    +1.75x_{101}
                 1.625
                                     -0.50x_{69}
                                                  -1.75x_2
x_{44}
                 1.625
                                     -0.50x_{69}
                                                  -1.75x_2
                                                              -0.38x_{62} -0.25x_{31}
                                                                                       -0.37x_3
                                                                                                    +1.75x_{101}
x_{45}
x_{46}
                 1.875
                                     -0.50x_{69}
                                                  -2.25x_2
                                                               -1.13x_{62} +0.25x_{31} +0.88x_3
                                                                                                    +2.25x_{101}
                                     -0.00x_{69}
                 0.75
                                                  -1.50x_2
                                                              -1.25x_{62} +0.50x_{31} +0.75x_3
                                                                                                    +1.50x_{101}
x_{20}
                                                              -1.88x_{62} +0.75x_{31} +1.13x_3
                 1.125
                                     -0.50x_{69}
                                                  -2.75x_2
                                                                                                    +2.75x_{101}
x_{48}
                                                              -3.00x_{62} +1.00x_{31} +2.00x_{3}
                  2.0
                                     -1.00x_{69}
                                                  -4.00x_2
                                                                                                    +4.00x_{101}
x_{49}
                                                  -4.00x_2
                  2.5
                                     -1.00x_{69}
                                                              -2.50x_{62} +1.00x_{31} +1.50x_3
                                                                                                    +4.00x_{101}
x_{50}
                 1.375
                                     -0.50x_{69}
                                                  -3.25x_2
                                                              -2.63x_{62} +1.25x_{31} +2.38x_3
                                                                                                    +3.25x_{101}
x_{51}
                                                              -4.88x_{62} +1.75x_{31} +3.13x_3
                 3.125
                                     -1.50x_{69}
                                                  -6.75x_2
                                                                                                    +6.75x_{101}
x_{52}
                  2.0
                                                              -3.00x_{62} +1.00x_{31} +2.00x_3
x_{53}
                                     -1.002<sub>3</sub>9
                                                  -4.00x_2
                                                                                                    +4.00x_{101}
                  2.0
                                     -1.00x_{69}
                                                  -4.00x_2
                                                              -3.00x_{62} +1.00x_{31} +2.00x_3
                                                                                                    +4.00x_{101}
x_{54}
                                                                                                    -0.50x_{101}
                  0.25
                                     +0.00x_{69}
                                                  +0.50x_2
                                                              +1.25x_{62} -0.50x_{31} -0.75x_3
x_{55}
                                                              +1.25x_{62} -0.50x_{31} -0.75x_3
                  0.25
                                     +0.00x_{69}
                                                  +0.50x_2
                                                                                                    -0.50x_{101}
x_{56}
                                                               +1.25x_{62} -0.50x_{31}
                                                                                        -0.75x_3
x_{57}
                  0.25
                                     +0.00x_{69}
                                                  +0.50x_2
                                                                                                    -0.50x_{101}
                                                               -2.50x_{62} +1.00x_{31} +1.50x_3
                                                                                                    +4.00x_{101}
                  2.5
                                     -1.00x_{69}
                                                  -4.00x_2
x_{58}
                                     -0.00x_{69}
                  0.5
                                                  -1.00x_2
                                                              -0.50x_{62} +1.00x_{31} +0.50x_3
                                                                                                    +1.00x_{101}
x_{59}
                                     +2.00x_{69}
                                                              -0.50x_{62} -0.00x_{31} -0.50x_3
                  1.5
                                                  +0.00x_2
                                                                                                    -0.00x_{101}
x_{13}
x_{61}
           0.999999999999
                                     +1.00x_{69}
                                                  -0.00x_2
                                                              +1.00x_{62} +0.00x_{31} +0.00x_3
                                                                                                    +0.00x_{101}
                 0.25
                                     -0.00x_{69}
                                                  -0.50x_2
                                                              +0.25x_{62} +0.50x_{31} +0.25x_3
                                                                                                    +0.50x_{101}
x_{39}
                                     -0.00x_{69}
                                                              -0.25x_{62} +0.50x_{31} +0.75x_3
                 0.75
                                                  -0.50x_2
                                                                                                    +1.50x_{101}
