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LAMPIRAN

Lampiran 1

Kasus CoViD-19 Setiap Bulan

Mar-20	9
Apr-20	105
Mei-20	404
Jun-20	1498
Jul-20	3626
Agst-20	6207
Sep-20	6767
Okt-20	11353
Nop-20	13930
Des-20	16362
Jan-21	19989
Feb-21	24132
Mar-21	27001
Apr-21	29396
Mei-21	31993
Jun-21	36271
Jul-21	57733
Agst-21	80777
Sep-21	85873
Okt-21	88003
Nop-21	88120
Des-21	88749
Jan-22	89059
Feb-22	112034
Mar-22	144378
Apr-22	146093
Mei-22	146119
Jun-22	146153

Pertambahan Kasus CoViD-19 Dan Meninggal Setiap Bulan

Bulan	Positif	Meninggal
Mar-20	9	1
Apr-20	96	10
Mei-20	299	29
Jun-20	1094	50
Jul-20	2128	101
Agust-20	2581	119
Sep-20	560	7
Okt-20	4526	217
Nop-20	2577	81
Des-20	2432	64
Jan-21	3627	64
Feb-21	4143	94
Mar-21	2869	75
Apr-21	2395	57
Mei-21	2597	83
Jun-21	4278	138
Jul-21	21462	275
Agust-21	23044	670
Sep-21	5096	166
Okt-21	2130	86
Nop-21	117	3
Des-21	629	2
Jan-22	310	3
Feb-22	22975	42
Mar-22	32344	120
Apr-22	1715	23
Mei-22	26	10
Jun-22	34	0

Lampiran 2 Analisis Deskriptif

a. Rata-Rata

1. Jumlah Penduduk

$$\bar{X} = \frac{\sum X_i}{n}$$

$$\bar{X} = \frac{769960 + 410678 + 30874 + \cdots + 172838}{33}$$

$$\bar{X} = 440044.58$$

2. Kepadatan Penduduk

$$\bar{X} = \frac{\sum X_i}{n}$$

$$\bar{X} = \frac{207.97 + 445.32 + 160.16 + \cdots + 5575{,}42}{33}$$

$$\bar{X} = 1065.8042$$

3. Positif CoViD-19

$$\bar{X} = \frac{\sum X_i}{n}$$

$$\bar{X} = \frac{1718 + 931 + 2963 + \cdots + 1573}{33}$$

$$\bar{X} = 4428.88$$

4. Sembuh CoViD-19

$$\bar{X} = \frac{\sum X_i}{n}$$

$$\bar{X} = \frac{1688 + 923 + 2856 + \cdots + 1498}{33}$$

$$\bar{X} = 4339.55$$

5. Meninggal CoViD-19

$$\bar{X} = \frac{\sum X_i}{n}$$

$$\bar{X} = \frac{30 + 8 + 107 + \cdots + 75}{33}$$

$$\bar{X} = 78.24$$

a. Standard Deviasi

1. Jumlah Penduduk

$$S = \sqrt{\frac{\sum|X_i - \bar{X}|^2}{n-1}}$$

$$S = \sqrt{\frac{|769960 - 440044.58|^2 + |410678 - 440044.58|^2 + \cdots + |172838 - 440044.58|^2}{33-1}}$$

$$S = 512984.386$$

2. Kepadatan Penduduk

$$S = \sqrt{\frac{\sum|X_i - \bar{X}|^2}{n-1}}$$

$$S = \sqrt{\frac{|207.97 - 1065.8|^2 + |445{,}32 - 1065.8|^2 + \cdots + |5575{,}42 - 1065.8|^2}{33-1}}$$

$$S = 2080.63188$$

3. Positif CoViD-19

$$S = \sqrt{\frac{\sum|X_i - \bar{X}|^2}{n-1}}$$

$$S = \sqrt{\frac{|1718 - 4428.88|^2 + |931 - 4428.88|^2 + \cdots + |1573 - 4428.88|^2}{33-1}}$$

$$S = 13123.267$$

4. Sembuh CoViD-19

$$S = \sqrt{\frac{\sum|X_i - \bar{X}|^2}{n-1}}$$

$$S = \sqrt{\frac{|1688 - 4339.55|^2 + |932 - 4339.55|^2 + \cdots + |1498 - 4339.55|^2}{33-1}}$$

$$S = 12952.528$$

5. Meninggal CoViD-19

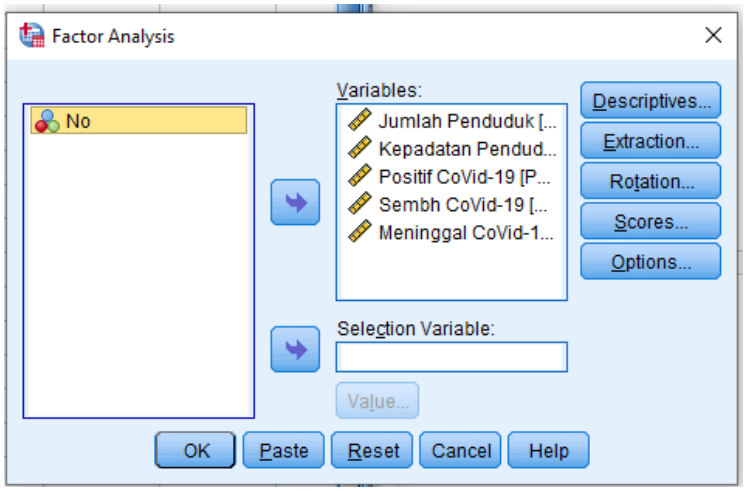
$$S = \sqrt{\frac{\sum |X_i - \bar{X}|^2}{n-1}}$$

$$S = \sqrt{\frac{|30 - 78.24|^2 + |8 - 78.24|^2 + \cdots + |75 - 78.24|^2}{33 - 1}}$$

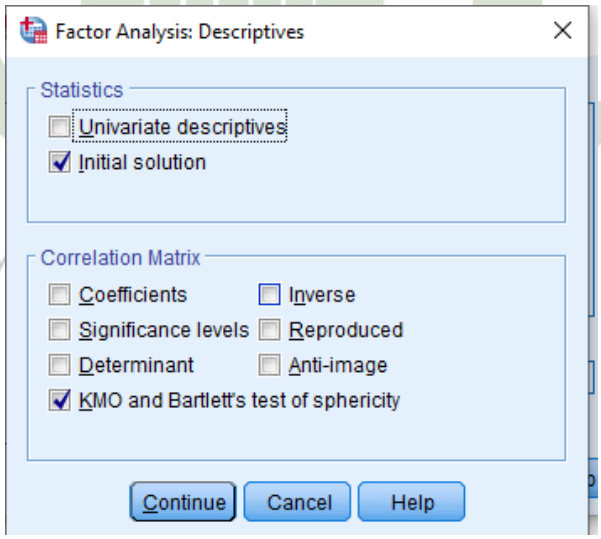
$$S = 179.162$$

Lampiran 3 Menghitung Nilai KMO dengan SPSS

1. Pilih Menu *Analize*, Kemudian *Dimension Reduction*, kemudian *Factor*. Dimenu *Factor Analysis*masukkan variabel *X*1, *X*2, *X*3, *X*4 dan *X*5 ke *Variable.*



2. Pilih *Descriptives* kemudian centang *initial solution* dan *KMO dan Barlett's test of sphericity*, kemudian klik continue



3. Setelah kembali ke menu *Factor Analysis* klik Ok, Maka hasil KMO akan muncul.

$$r_{ij} = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

r_{ij}	X1	X2	X3	X4	X5
X1		0,434	0,704	0,703	0,776
X2	0,434		0,775	0,776	0,698
X3	0,704	0,775		1	0,947
X4	0,703	0,776	1		0,945
X5	0,776	0,698	0,947	0,945	

r_{ij}^2	X1	X2	X3	X4	X5	Total
X1		0,1884	0,4956	0,4942	0,6022	1,7804
X2	0,1884		0,6006	0,6022	0,4872	1,8784
X3	0,4956	0,6006		1,0000	0,8968	2,9931
X4	0,4942	0,6022	1,0000		0,8930	2,9894
X5	0,6022	0,4872	0,8968	0,8930		2,8792
						12,5204

$$a_{ij} = \frac{r_{ij} - r_{kj}r_{ik}}{\sqrt{[1 - r_{kj}][1 - r_{ik}]}}$$

a_{ij}	X1	X2	X3	X4	X5
X1		-0,20148	-0,08452	0,839234	0,410887
X2	-0,20148		-0,14991	0,157623	0,044126
X3	-0,08452	-0,14991		0,999868	0,621008
X4	0,839234	0,157623	0,999868		-0,6106
X5	0,410887	0,044126	0,621008	-0,6106	

a_{ij}^2	X1	X2	X3	X4	X5	Total
X1		0,040596	0,00714431	0,704313217	0,168828	0,920881
X2	0,040596		0,02247392	0,024845016	0,001947	0,089862
X3	0,007144	0,022474		0,99973583	0,385651	1,415005
X4	0,704313	0,024845	0,99973583		0,372835	2,101729
X5	0,168828	0,001947	0,38565109	0,372835036		0,929261
						5,456738

