

LAMPIRAN 1

Tabel 3.7 : Hasil Perkalian Residu Dengan Bobot

Income-Yi	Dngkos-Xi	Bobot(w)	Wi Yi	Wi Xi	Wi Xi Xi
81464	3000	0.000000622	0.0050705702	0.0001867292	0.5601877149
72661	3150	0.000000598	0.0042148374	0.0001827216	0.5755731913
72344	3085	0.000000598	0.004323973	0.0001843893	0.5688408646
90743	5225	0.000000299	0.0027111826	0.0001561104	0.8156770085
98588	5350	0.00000029	0.0028619667	0.0001553082	0.8308986963
96507	6090	0.000000249	0.0023985303	0.0001513574	0.9217666385
126574	8925	0.00000016	0.0020280676	0.0001430033	1.2763046886
114133	9015	0.000000158	0.0018083308	0.0001428343	1.2876508148
115814	8885	0.000000161	0.0018650121	0.0001430797	1.27126313
123181	8950	0.00000016	0.0019675375	0.000142956	1.2794560295
131434	9000	0.000000159	0.0020863274	0.0001428622	1.2857595455
140564	11345	0.000000123	0.0017280985	0.0001394758	1.5823530502
151352	12275	0.000000113	0.0017079787	0.0001385211	1.7003459021
146926	12400	0.000000112	0.0016399376	0.0001384045	1.7162163385
130963	12525	0.00000011	0.0014459837	0.0001382906	1.7320891546
144630	12310	0.000000113	0.0016270954	0.0001384882	1.7047893799
147041	13700	0.0000001	0.001473933	0.0001373282	1.8813969516
179021	15000	0.000000091	0.001628507	0.0001364511	2.0467659354
166200	15175	0.00000009	0.0014932834	0.0001363452	2.0690387248
180732	14995	0.000000091	0.0016446567	0.0001364541	2.0461296067
178187	15050	0.000000091	0.001615174	0.0001364206	2.053129336
185304	15200	0.00000009	0.00166201	0.0001363303	2.0722207526
155931	15150	0.00000009	0.0014034838	0.0001363602	2.0658567467
172579	16800	0.000000081	0.0013916646	0.000135474	2.2759630465
188851	16500	0.000000082	0.0015522537	0.0001356211	2.237748671
192424	17830	0.000000076	0.0014570328	0.0001350086	2.4072033829
203112	19500	0.000000069	0.0013995338	0.0001343638	2.6200949919
192482	19200	0.00000007	0.0013480856	0.000134471	2.5818427666
218715	19000	0.000000071	0.0015487828	0.0001345444	2.5563431542
214317	19350	0.000000069	0.0014887774	0.000134417	2.6009684662
4412774	363980	0.0000005166	0.060592608	0.0043241213	50.623874681

L A M P I R A N 2

Tabel 3.8 : Perbandingan residu kwadrat terkecil biasa dan kwadrat terkecil berbobot