x_{63}
           0.874999999998
                                     +1.50x_{69}
                                                  -0.25x_2
                                                              -0.13x_{62} +0.25x_{31}
                                                                                       -0.12x_3
                                                                                                    +0.25x_{101}
x_{64}
```

Forming the dual dictionary: The Final Dual Dictionary is:

```
19.7272727275
                                  +6.82x_{118} +2.45x_2 +11.55x_{108} +7.09x_{11} +7.73x_3 -21.82x_{101}
x_9
          0.272727272692
                                  +1.18x_{118} -0.45x_2 +0.45x_{108} -0.09x_{11} -0.73x_3 -0.18x_{101}
x_{112}
           1.63636363638
                                  +0.09x_{118} +0.27x_2 +0.73x_{108} +0.45x_{11} +0.64x_3 -1.09x_{101}
x_5
                                  +0.55x_{118} -0.36x_2 -0.64x_{108} -0.27x_{11} -0.18x_3 +0.45x_{101}
           1.81818181817
x_1
           2.45454545458
                                  +0.64x_{118} -0.09x_2 +2.09x_{108} +1.18x_{11} -0.55x_3
x_4
           13.4545454545
                                  +2.64x_{118} - 10.09x_2 - 0.91x_{108} + 0.18x_{11} + 0.45x_3 - 1.64x_{101}
x_{10}
                                  -0.32x_{118} -0.45x_2 +0.95x_{108} -0.09x_{11} -0.73x_3 -0.18x_{101}
          0.272727272744
x_{69}
                                  +4.68x_{118} -2.45x_2 -0.05x_{108} -0.09x_{11} -3.73x_3 -3.18x_{101}
           7.27272727272
x_{14}
           2.99999999999
                                  +2.50x_{118} -1.00x_2 -0.50x_{108} -0.00x_{11} -1.00x_3 -1.00x_{101}
x_{22}
           17.2727272733
                                  +1.68x_{118} + 13.55x_2 + 30.95x_{108} + 16.91x_{11} + 10.27x_3 - 46.18x_{101}
x_7
           9.09090909091
                                  +5.23x_{118} -2.82x_2 +0.32x_{108} -0.36x_{11} -4.91x_3 -3.73x_{101}
x_{17}
                                  +7.41x_{118} -2.27x_2 -0.23x_{108} -0.45x_{11} -4.64x_3 -5.91x_{101}
x_{12}
           7.36363636363
            5.9090909091
                                  +4.77x_{118} -1.18x_2 +0.68x_{108} +0.36x_{11} -4.09x_3 -4.27x_{101}
x_{19}
           0.18181818182
                                  -0.05x_{118} -0.64x_2 +0.14x_{108} +0.27x_{11} +0.18x_3 +0.55x_{101}
x_{41}
          0.363636363651
                                  -0.59x_{118} -0.27x_2 +0.77x_{108} +0.55x_{11} -0.64x_3 +0.09x_{101}
x_{15}
                                  +2.09x_{118} -0.73x_2 -0.27x_{108} +0.45x_{11} -1.36x_3 -1.09x_{101}
           2.63636363636
x_{21}
           7.27272727272
                                  +6.68x_{118} -1.45x_2 -0.05x_{108} -0.09x_{11} -3.73x_3 -5.18x_{101}
x_{23}
           6.72727272726
                                  +6.82x_{118} -1.55x_2 -0.45x_{108} +0.09x_{11} -4.27x_3 -4.82x_{101}
x_{24}
                                  +0.50x_{118} +0.00x_2 +0.50x_{108} -0.00x_{11} +0.00x_3 +0.00x_{101}
       -1.03300701326e - 11
x_{109}
            1.0909090909
                                  +0.23x_{118} -0.82x_2 -0.68x_{108} -0.36x_{11} +0.09x_3 +1.27x_{101}
x_{47}
                                  +5.45x_{118} -1.64x_2 -0.36x_{108} +0.27x_{11} -3.82x_3
           6.18181818181
                                                                                             -3.45x_{101}
x_{27}
           2.63636363636
                                  +2.09x_{118} -0.73x_2 -0.27x_{108} +0.45x_{11} -1.36x_3 -1.09x_{101}
x_{28}
                                  +1.32x_{118} -0.55x_2 +0.05x_{108} +0.09x_{11} -0.27x_3 -0.82x_{101}
           1.72727272727
x_{29}
           7.27272727272
                                  +6.68x_{118} -1.45x_2 -0.05x_{108} -0.09x_{11} -3.73x_3 -5.18x_{101}
x_{30}
           5.27272727272
                                  +4.68x_{118} -1.45x_2 -0.05x_{108} -0.09x_{11} -2.73x_3 -3.18x_{101}
x_{26}
           1.72727272727
                                  +1.32x_{118} -0.55x_2 +0.05x_{108} +0.09x_{11} -0.27x_3 -0.82x_{101}
x_{32}
                                  +1.36x_{118} -0.91x_2 -0.09x_{108} +0.82x_{11} -1.45x_3 -0.36x_{101}
           2.54545454545
x_{33}
           1.18181818182
                                  -0.05x_{118} -0.64x_2 +0.14x_{108} +0.27x_{11} +0.18x_3 +0.55x_{101}
x_{34}
          0.545454545453
                                  +0.36x_{118} +0.09x_2 -0.09x_{108} -0.18x_{11} +0.55x_3 +0.64x_{101}
x_{73}
           1.72727272724
                                  -0.68x_{118} -1.55x_2 -1.95x_{108} -0.91x_{11} +0.73x_3 +3.18x_{101}
x_6
                                  +0.55x_{118} -1.36x_2 -0.64x_{108} -0.27x_{11} -0.18x_3 +1.45x_{101}
           1.81818181817
x_{35}
           1.81818181816
                                  +0.05x_{118} -1.36x_2 -1.14x_{108} -0.27x_{11} -0.18x_3 +2.45x_{101}
x_{38}
                                  -0.50x_{118} -1.00x_2 -0.50x_{108} -0.00x_{11} +0.00x_3 +2.00x_{101}
          0.99999999991
x_{37}
                                  -0.50x_{118} -1.00x_2 -0.50x_{108} -0.00x_{11} +0.00x_3 +2.00x_{101}
          0.99999999991
x_{40}
                                  -0.41x_{118} -0.73x_2 +0.23x_{108} +0.45x_{11} -0.36x_3 +0.91x_{101}
          0.636363636368
x_{25}
           1.90909090907
                                  -0.23x_{118} -1.18x_2 -1.32x_{108} -0.64x_{11} +0.91x_3 +2.73x_{101}
x_{42}
           1.81818181816
                                  +0.05x_{118} -1.36x_2 -1.14x_{108} -0.27x_{11} -0.18x_3 +2.45x_{101}
x_{43}
                                  -0.50x_{118} -1.00x_2 -0.50x_{108} -0.00x_{11} +0.00x_3 +2.00x_{101}
x_{44}
          0.999999999991
          0.999999999991
                                  -0.50x_{118} -1.00x_2 -0.50x_{108} -0.00x_{11} +0.00x_3 +2.00x_{101}
x_{45}
x_{46}
                                  -0.14x_{118} -0.91x_2 -0.59x_{108} -0.18x_{11} +0.55x_3 +1.64x_{101}
           1.54545454544
          0.818181818179
                                  +0.05x_{118} -0.36x_2 -0.14x_{108} -0.27x_{11} -0.18x_3 +0.45x_{101}
x_{20}
                                  +0.23x_{118} -0.82x_2 -0.68x_{108} -0.36x_{11} +0.09x_3 +1.27x_{101}
            1.0909090909
x_{48}
           1.63636363634
                                  +0.09x_{118} -0.73x_2 -1.27x_{108} -0.55x_{11} +0.64x_3 +1.91x_{101}
x_{49}
           2.36363636361
                                  +0.41x_{118} -1.27x_2 -1.23x_{108} -0.45x_{11} +0.36x_3 +2.09x_{101}
x_{50}
           1.63636363635
                                  +0.59x_{118} -0.73x_2 -0.77x_{108} -0.55x_{11} +0.64x_3 +0.91x_{101}
x_{51}
                                  +0.32x_{118} -1.55x_2 -1.95x_{108} -0.91x_{11} +0.73x_3 +3.18x_{101}
           2.72727272724
x_{52}
x_{53}
           1.63636363634
