

DAFTAR PUSTAKA

- Ansar. 2018. *Implementasi Metode Cutting Plane Dalam Optimasi Jumlah Produksi (Studi Kasus: Pabrik Mie Cap Jempol Makassar)*. Skripsi. Jurusan Matematika FMIPA Universitas Hasanuddin Sumatera Utara: Saintia Matematika.
- Haming, Murdifin. dkk. 2017. *Operation Research: Teknik Pengambilan Keputusan Optimal*. Jakarta: PT Bumi Aksara.
- Mulyono, Sri. 2017. *Riset Operasi*. Jakarta: Mitra Wacana Media.
- Pasaribu, Apiandy Hasian. 2018. *Implementasi Metode Branch and Bound dalam Mengoptimalkan Jumlah Produk Guna Memaksimalkan Keuntungan*. Sumatera Utara: Universitas Sumatera Utara.
- Rangkuti, Aidawayati. 2013. *7 Model Riset Operasi & Aplikasinya*. Surabaya: Brilian Internasional.
- Siang, Jong Jek. 2014. *Riset Operasi dalam Pendekatan Algoritmis*. Yogyakarta: Andi Yogyakarta.
- Wahyudin, Nur. dkk. 2016. *Penggunaan Metode Branch And Bound Dan Gomory Cut Dalam Menentukan Solusi Integer Linear Programming*. Bandung: Jurnal Saintifik.

LAMPIRAN

Solusi perhitungan manual excel metode *Gomory Cut*

➤ **Iterasi 1**

Penambahan *gomory* 1

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	
0	S1	0	0	0	0	1	0	0	-1.56	0	0	0	-2.82	0	0	-3.07	-2.94	0	0	82.06
0	S2	0	0	0	0	0	1	0	-0.18	0	0	0	-0.36	0	0	-0.34	-0.45	0	0	38.24
0	S3	0	0	0	0	0	0	1	0	0	0	0	-0.003	0	0	-0.003	-0	0	0	1309.38
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	0.21	0	0	0	-0.54	0	0	-0.59	-0.46	0	0	913.99
0	S6	0	0	0	0	0	0	0	-0.03	0	0	0	-0.06	0	0	-0.057	-0.04	0	0	1.678
0	S7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-0.66	0	0	0.24
950	X2	0	1	0	0	0	0	0	0.43	0	0	0	-0.14	0	0	-0.21	-0.16	0	0	876.64
0	S9	0	0	0	0	0	0	0	3.42	0	0	0	-2.57	0	0	-1.69	-1.3	0	0	4254.45
0	S10	0	0	0	0	0	0	0	-4.65	0	0	0	0	0	0	-1.08	4.65	0	0	4.65
750	X1	1	0	0	0	0	0	0	-0.36	0	0	0	0.27	0	0	0.17	0.13	0	0	819.46
850	X4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.12	0	0	740.009
0	S13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-0.33	1	0	999.75
0	Sg1	0	0	0	0	0	0	0	0.57	0	0	0	-0.86	0	0	-0.79	-0.84	0	1	-0.64
	Zj	750	950	800	850	0	0	0	141.46	0	0	0	70.504	0	0	58.14	51	0	0	2716416
	Zj-Cj≥0	0	0	0	0	0	0	0	141.46	0	0	0	70.504	0	0	58.14	51	0	0	2716416
	RASIO								248.18				-81.98			-73.59	-60.7			-4244400

Hasil Perhitungan Dual Simpleks

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	
0	S1	0	0	0	0	1	0	0	-3.555	0	0	0	0.19	0	0	-0.305	0	0	-3.5	84.3
0	S2	0	0	0	0	0	1	0	-0.4854	0	0	0	0.1007143	0	0	0.083	0	0	-0.5	38.5828571
0	S3	0	0	0	0	0	0	1	-0.0014	0	0	0	-0.000952	0	0	-0.001	0	0	-0	1309.38152
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	-0.1021	0	0	0	-0.069048	0	0	-0.157	0	0	-0.5	914.340476
0	S6	0	0	0	0	0	0	0	-0.0571	0	0	0	-0.019048	0	0	-0.019	0	0	-0	1.70847619
0	S7	0	0	0	0	0	0	0	-0.4479	0	0	0	0.6757143	0	0	0.621	0	0	-0.8	0.74285714
950	X2	0	1	0	0	0	0	0	0.3214	0	0	0	0.0238095	0	0	-0.06	0	0	-0.2	876.761905
0	S9	0	0	0	0	0	0	0	2.5379	0	0	0	-1.239048	0	0	-0.467	0	0	-1.5	4255.44048
0	S10	0	0	0	0	0	0	0	-1.4946	0	0	0	-4.760714	0	0	-5.453	0	0	5.54	1.10714286
750	X1	1	0	0	0	0	0	0	-0.2718	0	0	0	0.1369048	0	0	0.048	0	0	0.15	819.360952
850	X4	0	0	0	1	0	0	0	0.0814	0	0	0	-0.122857	0	0	-0.113	0	0	0.14	739.917571
0	S13	0	0	0	0	0	0	0	-0.2239	0	0	0	0.3378571	0	0	0.31	0	1	-0.4	1000.00143
0	S12	0	0	0	0	0	0	0	-0.6786	0	0	0	1.0238095	0	0	0.94	1	0	-1.2	0.76190476
	Zj	750	950	800	850	0	0	0	170.73	0	0	0	20.869048	0	0	-116.7	0	0	56.5	2716374.46
	Zj-Cj≥0	0	0	0	0	0	0	0	170.73	0	0	0	20.869048	0	0	-116.7	0	0	56.5	2716374.46

$$\begin{aligned}
 Z &= \{x_1, x_2, x_3, x_4\} \\
 &= \{819,36, 876,76, 800, 739,91\} \\
 &= 2.716.374,46
 \end{aligned}$$

➤ Iterasi 2

Penambahan gomory 2

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	
0	S1	0	0	0	0	1	0	0	-3.55	0	0	0	0.19	0	0	-0.305	0	0	-3.5	0	84.3
0	S2	0	0	0	0	0	1	0	-0.48	0	0	0	0.1	0	0	0.083	0	0	-0.5	0	38.58
0	S3	0	0	0	0	0	0	1	-	0	0	0	-9E-04	0	0	-0.001	0	0	-0	0	1309.38
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	-0.1	0	0	0	-0.069	0	0	-0.157	0	0	-0.5	0	914.34
0	S6	0	0	0	0	0	0	0	-0.057	0	0	0	-0.019	0	0	-0.019	0	0	-0	0	1.7
0	S7	0	0	0	0	0	0	0	-0.44	0	0	0	0.67	0	0	0.62	0	0	-0.8	0	0.74
950	X2	0	1	0	0	0	0	0	0.32	0	0	0	0.023	0	0	-0.059	0	0	-0.2	0	876.76
0	S9	0	0	0	0	0	0	0	2.53	0	0	0	-1.23	0	0	-0.467	0	0	-1.5	0	4255.44
0	S10	0	0	0	0	0	0	0	-1.49	0	0	0	-4.76	0	0	-5.453	0	0	5.54	0	1.107
750	X1	1	0	0	0	0	0	0	-0.27	0	0	0	0.13	0	0	0.047	0	0	0.15	0	819.36
850	X4	0	0	0	1	0	0	0	0.081	0	0	0	-0.12	0	0	-0.112	0	0	0.14	0	739.91
0	S13	0	0	0	0	0	0	0	-0.22	0	0	0	0.33	0	0	0.31	0	1	-0.4	0	1000.0014
0	S12	0	0	0	0	0	0	0	-0.67	0	0	0	1.023	0	0	0.94	1	0	-1.2	0	0.76
0	Sg2	0	0	0	0	0	0	0	0.68	0	0	0	0.977	0	0	0.941	0	0	-0.8	1	-0.76
	Zj	750	950	800	850	0	0	0	170.73	0	0	0	20.86	0	0	11.33	0	0	56.5	0	2716374.5
	Zj-Cj≥0	0	0	0	0	0	0	0	170.73	0	0	0	20.86	0	0	11.33	0	0	56.5	0	2716374.5
	RASIO	0	0	0	0	0	0	0	251.07	0	0	0	21.351	0	0	12.04	0	0	-70	0	-3574177

Hasil Perhitungan Dual Simpleks

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	
0	S1	0	0	0	0	1	0	0	-3.329596	0	0	0	0.506668	0	0	0	0	0	-3.8	0.32412327	84.053666
0	S2	1	0	0	0	0	1	0	-0.539979	0	0	0	0.013825	0	0	0	0	0	-0.5	-0.088204	38.647035
0	S3	0	0	0	0	0	0	1	-0.000577	0	0	0	0.000138	0	0	0	0	0	-0	0.0010627	1309.3792
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	0.0134538	0	0	0	0.094006	0	0	0	0	0	-0.7	0.16684378	914.2132
0	S6	0	0	0	0	0	0	0	-0.043053	0	0	0	0.001038	0	0	0	0	0	-0.1	0.0205101	1.6844123
0	S7	0	0	0	0	0	0	0	-0.888034	0	0	0	0.026281	0	0	0	0	0	-0.3	-0.6588735	1.2407439
950	X2	0	1	0	0	0	0	0	0.3626355	0	0	0	0.084257	0	0	0	0	0	-0.2	0.06269926	876.71235
0	S9	0	0	0	0	0	0	0	2.8674708	0	0	0	-0.745134	0	0	0	0	0	-1.9	0.49628055	4255.0628
0	S10	0	0	0	0	0	0	0	2.4505313	0	0	0	0.901616	0	0	0	0	0	0.84	5.79489904	-3.297123
750	X1	1	0	0	0	0	0	0	-0.303964	0	0	0	0.081202	0	0	0	0	0	0.19	-0.0499469	819.39796
850	X4	0	0	0	1	0	0	0	0.1619352	0	0	0	-0.003715	0	0	0	0	0	0.05	0.11902232	739.81954
0	S13	0	0	0	0	0	0	0	-0.444017	0	0	0	0.00814	0	0	0	0	1	-0.1	-0.3294368	1000.2518
0	S12	0	0	0	0	0	0	0	-1.349277	0	0	0	0.047038	0	0	0	1	0	-0.4	-0.9989373	1.5191923
0	S11	0	0	0	0	0	0	0	0.7226355	0	0	0	1.038257	0	0	1	0	0	-0.9	1.06269926	-0.807651
	Zj	750	950	800	850	0	0	0	254.17572	0	0	0	137.7878	0	0	0	0	0	-44	123.273114	2716271.8
	Zj-Cj≥0	0	0	0	0	0	0	0	254.17572	0	0	0	137.7878	0	0	0	0	0	-44	123.273114	2716271.8

$$\begin{aligned}
 Z &= \{x_1, x_2, x_3, x_4\} \\
 &= \{819,39, 876,71, 800, 739,82\} \\
 &= 2.716.271,8
 \end{aligned}$$

