Lampiran 1

Hasil Perhitungan Manual Dengan Excel

Awal Simpleks :

Var	X_1	X_2	X_3	S_1	S_2	S_3	S_4	S_5	NK
Z	-192	-80	-93	0	0	0	0	0	0
S_1	366	178	215	1	0	0	0	0	9990390
S_2	114	114	114	0	1	0	0	0	5000000
S_3	28	28	28	0	0	1	0	0	1250000
S_4	1800	100	50	0	0	0	1	0	18500000
S_5	1	1	1	0	0	0	0	1	43750

Iterasi 1 :

Var	X_1	X_2	X_3	S_1	S_2	S_3	S_4	S_5	NK	Indeks
Z	-192	-80	-93	0	0	0	0	0	0	0
S_1	366	178	215	1	0	0	0	0	9990390	27296,15
S_2	114	114	114	0	1	0	0	0	5000000	43859,65
S_3	28	28	28	0	0	1	0	0	1250000	44642,86
S_4	**1800**	100	50	0	0	0	1	0	18500000	10277,78
S_5	1	1	1	0	0	0	0	1	43750	43750

Iterasi 2 :

Var	X_1	X_2	X_3	S_1	S_2	S_3	S_4	S_5	NK	Indeks
Z	0	$-69,33$	$-87,67$	0	0	0	0,11	0	1973333,33	
S_1	0	157,67	**204,83**	1	0	0	$-0,20$	0	6228723,33	30408,74
S_2	0	107,67	110,83	0	1	0	$-0,06$	0	3828333,33	34541,35
S_3	0	26,44	27,22	0	0	1	$-0,02$	0	962222,22	35346,94
X_1	1	0,06	0,03	0	0	0	0,00	0	10277,78	370000
S_5	0	0,94	0,97	0	0	0	$-0,00$	1	33472,22	34428,57

Iterasi 3 :

Var	X_1	X_2	X_3	S_1	S_2	S_3	S_4	S_5	NK	Indeks
Z	0	−1,85	0	0,43	0	0	0,02	0	4639166,10	
X_2	0	0,77	1	0,00	0	0	−0,00	0	30408,74	39505,64
S_2	0	22,35	0	−0,54	1	0	0,05	0	458031,45	20489,21
S_3	0	5,49	0	−0,13	0	1	0,01	0	134428,78	24483,25
X_1	1	0,03	0	−0,00	0	0	0,00	0	9433,09	276030,20
S_5	0	**0,2**	0	−0,00	0	0	0,00	1	3908,17	19930,05

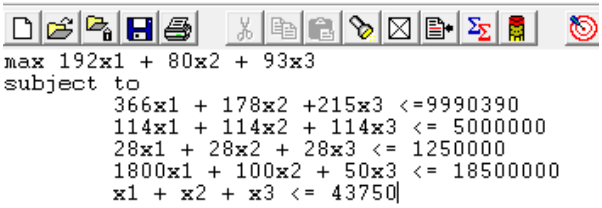
Iterasi 4 :

Var	X_1	X_2	X_3	S_1	S_2	S_3	S_4	S_5	NK	Indeks
Z	0	0	0	0,38	0	0	0,02	9,45	4676107,23	
X_2	0	0	1	0,02	0	0	−0,00	−3,93	15067,96	
S_2	0	0	0	0	1	0	0	−114	12500	
S_3	0	0	0	0	0	1	0	−28	25000	
X_1	1	0	0	0,00	0	0	0,00	−0,17	8751,99	
X_3	0	1	0	−0,02	0	0	0,00	5,01	19930,05	