                                  +0.09x_{418} -0.73x_2 -1.27x_{108} -0.55x_{11} +0.64x_3 +1.91x_{101}
                                  +0.09x_{118} -0.73x_2 -1.27x_{108} -0.55x_{11} +0.64x_3 +1.91x_{101}
           1.63636363634
x_{54}
           0.18181818182
                                  -0.05x_{118} -0.64x_2 +0.14x_{108} +0.27x_{11} +0.18x_3 +0.55x_{101}
x_{55}
           0.18181818182
                                  -0.05x_{118} -0.64x_2 +0.14x_{108} +0.27x_{11} +0.18x_3 +0.55x_{101}
x_{56}
x_{57}
           0.18181818182
                                  -0.05x_{118} -0.64x_2 +0.14x_{108} +0.27x_{11} +0.18x_3 +0.55x_{101}
           2.36363636361
                                  +0.41x_{118} -1.27x_2 -1.23x_{108} -0.45x_{11} +0.36x_3 +2.09x_{101}
x_{58}
                                  +1.36x_{118} -0.91x_2 -0.09x_{108} -0.18x_{11} -0.45x_3 -0.36x_{101}
           1.54545454545
x_{59}
           1.81818181822
                                  -0.95x_{118} -0.36x_2 +1.86x_{108} -0.27x_{11} -2.18x_3 -0.55x_{101}
x_{13}
           1.72727272729
                                  +0.32x_{118} -1.55x_2 +1.05x_{108} +0.09x_{11} -0.27x_3 +0.18x_{101}
x_{61}
          0.9999999999999
                                  +1.00x_{118} -1.00x_2 -0.00x_{108} -0.00x_{11} +0.00x_3 +0.00x_{101}
x_{39}
           1.27272727273
                                  +0.68x_{118} -0.45x_2 -0.05x_{108} -0.09x_{11} +0.27x_3 +0.82x_{101}
x_{63}
           1.54545454548
                                  -0.14x_{118} -0.91x_2 +1.41x_{108} -0.18x_{11} -1.45x_3 -0.36x_{101}
x_{64}
```

1 1 15 ~

0.00

```
19.7272727275
                                  +6.82x_{118} +2.45x_2 +11.55x_{108} +7.09x_{11} +7.73x_3 -21.82x_{101}
x_9
          0.272727272692
                                  +1.18x_{118} -0.45x_2 +0.45x_{108} -0.09x_{11} -0.73x_3 -0.18x_{101}
x_{112}
           1.63636363638
                                  +0.09x_{118} +0.27x_2 +0.73x_{108} +0.45x_{11} +0.64x_3 -1.09x_{101}
x_5
                                  +0.55x_{118} -0.36x_2 -0.64x_{108} -0.27x_{11} -0.18x_3 +0.45x_{101}
           1.81818181817
x_1
           2.45454545458
                                  +0.64x_{118} -0.09x_2 +2.09x_{108} +1.18x_{11} -0.55x_3
x_4
           13.4545454545
                                  +2.64x_{118} - 10.09x_2 - 0.91x_{108} + 0.18x_{11} + 0.45x_3 - 1.64x_{101}
x_{10}
                                  -0.32x_{118} -0.45x_2 +0.95x_{108} -0.09x_{11} -0.73x_3 -0.18x_{101}
          0.272727272744
x_{69}
                                  +4.68x_{118} -2.45x_2 -0.05x_{108} -0.09x_{11} -3.73x_3 -3.18x_{101}
           7.27272727272
x_{14}
           2.99999999999
                                  +2.50x_{118} -1.00x_2 -0.50x_{108} -0.00x_{11} -1.00x_3 -1.00x_{101}
x_{22}
           17.2727272733
                                  +1.68x_{118} + 13.55x_2 + 30.95x_{108} + 16.91x_{11} + 10.27x_3 - 46.18x_{101}
x_7
           9.09090909091
                                  +5.23x_{118} -2.82x_2 +0.32x_{108} -0.36x_{11} -4.91x_3 -3.73x_{101}
x_{17}
                                  +7.41x_{118} -2.27x_2 -0.23x_{108} -0.45x_{11} -4.64x_3 -5.91x_{101}
x_{12}
           7.36363636363
            5.9090909091
                                  +4.77x_{118} -1.18x_2 +0.68x_{108} +0.36x_{11} -4.09x_3 -4.27x_{101}
x_{19}
           0.18181818182
                                  -0.05x_{118} -0.64x_2 +0.14x_{108} +0.27x_{11} +0.18x_3 +0.55x_{101}
x_{41}
          0.363636363651
                                  -0.59x_{118} -0.27x_2 +0.77x_{108} +0.55x_{11} -0.64x_3 +0.09x_{101}
x_{15}
                                  +2.09x_{118} -0.73x_2 -0.27x_{108} +0.45x_{11} -1.36x_3 -1.09x_{101}
           2.63636363636
x_{21}
           7.27272727272
                                  +6.68x_{118} -1.45x_2 -0.05x_{108} -0.09x_{11} -3.73x_3 -5.18x_{101}
x_{23}
           6.72727272726
                                  +6.82x_{118} -1.55x_2 -0.45x_{108} +0.09x_{11} -4.27x_3 -4.82x_{101}
x_{24}
                                  +0.50x_{118} +0.00x_2 +0.50x_{108} -0.00x_{11} +0.00x_3 +0.00x_{101}
       -1.03300701326e - 11
x_{109}
            1.0909090909
                                  +0.23x_{118} -0.82x_2 -0.68x_{108} -0.36x_{11} +0.09x_3 +1.27x_{101}
x_{47}
                                  +5.45x_{118} -1.64x_2 -0.36x_{108} +0.27x_{11} -3.82x_3
           6.18181818181
                                                                                             -3.45x_{101}
x_{27}
           2.63636363636
                                  +2.09x_{118} -0.73x_2 -0.27x_{108} +0.45x_{11} -1.36x_3 -1.09x_{101}
x_{28}
           1.72727272727
                                  +1.32x_{118} -0.55x_2 +0.05x_{108} +0.09x_{11} -0.27x_3 -0.82x_{101}
x_{29}
           7.27272727272
                                  +6.68x_{118} -1.45x_2 -0.05x_{108} -0.09x_{11} -3.73x_3 -5.18x_{101}
x_{30}
           5.27272727272
                                  +4.68x_{118} -1.45x_2 -0.05x_{108} -0.09x_{11} -2.73x_3 -3.18x_{101}
x_{26}
           1.72727272727
                                  +1.32x_{118} -0.55x_2 +0.05x_{108} +0.09x_{11} -0.27x_3 -0.82x_{101}
x_{32}
                                  +1.36x_{118} -0.91x_2 -0.09x_{108} +0.82x_{11} -1.45x_3 -0.36x_{101}
           2.54545454545
x_{33}
           1.18181818182
                                  -0.05x_{118} -0.64x_2 +0.14x_{108} +0.27x_{11} +0.18x_3 +0.55x_{101}
x_{34}
          0.545454545453
                                  +0.36x_{118} +0.09x_2 -0.09x_{108} -0.18x_{11} +0.55x_3 +0.64x_{101}
x_{73}
           1.72727272724
                                  -0.68x_{118} -1.55x_2 -1.95x_{108} -0.91x_{11} +0.73x_3 +3.18x_{101}
x_6
                                  +0.55x_{118} -1.36x_2 -0.64x_{108} -0.27x_{11} -0.18x_3 +1.45x_{101}
           1.81818181817
x_{35}
           1.81818181816
                                  +0.05x_{118} -1.36x_2 -1.14x_{108} -0.27x_{11} -0.18x_3 +2.45x_{101}
x_{38}
                                  -0.50x_{118} -1.00x_2 -0.50x_{108} -0.00x_{11} +0.00x_3 +2.00x_{101}
          0.99999999991
x_{37}
                                  -0.50x_{118} -1.00x_2 -0.50x_{108} -0.00x_{11} +0.00x_3 +2.00x_{101}
          0.99999999991
x_{40}
                                  -0.41x_{118} -0.73x_2 +0.23x_{108} +0.45x_{11} -0.36x_3 +0.91x_{101}
          0.636363636368
x_{25}
           1.90909090907
                                  -0.23x_{118} -1.18x_2 -1.32x_{108} -0.64x_{11} +0.91x_3 +2.73x_{101}
x_{42}
           1.81818181816
                                  +0.05x_{118} -1.36x_2 -1.14x_{108} -0.27x_{11} -0.18x_3 +2.45x_{101}
x_{43}
                                  -0.50x_{118} -1.00x_2 -0.50x_{108} -0.00x_{11} +0.00x_3 +2.00x_{101}
x_{44}
          0.999999999991
          0.999999999991