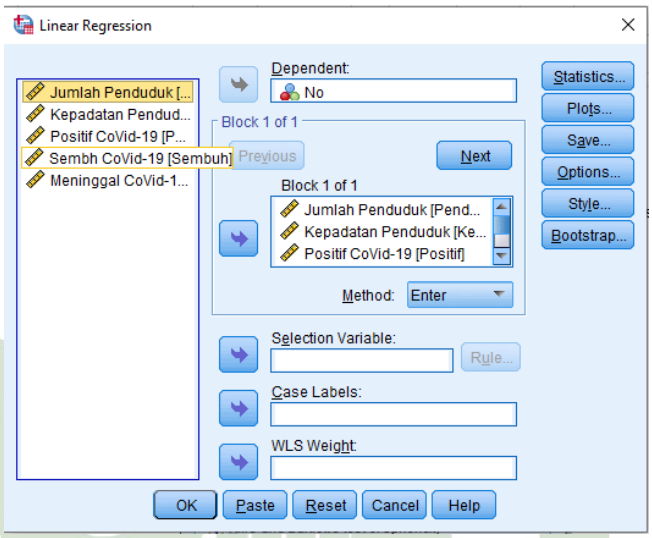
$$KMO = \frac{\sum r_{ij}^2}{\sum\sum r_{ij}^2 + \sum\sum a_{ij}^2}$$

$$KMO = \frac{12{,}5204}{12{,}5204 + 5{,}46738}$$

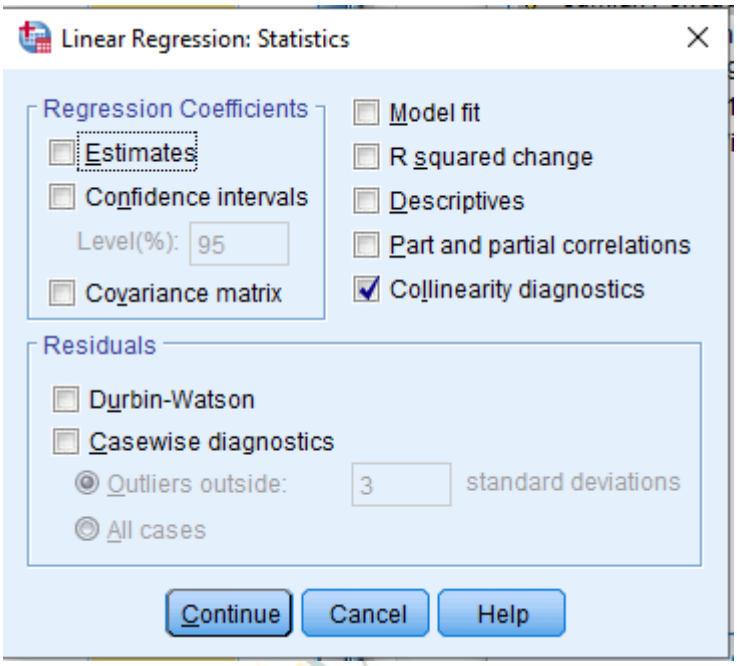
$$KMO = 0{,}696050$$

Uji Multikolinieritas

1. Pilih Menu *Analyze*, Kemudian*Regression, Linier*. Masukkan variabel No ke *dependent* dan masukkan variabel $X1$, $X2$, $X3$, $X4$ dan $X5$ ke *independent*.



2. Pilih *Statistics*kemudian centang *colinierity diagnostics*, kemudian klik continue



3. Setelah kembali ke menu *Linier Regression* klik Ok, Maka hasil VIF akan muncul.

1. Jumlah Penduduk

$$VIF = \frac{1}{1 - R_j^2}$$

$$VIF = \frac{1}{1 - 0{,}824315}$$

$$VIF = 5{,}692$$

$$TOL = \frac{1}{5{,}692}$$

$$TOL = 0{,}176$$

2. Kepadatan Penduduk

$$VIF = \frac{1}{1 - R_j^2}$$

$$VIF = \frac{1}{1 - 0{,}559597}$$

$$VIF = 1{,}7870$$

$$TOL = \frac{1}{1{,}7870}$$

$$TOL = 0{,}559$$

3. Positif CoViD-19

$$VIF = \frac{1}{1 - R_j^2}$$

$$VIF = \frac{1}{1 - 0{,}83408}$$

$$VIF = 6{,}0270$$

$$TOL = \frac{1}{6{,}0270}$$

$$TOL = 0{,}166$$

4. Sembuh CoViD-19

$$VIF = \frac{1}{1 - R_j^2}$$

$$VIF = \frac{1}{1 - 0{,}812207}$$

$$VIF = 5{,}3250$$

$$TOL = \frac{1}{5{,}3250}$$

$$TOL = 0{,}188$$

5. Meninggal CoViD-19

$$VIF = \frac{1}{1 - R_j^2}$$

$$VIF = \frac{1}{1 - 0{,}818643}$$

$$VIF = 5{,}5140 \qquad TOL = \frac{1}{5{,}5140}\ TOL = 0{,}181$$

Lampiran 4 Jarak *Euqlidean*

1. Iterasi 1

a. Klaster 1

$D(X_1, C_1) = \sqrt{(X_{11} - C_1)^2 + (X_{12} - C_1)^2 + (X_{13} - C_1)^2 + (X_{14} - C_1)^2 (X_{15} - C_1)^2}$

$D(X_1, C_1)$

$= \sqrt{(769960 - 2435252)^2 + (207{,}97 - 9189.63)^2 + (178 - 72961)^2 + (1688 - 71929)^2 + (30 - 1019)^2}$

$= 1668319$

$D(X_2, C_1)$

$= \sqrt{(410678 - 2435252)^2 + (445.32 - 9189.63)^2 + (931 - 72961)^2 + (923 - 71929)^2 + (8 - 1019)^2}$

$= 2027118$

$D(X_3, C_1)$

$= \sqrt{(30874 - 2435252)^2 + (160.16 - 9189.63)^2 + (2963 - 72961)^2 + (2856 - 71929)^2 + (107 - 1019)^2}$

$= 2406405$

$D(X_4, C_1)$

$= \sqrt{(1931441 - 2435252)^2 + (861.6 - 9189.63)^2 + (8806 - 72961)^2 + (8592 - 71929)^2 + (214 - 1019)^2}$

$= 511881.8$

$D(X_5, C_1)$

$= \sqrt{(197751 - 2435252)^2 + (84.68 - 9189.63)^2 + (3615 - 72961)^2 + (3234 - 71929)^2 + (33 - 1019)^2}$

$= 2239648$

$D(X_6, C_1)$

$= \sqrt{(404998 - 2435252)^2 + (190.41 - 9189.63)^2 + (1504 - 72961)^2 + (1466 - 71929)^2 + (58 - 1019)^2}$

$= 2032753$

$D(X_7, C_1)$

$= \sqrt{(493899 - 2435252)^2 + (229.08 - 9189.63)^2 + (2321 - 72961)^2 + (2237 - 71929)^2 + (84 - 1019)^2}$

$= 1943908$

$D(X_8, C_1)$

$= \sqrt{(314094 - 2435252)^2 + (87.35 - 9189.63)^2 + (1438 - 72961)^2 + (1367 - 71929)^2 + (71 - 1019)^2}$

$= 2123556$

$D(X_9, C_1)$

$= \sqrt{(381994 - 2435252)^2 + (106.97 - 9189.63)^2 + (1773 - 72961)^2 + (1694 - 71929)^2 + (79 - 1019)^2}$

$= 2055712$

$D(X_{10}, C_1)$

$= \sqrt{(1030202 - 2435252)^2 + (164.52 - 9189.63)^2 + (1573 - 72961)^2 + (1511 - 71929)^2 + (49 - 1019)^2}$

$= 1408653$

$D(X_{11}, C_1)$

$= \sqrt{(146672 - 2435252)^2 + (77.09 - 9189.63)^2 + (1164 - 72961)^2 + (1119 - 71929)^2 + (45 - 1019)^2}$

$= 1964977$

$D(X_{12}, C_1)$

$= \sqrt{(146672 - 2435252)^2 + (79.6 - 9189.63)^2 + (12 - 72961)^2 + (8 - 71929)^2 + (0 - 1019)^2}$

$= 2290890$

$D(X_{13}, C_1)$

$= \sqrt{(89994 - 2435252)^2 + (189.97 - 9189.63)^2 + (0 - 72961)^2 + (0 - 71929)^2 + (0 - 1019)^2}$