➤ Iterasi 3

Penambahan gomory 3

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	
0	S1	0	0	0	0	1	0	0	-3.33	0	0	0	0.506	0	0	0	0	0	-3.8	0.324	0	84.053
0	S2	0	0	0	0	0	1	0	-0.54	0	0	0	0.0138	0	0	0	0	0	-0.5	-0.088	0	38.64
0	S3	0	0	0	0	0	0	1	-0.00057	0	0	0	0.000138	0	0	0	0	0	-0	0.00106	0	1309.37
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	0.0134	0	0	0	0.094	0	0	0	0	0	-0.7	0.166	0	914.21
0	S6	0	0	0	0	0	0	0	-0.043	0	0	0	0.001	0	0	0	0	0	-0.1	0.02	0	1.68
0	S7	0	0	0	0	0	0	0	-0.88	0	0	0	0.026	0	0	0	0	0	-0.3	-0.658	0	1.24
950	X2	0	1	0	0	0	0	0	0.362	0	0	0	0.084257	0	0	0	0	0	-0.2	0.062	0	876.71
0	S9	0	0	0	0	0	0	0	2.867	0	0	0	-0.745	0	0	0	0	0	-1.9	0.49	0	4255.062
0	S10	0	0	0	0	0	0	0	2.45	0	0	0	0.901	0	0	0	0	0	0.84	5.794	0	-3.29
750	X1	1	0	0	0	0	0	0	-0.303	0	0	0	0.081	0	0	0	0	0	0.19	-0.049	0	819.39
850	X4	0	0	0	1	0	0	0	0.161	0	0	0	-0.0037	0	0	0	0	0	0.05	0.119	0	739.82
0	S13	0	0	0	0	0	0	0	-0.44	0	0	0	0.0081	0	0	0	0	1	-0.1	-0.329	0	1000.25
0	S12	0	0	0	0	0	0	0	-1.34	0	0	0	0.047	0	0	0	1	0	-0.4	-0.998	0	1.519
0	S11	0	0	0	0	0	0	0	0.722	0	0	0	1.038	0	0	1	0	0	-0.9	1.062	0	-0.8
0	Sg3	0	0	0	0	0	0	0	0.84	0	0	0	-0.9963	0	0	0	0	0	0.96	0.881	1	-0.82
	Zj	750	950	800	850	0	0	0	254.175	0	0	0	137.787	0	0	0	0	0	-44	123.273	0	2716271.8
	Zj-Cj≥0	0	0	0	0	0	0	0	254.175	0	0	0	137.787	0	0	0	0	0	-44	123.273	0	2716271.8
	RASIO								103.7449				152.9267						-52	21.2759751		-825614.53

Hasil Perhitungan Dual Simpleks

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	
0	S1	0	0	0	0	1	0	0	-3.467004	0	0	0	0.45561615	0	0	0	0	0	-3.8	0	0	84.236977
0	S2	0	0	0	0	0	1	0	-0.502789	0	0	0	0.0274845	0	0	0	0	0	-0.5	0	0	38.590031
0	S3	0	0	0	0	0	0	1	-0.001018	0	0	0	-2.6579E-05	0	0	0	0	0	-0	0	0	1309.3706
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	-0.056793	0	0	0	0.06818605	0	0	0	0	0	-0.7	0	0	914.30426
0	S6	0	0	0	0	0	0	0	-0.051457	0	0	0	-0.00211011	0	0	0	0	0	-0.1	0	0	1.6913566
0	S7	0	0	0	0	0	0	0	-0.601764	0	0	0	0.12832275	0	0	0	0	0	-0.2	0	0	0.8663687
950	X2	0	1	0	0	0	0	0	0.3357832	0	0	0	0.07461582	0	0	0	0	0	-0.2	0	0	876.74521
0	S9	0	0	0	0	0	0	0	2.6598029	0	0	0	-0.82119779	0	0	0	0	0	-2	0	0	4255.3402
0	Sg2	0	0	0	0	0	0	0	0.4228512	0	0	0	0.1555057	0	0	0	0	0	0.15	1	0	-0.5678288
750	X1	1	0	0	0	0	0	0	-0.28228	0	0	0	0.08861978	0	0	0	0	0	0.2	0	0	819.36218
850	X4	0	0	0	1	0	0	0	0.1106807	0	0	0	-0.02220518	0	0	0	0	0	0.03	0	0	739.88757
0	S13	0	0	0	0	0	0	0	-0.300882	0	0	0	0.05926137	0	0	0	0	1	-0.1	0	0	1000.0632
0	S12	0	0	0	0	0	0	0	-0.917994	0	0	0	0.20219468	0	0	0	1	0	-0.2	0	0	0.9523069
0	S11	0	0	0	0	0	0	0	0.272932	0	0	0	0.87285295	0	0	1	0	0	-1	0	0	-0.1969658
0	Sg3	0	0	0	0	0	0	0	0.4674681	0	0	0	-1.13330052	0	0	0	0	0	0.83	0	1	-0.3197428
	Zj	750	950	800	850	0	0	0	201.36244	0	0	0	118.475462	0	0	0	0	0	-62	0	0	2716334.013
	Zj-Cj≥0	0	0	0	0	0	0	0	201.36244	0	0	0	118.475462	0	0	0	0	0	-62	0	0	2716334.013

$$Z = \{x_1, x_2, x_3, x_4\}$$

$$= \{819.36, 876.74, 800, 739.88\}$$

$$= 2.716.334,013$$

➤ Iterasi 4

Penambahan gomory 4

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS		
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4		
0	S1	0	0	0	0	1	0	0	-3.46	0	0	0	0.45	0	0	0	0	0	-3.8	0	0	0	84.23	
0	S2	0	0	0	0	0	1	0	-0.5	0	0	0	0.027	0	0	0	0	0	-0.5	0	0	0	38.59	
0	S3	0	0	0	0	0	0	1	-0.001	0	0	0	-0.000026	0	0	0	0	0	-0	0	0	0	1309.37	
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	
0	S5	0	0	0	0	0	0	0	-0.0567	0	0	0	0.068	0	0	0	0	0	-0.7	0	0	0	914.3	
0	S6	0	0	0	0	0	0	0	-0.051	0	0	0	-0.0021	0	0	0	0	0	-0.1	0	0	0	1.69	
0	S7	0	0	0	0	0	0	0	-0.601	0	0	0	0.128	0	0	0	0	0	-0.2	0	0	0	0.86	
950	X2	0	1	0	0	0	0	0	0.335	0	0	0	0.0746	0	0	0	0	0	-0.2	0	0	0	876.74	
0	S9	0	0	0	0	0	0	0	2.659	0	0	0	-0.821	0	0	0	0	0	-2	0	0	0	4255.34	
0	Sg2	0	0	0	0	0	0	0	0.422	0	0	0	0.155	0	0	0	0	0	0.15	1	0	0	-0.56	
750	X1	1	0	0	0	0	0	0	-0.282	0	0	0	0.088	0	0	0	0	0	0.2	0	0	0	819.36	
850	X4	0	0	0	1	0	0	0	0.11	0	0	0	-0.022	0	0	0	0	0	0.03	0	0	0	739.88	
0	S13	0	0	0	0	0	0	0	-0.3	0	0	0	0.059	0	0	0	0	1	-0.1	0	0	0	1000.06	
0	S12	0	0	0	0	0	0	0	-0.917	0	0	0	0.202	0	0	0	1	0	-0.2	0	0	0	0.95	
0	S11	0	0	0	0	0	0	0	0.272	0	0	0	0.872	0	0	1	0	0	-1	0	0	0	-0.19	
0	Sg3	0	0	0	0	0	0	0	0.467	0	0	0	-1.13	0	0	0	0	0	0.83	0	1	0	-0.319	
0	Sg4	0	0	0	0	0	0	0	0.89	0	0	0	-0.978	0	0	0	0	0	0.97	0	0	1	-0.88	
	Zj	750	950	800	850	0	0	0	201.362	0	0	0	118.475	0	0	0	0	0	-62	0	0	0	2716334.01	
	Zj-Cj≥0	0	0	0	0	0	0	0	201.362	0	0	0	118.475	0	0	0	0	0	-62	0	0	0	2716334.01	
	RASIO								226.24944				-						-64				-	3086743.19

Hasil Perhitungan Dual Simpleks

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS	
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4		
0	S1	0	0	0	0	1	0	0	0.0240802	0	0	0	-3.37857348	0	0	0	0	0	0	0	0	0	3.914696814	80.7850668
0	S2	0	0	0	0	0	1	0	-0.088386	0	0	0	-0.42531244	0	0	0	0	0	0	0	0	0	0.462487153	38.18301131
0	S3	0	0	0	0	0	0	1	0.001927	0	0	0	-0.00324244	0	0	0	0	0	0	0	0	0	0.003288798	1309.367106
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	0.589076	0	0	0	-0.64162795	0	0	0	0	0	0	0	0	0	0.725590956	913.66148
0	S6	0	0	0	0	0	0	0	0.0102847	0	0	0	-0.0694443	0	0	0	0	0	0	0	0	0	0.068859198	1.629403905
0	S7	0	0	0	0	0	0	0	-0.459222	0	0	0	-0.02779651	0	0	0	0	0	0	0	0	0	0.159301131	0.719815005
950	X2	0	1	0	0	0	0	0	0.5618448	0	0	0	-0.17467441	0	0	0	0	0	0	0	0	0	0.254881809	876.515704
0	S9	0	0	0	0	0	0	0	4.5057729	0	0	0	-2.85037513	0	0	0	0	0	0	0	0	0	2.075025694	4253.513977
0	Sg2	0	0	0	0	0	0	0	0.289369	0	0	0	0.30074512	0	0	0	0	0	0	0	1	0	-0.149023638	-0.4288592
750	X1	1	0	0	0	0	0	0	-0.465854	0	0	0	0.29003289	0	0	0	0	0	0	0	0	0	-0.206577595	819.5417883
850	X4	0	0	0	1	0	0	0	0.0853032	0	0	0	0.00513875	0	0	0	0	0	0	0	0	0	-0.027749229	739.9044193
0	S13	0	0	0	0	0	0	0	-0.229568	0	0	0	-0.01839568	0	0	0	0	1	0	0	0	0	0.079136691	999.9903597
0	S12	0	0	0	0	0	0	0	-0.702046	0	0	0	-0.03420761	0	0	0	1	0	0	0	0	0	0.241521069	0.737461459
0	S11	0	0	0	0	0	0	0	1.1995026	0	0	0	-0.14721069	0	0	1	0	0	0	0	0	0	1.042137718	-1.10708119
0	Sg3	0	0	0	0	0	0	0	-0.289454	0	0	0	-0.29875026	0	0	0	0	0	0	0	0	1	-0.849948613	0.428954779
0	Sg1	0	0	0	0	0	0	0	0.9146968	0	0	0	-1.00513875	0	0	0	0	0	1	0	0	0	1.027749229	-0.90441932
	Zj	750	950	800	850	0	0	0	256.86973	0	0	0	55.9519116	0	0	0	0	0	0	0	0	0	63.61767729	2716265.016
	Zj-Cj≥0	0	0	0	0	0	0	0	256.86973	0	0	0	55.9519116	0	0	0	0	0	0	0	0	0	63.61767729	2716265.016

