**TABLE XI.** IMPLEMENTATION OF THE ORIGINAL R TABLEAU IN PHASE I.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Basic** | **x1** | **x2** | **x3** | **x4** | **x5** | **x6** | **x7** | **x8** | **x9** | **x10** | **x11** | **x12** | **R1** | **Solution** |
| **r** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 |
| **x7** | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5,596,960 |
| **x8** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1,180,320 |
| **x9** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1,111,050 |
| **x10** | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 28,243,280 |
| **x11** | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1584000 |
| **x12** | 0.33 | 0.0625 | 0.02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 79200 |
| **R1** | 1 | 1 | 1 | 1 | 1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5358416 |

**TABLE XI.** PHASE I BASIC FEASIBLE SOLUTION.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Basic** | **x1** | **x2** | **x3** | **x4** | **x5** | **x6** | **x7** | **x8** | **x9** | **x10** | **x11** | **x12** | **R1** | **Solution** |
| **r** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -1.00 | 0.00 |
| **x7** | 0.00 | -0.19 | -0.07 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | -3.00 | 0.00 | 5,359,360 |
| **x8** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1,180,320 |
| **x9** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1,111,050 |
| **x10** | 0.00 | -0.81 | -0.93 | 0.00 | -1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 3.00 | -1.00 | 23,122,464 |
| **x11** | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1,584,000 |
| **x1** | 1.00 | 0.19 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.00 | 0.00 | 237,600 |
| **x4** | 0.00 | 0.81 | 0.93 | 1.00 | 1.00 | -1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -3.00 | 1.00 | 5,120,816 |

**TABLE XII.** IMPLEMENTATION OF THE ORIGINAL PROBLEM IN PHASE II.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Basic** | **x1** | **x2** | **x3** | **x4** | **x5** | **x6** | **x7** | **x8** | **x9** | **x10** | **x11** | **x12** | **Solution** |
| **z** | -94.32 | -114.03 | -48.36 | -117.72 | -34.79 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 |
| **x7** | 0.00 | -0.19 | -0.07 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | -3.00 | 5,359,360 |
| **x8** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1,180,320 |
| **x9** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1,111,050 |
| **x10** | 0.00 | -0.81 | -0.93 | 0.00 | -1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 3.00 | 23,122,464 |
| **x11** | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1,584,000 |
| **x1** | 1.00 | 0.19 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.00 | 237,600 |
| **x4** | 0.00 | 0.81 | 0.93 | 1.00 | 1.00 | -1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -3.00 | 5,120,816 |

**TABLE XIII.** PHASE 11 OPTIMAL SOLUTION.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Basic** | **x1** | **x2** | **x3** | **x4** | **x5** | **x6** | **x7** | **x8** | **x9** | **x10** | **x11** | **x12** | **Solution** |
| **z** | 0.00 | -0.70 | 0.00 | 0.00 | 0.00 | -117.72 | 0.00 | 0.00 | -67.80 | 0.00 | -82.93 | -70.20 | 418,542,581.52 |
| **x7** | 0.00 | -0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.07 | 0.00 | 0.00 | -3.00 | 5,437,133.50 |
| **x8** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1,180,320 |
| **x3** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1,111,050 |
| **x10** | 0.00 | -0.81 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.93 | 1.00 | 1.00 | 3.00 | 25,739,740.50 |
| **x5** | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1,584,000 |
| **x1** | 1.00 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.07 | 0.00 | 0.00 | 3.00 | 159,826.50 |
| **x4** | 0.00 | 0.81 | 0.00 | 1.00 | 0.00 | -1.00 | 0.00 | 0.00 | -0.93 | 0.00 | -1.00 | -3.00 | 2,503,539.50 |