$= 2347512$

$D(X_{14}, C_1)$

$= \sqrt{(360531 - 2435252)^2 + (197.53 - 9189.63)^2 + (0 - 72961)^2 + (0 - 71929)^2 + (0 - 1019)^2}$

$= 2077269$

$D(X_{15}, C_1)$

$= \sqrt{(147274 - 2435252)^2 + (122.44 - 9189.63)^2 + (37 - 72961)^2 + (33 - 71929)^2 + (0 - 1019)^2}$

$= 2290287$

$D(X_{16}, C_1)$

$= \sqrt{(769960 - 2435252)^2 + (207{,}97 - 9189.63)^2 + (178 - 72961)^2 + (1688 - 71929)^2 + (30 - 1019)^2}$

$= 2176931$

$D(X_{17}, C_1)$

$= \sqrt{(260720 - 2435252)^2 + (66.54 - 9189.63)^2 + (513 - 72961)^2 + (484 - 71929)^2 + (29 - 1019)^2}$

$= 2176665$

$D(X_{18}, C_1)$

$= \sqrt{(52351 - 2435252)^2 + (42.97 - 9189.63)^2 + (557 - 72961)^2 + (524 - 71929)^2 + (33 - 1019)^2}$

$= 2385088$

$D(X_{19}, C_1)$

$= \sqrt{(136441 - 2435252)^2 + (65.94 - 9189.63)^2 + (1849 - 72961)^2 + (1815 - 71929)^2 + (34 - 1019)^2}$

$= 2300997$

$D(X_{20}, C_1)$

$= \sqrt{(657490 - 2435252)^2 + (346.01 - 9189.63)^2 + (3025 - 72961)^2 + (2769 - 71929)^2 + (256 - 1019)^2}$

$= 1780503$

$D(X_{21}, C_1)$

$= \sqrt{(990246 - 2435252)^2 + (226.65 - 9189.63)^2 + (1935 - 72961)^2 + (1890 - 71929)^2 + (45 - 1019)^2}$

$= 1448662$

$D(X_{22}, C_1)$

$= \sqrt{(300911 - 2435252)^2 + (49.9 - 9189.63)^2 + (1935 - 72961)^2 + (1688 - 71929)^2 + (30 - 1019)^2}$

$= 2136690$

$D(X_{23}, C_1)$

$= \sqrt{(365177 - 2435252)^2 + (166.9 - 9189.63)^2 + (1179 - 72961)^2 + (1161 - 71929)^2 + (18 - 1019)^2}$

$= 2072548$

$D(X_{24}, C_1)$

$= \sqrt{(312758 - 2435252)^2 + (82.49 - 9189.63)^2 + (5001 - 72961)^2 + (4921 - 71929)^2 + (80 - 1019)^2}$

$= 2124658$

$D(X_{25}, C_1)$

$= \sqrt{(206199 - 2435252)^2 + (88.54 - 9189.63)^2 + (53 - 72961)^2 + (48 - 71929)^2 + (1 - 1019)^2}$

$= 2231422$

$D(X_{26}, C_1)$

$= \sqrt{(291842 - 2435252)^2 + (4930.6 - 9189.63)^2 + (25733 - 72961)^2 + (25590 - 71929)^2 + (143 - 1019)^2}$

$= 2144435$

$D(X_{27}, C_1)$

$= \sqrt{(136017 - 2435252)^2 + (484.43 - 9189.63)^2 + (115 - 72961)^2 + (112 - 71929)^2 + (3 - 1019)^2}$

$= 2301526$

$D(X_{28}, C_1)$

$= \sqrt{(2435252 - 2435252)^2 + (9189.63 - 9189.63)^2 + (72961 - 72961)^2 + (71929 - 71929)^2 + (1019 - 1019)^2}$

$= 0$

$D(X_{29}, C_1)$

$= \sqrt{(225105 - 2435252)^2 + (1963.24 - 9189.63)^2 + (519 - 72961)^2 + (516 - 71929)^2 + (3 - 1019)^2}$

$= 2212499$

$D(X_{30}, C_1)$

$= \sqrt{(268254 - 2435252)^2 + (4819.51 - 9189.63)^2 + (2550 - 72961)^2 + (2517 - 71929)^2 + (33 - 1019)^2}$

$= 2169257$

$D(X_{31}, C_1)$

$= \sqrt{(89584 - 2435252)^2 + (2168.58 - 9189.63)^2 + (0 - 72961)^2 + (0 - 71929)^2 + (0 - 1019)^2}$

$= 2347915$

$D(X_{32}, C_1)$

$= \sqrt{(176027 - 2435252)^2 + (1632.45 - 9189.63)^2 + (614 - 72961)^2 + (585 - 71929)^2 + (29 - 1019)^2}$

$= 2261522$

$D(X_{33}, C_1)$

$= \sqrt{(172838 - 2435252)^2 + (5575.42 - 9189.63)^2 + (1573 - 72961)^2 + (1498 - 71929)^2 + (75 - 1019)^2}$

$= 2264639$

b. Klaster 2

$D(X_1, C_2) = \sqrt{(X_{11} - C_2)^2 + (X_{12} - C_2)^2 + (X_{13} - C_2)^2 + (X_{14} - C_2)^2 + (X_{15} - C_2)^2}$

$D(X_1, C_2) = \sqrt{(769960 - 990246)^2 + (207{,}97 - 226{,}65)^2 + (178 - 0)^2 + (1688 - 0)^2 + (30 - 0)^2}$

=220299,17

$D(X_2, C_2) = \sqrt{(410678 - 990246)^2 + (445.32 - 226.655)^2 + (931 - 0)^2 + (923 - 0)^2 + (8 - 0)^2}$

$= 579569.5$

$D(X_3, C_2)$

$= \sqrt{(30874 - 990246)^2 + (160.16 - 226.655)^2 + (2963 - 0)^2 + (2856 - 0)^2 + (107 - 0)^2}$

$= 959380.8$

$D(X_4, C_2)$

$= \sqrt{(1931441 - 990246)^2 + (861.6 - 226.655)^2 + (8806 - 0)^2 + (8592 - 0)^2 + (214 - 0)^2}$

$= 511881.8$

$D(X_5, C_2)$

$= \sqrt{(197751 - 990246)^2 + (84.68 - 226.655)^2 + (3615 - 0)^2 + (3234 - 0)^2 + (33 - 0)^2}$

$= 941275.6$

$D(X_6, C_2)$

$= \sqrt{(404998 - 990246)^2 + (190.41 - 226.655)^2 + (1504 - 0)^2 + (1466 - 0)^2 + (58 - 0)^2}$

$= 792509.9$

$D(X_7, C_2)$

$= \sqrt{(493899 - 990246)^2 + (229.08 - 226.655)^2 + (2321 - 0)^2 + (2237 - 0)^2 + (84 - 0)^2}$

$= 585251.8$

$D(X_8, C_2)$

$= \sqrt{(314094 - 990246)^2 + (87.35 - 226.655)^2 + (1438 - 0)^2 + (1367 - 0)^2 + (71 - 0)^2}$

$= 496357.5$

$D(X_9, C_2)$

$= \sqrt{(381994 - 990246)^2 + (106.97 - 226.655)^2 + (1773 - 0)^2 + (1694 - 0)^2 + (79 - 0)^2}$

$= 676154.9$

$D(X_{10}, C_2)$

$= \sqrt{(1030202 - 990246)^2 + (164.52 - 226.655)^2 + (1573 - 0)^2 + (1511 - 0)^2 + (49 - 0)^2}$

$= 608257$

$D(X_{11}, C_2)$

$= \sqrt{(146672 - 990246)^2 + (77.09 - 226.655)^2 + (1164 - 0)^2 + (1119 - 0)^2 + (45 - 0)^2}$

$= 40015.57$

$D(X_{12}, C_2) = \sqrt{(146672 - 990246)^2 + (79.6 - 226.655)^2 + (12 - 0)^2 + (8 - 0)^2 + (0 - 0)^2}$

$= 517362.5$

$D(X_{13}, C_2) = \sqrt{(89994 - 990246)^2 + (189.97 - 226.655)^2 + (0 - 0)^2 + (0 - 0)^2 + (0 - 0)^2}$

$= 843574$

$D(X_{14}, C_2) = \sqrt{(360531 - 990246)^2 + (197.53 - 226.655)^2 + (0 - 0)^2 + (0 - 0)^2 + (0 - 0)^2}$

$= 900252$

$D(X_{15}, C_2) = \sqrt{(147274 - 990246)^2 + (122.44 - 226.655)^2 + (37 - 0)^2 + (33 - 0)^2 + (0 - 0)^2}$

$= 2290287$

$D(X_{16}, C_2)$

$= \sqrt{(769960 - 990246)^2 + (207{,}97 - 226.655)^2 + (178 - 0)^2 + (1688 - 0)^2 + (30 - 0)^2}$