                                  -0.50x_{118} -1.00x_2 -0.50x_{108} -0.00x_{11} +0.00x_3 +2.00x_{101}
x_{45}
                                  -0.14x_{118} -0.91x_2 -0.59x_{108} -0.18x_{11} +0.55x_3 +1.64x_{101}
x_{46}
           1.54545454544
          0.818181818179
                                  +0.05x_{118} -0.36x_2 -0.14x_{108} -0.27x_{11} -0.18x_3 +0.45x_{101}
x_{20}
                                  +0.23x_{118} -0.82x_2 -0.68x_{108} -0.36x_{11} +0.09x_3 +1.27x_{101}
            1.0909090909
x_{48}
           1.63636363634
                                  +0.09x_{118} -0.73x_2 -1.27x_{108} -0.55x_{11} +0.64x_3 +1.91x_{101}
x_{49}
           2.36363636361
                                  +0.41x_{118} -1.27x_2 -1.23x_{108} -0.45x_{11} +0.36x_3 +2.09x_{101}
x_{50}
           1.63636363635
                                  +0.59x_{118} -0.73x_2 -0.77x_{108} -0.55x_{11} +0.64x_3 +0.91x_{101}
x_{51}
                                  +0.32x_{118} -1.55x_2 -1.95x_{108} -0.91x_{11} +0.73x_3 +3.18x_{101}
           2.72727272724
x_{52}
x_{53}
           1.63636363634
                                  +0.09x_{518} -0.73x_2 -1.27x_{108} -0.55x_{11} +0.64x_3 +1.91x_{101}
                                  +0.09x_{118} -0.73x_2 -1.27x_{108} -0.55x_{11} +0.64x_3 +1.91x_{101}
           1.63636363634
x_{54}
           0.18181818182
                                  -0.05x_{118} -0.64x_2 +0.14x_{108} +0.27x_{11} +0.18x_3 +0.55x_{101}
x_{55}
           0.18181818182
                                  -0.05x_{118} -0.64x_2 +0.14x_{108} +0.27x_{11} +0.18x_3 +0.55x_{101}
x_{56}
x_{57}
           0.18181818182
                                  -0.05x_{118} -0.64x_2 +0.14x_{108} +0.27x_{11} +0.18x_3 +0.55x_{101}
           2.36363636361
                                  +0.41x_{118} -1.27x_2 -1.23x_{108} -0.45x_{11} +0.36x_3 +2.09x_{101}
x_{58}
                                  +1.36x_{118} -0.91x_2 -0.09x_{108} -0.18x_{11} -0.45x_3 -0.36x_{101}
           1.54545454545
x_{59}
           1.81818181822
                                  -0.95x_{118} -0.36x_2 +1.86x_{108} -0.27x_{11} -2.18x_3 -0.55x_{101}
x_{13}
           1.72727272729
                                  +0.32x_{118} -1.55x_2 +1.05x_{108} +0.09x_{11} -0.27x_3 +0.18x_{101}
x_{61}
          0.9999999999999
                                  +1.00x_{118} -1.00x_2 -0.00x_{108} -0.00x_{11} +0.00x_3 +0.00x_{101}
x_{39}
           1.27272727273
                                  +0.68x_{118} -0.45x_2 -0.05x_{108} -0.09x_{11} +0.27x_3 +0.82x_{101}
x_{63}
           1.54545454548
                                  -0.14x_{118} -0.91x_2 +1.41x_{108} -0.18x_{11} -1.45x_3 -0.36x_{101}
x_{64}
```

± 1 45 m

0.00

Forming the dual dictionary: The Final Dual Dictionary is:

O 0120424900°

```
9.86956521482
                                +0.70x_8 +8.15x_2 -13.13x_{203} +6.07x_{206} +16.11x_3 +6.28x_{31}
x_9
         0.304347827117
                                +0.04x_8 -2.77x_2 +5.30x_{203} -1.40x_{206} -4.84x_3 -0.08x_{31}
x_{112}
          1.30434782595
                                +0.04x_8 +0.48x_2 -0.70x_{203} +0.35x_{206} +0.91x_3 +0.17x_{31}
x_5
                                -0.04x_8 +0.02x_2 -0.30x_{203} +0.15x_{206} +0.59x_3 +0.33x_{31}
          1.69565217385
x_1
         0.913043477851
                                +0.13x_8 +0.68x_2 -2.09x_{203} +0.79x_{206} +0.49x_3 +0.77x_{31}
x_4
          11.3913043465
                                -0.09x_8 -6.21x_2
                                                    -6.61x_{203} +2.55x_{206} +7.42x_3 +2.40x_{31}
x_{10}
         0.608695653276
                                +0.09x_8 -3.29x_2 +5.61x_{203} -2.05x_{206} -5.92x_3 -0.90x_{31}
x_{69}
                 4.0
                                +0.00x_8 -1.25x_2 +0.00x_{203} +0.25x_{206} -1.75x_3 +2.75x_{31}
x_{14}
          1.69565217366
                                -0.04x_8 + 0.27x_2 -1.30x_{203} +0.90x_{206} +1.34x_3 +1.58x_{31}
x_{22}
       3.95920560343e -
                                +0.00x_8 -0.75x_2 +2.00x_{203} -0.25x_{206} -1.25x_3 +0.25x_{31}
x_{118}
          5.30434782674
                                +0.04x_8 -3.02x_2 +3.30x_{203} -1.15x_{206} -5.59x_3 +2.67x_{31}
x_{17}
x_{201}
       1.92336232013e -
                                +0.00x_8 -0.00x_2 +1.00x_{203} +0.00x_{206} +0.00x_3 +0.00x_{31}
          2.30434782595
                                +0.04x_8 +0.23x_2
                                                    -0.70x_{203} +0.60x_{206} -1.84x_3 +2.92x_{31}
x_{19}
           1.0000000002
                                +0.00x_8 -1.25x_2 +1.00x_{203} +0.25x_{206} -0.75x_3 -0.25x_{31}
x_{41}
                                +0.04x_8 -1.27x_2 +1.30x_{203} +0.10x_{206} -2.34x_3 -0.58x_{31}
x_{15}
          1.30434782635
          1.69565217327
                                -0.04x_8 + 1.27x_2 -3.30x_{203} +1.90x_{206} +2.34x_3 +1.58x_{31}
x_{21}
          1.99999999961
                                -0.00x_8 + 1.25x_2 -2.00x_{203} +0.75x_{206} +0.75x_3 +4.25x_{31}
x_{23}
          1.69565217307
                                -0.04x_8 + 2.27x_2 -4.30x_{203} +1.90x_{206} +2.34x_3 +4.58x_{31}
x_{24}
                                +0.04x_8 -2.02x_2 +4.30x_{203} -1.15x_{206} -3.59x_3 -0.33x_{31}
         0.304347826928
x_{109}
          1.69565217425
                                -0.04x_8 -1.48x_2 +1.70x_{203} -0.35x_{206} -0.91x_3 -0.17x_{31}
x_{47}
          2.69565217327
                                -0.04x_8 +1.27x_2
                                                     -3.30x_{203} +1.90x_{206} +1.34x_3 +3.58x_{31}
x_{27}
                                -0.04x_8 +1.27x_2
                                                    -3.30x_{203} +1.90x_{206} +2.34x_3 +1.58x_{31}
          1.69565217327
x_{28}
                1.0
                                +0.00x_8 -0.25x_2 +0.00x_{203} +0.25x_{206} +0.25x_3 +0.75x_{31}
x_{29}
x_{30}
          1.99999999961
                                -0.00x_8 +1.25x_2
                                                     -2.00x_{203} +0.75x_{206} +0.75x_3 +4.25x_{31}
                2.0
                                +0.00x_8 -0.25x_2 +0.00x_{203} +0.25x_{206} -0.75x_3 +2.75x_{31}
x_{26}
                1.0
                                +0.00x_8 -0.25x_2 +0.00x_{203} +0.25x_{206} +0.25x_3 +0.75x_{31}
x_{32}
          2.69565217327
                                -0.04x_8 +0.77x_2
                                                     -3.30x_{203} + 2.40x_{206} + 1.84x_3 + 1.08x_{31}
x_{33}
x_{34}
           2.00000000002
                                +0.00x_8 -1.25x_2 +1.00x_{203} +0.25x_{206} -0.75x_3 -0.25x_{31}
          1.00000000059
                                +0.00x_8 -1.25x_2 +3.00x_{203} -0.75x_{206} -1.75x_3 -0.25x_{31}
x_{73}
          1.00000000059
                                +0.00x_8 -1.50x_2 +3.00x_{203} -0.50x_{206} -2.50x_3 -0.50x_{31}
x_{101}