$$Z = \{x_1, x_2, x_3, x_4\}$$

$$= \{819.54, 876.51, 800, 739.90\}$$

$$= 2.716.265,016$$

➤ Iterasi 5

Penambahan gomory 5

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS	
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5		
0	S1	0	0	0	0	1	0	0	0.024	0	0	0	-3.3785	0	0	0	0	0	0	0	0	0	0	80.78	
0	S2	0	0	0	0	0	1	0	-0.088	0	0	0	-0.425	0	0	0	0	0	0	0	0	0	0	38.18	
0	S3	0	0	0	0	0	0	1	0.0019	0	0	0	-0.0032	0	0	0	0	0	0	0	0	0	0	1309.36	
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	
0	S5	0	0	0	0	0	0	0	0.589	0	0	0	-0.641	0	0	0	0	0	0	0	0	0	0	913.66	
0	S6	0	0	0	0	0	0	0	0.0102	0	0	0	-0.069	0	0	0	0	0	0	0	0	0	0	1.629	
0	S7	0	0	0	0	0	0	0	-0.459	0	0	0	-0.027	0	0	0	0	0	0	0	0	0	0	0.71	
950	X2	0	1	0	0	0	0	0	0.561	0	0	0	-0.174	0	0	0	0	0	0	0	0	0	0	876.51	
0	S9	0	0	0	0	0	0	0	4.505	0	0	0	-2.85	0	0	0	0	0	0	0	0	0	0	4253.51	
0	Sg2	0	0	0	0	0	0	0	0.289	0	0	0	0.3007	0	0	0	0	0	0	1	0	0	0	-0.428	
750	X1	1	0	0	0	0	0	0	-0.465	0	0	0	0.29	0	0	0	0	0	0	0	0	0	0	819.54	
850	X4	0	0	0	1	0	0	0	0.085	0	0	0	0.0051	0	0	0	0	0	0	0	0	0	0	739.904	
0	S13	0	0	0	0	0	0	0	-0.229	0	0	0	-0.018	0	0	0	0	1	0	0	0	0	0	999.99	
0	S12	0	0	0	0	0	0	0	-0.702	0	0	0	-0.0342	0	0	0	1	0	0	0	0	0	0	0.737	
0	S11	0	0	0	0	0	0	0	1.199	0	0	0	-0.147	0	0	1	0	0	0	0	0	0	0	-1.107	
0	Sg3	0	0	0	0	0	0	0	-0.289	0	0	0	-0.298	0	0	0	0	0	0	0	1	0	0	0.42	
0	Sg1	0	0	0	0	0	0	0	0.914	0	0	0	-1.005	0	0	0	0	0	1	0	0	0	0	-0.9	
0	Sg5	0	0	0	0	0	0	0	0.915	0	0	0	0.995	0	0	0	0	0	0	0	0	0	1	-0.904	
	Zj	750	950	800	850	0	0	0	256.869	0	0	0	55.951	0	0	0	0	0	0	0	0	0	0	0	2716265.01
	Zj-Cj≥0	0	0	0	0	0	0	0	256.869	0	0	0	55.951	0	0	0	0	0	0	0	0	0	0	0	2716265.01
	RASIO								214.23603				-380.619048												-2453717.3

Hasil Perhitungan Dual Simpleks

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS		
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5			
0	S1	0	0	0	0	1	0	0	-4.479729	0	0	0	-2.82633301	0	0	-3.756	0	0	0	0	0	0	0	0	84.9381555	
0	S2	0	0	0	0	0	1	0	-0.61961	0	0	0	-0.35982342	0	0	-0.443	0	0	0	0	0	0	0	0	38.6708196	
0	S3	0	0	0	0	0	0	1	-0.001782	0	0	0	-0.00274856	0	0	-0.003	0	0	0	0	0	0	0	0	1309.3634	
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	
0	S5	0	0	0	0	0	0	0	-0.245237	0	0	0	-0.53872073	0	0	-0.696	0	0	0	0	0	0	0	0	914.430226	
0	S6	0	0	0	0	0	0	0	-0.068046	0	0	0	-0.05940691	0	0	-0.065	0	0	0	0	0	0	0	0	1.70124184	
0	S7	0	0	0	0	0	0	0	-0.641957	0	0	0	-0.0045691	0	0	-0.153	0	0	0	0	0	0	0	0	0.87891843	
950	X2	0	1	0	0	0	0	0	0.2687294	0	0	0	-0.13816699	0	0	-0.244	0	0	0	0	0	0	0	0	876.779845	
0	S9	0	0	0	0	0	0	0	2.117356	0	0	0	-2.55726967	0	0	-1.991	0	0	0	0	0	0	0	0	4255.71444	
0	Sg2	0	0	0	0	0	0	0	0.4604501	0	0	0	0.27967985	0	0	0.143	0	0	0	1	0	0	0	0	-0.5862946	
750	X1	1	0	0	0	0	0	0	-0.227962	0	0	0	0.26093858	0	0	0.198	0	0	0	0	0	0	0	0	819.32115	
850	X4	0	0	0	1	0	0	0	0.1160681	0	0	0	0.00129098	0	0	0.026	0	0	0	0	0	0	0	0	739.875316	
0	S13	0	0	0	0	0	0	0	-0.319903	0	0	0	-0.00685509	0	0	-0.076	0	1	0	0	0	0	0	0	1000.07393	
0	S12	0	0	0	0	0	0	0	-0.979312	0	0	0	-0.00020096	0	0	-0.231	1	0	0	0	0	0	0	0	0.99303359	
0	Sg4	0	0	0	0	0	0	0	1.1506718	0	0	0	-0.14107486	0	0	0.96	0	0	0	0	0	0	1	0	-1.06238	
0	Sg3	0	0	0	0	0	0	0	0.6879203	0	0	0	-0.41777255	0	0	0.815	0	0	0	0	0	1	0	0	-0.4819607	
0	Sg1	0	0	0	0	0	0	0	-0.26774	0	0	0	-0.86011612	0	0	-0.986	0	0	1	0	0	0	0	0	0.1910643	
0	Sg5	0	0	0	0	0	0	0	2.0346036	0	0	0	0.85773417	0	0	0.934	0	0	0	0	0	0	0	1	-1.9376958	
	Zj	750	950	800	850	0	0	0	182.97961	0	0	0	65.5426296	0	0	-61.28	0	0	0	0	0	0	0	0	0	2716325.73
	Zj-Cj≥0	0	0	0	0	0	0	0	182.97961	0	0	0	65.5426296	0	0	-61.28	0	0	0	0	0	0	0	0	0	2716325.73

$$Z = \{x_1, x_2, x_3, x_4\}$$

$$= \{819.32, 876.78, 800, 739.87\}$$

$$= 2.716.325,73$$

➤ Iterasi 6

Penambahan gomory 6

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS		
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6		
0	S1	0	0	0	0	1	0	0	-4.479	0	0	0	-2.826	0	0	-3.756	0	0	0	0	0	0	0	0	84.93	
0	S2	0	0	0	0	0	1	0	-0.619	0	0	0	-0.359	0	0	-0.443	0	0	0	0	0	0	0	0	38.67	
0	S3	0	0	0	0	0	0	1	-0.0017	0	0	0	-0.0027	0	0	-0.003	0	0	0	0	0	0	0	0	1309.36	
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	
0	S5	0	0	0	0	0	0	0	-0.245	0	0	0	-0.538	0	0	-0.695	0	0	0	0	0	0	0	0	914.43	
0	S6	0	0	0	0	0	0	0	-0.068	0	0	0	-0.059	0	0	-0.065	0	0	0	0	0	0	0	0	1.7	
0	S7	0	0	0	0	0	0	0	-0.641	0	0	0	-0.0045	0	0	-0.152	0	0	0	0	0	0	0	0	0.87	
950	X2	0	1	0	0	0	0	0	0.268	0	0	0	-0.138	0	0	-0.243	0	0	0	0	0	0	0	0	876.78	
0	S9	0	0	0	0	0	0	0	2.117	0	0	0	-2.55	0	0	-1.991	0	0	0	0	0	0	0	0	4255.71	
0	Sg2	0	0	0	0	0	0	0	0.46	0	0	0	0.279	0	0	0.142	0	0	0	1	0	0	0	0	-0.586	
750	X1	1	0	0	0	0	0	0	-0.227	0	0	0	0.26	0	0	0.197	0	0	0	0	0	0	0	0	819.32	
850	X4	0	0	0	1	0	0	0	0.116	0	0	0	0.0012	0	0	0.025	0	0	0	0	0	0	0	0	739.87	
0	S13	0	0	0	0	0	0	0	-0.319	0	0	0	-0.0068	0	0	-0.075	0	1	0	0	0	0	0	0	1000.07	
0	S12	0	0	0	0	0	0	0	-0.979	0	0	0	-0.0002	0	0	-0.231	1	0	0	0	0	0	0	0	0.99	
0	Sg4	0	0	0	0	0	0	0	1.15	0	0	0	-0.141	0	0	0.959	0	0	0	0	0	1	0	0	-1.062	
0	Sg3	0	0	0	0	0	0	0	0.687	0	0	0	-0.417	0	0	0.814	0	0	0	0	1	0	0	0	-0.48	
0	Sg1	0	0	0	0	0	0	0	-0.267	0	0	0	-0.86	0	0	-0.985	0	0	1	0	0	0	0	0	0.19	
0	Sg5	0	0	0	0	0	0	0	2.034	0	0	0	0.857	0	0	0.933	0	0	0	0	0	0	1	0	-1.93	
0	Sg6	0	0	0	0	0	0	0	0.884	0	0	0	0.9988	0	0	0.975	0	0	0	0	0	0	0	1	-0.87	
	Zj	750	950	800	850	0	0	0	182.979	0	0	0	65.542	0	0	-61.28	0	0	0	0	0	0	0	0	0	2716325.73
	Zj-Cj≥0	0	0	0	0	0	0	0	182.979	0	0	0	65.542	0	0	-61.28	0	0	0	0	0	0	0	0	0	2716325.73
	RASIO								89.960177				76.4784131			-65.68										-1407422.658