$= 629715$

$D(X_{17}, C_2) = \sqrt{(260720 - 990246)^2 + (66.54 - 226.655)^2 + (513 - 0)^2 + (484 - 0)^2 + (29 - 0)^2}$

$= 842972$

$D(X_{18}, C_2) = \sqrt{(52351 - 990246)^2 + (42.97 - 226.655)^2 + (557 - 0)^2 + (524 - 0)^2 + (33 - 0)^2}$

$= 729526.4$

$D(X_{19}, C_2)$

$= \sqrt{(136441 - 990246)^2 + (65.94 - 226.655)^2 + (1849 - 0)^2 + (1815 - 0)^2 + (34 - 0)^2}$

$= 729235$

$D(X_{20}, C_2)$

$= \sqrt{(657490 - 990246)^2 + (346.01 - 226.655)^2 + (3025 - 0)^2 + (2769 - 0)^2 + (256 - 0)^2}$

$= 937895.3$

$D(X_{21}, C_2)$

$= \sqrt{(990246 - 990246)^2 + (226.65 - 226.655)^2 + (1935 - 0)^2 + (1890 - 0)^2 + (45 - 0)^2} = 0$

$D(X_{22}, C_2) = \sqrt{(300911 - 990246)^2 + (49.9 - 226.655)^2 + (1935 - 0)^2 + (1688 - 0)^2 + (30 - 0)^2}$

$= 689340.3$

$D(X_{23}, C_2)$

$= \sqrt{(365177 - 990246)^2 + (166.9 - 226.655)^2 + (1179 - 0)^2 + (1161 - 0)^2 + (18 - 0)^2}$

$= 625071.2$

$D(X_{24}, C_2)$

$= \sqrt{(312758 - 990246)^2 + (82.49 - 226.655)^2 + (5001 - 0)^2 + (4921 - 0)^2 + (80 - 0)^2}$

$= 677524.3$

$D(X_{25}, C_2) = \sqrt{(206199 - 990246)^2 + (88.54 - 226.655)^2 + (53 - 0)^2 + (48 - 0)^2 + (1 - 0)^2}$

$= 784047$

$D(X_{26}, C_2)$

$= \sqrt{(291842 - 990246)^2 + (4930.6 - 226.655)^2 + (25733 - 0)^2 + (25590 - 0)^2 + (143 - 0)^2}$

$= 699362.1$

$D(X_{27}, C_2) = \sqrt{(136017 - 990246)^2 + (484.43 - 226.655)^2 + (115 - 0)^2 + (112 - 0)^2 + (3 - 0)^2}$

$= 854229.1$

$D(X_{28}, C_2) = \sqrt{(990246 - 990246)^2 + (226.655 - 226.655)^2 + (0 - 0)^2 + (0 - 0)^2 + (0 - 0)^2}$

$= 1448662$

$D(X_{29}, C_2) = \sqrt{(225105 - 990246)^2 + (1963.24 - 226.655)^2 + (519 - 0)^2 + (516 - 0)^2 + (3 - 0)^2}$

$= 765143.3$

$D(X_{30}, C_2)$

$= \sqrt{(268254 - 990246)^2 + (4819.51 - 226.655)^2 + (2550 - 0)^2 + (2517 - 0)^2 + (33 - 0)^2}$

$= 722015.5$

$D(X_{31}, C_2) = \sqrt{(89584 - 990246)^2 + (2168.58 - 226.655)^2 + (0 - 0)^2 + (0 - 0)^2 + (0 - 0)^2}$

$= 900664.1$

$D(X_{32}, C_2)$

$= \sqrt{(176027 - 990246)^2 + (1632.45 - 226.655)^2 + (614 - 0)^2 + (585 - 0)^2 + (29 - 0)^2}$

$= 814220.7$

$D(X_{33}, C_2)$

$= \sqrt{(172838 - 990246)^2 + (5575.42 - 226.655)^2 + (1573 - 0)^2 + (1498 - 0)^2 + (75 - 0)^2}$

$= 817428.4$

c. Klaster 3

$D(X_1, C_3) = \sqrt{(X_{11} - C_3)^2 + (X_{12} - C_3)^2 + (X_{13} - C_3)^2 + (X_{14} - C_3)^2 + (X_{15} - C_3)^2}$

$D(X_1, C_3)$

$= \sqrt{(769960 - 30874)^2 + (207{,}97 - 160.16)^2 + (178 - 2963)^2 + (1688 - 2856)^2 + (30 - 107)^2}$

$= 739087{,}9$

$D(X_2, C_3)$

$= \sqrt{(410678 - 30874)^2 + (445.32 - 160.16)^2 + (931 - 2963)^2 + (923 - 2856)^2 + (8 - 107)^2}$

$= 379814.5$

$D(X_3, C_3)$

$= \sqrt{(30874 - 30874)^2 + (160.16 - 160.16)^2 + (2963 - 2963)^2 + (2856 - 2856)^2 + (107 - 107)^2}$

$= 0$

$D(X_4, C_3)$

$= \sqrt{(1931441 - 30874)^2 + (861.6 - 160.16)^2 + (8806 - 2963)^2 + (8592 - 2856)^2 + (214 - 107)^2}$

$= 1900585$

$D(X_5, C_3)$

$= \sqrt{(197751 - 30874)^2 + (84.68 - 160.16)^2 + (3615 - 2963)^2 + (3234 - 2856)^2 + (33 - 107)^2}$

$= 166878.7$

$D(X_6, C_3)$

$= \sqrt{(404998 - 30874)^2 + (190.41 - 160.16)^2 + (1504 - 2963)^2 + (1466 - 2856)^2 + (58 - 107)^2}$

$= 374129.4$

$D(X_7, C_3)$

$= \sqrt{(493899 - 30874)^2 + (229.08 - 160.16)^2 + (2321 - 2963)^2 + (2237 - 2856)^2 + (84 - 107)^2}$

$= 463025.9$

$D(X_8, C_3)$

$= \sqrt{(314094 - 30874)^2 + (87.35 - 160.16)^2 + (1438 - 2963)^2 + (1367 - 2856)^2 + (71 - 107)^2}$

$= 283228$

$D(X_9, C_3)$

$= \sqrt{(381994 - 30874)^2 + (106.97 - 160.16)^2 + (1773 - 2963)^2 + (1694 - 2856)^2 + (79 - 107)^2}$

$= 351123.9$

$D(X_{10}, C_3)$

$= \sqrt{(1030202 - 30874)^2 + (164.52 - 160.16)^2 + (1573 - 2963)^2 + (1511 - 2856)^2 + (49 - 107)^2}$

$= 999329.9$

$D(X_{11}, C_3)$

$= \sqrt{(146672 - 30874)^2 + (77.09 - 160.16)^2 + (1164 - 2963)^2 + (1119 - 2856)^2 + (45 - 107)^2}$

$= 442019.1$

$D(X_{12}, C_3) = \sqrt{(146672 - 30874)^2 + (79.6 - 160.16)^2 + (12 - 2963)^2 + (8 - 2856)^2 + (0 - 107)^2}$

$= 115870.7$

$D(X_{13}, C_3) = \sqrt{(89994 - 30874)^2 + (189.97 - 160.16)^2 + (0 - 2963)^2 + (0 - 2856)^2 + (0 - 107)^2}$

$= 59263.17$

$D = \sqrt{(360531 - 30874)^2 + (197.53 - 160.16)^2 + (0 - 2963)^2 + (0 - 2856)^2 + (0 - 107)^2}$

$= 329682.7$

$D = \sqrt{(147274 - 30874)^2 + (122.44 - 160.16)^2 + (37 - 2963)^2 + (33 - 2856)^2 + (0 - 107)^2}$

$= 116471$

$D(X_{16}, C_3)$

$= \sqrt{(769960 - 30874)^2 + (207{,}97 - 160.16)^2 + (178 - 2963)^2 + (1688 - 2856)^2 + (30 - 107)^2}$

$= 229871.3$

$D(X_{17}, C_3)$

$= \sqrt{(260720 - 30874)^2 + (66.54 - 160.16)^2 + (513 - 2963)^2 + (484 - 2856)^2 + (29 - 107)^2}$

$= 230170.9$

$D(X_{18}, C_3)$

$= \sqrt{(52351 - 30874)^2 + (42.97 - 160.16)^2 + (557 - 2963)^2 + (524 - 2856)^2 + (33 - 107)^2}$

$= 21737.24$

$D(X_{19}, C_3)$

$= \sqrt{(136441 - 30874)^2 + (65.94 - 160.16)^2 + (1849 - 2963)^2 + (1815 - 2856)^2 + (34 - 107)^2}$

$= 105578.1$

$D(X_{20}, C_3)$

$= \sqrt{(657490 - 30874)^2 + (346.01 - 160.16)^2 + (3025 - 2963)^2 + (2769 - 2856)^2 + (256 - 107)^2}$