          2.69565217445
                                -0.04x_8 -2.48x_2 +2.70x_{203} -0.35x_{206} -1.91x_3 -0.17x_{31}
x_{35}
           3.3913043481
                                -0.09x_8 -1.96x_2 +1.39x_{203} +0.30x_{206} -0.83x_3 -0.35x_{31}
x_{38}
          2.69565217425
                                -0.04x_8 -1.98x_2 +1.70x_{203} +0.15x_{206} -1.41x_3 -0.67x_{31}
x_{37}
          2.69565217425
                                -0.04x_8 -1.98x_2 +1.70x_{203} +0.15x_{206} -1.41x_3 -0.67x_{31}
x_{40}
                                +0.00x_8 -1.50x_2 +1.00x_{203} +0.50x_{206} -1.50x_3 -0.50x_{31}
           2.00000000002
x_{25}
           3.3913043483
                                -0.09x_8 -2.21x_2 +2.39x_{203} -0.45x_{206} -0.58x_3 -0.60x_{31}
x_{42}
           3.3913043481
                                -0.09x_8 -1.96x_2 +1.39x_{203} +0.30x_{206} -0.83x_3 -0.35x_{31}
x_{43}
                                -0.04x_8 -1.98x_2 +1.70x_{203} +0.15x_{206} -1.41x_3 -0.67x_{31}
x_{44}
          2.69565217425
          2.69565217425
                                -0.04x_8 -1.98x_2 +1.70x_{203} +0.15x_{206} -1.41x_3 -0.67x_{31}
x_{45}
          2.69565217425
                                -0.04x_8 -1.73x_2 +1.70x_{203} -0.10x_{206} -0.66x_3 -0.42x_{31}
x_{46}
          1.00000000039
                                +0.00x_8 -1.25x_2 +2.00x_{203} -0.75x_{206} -1.75x_3 -0.25x_{31}
x_{20}
                                -0.04x_8 -1.48x_2 +1.70x_{203} -0.35x_{206} -0.91x_3 -0.17x_{31}
          1.69565217425
x_{48}
           2.3913043479
                                -0.09x_8 -0.71x_2 +0.39x_{203} +0.05x_{206} +0.92x_3 -0.10x_{31}
x_{49}
           3.3913043481
                                -0.09x_8 -1.71x_2 +1.39x_{203} +0.05x_{206} -0.08x_3 -0.10x_{31}
x_{50}
          1.69565217425
                                -0.04x_8 -1.23x_2 +1.70x_{203} -0.60x_{206} -0.16x_3 +0.08x_{31}
x_{51}
                                -0.13x_8 -2.18x_2 +2.09x_{203} -0.29x_{206} +0.01x_3 -0.27x_{31}
          4.08695652215
x_{52}
x_{53}
           2.3913043479
                                -0.09x_{81}7-0.71x_2 +0.39x_{203} +0.05x_{206} +0.92x_3 -0.10x_{31}
           2.3913043479
                                -0.09x_8 -0.71x_2 +0.39x_{203} +0.05x_{206} +0.92x_3 -0.10x_{31}
x_{54}
           1.0000000002
                                +0.00x_8 -1.25x_2 +1.00x_{203} +0.25x_{206} -0.75x_3 -0.25x_{31}
x_{55}
                                +0.00x_8 -1.25x_2 +1.00x_{203} +0.25x_{206} -0.75x_3 -0.25x_{31}
           1.00000000002
x_{56}
           1.0000000002
                                +0.00x_8 -1.25x_2 +1.00x_{203} +0.25x_{206} -0.75x_3 -0.25x_{31}
x_{57}
           3.3913043481
                                -0.09x_8 -1.71x_2 +1.39x_{203} +0.05x_{206} -0.08x_3 -0.10x_{31}
x_{58}
                                +0.00x_8 -1.50x_2 +2.00x_{203} -0.50x_{206} -1.50x_3 +0.50x_{31}
          1.00000000039
x_{59}
                                +0.17x_8 -5.59x_2 +10.22x_{203} -4.11x_{206} -11.85x_3 -1.80x_{31}
x_{13}
          2.21739130635
          2.60869565367
                                +0.09x_8 -5.29x_2 +7.61x_{203} -2.05x_{206} -6.92x_3 -0.90x_{31}
x_{61}
           1.0000000004
                                +0.00x_8 -1.75x_2 +2.00x_{203} -0.25x_{206} -1.25x_3 +0.25x_{31}
x_{39}
          2.00000000079
                                +0.00x_8 -2.25x_2 +4.00x_{203} -0.75x_{206} -2.75x_3 -0.25x_{31}
x_{63}
                                +0.13x_8 -5.32x_2 +8.91x_{203} -3.21x_{206} -9.51x_3 -1.23x_{31}
          1.91304348001
x_{64}
```

2 21 ~

1.91304348001

**9 01904949091** 

 $x_{64}$ 

```
9.86956521482
                                  +0.70x_8 +8.15x_2 -13.13x_{203} +6.07x_{206} +16.11x_3 +6.28x_{31}
x_9
          0.304347827117
                                  +0.04x_8 -2.77x_2 +5.30x_{203} -1.40x_{206} -4.84x_3 -0.08x_{31}
x_{112}
           1.30434782595
                                  +0.04x_8 +0.48x_2 -0.70x_{203} +0.35x_{206} +0.91x_3 +0.17x_{31}
x_5
                                  -0.04x_8 +0.02x_2 -0.30x_{203} +0.15x_{206} +0.59x_3 +0.33x_{31}
           1.69565217385
x_1
                                  +0.13x_8 +0.68x_2 -2.09x_{203} +0.79x_{206} +0.49x_3 +0.77x_{31}
          0.913043477851
x_4
           11.3913043465
                                  -0.09x_8 -6.21x_2 -6.61x_{203} +2.55x_{206} +7.42x_3 +2.40x_{31}
x_{10}
          0.608695653276
                                  +0.09x_8 -3.29x_2 +5.61x_{203} -2.05x_{206} -5.92x_3 -0.90x_{31}
x_{69}
                                  +0.00x_8 -1.25x_2 +0.00x_{203} +0.25x_{206} -1.75x_3 +2.75x_{31}
                 4.0
x_{14}
x_{22}
           1.69565217366
                                  -0.04x_8 +0.27x_2 -1.30x_{203} +0.90x_{206} +1.34x_3 +1.58x_{31}
        3.95920560343e -
                                  +0.00x_8 -0.75x_2 +2.00x_{203} -0.25x_{206} -1.25x_3 +0.25x_{31}
x_{118}
                                  +0.04x_8 -3.02x_2 +3.30x_{203} -1.15x_{206} -5.59x_3 +2.67x_{31}
           5.30434782674
x_{17}
x_{201}
        1.92336232013e -
                                  +0.00x_8 -0.00x_2 +1.00x_{203} +0.00x_{206} +0.00x_3 +0.00x_{31}
                                  +0.04x_8 +0.23x_2 -0.70x_{203} +0.60x_{206} -1.84x_3 +2.92x_{31}
x_{19}
           2.30434782595
            1.0000000002
                                  +0.00x_8 -1.25x_2 +1.00x_{203} +0.25x_{206} -0.75x_3 -0.25x_{31}
x_{41}
                                  +0.04x_8 -1.27x_2 +1.30x_{203} +0.10x_{206} -2.34x_3 -0.58x_{31}
x_{15}
           1.30434782635
           1.69565217327
                                  -0.04x_8 +1.27x_2 -3.30x_{203} +1.90x_{206} +2.34x_3 +1.58x_{31}
x_{21}
           1.9999999961
                                  -0.00x_8 + 1.25x_2 -2.00x_{203} +0.75x_{206} +0.75x_3 +4.25x_{31}
x_{23}
           1.69565217307
                                  -0.04x_8 + 2.27x_2 -4.30x_{203} +1.90x_{206} +2.34x_3 +4.58x_{31}
x_{24}
                                  +0.04x_8 -2.02x_2 +4.30x_{203} -1.15x_{206} -3.59x_3 -0.33x_{31}
          0.304347826928
x_{109}
           1.69565217425
                                  -0.04x_8 -1.48x_2 +1.70x_{203} -0.35x_{206} -0.91x_3 -0.17x_{31}
x_{47}
           2.69565217327
                                  -0.04x_8 +1.27x_2 -3.30x_{203} +1.90x_{206} +1.34x_3 +3.58x_{31}
x_{27}
                                  -0.04x_8 +1.27x_2 -3.30x_{203} +1.90x_{206} +2.34x_3 +1.58x_{31}
           1.69565217327
x_{28}
                 1.0
                                  +0.00x_8 -0.25x_2 +0.00x_{203} +0.25x_{206} +0.25x_3 +0.75x_{31}
x_{29}
x_{30}
           1.9999999961
                                  -0.00x_8 + 1.25x_2 -2.00x_{203} +0.75x_{206} +0.75x_3 +4.25x_{31}
                 2.0
                                  +0.00x_8 -0.25x_2 +0.00x_{203} +0.25x_{206} -0.75x_3 +2.75x_{31}
