

|          |      |                                                                                                    |
|----------|------|----------------------------------------------------------------------------------------------------|
| $x_8$    | 14.0 | $-1.000000x_1 - 1.000000x_2 - 3.000000x_3 - 2.000000x_4 + 3.000000x_5 + 2.000000x_6 + 1.000000x_7$ |
| $x_9$    | 4.0  | $-2.000000x_1 + 3.000000x_2 - 3.000000x_3 - 3.000000x_4 - 2.000000x_5 + 2.000000x_6 - 3.000000x_7$ |
| $x_{10}$ | 4.0  | $+3.000000x_1 + 3.000000x_2 + 3.000000x_3 - 3.000000x_5 - 2.000000x_6$                             |
| $x_{11}$ | 15.0 | $-2.000000x_3 + 1.000000x_4 - 3.000000x_5 + 2.000000x_6 - 3.000000x_7$                             |
| $x_{12}$ | 4.0  | $-2.000000x_1 + 3.000000x_2 - 3.000000x_3 - 1.000000x_4 + 2.000000x_5 + 1.000000x_7$               |
| $x_{13}$ | 8.0  | $+2.000000x_1 + 1.000000x_2 - 1.000000x_3 - 3.000000x_4 + 1.000000x_5 - 3.000000x_6 - 2.000000x_7$ |
| $x_{14}$ | 4.0  | $-3.000000x_1 - 1.000000x_2 + 3.000000x_4 - 1.000000x_5 - 1.000000x_6 - 1.000000x_7$               |
| $x_{15}$ | 1.0  | $+2.000000x_1 - 2.000000x_2 + 1.000000x_3 - 3.000000x_4 + 2.000000x_5 + 2.000000x_7$               |
| $x_{16}$ | 13.0 | $-1.000000x_1 - 1.000000x_2 - 1.000000x_4 - 2.000000x_5 - 3.000000x_6 - 3.000000x_7$               |
| $x_{17}$ | 3.0  | $+2.000000x_2 - 2.000000x_4 + 3.000000x_5 + 3.000000x_6 + 2.000000x_7$                             |
| $z$      | 0.0  | $-1.000000x_1 - 2.000000x_2 - 1.000000x_3 - 2.000000x_6 + 1.000000x_7$                             |

No initialization required - Proceed to Optimize.

|          |      |                                                                                                    |
|----------|------|----------------------------------------------------------------------------------------------------|
| $x_8$    | 14.0 | $-1.000000x_1 - 1.000000x_2 - 3.000000x_3 - 2.000000x_4 + 3.000000x_5 + 2.000000x_6 + 1.000000x_7$ |
| $x_9$    | 4.0  | $-2.000000x_1 + 3.000000x_2 - 3.000000x_3 - 3.000000x_4 - 2.000000x_5 + 2.000000x_6 - 3.000000x_7$ |
| $x_{10}$ | 4.0  | $+3.000000x_1 + 3.000000x_2 + 3.000000x_3 - 3.000000x_5 - 2.000000x_6$                             |
| $x_{11}$ | 15.0 | $-2.000000x_3 + 1.000000x_4 - 3.000000x_5 + 2.000000x_6 - 3.000000x_7$                             |
| $x_{12}$ | 4.0  | $-2.000000x_1 + 3.000000x_2 - 3.000000x_3 - 1.000000x_4 + 2.000000x_5 + 1.000000x_7$               |
| $x_{13}$ | 8.0  | $+2.000000x_1 + 1.000000x_2 - 1.000000x_3 - 3.000000x_4 + 1.000000x_5 - 3.000000x_6 - 2.000000x_7$ |
| $x_{14}$ | 4.0  | $-3.000000x_1 - 1.000000x_2 + 3.000000x_4 - 1.000000x_5 - 1.000000x_6 - 1.000000x_7$               |
| $x_{15}$ | 1.0  | $+2.000000x_1 - 2.000000x_2 + 1.000000x_3 - 3.000000x_4 + 2.000000x_5 + 2.000000x_7$               |
| $x_{16}$ | 13.0 | $-1.000000x_1 - 1.000000x_2 - 1.000000x_4 - 2.000000x_5 - 3.000000x_6 - 3.000000x_7$               |
| $x_{17}$ | 3.0  | $+2.000000x_2 - 2.000000x_4 + 3.000000x_5 + 3.000000x_6 + 2.000000x_7$                             |
| $z$      | 0.0  | $-1.000000x_1 - 2.000000x_2 - 1.000000x_3 - 2.000000x_6 + 1.000000x_7$                             |

$x_7$  enters and  $x_9$  leaves

|          |               |                                                                                                    |
|----------|---------------|----------------------------------------------------------------------------------------------------|
| $x_8$    | 15.3333333333 | $-1.666667x_1 - 4.000000x_3 - 3.000000x_4 + 2.333333x_5 + 2.666667x_6 - 0.333333x_9$               |
| $x_7$    | 1.3333333333  | $-0.666667x_1 + 1.000000x_2 - 1.000000x_3 - 1.000000x_4 - 0.666667x_5 + 0.666667x_6 - 0.333333x_9$ |
| $x_{10}$ | 4.0           | $+3.000000x_1 + 3.000000x_2 + 3.000000x_3 - 3.000000x_5 - 2.000000x_6$                             |
| $x_{11}$ | 11.0          | $+2.000000x_1 - 3.000000x_2 + 1.000000x_3 + 4.000000x_4 - 1.000000x_5 + 1.000000x_9$               |
| $x_{12}$ | 5.3333333333  | $-2.666667x_1 + 4.000000x_2 - 4.000000x_3 - 2.000000x_4 + 1.333333x_5 + 0.666667x_6 - 0.333333x_9$ |
| $x_{13}$ | 5.3333333333  | $+3.333333x_1 - 1.000000x_2 + 1.000000x_3 - 1.000000x_4 + 2.333333x_5 - 4.333333x_6 + 0.666667x_9$ |
| $x_{14}$ | 2.6666666667  | $-2.333333x_1 - 2.000000x_2 + 1.000000x_3 + 4.000000x_4 - 0.333333x_5 - 1.666667x_6 + 0.333333x_9$ |
| $x_{15}$ | 3.6666666667  | $+0.666667x_1 - 1.000000x_3 - 5.000000x_4 + 0.666667x_5 + 1.333333x_6 - 0.666667x_9$               |
| $x_{16}$ | 9.0           | $+1.000000x_1 - 4.000000x_2 + 3.000000x_3 + 2.000000x_4 - 5.000000x_6 + 1.000000x_9$               |
| $x_{17}$ | 5.6666666667  | $-1.333333x_1 + 4.000000x_2 - 2.000000x_3 - 4.000000x_4 + 1.666667x_5 + 4.333333x_6 - 0.666667x_9$ |
| $z$      | 1.3333333333  | $-1.666667x_1 - 1.000000x_2 - 2.000000x_3 - 1.000000x_4 - 0.666667x_5 - 1.333333x_6 - 0.333333x_9$ |

$x_{-1}$  enters and Final Dictionary Solution: 1.3333333333 Num Pivots: 1