$= 626616.1$

$D(X_{21}, C_3)$

$= \sqrt{(990246 - 30874)^2 + (226.65 - 160.16)^2 + (1935 - 2963)^2 + (1890 - 2856)^2 + (45 - 107)^2}$

$= 959380.8$

$D(X_{22}, C_3)$

$= \sqrt{(300911 - 30874)^2 + (49.9 - 160.16)^2 + (1935 - 2963)^2 + (1688 - 2856)^2 + (30 - 107)^2}$

$= 270040.7$

$D(X_{23}, C_3)$

$= \sqrt{(365177 - 30874)^2 + (166.9 - 160.16)^2 + (1179 - 2963)^2 + (1161 - 2856)^2 + (18 - 107)^2}$

$= 334312.1$

$D(X_{24}, C_3)$

$= \sqrt{(312758 - 30874)^2 + (82.49 - 160.16)^2 + (5001 - 2963)^2 + (4921 - 2856)^2 + (80 - 107)^2}$

$= 281898.9$

$D(X_{25}, C_3)$

$= \sqrt{(206199 - 30874)^2 + (88.54 - 160.16)^2 + (53 - 2963)^2 + (48 - 2856)^2 + (1 - 107)^2}$

$= 175371.7$

$D(X_{26}, C_3)$

$= \sqrt{(291842 - 30874)^2 + (4930.6 - 160.16)^2 + (25733 - 2963)^2 + (25590 - 2856)^2 + (143 - 107)^2}$

$= 262987.4$

$D(X_{27}, C_3)$

$= \sqrt{(136017 - 30874)^2 + (484.43 - 160.16)^2 + (115 - 2963)^2 + (112 - 2856)^2 + (3 - 107)^2}$

$= 105217.9$

$D(X_{28}, C_3)$

$= \sqrt{(2435252 - 30874)^2 + (9189.6 - 160.16)^2 + (2963 - 2963)^2 + (2856 - 2856)^2 + (107 - 107)^2}$

$= 2406405$

$D(X_{29}, C_3)$

$= \sqrt{(225105 - 30874)^2 + (1963.24 - 160.16)^2 + (519 - 2963)^2 + (516 - 2856)^2 + (3 - 107)^2}$

$= 194268.9$

$D(X_{30}, C_3)$

$= \sqrt{(268254 - 30874)^2 + (4819.51 - 160.16)^2 + (2550 - 2963)^2 + (2517 - 2856)^2 + (33 - 107)^2}$

$= 237426.3$

$D(X_{31}, C_3)$

$= \sqrt{(89584 - 30874)^2 + (2168.58 - 160.16)^2 + (0 - 2963)^2 + (0 - 2856)^2 + (0 - 107)^2}$

$= 58888.41$

$D(X_{32}, C_3)$

$= \sqrt{(176027 - 30874)^2 + (1632.45 - 160.16)^2 + (614 - 2963)^2 + (585 - 2856)^2 + (29 - 107)^2}$

$= 145197.3$

$D(X_{33}, C_3)$

$= \sqrt{(172838 - 30874)^2 + (5575.42 - 160.16)^2 + (1573 - 2963)^2 + (1498 - 2856)^2 + (75 - 107)^2}$

$= 142080.5$

Iterasi 2

a. Klaster 1

$D(X_1, C_1) = \sqrt{(X_{11} - C_1)^2 + (X_{12} - C_1)^2 + (X_{13} - C_1)^2 + (X_{14} - C_1)^2 (X_{15} - C_1)^2}$

$D(X_1, C_1)$

$= \sqrt{(769960 - 2435252)^2 + (207{,}97 - 5025.62)^2 + (178 - 40883.5)^2 + (1688 - 40260.50)^2 + (30 - 616.5)^2}$

$= 1414463$

$D(X_2, C_1)$

$= \sqrt{(410678 - 2435252)^2 + (445.32 - 5025.62)^2 + (931 - 40883.5)^2 + (923 - 40260.50)^2 + (8 - 616.5)^2}$

$= 1773561$

$D(X_3, C_1)$

$= \sqrt{(30874 - 2435252)^2 + (160.16 - 5025.62)^2 + (2963 - 40883.5)^2 + (2856 - 40260.50)^2 + (107 - 616.5)^2}$

$= 2153137$

$D(X_4, C_1)$

$= \sqrt{(1931441 - 2435252)^2 + (861.6 - 5025.62)^2 + (8806 - 40883.5)^2 + (8592 - 40260.50)^2 + (214 - 616.5)^2}$

$= 255940.9$

$D(X_5, C_1)$

$= \sqrt{(197751 - 2435252)^2 + (84.68 - 5025.62)^2 + (3615 - 40883.5)^2 + (3234 - 40260.50)^2 + (33 - 616.5)^2}$

$= 19862978$

$D(X_6, C_1)$

$= \sqrt{(404998 - 2435252)^2 + (190.41 - 5025.62)^2 + (1504 - 40883.5)^2 + (1466 - 40260.50)^2 + (58 - 616.5)^2}$

$= 1779214$

$D(X_7, C_1)$

$= \sqrt{(493899 - 2435252)^2 + (229.08 - 5025.62)^2 + (2321 - 40883.5)^2 + (2237 - 40260.50)^2 + (84 - 616.5)^2}$

$= 1943908$

$D(X_8, C_1)$

$= \sqrt{(314094 - 2435252)^2 + (87.35 - 5025.62)^2 + (1438 - 40883.5)^2 + (1367 - 40260.50)^2 + (71 - 616.5)^2}$

$= 2123556$

$D(X_9, C_1)$

$= \sqrt{(381994 - 2435252)^2 + (106.97 - 5025.62)^2 + (1773 - 40883.5)^2 + (1694 - 40260.50)^2 + (79 - 616.5)^2}$

$= 1690322$

$D(X_{10}, C_1)$

$= \sqrt{(1030202 - 2435252)^2 + (164.52 - 5025.62)^2 + (1573 - 40883.5)^2 + (1511 - 40260.50)^2 + (49 - 616.5)^2}$

$= 1870080$

$D(X_{11}, C_1)$

$= \sqrt{(146672 - 2435252)^2 + (77.09 - 5025.62)^2 + (1164 - 40883.5)^2 + (1119 - 40260.50)^2 + (45 - 616.5)^2}$

$= 1802197$

$D(X_{12}, C_1)$

$= \sqrt{(146672 - 2435252)^2 + (79.6 - 5025.62)^2 + (12 - 40883.5)^2 + (8 - 40260.50)^2 + (0 - 616.5)^2}$

$= 1154475$

$D(X_{13}, C_1)$

$= \sqrt{(89994 - 2435252)^2 + (189.97 - 5025.62)^2 + (0 - 40883.5)^2 + (0 - 40260.50)^2 + (0 - 616.5)^2}$

$= 1711377$

$D(X_{14}, C_1)$

$= \sqrt{(360531 - 2435252)^2 + (197.53 - 5025.62)^2 + (0 - 40883.5)^2 + (0 - 40260.50)^2 + (0 - 616.5)^2}$

$= 2037488$

$D(X_{15}, C_1)$

$= \sqrt{(147274 - 2435252)^2 + (122.44 - 5025.62)^2 + (37 - 40883.5)^2 + (33 - 40260.50)^2 + (0 - 616.5)^2}$

$= 2094144$

$D(X_{16}, C_1)$

$= \sqrt{(769960 - 2435252)^2 + (207{,}97 - 5025.62)^2 + (178 - 40883.5)^2 + (1688 - 40260.50)^2 + (30 - 616.5)^2}$

$= 1823725$

$D(X_{17}, C_1)$

$= \sqrt{(260720 - 2435252)^2 + (66.54 - 5025.62)^2 + (513 - 40883.5)^2 + (484 - 40260.50)^2 + (29 - 616.5)^2}$

$= 2036885$

$D(X_{18}, C_1)$

$= \sqrt{(52351 - 2435252)^2 + (42.97 - 5025.62)^2 + (557 - 40883.5)^2 + (524 - 40260.50)^2 + (33 - 616.5)^2}$

$= 1923468$

$D(X_{19}, C_1)$

$= \sqrt{(136441 - 2435252)^2 + (65.94 - 5025.62)^2 + (1849 - 40883.5)^2 + (1815 - 40260.50)^2 + (34 - 616.5)^2}$

$= 1923193$

$D(X_{20}, C_1)$

$= \sqrt{(657490 - 2435252)^2 + (346.01 - 5025.62)^2 + (3025 - 40883.5)^2 + (2769 - 40260.50)^2 + (256 - 616.5)^2}$

$= 2131753$

$D(X_{21}, C_1)$

$= \sqrt{(990246 - 2435252)^2 + (226.65 - 5025.62)^2 + (1935 - 40883.5)^2 + (1890 - 40260.50)^2 + (45 - 616.5)^2}$