x_{26}
                                  +0.00x_8 -0.25x_2 +0.00x_{203} +0.25x_{206} +0.25x_3 +0.75x_{31}
                 1.0
x_{32}
           2.69565217327
                                  -0.04x_8 +0.77x_2 -3.30x_{203} +2.40x_{206} +1.84x_3 +1.08x_{31}
x_{33}
            2.00000000002
                                  +0.00x_8 -1.25x_2 +1.00x_{203} +0.25x_{206} -0.75x_3 -0.25x_{31}
x_{34}
           1.00000000059
                                  +0.00x_8 -1.25x_2 +3.00x_{203} -0.75x_{206} -1.75x_3 -0.25x_{31}
x_{73}
           1.00000000059
                                  +0.00x_8 -1.50x_2 +3.00x_{203} -0.50x_{206} -2.50x_3 -0.50x_{31}
x_{101}
                                  -0.04x_8 -2.48x_2 +2.70x_{203} -0.35x_{206} -1.91x_3 -0.17x_{31}
           2.69565217445
x_{35}
           3.3913043481
                                  -0.09x_8 -1.96x_2 +1.39x_{203} +0.30x_{206} -0.83x_3 -0.35x_{31}
x_{38}
           2.69565217425
                                  -0.04x_8 -1.98x_2 +1.70x_{203} +0.15x_{206} -1.41x_3 -0.67x_{31}
x_{37}
                                  -0.04x_8 -1.98x_2 +1.70x_{203} +0.15x_{206} -1.41x_3 -0.67x_{31}
           2.69565217425
x_{40}
                                  +0.00x_8 -1.50x_2 +1.00x_{203} +0.50x_{206} -1.50x_3 -0.50x_{31}
            2.00000000002
x_{25}
            3.3913043483
                                  -0.09x_8 -2.21x_2 +2.39x_{203} -0.45x_{206} -0.58x_3 -0.60x_{31}
x_{42}
            3.3913043481
                                  -0.09x_8 -1.96x_2 +1.39x_{203} +0.30x_{206} -0.83x_3 -0.35x_{31}
x_{43}
                                  -0.04x_8 -1.98x_2 +1.70x_{203} +0.15x_{206} -1.41x_3 -0.67x_{31}
x_{44}
           2.69565217425
           2.69565217425
                                  -0.04x_8 -1.98x_2 +1.70x_{203} +0.15x_{206} -1.41x_3 -0.67x_{31}
x_{45}
           2.69565217425
x_{46}
                                  -0.04x_8 -1.73x_2 +1.70x_{203} -0.10x_{206} -0.66x_3 -0.42x_{31}
           1.00000000039
                                  +0.00x_8 -1.25x_2 +2.00x_{203} -0.75x_{206} -1.75x_3 -0.25x_{31}
x_{20}
                                  -0.04x_8 -1.48x_2 +1.70x_{203} -0.35x_{206} -0.91x_3 -0.17x_{31}
           1.69565217425
x_{48}
            2.3913043479
                                  -0.09x_8 -0.71x_2 +0.39x_{203} +0.05x_{206} +0.92x_3 -0.10x_{31}
x_{49}
            3.3913043481
                                  -0.09x_8 -1.71x_2 +1.39x_{203} +0.05x_{206} -0.08x_3 -0.10x_{31}
x_{50}
           1.69565217425
                                  -0.04x_8 -1.23x_2 +1.70x_{203} -0.60x_{206} -0.16x_3 +0.08x_{31}
x_{51}
                                  -0.13x_8 -2.18x_2 +2.09x_{203} -0.29x_{206} +0.01x_3 -0.27x_{31}
           4.08695652215
x_{52}
x_{53}
            2.3913043479
                                  -0.09x_{8} -0.71x_{2} +0.39x_{203} +0.05x_{206} +0.92x_{3} -0.10x_{31}
            2.3913043479
                                  -0.09x_8 -0.71x_2 +0.39x_{203} +0.05x_{206} +0.92x_3 -0.10x_{31}
x_{54}
                                  +0.00x_8 -1.25x_2 +1.00x_{203} +0.25x_{206} -0.75x_3 -0.25x_{31}
            1.0000000002
x_{55}
                                  +0.00x_8 -1.25x_2 +1.00x_{203} +0.25x_{206} -0.75x_3 -0.25x_{31}
            1.00000000002
x_{56}
            1.0000000002
                                  +0.00x_8 -1.25x_2 +1.00x_{203} +0.25x_{206} -0.75x_3 -0.25x_{31}
x_{57}
            3.3913043481
                                  -0.09x_8 -1.71x_2 +1.39x_{203} +0.05x_{206} -0.08x_3 -0.10x_{31}
x_{58}
           1.00000000039
                                  +0.00x_8 -1.50x_2 +2.00x_{203} -0.50x_{206} -1.50x_3 +0.50x_{31}
x_{59}
           2.21739130635
                                  +0.17x_8 -5.59x_2 +10.22x_{203} -4.11x_{206} -11.85x_3 -1.80x_{31}
x_{13}
           2.60869565367
                                  +0.09x_8 -5.29x_2 +7.61x_{203} -2.05x_{206} -6.92x_3 -0.90x_{31}
x_{61}
            1.0000000004
                                  +0.00x_8 -1.75x_2 +2.00x_{203} -0.25x_{206} -1.25x_3 +0.25x_{31}
x_{39}
           2.00000000079
                                  +0.00x_8 -2.25x_2 +4.00x_{203} -0.75x_{206} -2.75x_3 -0.25x_{31}
x_{63}
```

 $+0.13x_8$   $-5.32x_2$   $+8.91x_{203}$   $-3.21x_{206}$   $-9.51x_3$   $-1.23x_{31}$ 

9.91~

 $\pm 0.01_{\circ}$ 

Forming the dual dictionary: The Final Dual Dictionary is:

```
34.0612252523
                                -2.41x_{69} - 10.22x_2 - 6.94x_6 + 0.98x_{428} + 9.78x_3 + 0.33x_{342}
x_9
         0.265306213511
                                +0.90x_{69} -0.31x_2 +0.27x_6 +0.24x_{428} -0.31x_3 +1.08x_{342}
x_{112}
           2.571428672
                                -0.14x_{69} -0.43x_{2} -0.43x_{6} +0.14x_{428} +0.57x_{3} -0.29x_{342}
x_5
                                -0.04x_{69} -0.12x_2 +0.31x_6 -0.10x_{428} -0.12x_3 +0.63x_{342}
          1.30612241515
x_1
          4.75510209859
                                -0.37x_{69} -2.10x_2 -1.24x_6 +0.08x_{428} -0.10x_3
x_4
                                -1.12x_{69} - 11.37x_2 - 0.08x_6 - 0.31x_{428} + 0.63x_3
                                                                                       +1.90x_{342}
          13.9183669341
x_{10}
                                -0.14x_{69} -2.43x_{2} -2.43x_{6} +1.14x_{428} +2.57x_{3}
          6.57142950453
                                                                                       -1.29x_{342}
x_{327}
                                +0.12x_{69} -3.63x_2 +0.08x_6 -0.69x_{428} -1.63x_3 +4.10x_{342}
          7.08163247018
x_{14}
x_{22}
           3.1836731498
                                -0.22x_{69} -1.67x_2 +0.18x_6 -0.06x_{428} -0.67x_3 +1.98x_{342}
         0.204081855557
                                +0.31x_{69} -0.08x_2 +0.20x_6 +0.27x_{428} -0.08x_3 +0.76x_{342}
x_{118}
                                +0.78x_{69} \ -3.67x_2 \ +0.18x_6 \ -1.06x_{428} \ -1.67x_3 \ +4.98x_{342}
          8.18367302762
x_{17}
                                +0.12x_{69} +0.37x_2 +0.08x_6 +0.31x_{428} +0.37x_3 +0.10x_{342}
x_{201}
         0.081632866937
          6.65306110324
                                -0.02x_{69} -3.06x_2 -0.35x_6 -0.55x_{428} -2.06x_3 +3.82x_{342}
x_{19}
          1.04081674545
                                +0.06x_{69} -0.82x_2 +0.04x_6 +0.65x_{428} -0.82x_3 -0.45x_{342}
x_{41}
                                +0.10x_{69} -0.69x_2 -0.27x_6 +0.76x_{428} -1.69x_3 -1.08x_{342}
x_{15}
          1.73469444708
                                -0.65x_{69} -1.96x_2 -0.10x_6 +0.37x_{428} -1.96x_3 +1.12x_{342}
          3.89795943825
x_{21}
          6.91836626475
                                -0.12x_{69} -3.37x_2 -0.08x_6 -1.31x_{428} -0.37x_3 +5.90x_{342}
x_{23}
          6.93877469586
                                -0.59x_{69} -3.78x_2 -0.06x_6 -0.98x_{428} -1.78x_3 +5.67x_{342}