(a)	(b)	(c)	(d)	(e)	(f)
81464	3000	73588.71447	7875.285522	74753.48018	6710.51982
72661	3150	74795.98101	-2134.98101	75941.60657	-3280.60657
72344	3085	74272.83218	-1928.83218	75426.75180	-3082.75180
90743	5225	91496.50139	-753.501390	92377.35496	-1634.35496
98588	5350	92502.55683	6085.443165	93367.46029	5220.53971
96507	6090	98458.40506	-1951.40506	99228.88381	-2721.88381
126574	8925	121275.7425	5298.257452	121684.4725	4889.527415
114133	9015	122000.1024	-7867.10246	122397.3484	-8264.34841
115814	8885	120953.8048	-5139.80480	121367.6388	-5553.63888
123181	8950	121476.9536	1704.046363	121882.4936	1298.50635
131434	9000	121879.3758	9554.624186	122278.5357	9155.46422
140564	11345	140752.9759	-188.975952	140852.9116	-288.911677
151352	12275	148238.0284	3113.971540	148219.2953	3132.704705
146926	12400	149244.0839	-2318.08390	149209.4006	-2283.40062
130963	12525	150250.1393	-19287.1393	150199.5059	-19236.5059
144630	12310	148519.7239	-3889.72398	148496.5247	-3866.52478
147041	13700	159707.0605	-12666.0605	159506.496	-12465.496
179021	15000	170170.0371	8850.96285	169803.5913	9217.40862
166200	15175	171578.5147	-5378.51477	171189.7388	-4989.73883
180732	14995	170129.7949	10602.20506	169763.9871	10968.01283
178187	15050	170572.4593	7614.540672	170199.6335	7987.36649
185304	15200	171779.7258	13524.27413	171387.7599	13916.2401
155931	15150	171377.3036	-15446.3036	170991.7177	-15060.7177
172579	16800	184657.2355	-12078.2355	184061.1080	-11482.1080
188851	16500	182242.7024	6608.297516	181684.8552	7166.14472
192424	17830	192947.1324	-523.132413	192219.5759	204.424062
203112	19500	206388.0331	-3276.03315	205447.3830	-2335.38308
192482	19200	203973.5000	-11491.5000	203071.1303	-10589.1303
218715	19000	202363.8113	16351.18862	201486.9617	17228.03822
214317	19350	205180.7666	9136.233381	204259.2566	10057.74331

Keterangan :

Kolom (a) : y observasi

Kolom (b) : x

Kolom (c) : y hasil perhitungan kwadrat terkecil

Kolom (d) : residu dari kwadrat terkecil

Kolom (e) : y hasil perhitungan kwadrat terkecil berbobot

Kolom (f) : residu dari kwadrat terkecil berbobot

LAMPIRAN 3

TABEL 4.3 : Hasil perhitungan bobot untuk iterasi pertama dari perhitungan dengan Huber

Yi	Xi.B	Ei	Zi=Ei/s	wi
16.68	21.70808579	-5.02808579	-3.08511	0.648274
11.5	10.35351511	1.14638489	0.703394	1
12.03	12.07979471	-0.04979471	-0.03055	1
14.88	9.95564603	4.92435397	3.021465	0.661930
13.75	14.19439837	-0.44439837	-0.27267	1
18.11	18.39957489	-0.28957489	-0.17767	1
8	7.15537669	0.84462331	0.518240	1
17.83	16.67339529	1.15660471	0.709664	1
79.24	71.82029655	7.41970345	4.552551	0.439314
21.5	19.1235889	2.3764111	1.458108	1
40.33	38.09250811	2.23749189	1.372871	1
21	21.5930408	-0.5930408	-0.36387	1
13.5	12.47299128	1.02700872	0.630147	1
19.75	18.68246533	1.06753467	0.655013	1
24	23.32879907	0.67120093	0.411832	1
29	29.66293043	-0.66293043	-0.40675	1
15.35	14.91363987	0.43636013	0.267740	1
19	15.55137855	3.44862145	2.115991	0.945183
9.5	7.70680639	1.79319361	1.100260	1
35.1	40.88797129	-5.78797129	-3.55136	0.563164
17.9	20.51417855	-2.61417855	-1.60399	1
52.32	56.00652857	-3.68652857	-2.26196	0.884186
18.75	23.35756873	-4.60756873	-2.82709	0.707440
19.83	24.40285516	-4.57285516	-2.80579	0.712810
10.75	10.96258413	-0.21258413	-0.13043	1