$= 2047645$

$D(X_{22}, C_1)$

$= \sqrt{(300911 - 2435252)^2 + (49.9 - 5025.62)^2 + (1935 - 40883.5)^2 + (1688 - 40260.50)^2 + (30 - 616.5)^2}$

$= 1526794$

$D(X_{23}, C_1)$

$= \sqrt{(365177 - 2435252)^2 + (166.9 - 5025.62)^2 + (1179 - 40883.5)^2 + (1161 - 40260.50)^2 + (18 - 616.5)^2}$

$= 1194489$

$D(X_{24}, C_1)$

$= \sqrt{(312758 - 2435252)^2 + (82.49 - 5025.62)^2 + (5001 - 40883.5)^2 + (4921 - 40260.50)^2 + (80 - 616.5)^2}$

$= 1883236$

$D(X_{25}, C_1)$

$= \sqrt{(206199 - 2435252)^2 + (88.54 - 5025.62)^2 + (53 - 40883.5)^2 + (48 - 40260.50)^2 + (1 - 616.5)^2}$

$= 1977984$

$D(X_{26}, C_1)$

$= \sqrt{(291842 - 2435252)^2 + (4930.6 - 5025.62)^2 + (25733 - 40883.5)^2 + (25590 - 40260.50)^2 + (143 - 616.5)^2}$

$= 1891622$

$D(X_{27}, C_1)$

$= \sqrt{(136017 - 2435252)^2 + (484.43 - 5025.62)^2 + (115 - 40883.5)^2 + (112 - 40260.50)^2 + (3 - 616.5)^2}$

$= 2048134$

$D(X_{28}, C_1)$

$= \sqrt{(2435252 - 2435252)^2 + (5025.62 - 5025.62)^2 + (40883.5 - 40883.5)^2 + (40260.50 - 40260.50)^2 + (616.5 -$

$= 255940.9$

$D(X_{29}, C_1)$

$= \sqrt{(225105 - 2435252)^2 + (1963.24 - 5025.62)^2 + (519 - 40883.5)^2 + (516 - 40260.50)^2 + (3 - 616.5)^2}$

$= 1915848$

$D(X_{30}, C_1)$

$= \sqrt{(268254 - 2435252)^2 + (4819.51 - 5025.62)^2 + (2550 - 40883.5)^2 + (2517 - 40260.50)^2 + (33 - 616.5)^2}$

$= 1915848$

$D(X_{31}, C_1)$

$= \sqrt{(89584 - 2435252)^2 + (2168.58 - 5025.62)^2 + (0 - 40883.5)^2 + (0 - 40260.50)^2 + (0 - 616.5)^2}$

$= 2094551$

$D(X_{32}, C_1)$

$= \sqrt{(176027 - 2435252)^2 + (1632.45 - 5025.62)^2 + (614 - 40883.5)^2 + (585 - 40260.50)^2 + (29 - 616.5)^2}$

$= 2008118$

$D(X_{33}, C_1)$

$= \sqrt{(172838 - 2435252)^2 + (5575.42 - 5025.62)^2 + (1573 - 40883.5)^2 + (1498 - 40260.50)^2 + (75 - 616.5)^2}$

$= 2011266$

b. Klaster 2

$D(X_1, C_2) = \sqrt{(X_{11} - C_2)^2 + (X_{12} - C_2)^2 + (X_{13} - C_2)^2 + (X_{14} - C_2)^2 + (X_{15} - C_2)^2}$

$D(X_1, C_2)$

$= \sqrt{(769960 - 861974.53)^2 + (207{,}97 - 236.28)^2 + (178 - 1579)^2 + (1688 - 1492)^2 + (30 - 83.75)^2}$

$= 92014.83$

$D(X_2, C_2)$

$= \sqrt{(410678 - 861974.53)^2 + (445.32 - 236.28)^2 + (931 - 1579)^2 + (923 - 1492)^2 + (8 - 83.75)^2}$

$= 451297.4$

$D(X_3, C_2)$

$= \sqrt{(861974.53 - 861974.53)^2 + (236.28 - 236.28)^2 + (1579 - 1579)^2 + (1492 - 1492)^2 + (83.75 - 83.75)^2}$

$= 831102.8$

$D(X_4, C_2)$

$= \sqrt{(1931441 - 861974.53)^2 + (861.6 - 236.28)^2 + (8806 - 1579)^2 + (8592 - 1492)^2 + (214 - 83.75)^2}$

$= 1069515$

$D(X_5, C_2)$

$= \sqrt{(197751 - 861974.53)^2 + (84.68 - 236.28)^2 + (3615 - 1579)^2 + (3234 - 1492)^2 + (33 - 83.75)^2}$

$= 664228.9$

$D(X_6, C_2)$

$= \sqrt{(404998 - 861974.53)^2 + (190.41 - 236.28)^2 + (1504 - 1579)^2 + (1466 - 1492)^2 + (58 - 83.75)^2}$

$= 456976.5$

$D(X_7, C_2)$

$= \sqrt{(493899 - 861974.53)^2 + (229.08 - 236.28)^2 + (2321 - 1579)^2 + (2237 - 1492)^2 + (84 - 83.75)^2}$

$= 368077$

$D(X_8, C_2)$

$= \sqrt{(314094 - 861974.53)^2 + (87.35 - 236.28)^2 + (1438 - 1579)^2 + (1367 - 1492)^2 + (71 - 83.75)^2}$

$= 547880.6$

$D(X_9, C_2)$

$= \sqrt{(381994 - 861974.53)^2 + (106.97 - 236.28)^2 + (1773 - 1579)^2 + (1694 - 1492)^2 + (79 - 83.75)^2}$

$= 479980.6$

$D(X_{10}, C_2)$

$= \sqrt{(1030202 - 861974.53)^2 + (164.52 - 236.28)^2 + (1573 - 1579)^2 + (1511 - 1492)^2 + (49 - 83.75)^2}$

$= 168227.5$

$D(X_{11}, C_2)$

$= \sqrt{(146672 - 861974.53)^2 + (77.09 - 236.28)^2 + (1164 - 1579)^2 + (1119 - 1492)^2 + (45 - 83.75)^2}$

$= 389088.9$

$D(X_{12}, C_2)$

$= \sqrt{(146672 - 861974.53)^2 + (79.6 - 236.28)^2 + (12 - 1579)^2 + (8 - 1492)^2 + (0 - 83.75)^2}$

$= 715305.8$

$D(X_{13}, C_2)$

$= \sqrt{(89994 - 861974.53)^2 + (189.97 - 236.28)^2 + (0 - 1579)^2 + (0 - 1492)^2 + (0 - 83.75)^2}$

$= 771983.6$

$D(X_{14}, C_2)$

$= \sqrt{(360531 - 861974.53)^2 + (197.53 - 236.28)^2 + (0 - 1579)^2 + (0 - 1492)^2 + (0 - 83.75)^2}$

$= 501448.2$

$D(X_{15}, C_2)$

$= \sqrt{(147274 - 861974.53)^2 + (122.44 - 236.28)^2 + (37 - 1579)^2 + (33 - 1492)^2 + (0 - 83.75)^2}$

$= 714703.7$

$D(X_{16}, C_2)$

$= \sqrt{(769960 - 861974.53)^2 + (207{,}97 - 236.28)^2 + (178 - 1579)^2 + (1688 - 1492)^2 + (30 - 83.75)^2}$

$= 601256.3$

$D(X_{17}, C_2)$

$= \sqrt{(260720 - 861974.53)^2 + (66.54 - 236.28)^2 + (513 - 1579)^2 + (484 - 1492)^2 + (29 - 83.75)^2}$

$= 600966.9$

$D(X_{18}, C_2)$

$= \sqrt{(52351 - 861974.53)^2 + (42.97 - 236.28)^2 + (557 - 1579)^2 + (524 - 1492)^2 + (33 - 83.75)^2}$

$= 809624.7$

$D(X_{19}, C_2)$

$= \sqrt{(136441 - 861974.53)^2 + (65.94 - 236.28)^2 + (1849 - 1579)^2 + (1815 - 1492)^2 + (34 - 83.75)^2}$

$= 725533.6$

$D(X_{20}, C_2)$

$= \sqrt{(657490 - 861974.53)^2 + (346.01 - 236.28)^2 + (3025 - 1579)^2 + (2769 - 1492)^2 + (256 - 83.75)^2}$

$= 204493.7$

$D(X_{21}, C_2)$

$= \sqrt{(990246 - 861974.53)^2 + (226.65 - 236.28)^2 + (1935 - 1579)^2 + (1890 - 1492)^2 + (45 - 83.75)^2}$

$= 128289.9$

$D(X_{22}, C_2)$

$= \sqrt{(300911 - 861974.53)^2 + (49.9 - 236.28)^2 + (1935 - 1579)^2 + (1688 - 1492)^2 + (30 - 83.75)^2}$