x_{24}
         0.142857341568
                                +0.71x_{69} +0.14x_{2} +0.14x_{6} +0.29x_{428} +0.14x_{3} +0.43x_{342}
x_{109}
         0.510204194968
                                +0.27x_{69} -0.20x_{2} +0.51x_{6} +0.16x_{428} -0.20x_{3} +0.39x_{342}
x_{47}
                                -0.53x_{69} -3.59x_2 -0.02x_6 -0.33x_{428} -2.59x_3 +4.22x_{342}
          6.97959167703
x_{27}
                                -0.65x_{69} -1.96x_2 -0.10x_6 +0.37x_{428} -1.96x_3 +1.12x_{342}
          3.89795928254
x_{28}
          2.00000007569
                                +0.00x_{69} -1.00x_2 +0.00x_6 +0.00x_{428} +0.00x_3 +1.00x_{342}
x_{29}
x_{30}
          6.91836626475
                                -0.12x_{69} -3.37x_2 -0.08x_6 -1.31x_{428} -0.37x_3 +5.90x_{342}
          5.08163215877
                                +0.12x_{69} -2.63x_2 +0.08x_6 -0.69x_{428} -0.63x_3 +4.10x_{342}
x_{26}
          2.00000007569
                                +0.00x_{69} -1.00x_2 +0.00x_6 +0.00x_{428} +0.00x_3 +1.00x_{342}
x_{32}
                                -0.78x_{69} -2.33x_{2} -0.18x_{6} +1.06x_{428} -3.33x_{3} +0.02x_{342}
          4.81632731192
x_{33}
x_{34}
          2.04081674545
                                +0.06x_{69} -0.82x_2 +0.04x_6 +0.65x_{428} -0.82x_3
                                                                                       -0.45x_{342}
         0.326530768286
                                +0.49x_{69} +0.47x_2 +0.33x_6 +0.22x_{428} +0.47x_3 +0.41x_{342}
x_{73}
                                +0.43x_{69} +0.29x_2 +0.29x_6 +0.57x_{428} -0.71x_3 -0.14x_{342}
         0.285714724718
x_{101}
                                +0.39x_{69} -0.84x_2 +0.59x_6 +0.47x_{428} -0.84x_3 +0.49x_{342}
          1.59183706194
x_{35}
          1.73469444492
                                +0.10x_{69} -0.69x_2 +0.73x_6 +0.76x_{428} -1.69x_3 -0.08x_{342}
x_{38}
          1.42857199084
                                +0.14x_{69} -0.57x_2 +0.43x_6 +0.86x_{428} -1.57x_3 -0.71x_{342}
x_{37}
                                +0.14x_{69} -0.57x_2 +0.43x_6 +0.86x_{428} -1.57x_3 -0.71x_{342}
          1.42857206869
x_{40}
           2.0000006239
                                +0.00x_{69} -1.00x_2 +0.00x_6 +1.00x_{428} -2.00x_3 -1.00x_{342}
x_{25}
         0.897959440404
                                +0.35x_{69} +0.04x_2 +0.90x_6 +0.37x_{428} +0.04x_3 +0.12x_{342}
x_{42}
          1.73469440599
                                +0.10x_{69} -0.69x_2 +0.73x_6 +0.76x_{428} -1.69x_3
                                                                                       -0.08x_{342}
x_{43}
                                +0.14x_{69} -0.57x_2 +0.43x_6 +0.86x_{428} -1.57x_3
                                                                                       -0.71x_{342}
x_{44}
          1.42857206869
          1.42857199084
                                +0.14x_{69} -0.57x_2 +0.43x_6 +0.86x_{428} -1.57x_3
                                                                                       -0.71x_{342}
x_{45}
          1.46938811239
                                +0.20x_{69} -0.39x_2 +0.47x_6 +0.51x_{428} -0.39x_3 -0.16x_{342}
x_{46}
         0.244897901315
                                +0.37x_{69} +0.10x_2 +0.24x_6 -0.08x_{428} +0.10x_3 +0.31x_{342}
x_{20}
                                +0.27x_{69} -0.20x_2 +0.51x_6 +0.16x_{428} -0.20x_3 +0.39x_{342}
         0.510204194967
x_{48}
         0.693877621649
                                +0.04x_{69} +0.12x_2 +0.69x_6 +0.10x_{428} +0.12x_3 +0.37x_{342}
x_{49}
                                +0.16x_{69} -0.51x_2 +0.78x_6 +0.41x_{428} -0.51x_3 +0.47x_{342}
x_{50}
          1.77551048862
         0.551020238714
                                +0.33x_{69} -0.02x_2 +0.55x_6 -0.18x_{428} +0.98x_3 +0.94x_{342}
x_{51}
                                +0.31x_{69} -0.08x_2 +1.20x_6 +0.27x_{428} -0.08x_3 +0.76x_{342}
          1.20408179715
x_{52}
x_{53}
         0.693877621649
                                +0.04x_{6}20+0.12x_{2} +0.69x_{6} +0.10x_{428} +0.12x_{3} +0.37x_{342}
         0.693877621649
                                +0.04x_{69} +0.12x_2 +0.69x_6 +0.10x_{428} +0.12x_3 +0.37x_{342}
x_{54}
          1.04081678438
                                +0.06x_{69} -0.82x_2 +0.04x_6 +0.65x_{428} -0.82x_3 -0.45x_{342}
x_{55}
                                +0.06x_{69} -0.82x_2 +0.04x_6 +0.65x_{428} -0.82x_3 -0.45x_{342}
          1.04081674545
x_{56}
          1.04081678438
                                +0.06x_{69} -0.82x_2 +0.04x_6 +0.65x_{428} -0.82x_3
x_{57}
          1.77551048862
                                +0.16x_{69} -0.51x_2 +0.78x_6 +0.41x_{428} -0.51x_3
                                                                                       +0.47x_{342}
x_{58}
                                +0.37x_{69} -0.90x_2 +0.24x_6 -0.08x_{428} +0.10x_3 +1.31x_{342}
          1.24489797711
x_{59}
                                +1.88x_{69} +0.63x_2 -0.08x_6 -0.31x_{428} -0.37x_3 -0.10x_{342}
x_{13}
         0.918367132998
          2.16326569508
                                +1.24x_{69} -1.27x_2 +0.16x_6 +0.61x_{428} -0.27x_3 +0.20x_{342}
x_{61}
          1.20408177771
                                +0.31x_{69} -1.08x_2 +0.20x_6 +0.27x_{428} -0.08x_3 +0.76x_{342}
x_{39}
          1.40816363526
                                +0.61x_{69} -0.16x_2 +0.41x_6 +0.53x_{428} -0.16x_3 +0.51x_{342}
x_{63}
                                +1.59x_{69} -0.22x_2 +0.06x_6 -0.02x_{428} -0.22x_3 +0.33x_{342}
          1.06122455266
x_{64}
```

10.20~

9 14905794109

```
34.0612252523
                                  -2.41x_{69} - 10.22x_2 - 6.94x_6 + 0.98x_{428} + 9.78x_3 + 0.33x_{342}
x_9
                                  +0.90x_{69} -0.31x_2 +0.27x_6 +0.24x_{428} -0.31x_3 +1.08x_{342}
           0.265306213511
x_{112}
             2.571428672
                                  -0.14x_{69} -0.43x_{2} -0.43x_{6} +0.14x_{428} +0.57x_{3} -0.29x_{342}
x_5
                                  -0.04x_{69} -0.12x_2 +0.31x_6 -0.10x_{428} -0.12x_3 +0.63x_{342}
            1.30612241515
x_1
            4.75510209859
                                  -0.37x_{69} -2.10x_2 -1.24x_6 +0.08x_{428} -0.10x_3
x_4
                                  -1.12x_{69} - 11.37x_2 - 0.08x_6 - 0.31x_{428} + 0.63x_3 + 1.90x_{342}
            13.9183669341
x_{10}
            6.57142950453
                                  -0.14x_{69} -2.43x_2 -2.43x_6 +1.14x_{428} +2.57x_3
                                                                                          -1.29x_{342}
x_{327}
            7.08163247018
                                  +0.12x_{69} -3.63x_2 +0.08x_6 -0.69x_{428} -1.63x_3 +4.10x_{342}
x_{14}
            3.1836731498
                                  -0.22x_{69} -1.67x_2 +0.18x_6 -0.06x_{428} -0.67x_3 +1.98x_{342}
x_{22}