LAMPIRAN 4

TABEL 4.5 : Hasil perhitungan dengan Huber  $t=2$

(a)	(b)	(c)	(d)
16.68	21.63344007	-4.95344007	0.658007355
11.5	10.90045081	0.59954919	1
12.03	12.53012545	-0.50012545	1
14.88	10.52805817	4.351941825	0.748953026
13.75	14.53649060	-0.78649060	1
18.11	18.50989701	-0.39989701	1
8	7.877687945	0.122312055	1
17.83	16.88022237	0.94977763	1
79.24	69.02057210	10.21942789	0.318941533
21.5	19.18677917	2.31322083	1
40.33	37.13180969	3.198190309	1
21	21.53480881	-0.53480881	1
13.5	12.90466702	0.595332975	1
19.75	18.77364466	0.976355331	1
24	23.17019929	0.829800704	1
29	29.15353775	-0.15353775	1
15.35	15.21552170	0.134478295	1
19	15.82093385	3.179066146	1
9.5	8.401616362	1.098383638	1
35.1	39.77431514	-4.67431514	0.697300011
17.9	20.51626216	-2.61626216	1
52.32	54.07759002	-1.75759002	1
18.75	23.19736054	-4.44736054	0.732884139
19.83	24.18088116	-4.35088116	0.749135606
10.75	11.47870171	-0.72870171	1

KETERANGAN

Kolom (a) : y observasi

Kolom (b) : y hasil perhitungan dengan Huber  $t=2$

Kolom (c) : residu

Kolom (d) : bobot residu

L A M P I R A N 5

TABEL 4.6 : PERBANDINGAN HASIL PERHITUNGAN KWADRAT TERKECIL DAN PERHITUNGAN DENGAN ROBUST

(a)	(b)	(c)	(d)	(e)
16.68	21.63344007	21.70808579	-4.95344007	-5.02808579
11.5	10.90045081	10.35361511	0.59954919	1.14638489
12.03	12.53012545	12.07979471	-0.50012545	-0.04979471
14.88	10.52805817	9.95564603	4.351941825	4.92435397
13.75	14.53649060	14.19439837	-0.78649060	-0.44439837
18.11	18.50989701	18.39957489	-0.39989701	-0.28957489
8	7.877687945	7.15537669	0.122312055	0.84462331
17.83	16.88022237	16.67339529	0.94977763	1.15660471
79.24	69.02057210	71.82029655	10.21942789	7.41970345
21.5	19.18677917	19.1235889	2.31322083	2.3764111
40.33	37.13180969	38.09250811	3.198190309	2.23749189
21	21.53480881	21.5930408	-0.53480881	-0.5930408
13.5	12.90466702	12.47299128	0.595332975	1.02700872
19.75	18.77364466	18.68246533	0.976355331	1.06753467
24	23.17019929	23.32879907	0.829800704	0.67120093
29	29.15353775	29.66293043	-0.15353775	-0.66293043
15.35	15.21552170	14.91363987	0.134478295	0.43636013
19	15.82093385	15.55137855	3.179066146	3.44862145
9.5	8.401616362	7.70680639	1.098383638	1.79319361
35.1	39.77431514	40.88797129	-4.67431514	-5.78797129
17.9	20.51626216	20.51417855	-2.61626216	-2.61417855
52.32	54.07759002	56.00652857	-1.75759002	-3.68652857
18.75	23.19736054	23.35756873	-4.44736054	-4.60756873
19.83	24.18088116	24.40285516	-4.35088116	-4.57285516
10.75	11.47870171	10.96258413	-0.72870171	-0.21258413

KETERANGAN

- Kolom (a) : y observasi
- Kolom (b) : y dari perhitungan robust
- Kolom (c) : y dari kwadrat terkecil
- Kolom (d) : residu hasil perhitungan dengan robust
- Kolom (e) : residu hasil perhitungan kwadrat terkecil

L A M P I R A N 6

TABEL 4.7 : Hasil Perhitungan Dengan Ramsay  $a=0,3$

(a)	(b)	(c)	(d)
16.68	21.46200679	-4.78200679	0.681596689
11.5	11.08950618	0.41049382	1
12.03	12.65655006	-0.62655006	1
14.88	10.74442405	4.135575941	0.788136899
13.75	14.62480446	-0.87480446	1
18.11	18.45850602	-0.34850602	1
8	8.169913551	-0.16991355	1
17.83	16.89146214	0.938537854	1
79.24	67.32695789	11.91304210	0.273599301
21.5	19.08337677	2.416623227	1
40.33	36.48174191	3.848258081	0.846980616
21	21.40616285	-0.40616285	1
13.5	13.02969638	0.470303616	1
19.75	18.69911855	1.050881445	1
24	22.96570398	1.034296014	1
29	28.73209299	0.267907003	1
15.35	15.27773941	0.072260583	1
19	15.87288362	3.127116376	1
9.5	8.686705564	0.813294436	1
35.1	39.03569097	-3.93569097	0.828164614
17.9	20.42676043	-2.52676043	1
52.32	52.90626058	-0.58626058	1
18.75	22.99182138	-4.24182138	0.768396333
19.83	23.92454496	-4.09454496	0.796034732
10.75	11.65853298	-0.90853298	1

