```
1.0
          -2.000000x_1
                                 -1.000000x_3
                                                       -1.000000x_5 -1.000000x_6 -3.000000x_7
x_8
          +2.000000x_1 -1.000000x_2 -2.000000x_3 -3.000000x_4 +2.000000x_5
     3.0
                                                                              -3.000000x_7
x_9
     1.0
          x_{10}
x_{11}
     9.0
                      -2.000000x_2 + 3.000000x_3 - 1.000000x_4 + 2.000000x_5 + 2.000000x_6 - 2.000000x_7
          +1.000000x_1 +1.000000x_2 -1.000000x_3 -3.000000x_4 -2.000000x_5
                                                                              +3.000000x_7
     9.0
x_{12}
     4.0
          +3.000000x_1 -3.000000x_2
                                            +1.000000x_4 +1.000000x_5 -2.000000x_6 +3.000000x_7
x_{13}
                                 +3.000000x_3 +3.000000x_4 +2.000000x_5 +2.000000x_6 -3.000000x_7
     8.0
          -1.000000x_1
x_{14}
x_{15}
     14.0
          -2.000000x_1 -3.000000x_2
                                                       +1.000000x_5 -3.000000x_6 +2.000000x_7
          7.0
x_{16}
x_{1\underline{7}}
     12.0
                                           +2.000000x_4 -2.000000x_5 +2.000000x_6 +2.000000x_7
          -3.000000x_1 - 3.000000x_2
 z
     0.0
          +2.000000x_1 -2.000000x_2 +2.000000x_3 -2.000000x_4
                                                                   -2.000000x_6 - 1.000000x_7
```

No initialization required –; Proceed to Optimize.

```
x_8
     1.0
          -2.000000x_1
                                -1.000000x_3
                                                      -1.000000x_5 -1.000000x_6 -3.000000x_7
     3.0
          +2.000000x_1 -1.000000x_2 -2.000000x_3 -3.000000x_4 +2.000000x_5
                                                                             -3.000000x_7
x_9
     1.0
          x_{10}
     9.0
                     -2.000000x_2 + 3.000000x_3 - 1.000000x_4 + 2.000000x_5 + 2.000000x_6 - 2.000000x_7
x_{11}
x_{12}
     9.0
          +1.000000x_1 +1.000000x_2 -1.000000x_3 -3.000000x_4 -2.000000x_5
                                           +1.000000x_4 +1.000000x_5 -2.000000x_6 +3.000000x_7
     4.0
          +3.000000x_1 -3.000000x_2
x_{13}
     8.0
          -1.000000x_1
                                +3.000000x_3 +3.000000x_4 +2.000000x_5 +2.000000x_6 -3.000000x_7
x_{14}
    14.0
          -2.000000x_1 -3.000000x_2
                                                      +1.000000x_5 -3.000000x_6 +2.000000x_7
x_{15}
    7.0
          x_{16}
          -3.000000x_1 -3.000000x_2
                                           +2.000000x_4 -2.0000000x_5 +2.0000000x_6 +2.0000000x_7
    12.0
x_{17}
          +2.000000x_1 -2.000000x_2 +2.000000x_3 -2.000000x_4
     0.0
                                                                 -2.000000x_6 - 1.000000x_7
z
```

 x_1 enters and x_8 leaves

```
0.5
      -0.500000x_8
                   -0.500000x_3
                                -0.500000x_5 - 0.500000x_6 - 1.500000x_7
x_1
   4.0
      x_9
   2.0
      x_{10}
   9.0
            -2.000000x_2 + 3.000000x_3 - 1.000000x_4 + 2.000000x_5 + 2.000000x_6 - 2.000000x_7
x_{11}
   9.5
      x_{12}
   5.5
      x_{13}
   7.5
      +0.500000x_8
                   +3.500000x_3 +3.000000x_4 +2.500000x_5 +2.500000x_6 -1.500000x_7
x_{14}
  13.0
      +1.000000x_8 -3.000000x_2 +1.000000x_3
                                +2.000000x_5 -2.000000x_6 +5.000000x_7
x_{15}
      -1.0000000x_8 + 1.000000x_2 - 3.000000x_3 + 1.000000x_4 - 2.000000x_5 - 2.000000x_6 - 6.000000x_7
   8.0
x_{16}
      x_{17}
      z
   1.0
```

 x_3 enters and x_{10} leaves

```
0.25
   -0.375000x_8 - 0.250000x_2 + 0.125000x_{10} + 0.250000x_4 - 0.250000x_5
                        -1.000000x_7
x_1
x_9
 2.5
   0.5
   x_3
x_{11}
 10.5
   8.75
   x_{12}
 4.75
   -1.125000x_8 -3.750000x_2 +0.375000x_{10} +1.750000x_4 +0.250000x_5 -2.000000x_6
x_{13}
 9.25
   x_{14}
x_{15}
 13.5
   6.5
   x_{16}
 11.25
   x_{17}
 1.5
```

 x_{-1} enters and Final Dictionary Solution: 1.5 Num Pivots: 2