Hasil Perhitungan Dual Simpleks

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS			
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6				
0	S1	0	0	0	0	1	0	0	3.7093215	0	0	0	0.62404502	0	0	0	0	0	0	0	0	0	0	4.025723473	0	77.1603537		
0	S2	0	0	0	0	0	1	0	0.3467685	0	0	0	0.04791426	0	0	0	0	0	0	0	0	0	0	0.474812433	0	37.753612		
0	S3	0	0	0	0	0	0	1	0.0048402	0	0	0	5.5627E-05	0	0	0	0	0	0	0	0	0	0	0.003215434	0	1309.353794		
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800		
0	S5	0	0	0	0	0	0	0	1.2701447	0	0	0	0.10038692	0	0	0	0	0	0	0	0	0	0	0.744908896	0	912.9923258		
0	S6	0	0	0	0	0	0	0	0.0737042	0	0	0	0.00070525	0	0	0	0	0	0	0	0	0	0	0.069667738	0	1.565541265		
0	S7	0	0	0	0	0	0	0	-0.30963	0	0	0	0.13511844	0	0	0	0	0	0	0	0	0	0	0.162915327	0	0.555573419		
950	X2	0	1	0	0	0	0	0	0.5297556	0	0	0	0.08520579	0	0	0	0	0	0	0	0	0	0	0.260450161	0	876.2773312		
0	S9	0	0	0	0	0	0	0	6.457508	0	0	0	-0.72118221	0	0	0	0	0	0	0	0	0	0	2.13397642	0	4251.591426		
0	Sg2	0	0	0	0	0	0	0	0.1504309	0	0	0	0.14856699	0	0	0	0	0	0	1	0	0	0	-0.15219721	0	-0.29225937		
750	X1	1	0	0	0	0	0	0	-0.656473	0	0	0	0.07904716	0	0	0	0	0	0	0	0	0	0	0	-0.21114684	0	819.7275134	
850	X4	0	0	0	1	0	0	0	0.0614984	0	0	0	-0.02176356	0	0	0	0	0	0	0	0	0	0	0	-0.02679528	0	739.9217149	
0	S13	0	0	0	0	0	0	0	-0.155495	0	0	0	0.06209068	0	0	0	0	1	0	0	0	0	0	0.080385852	0	999.9148553		
0	S12	0	0	0	0	0	0	0	-0.475405	0	0	0	0.21198328	0	0	0	1	0	0	0	0	0	0	0.247588424	0	0.512154341		
0	Sg4	0	0	0	0	0	0	0	-0.940682	0	0	0	-1.0218821	0	0	0	0	0	0	0	0	0	1	0	-1.0278671	0	0.921783494	
0	Sg3	0	0	0	0	0	0	0	-1.087572	0	0	0	-1.16469346	0	0	0	0	0	0	0	0	1	0	0	-0.87245445	0	1.203837085	
0	Sg1	0	0	0	0	0	0	0	1.8803633	0	0	0	0.0447642	0	0	0	0	0	1	0	0	0	0	0	1.055734191	0	-1.84756698	
0	S11	0	0	0	0	0	0	0	2.1800643	0	0	0	0.91854234	0	0	1	0	0	0	0	0	0	0	0	1.071811361	0	-2.06859592	
0	Sg6	0	0	0	0	0	0	0	-1.241563	0	0	0	0.10322122	0	0	0	0	0	0	0	0	0	0	0	0	-1.04501608	1	1.146881029
	Zj	750	950	800	850	0	0	0	63.186977	0	0	0	121.731844	0	0	0	0	0	0	0	0	0	0	0	66.29153269	0	2716192.557	
	Zj-Cj≥0	0	0	0	0	0	0	0	63.186977	0	0	0	121.731844	0	0	0	0	0	0	0	0	0	0	0	66.29153269	0	2716192.557	

$$\begin{aligned}
 Z &= \{x_1, x_2, x_3, x_4\} \\
 &= \{819.72, 876,27, 800, 739,92\} \\
 &= 2.716.192,557
 \end{aligned}$$

➤ Iterasi 7

Penambahan gomory 7

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS	
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6	Sg7	
0	S1	0	0	0	0	1	0	0	3.709	0	0	0	0.624	0	0	0	0	0	0	0	0	0	0	0	0	77.16
0	S2	0	0	0	0	0	1	0	0.346	0	0	0	0.0479	0	0	0	0	0	0	0	0	0	0	0	0	37.75
0	S3	0	0	0	0	0	0	1	0.00484	0	0	0	0.00005	0	0	0	0	0	0	0	0	0	0	0	0	1309.35
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	1.27	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	912.99
0	S6	0	0	0	0	0	0	0	0.073	0	0	0	0.0007	0	0	0	0	0	0	0	0	0	0	0	0	1.56
0	S7	0	0	0	0	0	0	0	-0.309	0	0	0	0.135	0	0	0	0	0	0	0	0	0	0	0	0	0.55
950	X2	0	1	0	0	0	0	0	0.529	0	0	0	0.0852	0	0	0	0	0	0	0	0	0	0	0	0	876.27
0	S9	0	0	0	0	0	0	0	6.457	0	0	0	-0.721	0	0	0	0	0	0	0	0	0	0	0	0	4251.59
0	Sg2	0	0	0	0	0	0	0	0.15	0	0	0	0.148	0	0	0	0	0	0	1	0	0	0	0	0	-0.292
750	X1	1	0	0	0	0	0	0	-0.65	0	0	0	0.079	0	0	0	0	0	0	0	0	0	0	0	0	819.72
850	X4	0	0	0	1	0	0	0	0.061	0	0	0	-0.021	0	0	0	0	0	0	0	0	0	0	0	0	739.92
0	S13	0	0	0	0	0	0	0	-0.155	0	0	0	0.062	0	0	0	0	1	0	0	0	0	0	0	0	999.91
0	S12	0	0	0	0	0	0	0	-0.475	0	0	0	0.211	0	0	0	1	0	0	0	0	0	0	0	0	0.512
0	Sg4	0	0	0	0	0	0	0	-0.94	0	0	0	-1.021	0	0	0	0	0	0	0	0	0	1	0	0	0.921
0	Sg3	0	0	0	0	0	0	0	-1.087	0	0	0	-1.164	0	0	0	0	0	0	0	1	0	0	0	0	1.203
0	Sg1	0	0	0	0	0	0	0	1.88	0	0	0	0.0447	0	0	0	0	0	1	0	0	0	0	0	0	-1.84
0	S11	0	0	0	0	0	0	0	2.18	0	0	0	0.918	0	0	1	0	0	0	0	0	0	0	0	0	-2.06
0	Sg6	0	0	0	0	0	0	0	-1.241	0	0	0	0.1032	0	0	0	0	0	0	0	0	0	0	1	0	1.146
0	Sg7	0	0	0	0	0	0	0	0.939	0	0	0	-0.979	0	0	0	0	0	0	0	0	0	0	0	1	-0.92
	Zj	750	950	800	850	0	0	0	63.186	0	0	0	121.73	0	0	0	0	0	0	0	0	0	0	0	0	2716192.55
	Zj-Cj≥0	0	0	0	0	0	0	0	63.186	0	0	0	121.73	0	0	0	0	0	0	0	0	0	0	0	0	2716192.55
	RASIO								28.984404				132.603486													-1318540.073

Hasil Perhitungan Dual Simpleks

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS	
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6	Sg7	
0	S1	0	0	0	0	1	0	0	0	0	0	0	-0.9378633	0	0	-1.701	0	0	0	0	0	0	0	0	0	80.66483486
0	S2	0	0	0	0	0	1	0	0	0	0	0	-0.09780092	0	0	-0.159	0	0	0	0	0	0	0	0	0	38.07695413
0	S3	0	0	0	0	0	0	1	0	0	0	0	-0.00198813	0	0	-0.002	0	0	0	0	0	0	0	0	0	1309.354574
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	0	0	0	0	-0.43479817	0	0	-0.583	0	0	0	0	0	0	0	0	0	914.1900917
0	S6	0	0	0	0	0	0	0	0	0	0	0	-0.03004037	0	0	-0.033	0	0	0	0	0	0	0	0	0	1.628981651
0	S7	0	0	0	0	0	0	0	0	0	0	0	0.26512018	0	0	0.142	0	0	0	0	0	0	0	0	0	0.258009174
950	X2	0	1	0	0	0	0	0	0	0	0	0	-0.13756239	0	0	-0.243	0	0	0	0	0	0	0	0	0	876.7698807
0	S9	0	0	0	0	0	0	0	0	0	0	0	-3.44004862	0	0	-2.962	0	0	0	0	0	0	0	0	0	4257.691569
0	Sg2	0	0	0	0	0	0	0	0	0	0	0	0.08483486	0	0	-0.069	0	0	0	1	0	0	0	0	0	-0.150256881
750	X1	1	0	0	0	0	0	0	0	0	0	0	0.3527156	0	0	0.298	0	0	0	0	0	0	0	0	0	819.1057798
850	X4	0	0	0	1	0	0	0	0	0	0	0	-0.04668716	0	0	-0.028	0	0	0	0	0	0	0	0	0	739.9776422
0	S13	0	0	0	0	0	0	0	0	0	0	0	0.12727064	0	0	0.071	0	1	0	0	0	0	0	0	0	999.7635321
0	S12	0	0	0	0	0	0	0	0	0	0	0	0.41102294	0	0	0.218	1	0	0	0	0	0	0	0	0	0.063146789
0	Sg4	0	0	0	0	0	0	0	0	0	0	0	-0.62516514	0	0	0.431	0	0	0	0	0	1	0	0	0	0.032743119
0	Sg3	0	0	0	0	0	0	0	0	0	0	0	-0.7062633	0	0	0.499	0	0	0	0	1	0	0	0	0	0.175834862
0	Sg1	0	0	0	0	0	0	0	0	0	0	0	-0.74696972	0	0	-0.862	0	0	1	0	0	0	0	0	0	-0.063486239
0	S4	0	0	0	0	0	0	0	1	0	0	0	0.42110092	0	0	0.459	0	0	0	0	0	0	0	0	0	-0.944954128
0	Sg6	0	0	0	0	0	0	0	0	0	0	0	0.62578624	0	0	0.569	0	0	0	0	0	0	0	1	0	-0.026688073
0	Sg7	0	0	0	0	0	0	0	0	0	0	0	-1.37441376	0	0	-0.431	0	0	0	0	0	0	0	0	1	-0.032688073
	Zj	750	950	800	850	0	0	0	0	0	0	0	94.1683486	0	0	-30.69	0	0	0	0	0	0	0	0	0	2716241.717
	Zj-Cj≥0	0	0	0	0	0	0	0	0	0	0	0	94.1683486	0	0	-30.69	0	0	0	0	0	0	0	0	0	2716241.717