KETERANGAN

Kolom (a) : y observasi

Kolom (b) : y hasil perhitungan dengan fungsi kriteria Ramsay

Kolom (c) : residu

Kolom (d) : bobot residu

LAMFIRAN 7

TABEL 4.9 : Residu dan bobot (w) dari perhitungan kwadrat terkecil untuk 24 observasi

i	(a)	(b)	(c)
1	16.68	20.71954567	-4.03954567
2	11.5	11.21442285	0.285577147
3	12.03	12.45411537	-0.42411537
4	14.88	11.26628008	3.613719916
5	13.75	14.98576439	-1.23576439
6	18.11	18.34346834	-0.23346834
7	8	8.579872872	-0.57987287
8	17.83	17.10377582	0.726224173
9	21.5	18.18810003	3.31189997
10	40.33	35.52537090	4.804629096
11	21	21.64992519	-0.64992519
12	13.5	13.07416500	0.425834991
13	19.75	18.20896494	1.541035052
14	24	22.55882966	1.441170333
15	29	27.44548772	1.554512274
16	15.35	15.50230294	-0.15230294
17	19	16.29797568	2.702024311
18	9.5	9.313560989	0.186439011
19	35.1	37.87065929	-2.77065929
20	17.9	20.87511737	-2.97511737
21	52.32	51.76737667	0.552623324
22	18.75	22.57949120	-3.82949120
23	19.83	22.99251867	-3.16251867
24	10.75	11.98943405	-1.23943405

KETERANGAN

Kolom (a): y observasi

Kolom (b): y hasil perhitungan dengan kwadrat terkecil

Kolom (c): residu

LAMPIRAN 8

TABEL DISTRIBUSI KUMULATIF NORMAL STANDARD

z	.00	.01	.02	.03	.04	z
.0	.50000	.50399	.50798	.51197	.51595	.0
.1	.53983	.54379	.54776	.55172	.55567	.1
.2	.57926	.58317	.58706	.59095	.59483	.2
.3	.61791	.62172	.62551	.62930	.63307	.3
.4	.65542	.65910	.66276	.66640	.67003	.4
.5	.69146	.69497	.69847	.70194	.70540	.5
.6	.72575	.72907	.73237	.73565	.73891	.6
.7	.75803	.76115	.76424	.76730	.77035	.7
.8	.78814	.79103	.79389	.79673	.79954	.8
.9	.81594	.81859	.82121	.82381	.82639	.9
1.0	.84134	.84375	.84613	.84849	.85083	1.0
1.1	.86433	.86650	.86864	.87076	.87285	1.1
1.2	.88493	.88686	.88877	.89065	.89251	1.2
1.3	.90320	.90490	.90658	.90824	.90988	1.3
1.4	.91924	.92073	.92219	.92364	.92506	1.4
1.5	.93319	.93448	.93574	.93699	.93822	1.5
1.6	.94520	.94630	.94738	.94845	.94950	1.6
1.7	.95543	.95637	.95728	.95818	.95907	1.7
1.8	.96407	.96485	.96562	.96637	.96711	1.8
1.9	.97128	.97193	.97257	.97320	.97381	1.9
2.0	.97725	.97778	.97831	.97882	.97932	2.0
2.1	.98214	.98257	.98300	.98341	.98382	2.1
2.2	.98610	.98645	.98679	.98713	.98745	2.2
2.3	.98928	.98956	.98983	.99010	.99036	2.3
2.4	.99180	.99202	.99224	.99245	.99266	2.4
2.5	.99379	.99396	.99413	.99430	.99446	2.5
2.6	.99534	.99547	.99560	.99573	.99585	2.6
2.7	.99653	.99664	.99674	.99683	.99693	2.7
2.8	.99744	.99752	.99760	.99767	.99774	2.8
2.9	.99813	.99819	.99825	.99831	.99836	2.9
3.0	.99865	.99869	.99874	.99878	.99882	3.0
3.1	.99903	.99906	.99910	.99913	.99916	3.1
3.2	.99931	.99934	.99936	.99938	.99940	3.2
3.3	.99952	.99953	.99955	.99957	.99958	3.3
3.4	.99966	.99968	.99969	.99970	.99971	3.4
3.5	.99977	.99978	.99978	.99979	.99980	3.5
3.6	.99984	.99985	.99985	.99986	.99986	3.6
3.7	.99989	.99990	.99990	.99990	.99991	3.7
3.8	.99993	.99993	.99993	.99994	.99994	3.8
3.9	.99995	.99995	.99996	.99996	.99996	3.9