Lampiran 2

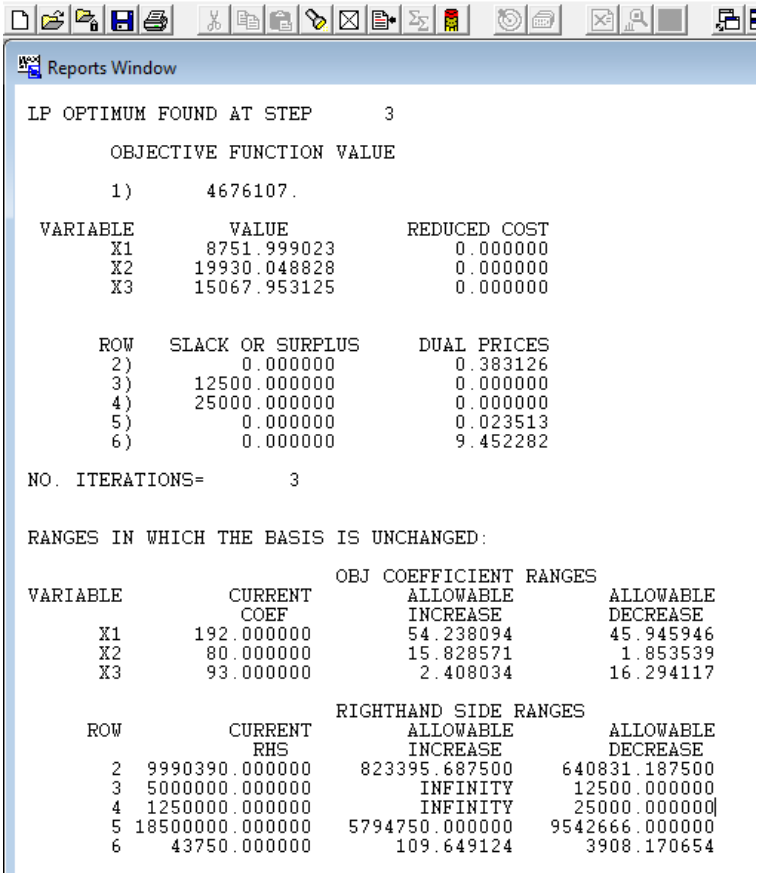
Hasil Perhitungan Menggunakan Aplikasi Lindo

- Input data fungsi tujuan dan fungsi kendalanya



```
max 192x1 + 80x2 + 93x3
subject to
        366x1 + 178x2 +215x3 <=9990390
        114x1 + 114x2 + 114x3 <= 5000000
        28x1 + 28x2 + 28x3 <= 1250000
        1800x1 + 100x2 + 50x3 <= 18500000
        x1 + x2 + x3 <= 43750
```

- Hasil maksimasinya



Reports Window

```
LP OPTIMUM FOUND AT STEP      3

       OBJECTIVE FUNCTION VALUE

       1)      4676107.

 VARIABLE        VALUE          REDUCED COST
       X1      8751.999023          0.000000
       X2     19930.048828          0.000000
       X3     15067.953125          0.000000


      ROW   SLACK OR SURPLUS     DUAL PRICES
       2)         0.000000          0.383126
       3)     12500.000000          0.000000
       4)     25000.000000          0.000000
       5)         0.000000          0.023513
       6)         0.000000          9.452282

NO. ITERATIONS=       3

RANGES IN WHICH THE BASIS IS UNCHANGED:

                         OBJ COEFFICIENT RANGES
VARIABLE         CURRENT        ALLOWABLE        ALLOWABLE
                   COEF          INCREASE        DECREASE
      X1      192.000000        54.238094        45.945946
      X2       80.000000        15.828571         1.853539
      X3       93.000000         2.408034        16.294117

                         RIGHTHAND SIDE RANGES
     ROW         CURRENT        ALLOWABLE        ALLOWABLE
                   RHS          INCREASE        DECREASE
       2  9990390.000000    823395.687500    640831.187500
       3  5000000.000000         INFINITY     12500.000000
       4  1250000.000000         INFINITY     25000.000000
       5 18500000.000000   5794750.000000   9542666.000000
       6    43750.000000       109.649124      3908.170654
```

Lampiran 3

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