$$Z = \{x_1, x_2, x_3, x_4\}$$

$$= \{819.106, 876,77,800, 739,97\}$$

$$= 2.716.241,717$$

➤ Iterasi 8

Penambahan gomory 8

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS		
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6	Sg7	Sg8	
0	S1	0	0	0	0	1	0	0	0	0	0	0	-0.937	0	0	-1.701	0	0	0	0	0	0	2.202	0	0	0	80.66
0	S2	0	0	0	0	0	1	0	0	0	0	0	-0.097	0	0	-0.158	0	0	0	0	0	0	0.304	0	0	0	38.076
0	S3	0	0	0	0	0	0	1	0	0	0	0	-0.0019	0	0	-0.002	0	0	0	0	0	0	0.0008	0	0	0	1309.35
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	0	0	0	0	-0.434	0	0	-0.582	0	0	0	0	0	0	0.12	0	0	0	914.19
0	S6	0	0	0	0	0	0	0	0	0	0	0	-0.03	0	0	-0.033	0	0	0	0	0	0	0.033	0	0	0	1.628
0	S7	0	0	0	0	0	0	0	0	0	0	0	0.265	0	0	0.141	0	0	0	0	0	0	0.313	0	0	0	0.258
950	X2	0	1	0	0	0	0	0	0	0	0	0	-0.137	0	0	-0.242	0	0	0	0	0	0	0.00011	0	0	0	876.77
0	S9	0	0	0	0	0	0	0	0	0	0	0	-3.44	0	0	-2.961	0	0	0	0	0	0	-1.039	0	0	0	4257.69
0	Sg2	0	0	0	0	0	0	0	0	0	0	0	0.084	0	0	-0.068	0	0	0	1	0	0	-0.22	0	0	0	-0.15
750	X1	1	0	0	0	0	0	0	0	0	0	0	0.352	0	0	0.298	0	0	0	0	0	0	0.108	0	0	0	819.105
850	X4	0	0	0	1	0	0	0	0	0	0	0	-0.046	0	0	-0.027	0	0	0	0	0	0	-0.055	0	0	0	739.97
0	S13	0	0	0	0	0	0	0	0	0	0	0	0.127	0	0	0.071	0	1	0	0	0	0	0.156	0	0	0	999.763
0	S12	0	0	0	0	0	0	0	0	0	0	0	0.411	0	0	0.217	1	0	0	0	0	0	0.48	0	0	0	0.0631
0	Sg4	0	0	0	0	0	0	0	0	0	0	0	-0.625	0	0	0.431	0	0	0	0	0	1	-0.558	0	0	0	0.032
0	Sg3	0	0	0	0	0	0	0	0	0	0	0	-0.706	0	0	0.498	0	0	0	0	1	0	-0.337	0	0	0	0.175
0	Sg1	0	0	0	0	0	0	0	0	0	0	0	-0.746	0	0	-0.862	0	0	1	0	0	0	0.131	0	0	0	-0.063
0	S4	0	0	0	0	0	0	0	1	0	0	0	0.421	0	0	0.458	0	0	0	0	0	0	0.491	0	0	0	-0.944
0	Sg6	0	0	0	0	0	0	0	0	0	0	0	0.625	0	0	0.569	0	0	0	0	0	0	-0.435	1	0	0	-0.026
0	Sg7	0	0	0	0	0	0	0	0	0	0	0	-1.374	0	0	-0.43	0	0	0	0	0	0	-1.435	0	1	0	-0.032
0	Sg8	0	0	0	0	0	0	0	0	0	0	0	-0.046	0	0	-0.027	0	0	0	0	0	0	-0.055	0	0	1	739.97
	Zj	750	950	800	850	0	0	0	0	0	0	0	94.1683486	0	0	-30.69	0	0	0	0	0	0	33.78307339	0	0	0	2716241.717
	Zj-Cj≥0	0	0	0	0	0	0	0	0	0	0	0	94.1683486	0	0	-30.69	0	0	0	0	0	0	66.291	0	0	0	2716241.717
	RASIO												223.677788			-67							68.80463013			0	-2877374.7

Hasil Perhitungan Dual Simpleks

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS	
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6	Sg7	Sg8		
0	S1	0	0	0	0	1	0	0	3.7139738	0	0	0	0.62658297	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77.154
0	S2	0	0	0	0	0	1	0	0.3449782	0	0	0	0.04823581	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37.7503
0	S3	0	0	0	0	0	0	1	0.0043668	0	0	0	-6.1572E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1309.345
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	1.2707424	0	0	0	0.10098253	0	0	0	0	0	0	0	0	0	0	0	0	0	0	912.990
0	S6	0	0	0	0	0	0	0	0.0720524	0	0	0	0.00033406	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.5599
0	S7	0	0	0	0	0	0	0	-0.30786	0	0	0	0.13539083	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5486
950	X2	0	1	0	0	0	0	0	0.5283843	0	0	0	0.08544978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876.271
0	S9	0	0	0	0	0	0	0	6.4650655	0	0	0	-0.71820742	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4251.586
0	Sg2	0	0	0	0	0	0	0	0.1484716	0	0	0	0.14650655	0	0	0	0	0	0	1	0	0	0	0	0	0	0	-0.2901
750	X1	1	0	0	0	0	0	0	-0.650655	0	0	0	0.07807424	0	0	0	0	0	0	0	0	0	0	0	0	0	0	819.719
850	X4	0	0	0	1	0	0	0	0.058952	0	0	0	-0.02118122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	739.914
0	S13	0	0	0	0	0	0	0	-0.155022	0	0	0	0.06173581	0	0	0	0	1	0	0	0	0	0	0	0	0	0	999.909
0	S12	0	0	0	0	0	0	0	-0.473799	0	0	0	0.21153057	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.51036
0	Sg4	0	0	0	0	0	0	0	-0.941048	0	0	0	-1.02118122	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.92034
0	Sg3	0	0	0	0	0	0	0	-1.087336	0	0	0	-1.16376856	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1.2014
0	Sg1	0	0	0	0	0	0	0	1.8820961	0	0	0	0.04636245	0	0	0	0	0	1	0	0	0	0	0	0	0	0	-1.8396
0	S11	0	0	0	0	0	0	0	2.1834061	0	0	0	0.91921397	0	0	1	0	0	0	0	0	0	0	0	0	0	0	-2.0611
0	Sg6	0	0	0	0	0	0	0	-1.242358	0	0	0	0.10196725	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1.1467
0	Sg7	0	0	0	0	0	0	0	0.9388646	0	0	0	-0.97873799	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-0.9182
0	Sg8	0	0	0	0	0	0	0	0.058952	0	0	0	-0.02118122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	739.914
	Zj	750	950	800	850	0	0	0	64.082969	0	0	0	121.72893	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2716174.25
	Zj-Cj≥0	0	0	0	0	0	0	0	64.082969	0	0	0	121.72893	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2716174.256

$$\begin{aligned}
 Z &= \{x_1, x_2, x_3, x_4\} \\
 &= \{819.71, 876,27, 800, 739,91\} \\
 &= 2.716.174,256
 \end{aligned}$$

➤ Iterasi 9

Penambahan gomory 9

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS	
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6	Sg7	Sg8	Sg9	
0	S1	0	0	0	0	1	0	0	3.713	0	0	0	0.6265	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77.154
0	S2	0	0	0	0	0	1	0	0.344	0	0	0	0.0482	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37.75
0	S3	0	0	0	0	0	0	1	0.0043	0	0	0	-0.00006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1309.345
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	1.27	0	0	0	0.1009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	912.99
0	S6	0	0	0	0	0	0	0	0.072	0	0	0	0.0003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.55
0	S7	0	0	0	0	0	0	0	-0.307	0	0	0	0.135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.548
950	X2	0	1	0	0	0	0	0	0.528	0	0	0	0.085	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876.27
0	S9	0	0	0	0	0	0	0	6.465	0	0	0	-0.718	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4251.58
0	Sg2	0	0	0	0	0	0	0	0.148	0	0	0	0.146	0	0	0	0	0	0	1	0	0	0	0	0	0	0	-0.29
750	X1	1	0	0	0	0	0	0	-0.65	0	0	0	0.078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	819.71
850	X4	0	0	0	1	0	0	0	0.058	0	0	0	-0.021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	739.91
0	S13	0	0	0	0	0	0	0	-0.155	0	0	0	0.061	0	0	0	0	1	0	0	0	0	0	0	0	0	0	999.9
0	S12	0	0	0	0	0	0	0	-0.473	0	0	0	0.211	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.51
0	Sg4	0	0	0	0	0	0	0	-0.941	0	0	0	-1.021	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.92
0	Sg3	0	0	0	0	0	0	0	-1.087	0	0	0	-1.163	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1.201
0	Sg1	0	0	0	0	0	0	0	1.882	0	0	0	0.046	0	0	0	0	0	1	0	0	0	0	0	0	0	0	-1.83
0	S11	0	0	0	0	0	0	0	2.183	0	0	0	0.919	0	0	1	0	0	0	0	0	0	0	0	0	0	0	-2.06
0	Sg6	0	0	0	0	0	0	0	-1.242	0	0	0	0.101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.146
0	Sg7	0	0	0	0	0	0	0	0.938	0	0	0	-0.978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-0.91
0	Sg8	0	0	0	0	0	0	0	0.0589	0	0	0	-0.021	0	0	0	0	0	0	0	0	0	0	0	0	1	0	739.91
0	Sg9	0	0	0	0	0	0	0	0.942	0	0	0	-0.97	0	0	0	0	0	0	0	0	0	0	0	0	0	1	-0.91
	Zj	750	950	800	850	0	0	0	64.082	0	0	0	121.728	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2716174.25
	Zj-Cj≥0	0	0	0	0	0	0	0	64.082	0	0	0	121.728	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2716174.25
	RASIO								29.355016				132.457018															-1318531.189