$= 561063.8$

$D(X_{23}, C_2)$

$= \sqrt{(365177 - 861974.53)^2 + (166.9 - 236.28)^2 + (1179 - 1579)^2 + (1161 - 1492)^2 + (18 - 83.75)^2}$

$= 496797.8$

$D(X_{24}, C_2)$

$= \sqrt{(312758 - 861974.53)^2 + (82.49 - 236.28)^2 + (5001 - 1579)^2 + (4921 - 1492)^2 + (80 - 83.75)^2}$

$= 549237.9$

$D(X_{25}, C_2)$

$= \sqrt{(206199 - 861974.53)^2 + (88.54 - 236.28)^2 + (53 - 1579)^2 + (48 - 1492)^2 + (1 - 83.75)^2}$

$= 655778.9$

$D(X_{26}, C_2)$

$= \sqrt{(291842 - 861974.53)^2 + (4930.6 - 236.28)^2 + (25733 - 1579)^2 + (25590 - 1492)^2 + (143 - 83.75)^2}$

$= 571171.8$

$D(X_{27}, C_2)$

$= \sqrt{(136017 - 861974.53)^2 + (484.43 - 236.28)^2 + (115 - 1579)^2 + (112 - 1492)^2 + (3 - 83.75)^2}$

$= 725960.3$

$D(X_{28}, C_2)$

$= \sqrt{(2435252 - 861974.53)^2 + (9189.6 - 236.28)^2 + (1579 - 1579)^2 + (1492 - 1492)^2 + (83.75 - 83.75)^2}$

$= 1576496$

$D(X_{29}, C_2)$

$= \sqrt{(225105 - 861974.53)^2 + (1963.24 - 236.28)^2 + (519 - 1579)^2 + (516 - 1492)^2 + (3 - 83.75)^2}$

$= 636873.5$

$D(X_{30}, C_2)$

$= \sqrt{(268254 - 861974.53)^2 + (4819.51 - 236.28)^2 + (2550 - 1579)^2 + (2517 - 1492)^2 + (33 - 83.75)^2}$

$= 593739.9$

$D(X_{31}, C_2)$

$= \sqrt{(89584 - 861974.53)^2 + (2168.58 - 236.28)^2 + (0 - 1579)^2 + (0 - 1492)^2 + (0 - 83.75)^2}$

$= 772396$

$D(X_{32}, C_2)$

$= \sqrt{(176027 - 861974.53)^2 + (1632.45 - 236.28)^2 + (614 - 1579)^2 + (585 - 1492)^2 + (29 - 83.75)^2}$

$= 685950.2$

$D(X_{33}, C_2)$

$= \sqrt{(172838 - 861974.53)^2 + (5575.42 - 236.28)^2 + (1573 - 1579)^2 + (1498 - 1492)^2 + (75 - 83.75)^2}$

$= 689157.2$

c. Klaster 3

$D(X_1, C_3) = \sqrt{(X_{11} - C_3)^2 + (X_{12} - C_3)^2 + (X_{13} - C_3)^2 + (X_{14} - C_3)^2 + (X_{15} - C_3)^2}$

$D(X_1, C_3)$

$= \sqrt{(769960 - 248402.963)^2 + (207{,}97 - 895.37)^2 + (178 - 2150.74)^2 + (1688 - 2100.59)^2 + (30 - 37.56)^2}$

$= 521557.8$

$D(X_2, C_3)$

$= \sqrt{(410678 - 248402.963)^2 + (445.32 - 895.376)^2 + (931 - 2150.741)^2 + (923 - 2100.59)^2 + (8 - 37.556)^2}$

$= 162284.5$

$D(X_3, C_3)$

$= \sqrt{(248402.963 - 248402.963)^2 + (895.376 - 895.376)^2 + (2150.741 - 2150.741)^2 + (2100.59 - 2100.59)^2 + (3}$

$= 217533$

$D(X_4, C_3)$

$= \sqrt{(1931441 - 248402.963)^2 + (861.6 - 895.376)^2 + (8806 - 2150.741)^2 + (8592 - 2100.59)^2 + (214 - 37.556)}$

$= 1683064$

$D(X_5, C_3)$

$= \sqrt{(197751 - 248402.963)^2 + (84.68 - 895.376)^2 + (3615 - 2150.741)^2 + (3234 - 2100.59)^2 + (33 - 37.556)^2}$

$= 50692.28$

$D(X_6, C_3)$

$= \sqrt{(404998 - 248402.963)^2 + (190.41 - 895.376)^2 + (1504 - 2150.741)^2 + (1466 - 2100.59)^2 + (58 - 37.556)^2}$

$= 156599.2$

$D(X_7, C_3)$

$= \sqrt{(493899 - 248402.963)^2 + (229.08 - 895.376)^2 + (2321 - 2150.741)^2 + (2237 - 2100.59)^2 + (84 - 37.556)^2}$

$= 245497$

$D(X_8, C_3)$

$= \sqrt{(314094 - 248402.963)^2 + (87.35 - 895.376)^2 + (1438 - 2150.741)^2 + (1367 - 2100.59)^2 + (71 - 37.556)^2}$

$= 65703.98$

$D(X_9, C_3)$

$= \sqrt{(381994 - 248402.963)^2 + (106.97 - 895.376)^2 + (1773 - 2150.741)^2 + (1694 - 2100.59)^2 + (79 - 37.556)^2}$

$= 133594.5$

$D(X_{10}, C_3)$

$= \sqrt{(1030202 - 248402.963)^2 + (164.52 - 895.376)^2 + (1573 - 2150.741)^2 + (1511 - 2100.59)^2 + (49 - 37.556)^2}$

$= 781799.8$

$D(X_{11}, C_3)$

$= \sqrt{(146672 - 248402.963)^2 + (77.09 - 895.376)^2 + (1164 - 2150.741)^2 + (1119 - 2100.59)^2 + (45 - 37.556)^2}$

$= 224488.8$

$D(X_{12}, C_3)$

$= \sqrt{(146672 - 248402.963)^2 + (79.6 - 895.376)^2 + (12 - 2150.741)^2 + (8 - 2100.59)^2 + (0 - 37.556)^2}$

$= 101778.2$

$D(X_{13}, C_3)$

$= \sqrt{(89994 - 248402.963)^2 + (189.97 - 895.376)^2 + (0 - 2150.741)^2 + (0 - 2100.59)^2 + (0 - 37.556)^2}$

$= 158439.1$

$D(X_{14}, C_3)$

$= \sqrt{(360531 - 248402.963)^2 + (197.53 - 895.376)^2 + (0 - 2150.741)^2 + (0 - 2100.59)^2 + (0 - 37.556)^2}$

$= 112170.5$

$D(X_{15}, C_3)$

$= \sqrt{(147274 - 248402.963)^2 + (122.44 - 895.376)^2 + (37 - 2150.741)^2 + (33 - 2100.59)^2 + (0 - 37.556)^2}$

$= 101175.1$

$D(X_{16}, C_3)$

$= \sqrt{(769960 - 248402.963)^2 + (207{,}97 - 895.376)^2 + (178 - 2150.741)^2 + (1688 - 2100.59)^2 + (30 - 37.556)^2}$

$= 12557.55$

$D(X_{17}, C_3)$

$= \sqrt{(260720 - 248402.963)^2 + (66.54 - 895.376)^2 + (513 - 2150.741)^2 + (484 - 2100.59)^2 + (29 - 37.556)^2}$

$= 12949.92$

$D(X_{18}, C_3)$

$= \sqrt{(52351 - 248402.963)^2 + (42.97 - 895.376)^2 + (557 - 2150.741)^2 + (524 - 2100.59)^2 + (33 - 37.556)^2}$

$= 111965.8$

$D(X_{19}, C_3)$

$= \sqrt{(136441 - 248402.963)^2 + (65.94 - 895.376)^2 + (1849 - 2150.741)^2 + (1815 - 2100.59)^2 + (34 - 37.556)^2}$

$= 409088.9$

$D(X_{20}, C_3)$

$= \sqrt{(657490 - 248402.963)^2 + (346.01 - 895.376)^2 + (3025 - 2150.741)^2 + (2769 - 2100.59)^2 + (256 - 37.556)}$

$= 741849.4$

$D(X_{21}, C_3)$

$= \sqrt{(990246 - 248402.963)^2 + (226.65 - 895.376)^2 + (1935 - 2150.741)^2 + (1890 - 2100.59)^2 + (45 - 37.556)^2}$

$= 52515.71$

$D(X_{22}, C_3)$

$= \sqrt{(300911 - 248402.963)^2 + (49.9 - 895.376)^2 + (1935 - 2150.741)^2 + (1688 - 2100.59)^2 + (30 - 37.556)^2}$

$= 116784.17$

$D(X_{23}, C_3)$

$= \sqrt{(365177 - 248402.963)^2 + (166.9 - 895.376)^2 + (1179 - 2150.741)^2 + (1161 - 2100.59)^2 + (18 - 37.556)^2}$