           0.204081855557
                                  +0.31x_{69} -0.08x_2 +0.20x_6 +0.27x_{428} -0.08x_3 +0.76x_{342}
x_{118}
                                  +0.78x_{69} -3.67x_2 +0.18x_6 -1.06x_{428} -1.67x_3 +4.98x_{342}
            8.18367302762
x_{17}
                                  +0.12x_{69} +0.37x_2 +0.08x_6 +0.31x_{428} +0.37x_3 +0.10x_{342}
x_{201}
           0.081632866937
            6.65306110324
                                  -0.02x_{69} -3.06x_2 -0.35x_6 -0.55x_{428} -2.06x_3 +3.82x_{342}
x_{19}
            1.04081674545
                                  +0.06x_{69} -0.82x_2 +0.04x_6 +0.65x_{428} -0.82x_3 -0.45x_{342}
x_{41}
                                  +0.10x_{69} -0.69x_2 -0.27x_6 +0.76x_{428} -1.69x_3 -1.08x_{342}
            1.73469444708
x_{15}
                                  -0.65x_{69} -1.96x_2 -0.10x_6 +0.37x_{428} -1.96x_3 +1.12x_{342}
            3.89795943825
x_{21}
            6.91836626475
                                  -0.12x_{69} -3.37x_2 -0.08x_6 -1.31x_{428} -0.37x_3 +5.90x_{342}
x_{23}
                                  -0.59x_{69} -3.78x_2 -0.06x_6 -0.98x_{428} -1.78x_3 +5.67x_{342}
            6.93877469586
x_{24}
                                   +0.71x_{69} +0.14x_{2} +0.14x_{6} +0.29x_{428} +0.14x_{3} +0.43x_{342}
           0.142857341568
x_{109}
           0.510204194968
                                  +0.27x_{69} -0.20x_2 +0.51x_6 +0.16x_{428} -0.20x_3 +0.39x_{342}
x_{47}
            6.97959167703
                                                        -0.02x_6 -0.33x_{428} -2.59x_3 +4.22x_{342}
                                  -0.53x_{69} -3.59x_2
x_{27}
            3.89795928254
                                  -0.65x_{69} -1.96x_2 -0.10x_6 +0.37x_{428} -1.96x_3 +1.12x_{342}
x_{28}
            2.00000007569
                                  +0.00x_{69} -1.00x_2 +0.00x_6 +0.00x_{428} +0.00x_3 +1.00x_{342}
x_{29}
x_{30}
            6.91836626475
                                  -0.12x_{69} -3.37x_2 -0.08x_6 -1.31x_{428} -0.37x_3 +5.90x_{342}
            5.08163215877
                                  +0.12x_{69} -2.63x_{2} +0.08x_{6} -0.69x_{428} -0.63x_{3} +4.10x_{342}
x_{26}
            2.00000007569
                                  +0.00x_{69} -1.00x_2 +0.00x_6 +0.00x_{428} +0.00x_3 +1.00x_{342}
x_{32}
                                  -0.78x_{69} -2.33x_{2} -0.18x_{6} +1.06x_{428} -3.33x_{3} +0.02x_{342}
            4.81632731192
x_{33}
                                  +0.06x_{69} -0.82x_2 +0.04x_6 +0.65x_{428} -0.82x_3
            2.04081674545
x_{34}
           0.326530768286
                                  +0.49x_{69} +0.47x_2 +0.33x_6 +0.22x_{428} +0.47x_3 +0.41x_{342}
x_{73}
                                  +0.43x_{69} \ +0.29x_2 \ +0.29x_6 \ +0.57x_{428} \ -0.71x_3 \ -0.14x_{342}
           0.285714724718
x_{101}
                                  +0.39x_{69} -0.84x_2 +0.59x_6 +0.47x_{428} -0.84x_3 +0.49x_{342}
            1.59183706194
x_{35}
            1.73469444492
                                  +0.10x_{69} -0.69x_2 +0.73x_6 +0.76x_{428} -1.69x_3 -0.08x_{342}
x_{38}
            1.42857199084
                                  +0.14x_{69} -0.57x_2 +0.43x_6 +0.86x_{428} -1.57x_3 -0.71x_{342}
x_{37}
                                  +0.14x_{69} -0.57x_2 +0.43x_6 +0.86x_{428} -1.57x_3 -0.71x_{342}
            1.42857206869
x_{40}
                                  +0.00x_{69} -1.00x_2 +0.00x_6 +1.00x_{428} -2.00x_3 -1.00x_{342}
            2.0000006239
x_{25}
           0.897959440404
                                  +0.35x_{69} +0.04x_2 +0.90x_6 +0.37x_{428} +0.04x_3 +0.12x_{342}
x_{42}
            1.73469440599
                                  +0.10x_{69} -0.69x_2 +0.73x_6 +0.76x_{428} -1.69x_3
                                                                                          -0.08x_{342}
x_{43}
            1.42857206869
                                  +0.14x_{69} -0.57x_2 +0.43x_6 +0.86x_{428} -1.57x_3 -0.71x_{342}
x_{44}
                                  +0.14x_{69} -0.57x_2 +0.43x_6 +0.86x_{428} -1.57x_3 -0.71x_{342}
            1.42857199084
x_{45}
            1.46938811239
                                  +0.20x_{69} -0.39x_2 +0.47x_6 +0.51x_{428} -0.39x_3 -0.16x_{342}
x_{46}
           0.244897901315
                                  +0.37x_{69} +0.10x_2 +0.24x_6 -0.08x_{428} +0.10x_3 +0.31x_{342}
x_{20}
                                  +0.27x_{69} -0.20x_2 +0.51x_6 +0.16x_{428} -0.20x_3 +0.39x_{342}
           0.510204194967
x_{48}
           0.693877621649
                                  +0.04x_{69} +0.12x_2 +0.69x_6 +0.10x_{428} +0.12x_3 +0.37x_{342}
x_{49}
            1.77551048862
                                  +0.16x_{69} -0.51x_2 +0.78x_6 +0.41x_{428} -0.51x_3 +0.47x_{342}
x_{50}
           0.551020238714
                                  +0.33x_{69} -0.02x_2 +0.55x_6 -0.18x_{428} +0.98x_3 +0.94x_{342}
x_{51}
                                  +0.31x_{69} -0.08x_2 +1.20x_6 +0.27x_{428} -0.08x_3 +0.76x_{342}
            1.20408179715
x_{52}
x_{53}
           0.693877621649
                                  +0.0424_{69} +0.12x_2 +0.69x_6 +0.10x_{428} +0.12x_3 +0.37x_{342}
                                  +0.04x_{69} +0.12x_2 +0.69x_6 +0.10x_{428} +0.12x_3 +0.37x_{342}
           0.693877621649
x_{54}
            1.04081678438
                                  +0.06x_{69} -0.82x_2 +0.04x_6 +0.65x_{428} -0.82x_3 -0.45x_{342}
x_{55}
            1.04081674545
                                  +0.06x_{69} -0.82x_2 +0.04x_6 +0.65x_{428} -0.82x_3 -0.45x_{342}
x_{56}
x_{57}
            1.04081678438
                                  +0.06x_{69} -0.82x_2 +0.04x_6 +0.65x_{428} -0.82x_3 -0.45x_{342}
            1.77551048862
                                  +0.16x_{69} -0.51x_2 +0.78x_6 +0.41x_{428} -0.51x_3 +0.47x_{342}
x_{58}
                                  +0.37x_{69} -0.90x_2 +0.24x_6 -0.08x_{428} +0.10x_3 +1.31x_{342}
            1.24489797711
x_{59}
                                  +1.88x_{69} +0.63x_2 -0.08x_6 -0.31x_{428} -0.37x_3 -0.10x_{342}
x_{13}
           0.918367132998
x_{61}
            2.16326569508
                                  +1.24x_{69} -1.27x_2 +0.16x_6 +0.61x_{428} -0.27x_3 +0.20x_{342}
            1.20408177771
                                  +0.31x_{69} -1.08x_2 +0.20x_6 +0.27x_{428} -0.08x_3 +0.76x_{342}
x_{39}
                                  +0.61x_{69} -0.16x_2 +0.41x_6 +0.53x_{428} -0.16x_3 +0.51x_{342}
            1.40816363526
x_{63}
                                  +1.59x_{69} -0.22x_2 +0.06x_6 -0.02x_{428} -0.22x_3 +0.33x_{342}
            1.06122455266
x_{64}
```

 $\perp 0.14m$ 

Forming the dual dictionary: Unbounded Dictionary! The Final Dual Dictionary is: Dual is unbounded. Primal is therefore infeasible. Problem is ILP infeasible. Could not find an integer point. Done. Added 1259 cuts