Hasil perhitungan menggunakan dual simpleks

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS	
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6	Sg7	Sg8	Sg9	
0	S1	0	0	0	0	1	0	0	0	0	0	0	-0.93659986	0	0	-1.701	0	0	0	0	0	0	0	0	0	0	0	80.65779295
0	S2	0	0	0	0	0	1	0	0	0	0	0	-0.09661722	0	0	-0.158	0	0	0	0	0	0	0	0	0	0	0	38.0746175
0	S3	0	0	0	0	0	0	1	0	0	0	0	-0.00187022	0	0	-0.002	0	0	0	0	0	0	0	0	0	0	0	1309.349058
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	0	0	0	0	-0.43374498	0	0	-0.582	0	0	0	0	0	0	0	0	0	0	0	914.1884425
0	S6	0	0	0	0	0	0	0	0	0	0	0	-0.03001058	0	0	-0.033	0	0	0	0	0	0	0	0	0	0	0	1.617943197
0	S7	0	0	0	0	0	0	0	0	0	0	0	0.26424095	0	0	0.141	0	0	0	0	0	0	0	0	0	0	0	0.258297755
950	X2	0	1	0	0	0	0	0	0	0	0	0	-0.1372776	0	0	-0.242	0	0	0	0	0	0	0	0	0	0	0	876.7682501
0	S9	0	0	0	0	0	0	0	0	0	0	0	-3.43963765	0	0	-2.962	0	0	0	0	0	0	0	0	0	0	0	4257.680733
0	Sg2	0	0	0	0	0	0	0	0	0	0	0	0.08369492	0	0	-0.068	0	0	0	1	0	0	0	0	0	0	0	-0.150338983
750	X1	1	0	0	0	0	0	0	0	0	0	0	0.3516372	0	0	0.298	0	0	0	0	0	0	0	0	0	0	0	819.0966239
850	X4	0	0	0	1	0	0	0	0	0	0	0	-0.04541686	0	0	-0.027	0	0	0	0	0	0	0	0	0	0	0	739.964732
0	S13	0	0	0	0	0	0	0	0	0	0	0	0.12625195	0	0	0.071	0	1	0	0	0	0	0	0	0	0	0	999.7537334
0	S12	0	0	0	0	0	0	0	0	0	0	0	0.41012368	0	0	0.217	1	0	0	0	0	0	0	0	0	0	0	0.063650939
0	Sg4	0	0	0	0	0	0	0	0	0	0	0	-0.62485754	0	0	0.431	0	0	0	0	0	0	1	0	0	0	0	0.032020156
0	Sg3	0	0	0	0	0	0	0	0	0	0	0	-0.70539441	0	0	0.498	0	0	0	0	1	0	0	0	0	0	0	0.17524645
0	Sg1	0	0	0	0	0	0	0	0	0	0	0	-0.74628493	0	0	-0.862	0	0	1	0	0	0	0	0	0	0	0	-0.054040311
0	S4	0	0	0	0	0	0	0	1	0	0	0	0.4209803	0	0	0.458	0	0	0	0	0	0	0	0	0	0	0	-0.94365552
0	Sg6	0	0	0	0	0	0	0	0	0	0	0	0.62385754	0	0	0.569	0	0	0	0	0	0	0	1	0	0	0	-0.026020156
0	Sg7	0	0	0	0	0	0	0	0	0	0	0	-1.37287952	0	0	-0.43	0	0	0	0	0	0	0	0	1	0	0	-0.024851122
0	Sg8	0	0	0	0	0	0	0	0	0	0	0	-0.04579574	0	0	-0.027	0	0	0	0	0	0	0	0	0	1	0	739.9655813
0	Sg9	0	0	0	0	0	0	0	0	0	0	0	-1.36656344	0	0	-0.432	0	0	0	0	0	0	0	0	0	1	0	-0.0210765
	Zj	750	950	800	850	0	0	0	0	0	0	0	94.7098488	0	0	-29.04	0	0	0	0	0	0	0	0	0	0	0	2716222.328
	Zj-Cj≥0	0	0	0	0	0	0	0	0	0	0	0	94.7098488	0	0	-29.04	0	0	0	0	0	0	0	0	0	0	0	2716222.328

$$Z = \{x_1, x_2, x_3, x_4\}$$

$$= \{819.096, 876,76, 800, 739,96\}$$

$$= 2.716.222,328$$

➤ Iterasi 10

Penambahan gomory 10

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS		
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6	Sg7	Sg8	Sg9	Sg10	
0	S1	0	0	0	0	1	0	0	0	0	0	0	-0.936	0	0	-1.7	0	0	0	0	0	0	2.201	0	0	0	0	0	80.65
0	S2	0	0	0	0	0	1	0	0	0	0	0	-0.096	0	0	-0.157	0	0	0	0	0	0	0.304	0	0	0	0	0	38.074
0	S3	0	0	0	0	0	0	1	0	0	0	0	-0.0018	0	0	-0.002	0	0	0	0	0	0	0.0008	0	0	0	0	0	1309.34
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	0	0	0	0	-0.433	0	0	-0.581	0	0	0	0	0	0	0.119	0	0	0	0	0	914.18
0	S6	0	0	0	0	0	0	0	0	0	0	0	-0.03	0	0	-0.032	0	0	0	0	0	0	0.032	0	0	0	0	0	1.61
0	S7	0	0	0	0	0	0	0	0	0	0	0	0.264	0	0	0.14	0	0	0	0	0	0	0.311	0	0	0	0	0	0.25
950	X2	0	1	0	0	0	0	0	0	0	0	0	-0.137	0	0	-0.242	0	0	0	0	0	0	-0.00028	0	0	0	0	0	876.76
0	S9	0	0	0	0	0	0	0	0	0	0	0	-3.439	0	0	-2.96	0	0	0	0	0	0	-1.039	0	0	0	0	0	4257.68
0	Sg2	0	0	0	0	0	0	0	0	0	0	0	0.083	0	0	-0.067	0	0	0	1	0	0	-0.219	0	0	0	0	0	-0.15
750	X1	1	0	0	0	0	0	0	0	0	0	0	0.351	0	0	0.29	0	0	0	0	0	0	0.108	0	0	0	0	0	819.096
850	X4	0	0	0	1	0	0	0	0	0	0	0	-0.045	0	0	-0.026	0	0	0	0	0	0	-0.054	0	0	0	0	0	739.96
0	S13	0	0	0	0	0	0	0	0	0	0	0	0.126	0	0	0.071	0	1	0	0	0	0	0.155	0	0	0	0	0	999.75
0	S12	0	0	0	0	0	0	0	0	0	0	0	0.41	0	0	0.216	1	0	0	0	0	0	0.479	0	0	0	0	0	0.063
0	Sg4	0	0	0	0	0	0	0	0	0	0	0	-0.624	0	0	0.431	0	0	0	0	0	1	-0.557	0	0	0	0	0	0.032
0	Sg3	0	0	0	0	0	0	0	0	0	0	0	-0.705	0	0	0.497	0	0	0	0	1	0	-0.336	0	0	0	0	0	0.175
0	Sg1	0	0	0	0	0	0	0	0	0	0	0	-0.746	0	0	-0.862	0	0	1	0	0	0	0.13	0	0	0	0	0	-0.054
0	S4	0	0	0	0	0	0	0	1	0	0	0	0.42	0	0	0.458	0	0	0	0	0	0	0.491	0	0	0	0	0	-0.94
0	Sg6	0	0	0	0	0	0	0	0	0	0	0	0.623	0	0	0.568	0	0	0	0	0	0	-0.434	1	0	0	0	0	-0.026
0	Sg7	0	0	0	0	0	0	0	0	0	0	0	-1.372	0	0	-0.429	0	0	0	0	0	0	-1.43	0	1	0	0	0	-0.024
0	Sg8	0	0	0	0	0	0	0	0	0	0	0	-0.045	0	0	-0.027	0	0	0	0	0	0	-0.054	0	0	1	0	0	739.96
0	Sg9	0	0	0	0	0	0	0	0	0	0	0	-1.366	0	0	-0.431	0	0	0	0	0	0	-1.442	0	0	0	1	0	-0.021
	Sg10	0	0	0	0	0	0	0	0	0	0	0	-0.955	0	0	-0.974	0	0	0	0	0	0	-0.95	0	0	0	0	1	-0.96
	Zj	750	950	800	850	0	0	0	0	0	0	0	94.709	0	0	-29.04	0	0	0	0	0	0	34.566	0	0	0	0	0	2716222.32
	Zj-Cj≥0	0	0	0	0	0	0	0	0	0	0	0	94.709	0	0	-29.04	0	0	0	0	0	0	34.566	0	0	0	0	0	2716222.32
	RASIO												-99.1717277			29.82							-36.3852632						-2829398.25

Hasil perhitungan menggunakan dual simpleks

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS	
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6	Sg7	Sg8	Sg9	Sg10	
0	S1	0	0	0	0	1	0	0	0	0	0	0	0.73083778	0	0	0	0	0	0	0	0	0	3.859110883	0	0	0	0	-1.745379877	82.325
0	S2	0	0	0	0	0	1	0	0	0	0	0	0.05793737	0	0	0	0	0	0	0	0	0	0.457131417	0	0	0	0	-0.161190965	38.228
0	S3	0	0	0	0	0	0	1	0	0	0	0	0.00016099	0	0	0	0	0	0	0	0	0	0.002750719	0	0	0	0	-0.002053388	1309.341
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	
0	S5	0	0	0	0	0	0	0	0	0	0	0	0.13666632	0	0	0	0	0	0	0	0	0	0.685683778	0	0	0	0	-0.59650924	914.752
0	S6	0	0	0	0	0	0	0	0	0	0	0	0.00137577	0	0	0	0	0	0	0	0	0	0.063211499	0	0	0	0	-0.032854209	1.6415
0	S7	0	0	0	0	0	0	0	0	0	0	0	0.12673101	0	0	0	0	0	0	0	0	0	0.174449692	0	0	0	0	0.143737166	0.1120
950	X2	0	1	0	0	0	0	0	0	0	0	0	0.10027926	0	0	0	0	0	0	0	0	0	0.235756961	0	0	0	0	-0.248459959	876.998
0	S9	0	0	0	0	0	0	0	0	0	0	0	-0.53674127	0	0	0	0	0	0	0	0	0	1.848063655	0	0	0	0	-3.039014374	4260.597
0	Sg2	0	0	0	0	0	0	0	0	0	0	0	0.14869302	0	0	0	0	0	0	1	0	0	-0.15365092	0	0	0	0	-0.068788501	-0.0839
750	X1	1	0	0	0	0	0	0	0	0	0	0	0.06665708	0	0	0	0	0	0	0	0	0	-0.17485421	0	0	0	0	0.297741273	818.810
850	X4	0	0	0	1	0	0	0	0	0	0	0	-0.01950719	0	0	0	0	0	0	0	0	0	-0.02864066	0	0	0	0	-0.026694045	739.985
0	S13	0	0	0	0	0	0	0	0	0	0	0	0.05638501	0	0	0	0	1	0	0	0	0	0.085749487	0	0	0	0	0.072895277	999.680
0	S12	0	0	0	0	0	0	0	0	0	0	0	0.19821355	0	0	0	1	0	0	0	0	0	0.268322382	0	0	0	0	0.221765914	-0.149
0	Sg4	0	0	0	0	0	0	0	0	0	0	0	-1.0465924	0	0	0	0	0	0	0	0	1	-0.97737988	0	0	0	0	0.442505133	-0.392
0	Sg3	0	0	0	0	0	0	0	0	0	0	0	-1.19230493	0	0	0	0	0	0	0	1	0	-0.82075359	0	0	0	0	0.51026694	-0.3148
0	Sg1	0	0	0	0	0	0	0	0	0	0	0	0.0991848	0	0	0	0	0	1	0	0	0	0.970759754	0	0	0	0	-0.885010267	0.7956
0	S4	0	0	0	0	0	0	0	1	0	0	0	-0.02906571	0	0	0	0	0	0	0	0	0	0.044285421	0	0	0	0	0.470225873	-1.391
0	Sg6	0	0	0	0	0	0	0	0	0	0	0	0.06608008	0	0	0	0	0	0	0	0	0	-0.98800411	1	0	0	0	0.583162218	-0.585
0	Sg7	0	0	0	0	0	0	0	0	0	0	0	-0.95136858	0	0	0	0	0	0	0	0	0	-1.01157084	0	1	0	0	-0.440451745	0.398
0	Sg8	0	0	0	0	0	0	0	0	0	0	0	-0.01852669	0	0	0	0	0	0	0	0	0	-0.0276653	0	0	1	0	-0.027720739	739.986
0	Sg9	0	0	0	0	0	0	0	0	0	0	0	-0.9434076	0	0	0	0	0	0	0	0	0	-1.02162012	0	0	0	1	-0.442505133	0.4038
0	S11	0	0	0	0	0	0	0	0	0	0	0	0.98049281	0	0	1	0	0	0	0	0	0	0.975359343	0	0	0	0	-1.026694045	0.985
	Zj	750	950	800	850	0	0	0	0	0	0	0	128.677002	0	0	0	0	0	0	0	0	0	68.48389733	0	0	0	0	-35.42094456	2716244.004
	Zj-Cj≥0	0	0	0	0	0	0	0	0	0	0	0	128.677002	0	0	0	0	0	0	0	0	0	68.48389733	0	0	0	0	-35.42094456	2716244.004

