```
11.0
          +2.000000x_1 -2.000000x_2 +2.000000x_3
                                                        +1.000000x_5 +2.000000x_6
x_8
     5.0
          -3.000000x_1 - 1.000000x_2 + 3.000000x_3 - 3.000000x_4
                                                                               -1.000000x_7
x_9
     6.0
          x_{10}
     12.0
                      -1.000000x_2 + 2.000000x_3
                                                        -3.000000x_5
                                                                               -1.000000x_7
x_{11}
    12.0
          -3.000000x_1 + 2.000000x_2
                                            +1.000000x_4 +3.000000x_5 -2.000000x_6
x_{12}
     9.0
          x_{13}
     14.0
          +1.000000x_1 -2.000000x_2 -2.000000x_3
                                                        +2.000000x_5 +1.000000x_6 +3.000000x_7
x_{14}
     7.0
          +2.0000000x_1 + 1.000000x_2 + 1.000000x_3 + 3.000000x_4 + 1.000000x_5 + 1.000000x_6 - 1.000000x_7
x_{15}
                                                                   -3.000000x_6 -1.000000x_7
     7.0
                                 +1.000000x_3 +2.000000x_4
x_{16}
x_{1\underline{7}}
     5.0
          +3.000000x_1 - 1.000000x_2 - 2.000000x_3 - 1.000000x_4 + 1.000000x_5
                                                                              +1.000000x_7
     0.0
          -2.000000x_1 + 2.000000x_2 - 2.000000x_3 - 2.000000x_4 - 1.000000x_5 - 1.000000x_6
```

No initialization required –; Proceed to Optimize.

```
+2.000000x_1 -2.000000x_2 +2.000000x_3
x_8
    11.0
                                               +1.000000x_5 +2.000000x_6
    5.0
        -3.000000x_1 - 1.000000x_2 + 3.000000x_3 - 3.000000x_4
                                                                   -1.000000x_7
x_9
    6.0
        x_{10}
    12.0
                  -1.000000x_2 + 2.000000x_3
                                                -3.000000x_5
x_{11}
x_{12}
    12.0
        -3.000000x_1 + 2.000000x_2
                                     +1.000000x_4 +3.000000x_5 -2.000000x_6
        9.0
x_{13}
                                               +2.000000x_5 +1.000000x_6 +3.000000x_7
x_{14}
    14.0
        +1.000000x_1 -2.000000x_2 -2.000000x_3
    7.0
        x_{15}
    7.0
                            +1.000000x_3 +2.000000x_4
                                                         -3.000000x_6 - 1.000000x_7
x_{16}
    5.0
        +3.000000x_1 - 1.000000x_2 - 2.000000x_3 - 1.000000x_4 + 1.000000x_5
                                                                   +1.000000x_7
x_{17}
        -2.000000x_1 + 2.000000x_2 - 2.000000x_3 - 2.000000x_4 - 1.000000x_5 - 1.000000x_6
    0.0
z
```

 x_2 enters and x_9 leaves

```
1.0
       x_8
    5.0
       -3.000000x_1 - 1.000000x_9 + 3.000000x_3 - 3.000000x_4
                                                            -1.000000x_7
x_2
   16.0
       -4.000000x_1 - 2.000000x_9 + 3.000000x_3 - 7.000000x_4 + 1.000000x_5 - 2.000000x_6
x_{10}
    7.0
       +3.000000x_1 +1.000000x_9 -1.0000000x_3 +3.0000000x_4 -3.0000000x_5
x_{11}
   22.0
       x_{12}
   4.0
                                 +2.000000x_4 -2.000000x_5 +2.000000x_6 +2.000000x_7
x_{13}
       +4.000000x_1 +1.000000x_9
    4.0
       x_{14}
   12.0
                                          +1.000000x_5 +1.000000x_6 -2.000000x_7
       -1.000000x_1 - 1.000000x_9 + 4.000000x_3
x_{15}
                         +1.000000x_3 +2.000000x_4
   7.0
                                                   -3.000000x_6 - 1.000000x_7
x_{16}
       +6.000000x_1 + 1.000000x_9 - 5.000000x_3 + 2.000000x_4 + 1.000000x_5
x_{17}
                                                            +2.000000x_7
       10.0
```

 x_3 enters and x_{17} leaves

```
1.0
x_8
  5.0
    +0.600000x_1 -0.400000x_9 -0.600000x_{17} -1.800000x_4 +0.600000x_5
x_2
                                    +0.200000x_7
  16.0
    x_{10}
x_{11}
  7.0
    +1.800000x_1 +0.800000x_9 +0.200000x_{17} +2.600000x_4 -3.200000x_5
  22.0
    x_{12}
  4.0
    +4.000000x_1 +1.000000x_9
                    +2.000000x_4 -2.0000000x_5 +2.0000000x_6 +2.0000000x_7
x_{13}
  4.0
    x_{14}
x_{15}
  12.0
    7.0
    x_{16}
  0.0
    +1.200000x_1 +0.200000x_9 -0.200000x_{17} +0.400000x_4 +0.200000x_5
x_3
    10.0
```

 x_{-1} enters and Final Dictionary Solution: 10.0 Num Pivots: 2