LANJUTAN .....

z	.05	.06	.07	.08	.09	z
.0	.51994	.52392	.52790	.53188	.53586	.0
.1	.55962	.56356	.56749	.57142	.57534	.1
.2	.59871	.60257	.60642	.61026	.61409	.2
.3	.63683	.64058	.64431	.64803	.65173	.3
.4	.67364	.67724	.68082	.68438	.68793	.4
.5	.70884	.71226	.71566	.71904	.72240	.5
.6	.74215	.74537	.74857	.75175	.75490	.6
.7	.77337	.77637	.77935	.78230	.78523	.7
.8	.80234	.80510	.80785	.81057	.81327	.8
.9	.82894	.83147	.83397	.83646	.83891	.9
1.0	.85314	.85543	.85769	.85993	.86214	1.0
1.1	.87493	.87697	.87900	.88100	.88297	1.1
1.2	.89435	.89616	.89796	.89973	.90147	1.2
1.3	.91149	.91308	.91465	.91621	.91773	1.3
1.4	.92647	.92783	.92922	.93056	.93189	1.4
1.5	.93943	.94062	.94179	.94295	.94408	1.5
1.6	.95053	.95154	.95254	.95352	.95448	1.6
1.7	.95994	.96080	.96164	.96246	.96327	1.7
1.8	.96784	.96856	.96926	.96995	.97062	1.8
1.9	.97441	.97500	.97558	.97615	.97670	1.9
2.0	.97982	.98030	.98077	.98124	.98169	2.0
2.1	.98422	.98461	.98500	.98537	.98574	2.1
2.2	.98778	.98809	.98840	.98870	.98899	2.2
2.3	.99061	.99086	.99111	.99134	.99158	2.3
2.4	.99286	.99305	.99324	.99343	.99361	2.4
2.5	.99461	.99477	.99492	.99506	.99520	2.5
2.6	.99598	.99609	.99621	.99632	.99643	2.6
2.7	.99702	.99711	.99720	.99728	.99736	2.7
2.8	.99781	.99788	.99795	.99801	.99807	2.8
2.9	.99841	.99846	.99851	.99856	.99861	2.9
3.0	.99886	.99889	.99893	.99897	.99900	3.0
3.1	.99918	.99921	.99924	.99926	.99929	3.1
3.2	.99942	.99944	.99946	.99948	.99950	3.2
3.3	.99960	.99961	.99962	.99964	.99965	3.3
3.4	.99972	.99973	.99974	.99975	.99976	3.4
3.5	.99981	.99981	.99982	.99983	.99983	3.5
3.6	.99987	.99987	.99988	.99988	.99989	3.6
3.7	.99991	.99992	.99992	.99992	.99992	3.7
3.8	.99994	.99994	.99995	.99995	.99995	3.8
3.9	.99996	.99996	.99996	.99997	.99997	3.9

Sumber : Introduction To Linear Regression Analysis

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