$$\begin{aligned}
 Z &= \{x_1, x_2, x_3, x_4\} \\
 &= \{818.81, 876.99, 800, 739.98\} \\
 &= 2.716.244,004
 \end{aligned}$$

➤ Iterasi 11

Penambahan gomory 11

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6	Sg7	Sg8	Sg9	Sg10	Sg11		
0	S1	0	0	0	0	1	0	0	0	0	0	0	0.73	0	0	0	0	0	0	0	0	0	3.859	0	0	0	0	0	-1.745	0	82.32
0	S2	0	0	0	0	0	1	0	0	0	0	0	0.057	0	0	0	0	0	0	0	0	0	0.457	0	0	0	0	0	-0.161	0	38.22
0	S3	0	0	0	0	0	0	1	0	0	0	0	0.00016	0	0	0	0	0	0	0	0	0	0.00275	0	0	0	0	0	-0.002	0	1309.34
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	
0	S5	0	0	0	0	0	0	0	0	0	0	0	0.136	0	0	0	0	0	0	0	0	0	0.685	0	0	0	0	0	-0.596	0	914.75
0	S6	0	0	0	0	0	0	0	0	0	0	0	0.0013	0	0	0	0	0	0	0	0	0	0.063	0	0	0	0	0	-0.032	0	1.641
0	S7	0	0	0	0	0	0	0	0	0	0	0	0.126	0	0	0	0	0	0	0	0	0	0.174	0	0	0	0	0	0.143	0	0.112
950	X2	0	1	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0.235	0	0	0	0	0	-0.248	0	876.99
0	S9	0	0	0	0	0	0	0	0	0	0	0	-0.53	0	0	0	0	0	0	0	0	0	1.848	0	0	0	0	0	-3.039	0	4260.59
0	Sg2	0	0	0	0	0	0	0	0	0	0	0	0.148	0	0	0	0	0	1	0	0	0	-0.153	0	0	0	0	0	-0.068	0	-0.083
750	X1	1	0	0	0	0	0	0	0	0	0	0	0.066	0	0	0	0	0	0	0	0	0	-0.174	0	0	0	0	0	0.297	0	818.81
850	X4	0	0	0	1	0	0	0	0	0	0	0	-0.0195	0	0	0	0	0	0	0	0	0	-0.028	0	0	0	0	0	-0.026	0	739.98
0	S13	0	0	0	0	0	0	0	0	0	0	0	0.056	0	0	0	0	1	0	0	0	0	0.085	0	0	0	0	0	0.072	0	999.68
0	S12	0	0	0	0	0	0	0	0	0	0	0	0.198	0	0	0	1	0	0	0	0	0	0.268	0	0	0	0	0	0.221	0	-0.149
0	Sg4	0	0	0	0	0	0	0	0	0	0	0	-1.046	0	0	0	0	0	0	0	1	0	-0.977	0	0	0	0	0	0.442	0	-0.392
0	Sg3	0	0	0	0	0	0	0	0	0	0	0	-1.192	0	0	0	0	0	0	1	0	0	-0.82	0	0	0	0	0	0.51	0	-0.314
0	Sg1	0	0	0	0	0	0	0	0	0	0	0	0.099	0	0	0	0	1	0	0	0	0	0.97	0	0	0	0	0	-0.885	0	0.795
0	S4	0	0	0	0	0	0	0	1	0	0	0	-0.029	0	0	0	0	0	0	0	0	0	0.044	0	0	0	0	0	0.47	0	-1.39
0	Sg6	0	0	0	0	0	0	0	0	0	0	0	0.066	0	0	0	0	0	0	0	0	0	-0.988	1	0	0	0	0	0.583	0	-0.585
0	Sg7	0	0	0	0	0	0	0	0	0	0	0	-0.951	0	0	0	0	0	0	0	0	0	-1.011	0	1	0	0	0	-0.44	0	0.398
0	Sg8	0	0	0	0	0	0	0	0	0	0	0	-0.0185	0	0	0	0	0	0	0	0	0	-0.027	0	0	1	0	0	-0.027	0	739.98
0	Sg9	0	0	0	0	0	0	0	0	0	0	0	-0.943	0	0	0	0	0	0	0	0	0	-1.021	0	0	0	1	0	-0.442	0	0.403
0	S11	0	0	0	0	0	0	0	0	0	0	0	0.98	0	0	1	0	0	0	0	0	0	0.975	0	0	0	0	0	-1.026	0	0.985
0	Sg11	0	0	0	0	0	0	0	0	0	0	0	0.9	0	0	0	0	0	0	0	0	0	0.765	0	0	0	0	0	-0.752	1	-0.99
	Zj	750	950	800	850	0	0	0	0	0	0	0	128.677	0	0	0	0	0	0	0	0	0	68.483	0	0	0	0	0	-35.42	0	2716244.004
	Zj-Cj≥0	0	0	0	0	0	0	0	0	0	0	0	128.677	0	0	0	0	0	0	0	0	0	68.483	0	0	0	0	0	-35.42	0	2716244.004
	RASIO												-4437.13793										1556.431818						-75.36170213		-2743680.812

Hasil perhitungan menggunakan dual simpleks

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS	
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6	Sg7	Sg8	Sg9	Sg10	Sg11	
0	S1	0	0	0	0	1	0	0	3.712766	0	0	0	0.62232979	0	0	0	0	0	0	0	0	0	4.022361702	0	0	0	0	0	0	77.1592
0	S2	0	0	0	0	0	1	0	0.3425532	0	0	0	0.04706596	0	0	0	0	0	0	0	0	0	0.47207234	0	0	0	0	0	0	37.7438
0	S3	0	0	0	0	0	0	1	0.0042553	0	0	0	3.6596E-05	0	0	0	0	0	0	0	0	0	0.002937234	0	0	0	0	0	0	1309.334
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	
0	S5	0	0	0	0	0	0	0	1.2680851	0	0	0	-0.06170213	0	0	0	0	0	0	0	0	0	0.740795745	0	0	0	0	0	0	912.987
0	S6	0	0	0	0	0	0	0	0.0680851	0	0	0	-0.00067447	0	0	0	0	0	0	0	0	0	0.065995745	0	0	0	0	0	0	1.5463
0	S7	0	0	0	0	0	0	0	-0.304255	0	0	0	0.1348234	0	0	0	0	0	0	0	0	0	0.160612766	0	0	0	0	0	0	0.53491
950	X2	0	1	0	0	0	0	0	0.5276596	0	0	0	0.08469787	0	0	0	0	0	0	0	0	0	0.258217021	0	0	0	0	0	0	876
0	S9	0	0	0	0	0	0	0	6.4659574	0	0	0	-0.71751277	0	0	0	0	0	0	0	0	0	2.132502128	0	0	0	0	0	0	4251.6023
0	Sg2	0	0	0	0	0	0	0	0.1446809	0	0	0	0.14659574	0	0	0	0	0	0	1	0	0	-0.14663404	0	0	0	0	0	0	-0.28410
750	X1	1	0	0	0	0	0	0	-0.631915	0	0	0	0.08432553	0	0	0	0	0	0	0	0	0	-0.20180426	0	0	0	0	0	0	819.6883
850	X4	0	0	0	1	0	0	0	0.0553191	0	0	0	-0.02110426	0	0	0	0	0	0	0	0	0	-0.02556596	0	0	0	0	0	0	739.903
0	S13	0	0	0	0	0	0	0	-0.153191	0	0	0	0.06044255	0	0	0	0	1	0	0	0	0	0.078259574	0	0	0	0	0	0	999.8929
0	S12	0	0	0	0	0	0	0	-0.470213	0	0	0	0.21163617	0	0	0	1	0	0	0	0	0	0.247310638	0	0	0	0	0	0	0.50459
0	Sg4	0	0	0	0	0	0	0	-0.940426	0	0	0	-1.01872766	0	0	0	0	0	0	0	0	1	-1.01837872	0	0	0	0	0	0	0.91519
0	Sg3	0	0	0	0	0	0	0	-1.085106	0	0	0	-1.16053191	0	0	0	0	0	0	0	1	0	-0.86774468	0	0	0	0	0	0	1.19429
0	Sg1	0	0	0	0	0	0	0	1.8829787	0	0	0	0.04439362	0	0	0	0	0	1	0	0	0	1.052851064	0	0	0	0	0	0	-1.82234
0	Sg10	0	0	0	0	0	0	0	2.1276596	0	0	0	-0.06170213	0	0	0	0	0	0	0	0	0	0.093617021	0	0	0	0	1	0	-2.9574
0	Sg6	0	0	0	0	0	0	0	-1.240426	0	0	0	0.10197234	0	0	0	0	0	0	0	0	0	-1.04257872	1	0	0	0	0	0	1.13919
0	Sg7	0	0	0	0	0	0	0	0.9361702	0	0	0	-0.97814894	0	0	0	0	0	0	0	0	0	-0.96980851	0	1	0	0	0	0	-0.90327
0	Sg8	0	0	0	0	0	0	0	0.0574468	0	0	0	-0.02016596	0	0	0	0	0	0	0	0	0	-0.02447234	0	0	1	0	0	0	739.9001
0	Sg9	0	0	0	0	0	0	0	0.9404255	0	0	0	-0.97027234	0	0	0	0	0	0	0	0	0	-0.97962128	0	0	0	1	0	0	-0.9041
0	S11	0	0	0	0	0	0	0	2.1829787	0	0	0	0.91669362	0	0	1	0	0	0	0	0	0	1.071051064	0	0	0	0	0	0	-2.04934
0	Sg11	0	0	0	0	0	0	0	1.6	0	0	0	0.8536	0	0	0	0	0	0	0	0	0	0.8354	0	0	0	0	0	1	-3.214
	Zj	750	950	800	850	0	0	0	74.361702	0	0	0	125.768511	0	0	0	0	0	0	0	0	0	72.22191489	0	0	0	0	0	0	2716127.637
	Zj-Cj≥0	0	0	0	0	0	0	0	74.361702	0	0	0	125.768511	0	0	0	0	0	0	0	0	0	72.22191489	0	0	0	0	0	0	2716127.637

$$Z = \{x_1, x_2, x_3, x_4\}$$

$$= \{819.69, 876, 800, 739.90\}, Z = 2.716.127,637$$

➤ Iterasi 12

Penambahan gomory 12

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS		
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6	Sg7	Sg8	Sg9	Sg10	Sg11	Sg12	
0	S1	0	0	0	0	1	0	0	3.7	0	0	0	0.6	0	0	0	0	0	0	0	0	0	4.02	0	0	0	0	0	0	0	77.159
0	S2	0	0	0	0	0	1	0	0.3	0	0	0	0.04	0	0	0	0	0	0	0	0	0	0.47	0	0	0	0	0	0	0	37.744
0	S3	0	0	0	0	0	0	1	0.0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.00293	0	0	0	0	0	0	0	1309.3
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	1.3	0	0	0	-0.01	0	0	0	0	0	0	0	0	0	0.74	0	0	0	0	0	0	0	912.99
0	S6	0	0	0	0	0	0	0	0.1	0	0	0	-0.00067	0	0	0	0	0	0	0	0	0	0.07	0	0	0	0	0	0	0	1.5464
0	S7	0	0	0	0	0	0	0	-0.3	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0.16	0	0	0	0	0	0	0	0.5349
950	X2	0	1	0	0	0	0	0	0.0	0	0	0	0.08	0	0	0	0	0	0	0	0	0	0.26	0	0	0	0	0	0	0	876
0	S9	0	0	0	0	0	0	0	6.4	0	0	0	-0.7175	0	0	0	0	0	0	0	0	0	2.13	0	0	0	0	0	0	0	4251.6
0	Sg2	0	0	0	0	0	0	0	0.1	0	0	0	0.14	0	0	0	0	0	1	0	0	0	-0.15	0	0	0	0	0	0	0	-0.28
750	X1	1	0	0	0	0	0	0	-0.69	0	0	0	0.08	0	0	0	0	0	0	0	0	0	-0.2	0	0	0	0	0	0	0	819.69
850	X4	0	0	0	1	0	0	0	0.1	0	0	0	-0.02	0	0	0	0	0	0	0	0	0	-0.03	0	0	0	0	0	0	0	739.9
0	S13	0	0	0	0	0	0	0	-0.2	0	0	0	0.06	0	0	0	1	0	0	0	0	0	0.08	0	0	0	0	0	0	0	999.89
0	S12	0	0	0	0	0	0	0	-0.5	0	0	0	0.2	0	0	0	1	0	0	0	0	0	0.25	0	0	0	0	0	0	0	0.504
0	Sg4	0	0	0	0	0	0	0	-0.9	0	0	0	-1.02	0	0	0	0	0	0	0	0	1	-1.02	0	0	0	0	0	0	0	0.9152
0	Sg3	0	0	0	0	0	0	0	-1.1	0	0	0	-1.16	0	0	0	0	0	0	1	0	0	-0.87	0	0	0	0	0	0	0	1.1943
0	Sg1	0	0	0	0	0	0	0	1.9	0	0	0	0.044	0	0	0	0	1	0	0	0	0	1.05	0	0	0	0	0	0	0	-1.82
0	Sg10	0	0	0	0	0	0	0	2.1	0	0	0	-0.06	0	0	0	0	0	0	0	0	0	0.09	0	0	0	0	1	0	0	-2.95
0	Sg6	0	0	0	0	0	0	0	-1.2	0	0	0	0.102	0	0	0	0	0	0	0	0	0	-1.04	1	0	0	0	0	0	0	1.139
0	Sg7	0	0	0	0	0	0	0	0.9	0	0	0	-0.98	0	0	0	0	0	0	0	0	0	-0.97	0	1	0	0	0	0	0	-0.903
0	Sg8	0	0	0	0	0	0	0	0.1	0	0	0	-0.02	0	0	0	0	0	0	0	0	0	-0.02	0	0	1	0	0	0	0	739.9001489
0	Sg9	0	0	0	0	0	0	0	0.9	0	0	0	-0.97	0	0	0	0	0	0	0	0	0	-0.98	0	0	0	1	0	0	0	-0.904
0	S11	0	0	0	0	0	0	0	2.2	0	0	0	0.917	0	0	1	0	0	0	0	0	0	1.07	0	0	0	0	0	0	0	-2.04
0	Sg11	0	0	0	0	0	0	0	1.6	0	0	0	0.8	0	0	0	0	0	0	0	0	0	0.84	0	0	0	0	0	1	0	-3.214
0	Sg12	0	0	0	0	0	0	0	0.9	0	0	0	-0.98	0	0	0	0	0	0	0	0	0	-0.97	0	0	0	0	0	0	1	-0.9
	Zj	750	950	800	850	0	0	0	74.3	0	0	0	125.8	0	0	0	0	0	0	0	0	0	72.2	0	0	0	0	0	0	0	2716127.63
	Zj-Cj ≥ 0	0	0	0	0	0	0	0	74.3	0	0	0	125.8	0	0	0	0	0	0	0	0	0	72.2	0	0	0	0	0	0	0	2716127.63
	RASIO								46.4375				157.25										85.95238								-920721.2305

Hasil perhitungan menggunakan dual simpleks

Cj	Basis	750	950	800	850	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RHS		
	Variabel	X1	X2	X3	X4	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	Sg1	Sg2	Sg3	Sg4	Sg5	Sg6	Sg7	Sg8	Sg9	Sg10	Sg11	Sg12	
0	S1	0	0	0	0	1	0	0	0	0	0	0	4.62888889	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-4.11111111	80.859
0	S2	0	0	0	0	0	1	0	0	0	0	0	0.36666667	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-0.33333333	38.044
0	S3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1309.3
800	X3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800
0	S5	0	0	0	0	0	0	0	0	0	0	0	1.40555556	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1.44444444	914.29
0	S6	0	0	0	0	0	0	0	0	0	0	0	0.10821442	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-0.11111111	1.6464
0	S7	0	0	0	0	0	0	0	0	0	0	0	-0.12666667	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.33333333	0.2349
950	X2	0	1	0	0	0	0	0	0.0	0	0	0	0.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	876
0	S9	0	0	0	0	0	0	0	0	0	0	0	6.25137612	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-7.11111111	4258
0	Sg2	0	0	0	0	0	0	0	0	0	0	0	0.24888889	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	-0.11111111	-0.18
750	X1	1	0	0	0	0	0	0	0	0	0	0	-0.67133333	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.76666667	819
850	X4	0	0	0	1	0	0	0	0	0	0	0	0.08888889	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	740
0	S13	0	0	0	0	0	0	0	0	0	0	0	-0.15777778	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.22222222	999.69
0	S12	0	0	0	0	0	0	0	0	0	0	0	-0.34444444	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.55555556	0.004
0	Sg4	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	0	0	0	0	0	1	-1.99	0	0	0	0	0	0	1	0.0152
0	Sg3	0	0	0	0	0	0	0	0	0	0	0	-2.35777778	0	0	0	0	0	0	0	1	0	-2.05555556	0	0	0	0	0	0	1.22222222	0.0943
0	Sg1	0	0	0	0	0	0	0	0	0	0	0	2.11288889	0	0	0	0	0	1	0	0	0	3.09777778	0	0	0	0	0	0	-2.11111111	0.08
0	Sg10	0	0	0	0	0	0	0	0	0	0	0	2.22666667	0	0	0	0	0	0	0	0	0	2.35333333	0	0	0	0	1	0	-2.33333333	0
0	Sg6	0	0	0	0	0	0	0	0	0	0	0	-1.20466667	0	0	0	0	0	0	0	0	0	-2.33333333	1	0	0	0	0	0	1.33333333	-0.061
0	Sg7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	-1	-0.003
0	Sg8	0	0	0	0	0	0	0	0	0	0	0	0.08888889	0	0	0	0	0	0	0	0	0	0.08777778	0	0	1	0	0	0	-0.11111111	740.0001489
0	Sg9	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	-0.01	0	0	0	1	0	0	-1	-0.004
0	S11	0	0	0	0	0	0	0	0	0	0	0	3.31255556	0	0	1	0	0	0	0	0	0	3.44111111	0	0	0	0	0	0	-2.44444444	0.16
0	Sg11	0	0	0	0	0	0	0	0	0	0	0	2.54222222	0	0	0	0	0	0	0	0	0	2.56444444	0	0	0	0	0	1	-1.77777778	-1.614
0	Sg12	0	0	0	0	0	0	0	1	0	0	0	-1.08888889	0	0	0	0	0	0	0	0	0	-1.07777778	0	0	0	0	0	0	1.11111111	-1
	Zj	750	950	800	850	0	0	0	0	0	0	0	-351.944444	0	0	0	0	0	0	0	0	0	-394.638889	0	0	0	0	0	0	575	2715450
	Zj-Cj≥0	0	0	0	0	0	0	0	0	0	0	0	-351.944444	0	0	0	0	0	0	0	0	0	-394.638889	0	0	0	0	0	0	575	2715450

$$Z = \{x_1, x_2, x_3, x_4\}, Z = \{819, 876, 800, 740\}, Z = 2.715.450$$