$= 64484.98$

$D(X_{24}, C_3)$

$= \sqrt{(312758 - 248402.963)^2 + (82.49 - 895.376)^2 + (5001 - 2150.741)^2 + (4921 - 2100.59)^2 + (80 - 37.556)^2}$

$= 42313.6$

$D(X_{25}, C_3)$

$= \sqrt{(206199 - 248402.963)^2 + (88.54 - 895.376)^2 + (53 - 2150.741)^2 + (48 - 2100.59)^2 + (1 - 37.556)^2}$

$= 54873.67$

$D(X_{26}, C_3)$

$= \sqrt{(291842 - 248402.963)^2 + (4930.6 - 895.376)^2 + (25733 - 2150.741)^2 + (25590 - 2100.59)^2 + (143 - 37.5}$

$= 112422.7$

$D(X_{27}, C_3)$

$= \sqrt{(136017 - 248402.963)^2 + (484.43 - 895.376)^2 + (115 - 2150.741)^2 + (112 - 2100.59)^2 + (3 - 37.556)^2}$

$= 2189125$

$D(X_{28}, C_3)$

$= \sqrt{(2435252 - 248402.963)^2 + (9189.6 - 895.376)^2 + (2150.741 - 2150.741)^2 + (2100.59 - 2100.59)^2 + (37.55}$

$= 23433.1$

$D(X_{29}, C_3)$

$= \sqrt{(225105 - 248402.963)^2 + (1963.24 - 895.376)^2 + (519 - 2150.741)^2 + (516 - 2100.59)^2 + (3 - 37.556)^2}$

$= 20243.4$

$D(X_{30}, C_3)$

$= \sqrt{(268254 - 248402.96)^2 + (4819.51 - 895.376)^2 + (2550 - 2150.74)^2 + (2517 - 2100.59)^2 + (33 - 37.56)^2}$

$= 237426.3$

$D(X_{31}, C_3)$

$= \sqrt{(89584 - 248402.963)^2 + (2168.58 - 895.376)^2 + (0 - 2150.741)^2 + (0 - 2100.59)^2 + (0 - 37.556)^2}$

$= 158852.5$

$D(X_{32}, C_3)$

$= \sqrt{(176027 - 248402.963)^2 + (1632.45 - 895.376)^2 + (614 - 2150.741)^2 + (585 - 2100.59)^2 + (29 - 37.556)^2}$

$= 72411.89$

$D(X_{33}, C_3)$

$= \sqrt{(172838 - 248402.963)^2 + (5575.42 - 895.376)^2 + (1573 - 2150.741)^2 + (1498 - 2100.59)^2 + (75 - 37.556)}$

$= 75714.36$

Lampiran 5 Hasil Pusat Klaster Baru

Iterasi 1

a. Clustering 1

1. Jumlah Penduduk

$$C_{11} = \frac{\sum C_{1i}}{n}$$

$$C_{11} = \frac{72050434{,}5}{33}$$

$$C_{11} = 2183346.5$$

2. Kepadatan Penduduk

$$C_{21} = \frac{\sum C_{2i}}{n}$$

$$C_{21} = \frac{1658453}{33}$$

$$C_{21} = 5025{,}615$$

3. Positif CoViD-19

$$C_{31} = \frac{\sum C_{3i}}{n}$$

$$C_{31} = \frac{1349156}{33}$$

$$C_{31} = 40883{,}5$$

4. Sembuh CoViD-19

$$C_{41} = \frac{\sum C_{4i}}{n}$$

$$C_{41} = \frac{1328597}{33}$$

$$C_{41} = 40260{,}5$$

5. Meningal CoViD-19

$$C_{51} = \frac{\sum C_{5i}}{n}$$

$$C_{51} = \frac{20344{,}5}{33}$$

$$C_{51} = 616{,}5$$

b. Clustering 2

1. Jumlah Penduduk

$$C_{12} = \frac{\sum C_{1i}}{n}$$

$$C_{12} = \frac{28445159}{33}$$

$$C_{12} = 861974{,}5$$

2. Kepadatan Penduduk

$$C_{22} = \frac{\sum C_{2i}}{n}$$

$$C_{22} = \frac{7797{,}488}{33}$$

$$C_{22} = 236{,}2875$$

3. Positif CoViD-19

$$C_{32} = \frac{\sum C_{3i}}{n}$$

$$C_{32} = \frac{52107}{33}$$

$$C_{32} = 1579$$

4. Sembuh CoViD-19

$$C_{42} = \frac{\sum C_{4i}}{n}$$

$$C_{42} = \frac{49236}{33}$$

$$C_{42} = 1492$$

5. Meninggal CoViD-19

$$C_{52} = \frac{\sum C_{5i}}{n}$$

$$C_{52} = \frac{2763{,}75}{33}$$

$$C_{52} = 83{,}75$$

c. Clustering 3

1. Jumlah Penduduk

$$C_{13} = \frac{\sum C_{1i}}{n}$$

$$C_{13} = \frac{8197299}{33}$$

$$C_{13} = 248403$$

2. Kepadatan Penduduk

$$C_{23} = \frac{\sum C_{2i}}{n}$$

$$C_{23} = \frac{29546{,}42}{33}$$

$$C_{23} = 895{,}3763$$

3. Positif CoViD-19

$$C_{33} = \frac{\sum C_{3i}}{n}$$

$$C_{33} = \frac{70974{,}45}{33}$$

$$C_{33} = 2150{,}741$$

4. Sembuh CoViD-19

$$C_{43} = \frac{\sum C_{4i}}{n}$$

$$C_{43} = \frac{69319{,}57}{33}$$

$$C_{43} = 2100{,}593$$

5. Meninggal CoViD-19

$$C_{53} = \frac{\sum C_{5i}}{n}$$

$$C_{53} = \frac{1239{,}333}{33}$$

$$C_{53} = 37{,}55556$$

Tabel Hasil Pusat Klaster Baru Pada Itrerasi Pertama

Kabupaten/Kota	Klaster 1					Klaster 2					Klaster3				
	X1	X2	X3	X4	X5	X1	X2	X3	X4	X5	X1	X2	X3	X4	X5
Asahan	-	-	-	-	-	769960	207.97	1718	1688	30	-	-	-	-	-
Batu Bara	-	-	-	-	-	-	-	-	-	-	410678	445.32	931	923	8
Dairi	-	-	-	-	-	-	-	-	-	-	30874	160.16	2963	2856	107
Deli Serdang	1931441	861.6	8806	8592	214	-	-	-	-	-	-	-	-	-	-
Humbang Hasundutan	-	-	-	-	-	-	-	-	-	-	197751	84.68	3615	3234	33
Karo	-	-	-	-	-	-	-	-	-	-	404998	190.41	1504	1466	58
Labuhanbatu	-	-	-	-	-	-	-	-	-	-	493899	229.08	2321	2237	84
Labuhanbatu Selatan	-	-	-	-	-	-	-	-	-	-	314094	87.35	1438	1367	71
Labuhanbatu Utara	-	-	-	-	-	-	-	-	-	-	381994	106.97	1773	1694	79
Langkat	-	-	-	-	-	1030202	164.52	1573	1511	49	-	-	-	-	-
Mandailing Natal	-	-	-	-	-	-	-	-	-	-	472886	77.09	1164	1119	45
Nias	-	-	-	-	-	-	-	-	-	-	146672	79.6	12	8	0
Nias Barat	-	-	-	-	-	-	-	-	-	-	89994	189.97	0	0	0

Nias Selatan	-	-	-	-	-	-	-	-	-	-	360531	197.53	0	0	0
Nias Utara	-	-	-	-	-	-	-	-	-	-	147274	122.44	37	33	0
Padang Lawas Utara	-	-	-	-	-	-	-	-	-	-	260720	66.54	513	484	29
Padang Lawas	-	-	-	-	-	-	-	-	-	-	261011	67.05	121	118	3
Pakpak Barat	-	-	-	-	-	-	-	-	-	-	52351	42.97	557	524	33
Samosir	-	-	-	-	-	-	-	-	-	-	136441	65.94	1849	1815	34
Serdang Bedagai	-	-	-	-	-	657490	346.01	3025	2769	256	-	-	-	-	-
Simalungun	-	-	-	-	-	990246	226.65	0	0	0	-	-	-	-	-
Tapanuli Selatan	-	-	-	-	-	-	-	-	-	-	300911	49.9	1935	1890	45
Tapanuli Tengah	-	-	-	-	-	-	-	-	-	-	365177	166.9	1179	1161	18
Tapanuli Utara	-	-	-	-	-	-	-	-	-	-	312758	82.49	5001	4921	80
Toba	-	-	-	-	-	-	-	-	-	-	206199	88.54	53	48	1
Binjai	-	-	-	-	-	-	-	-	-	-	291842	4930.6	25733	25590	143
Gunung Sitoli	-	-	-	-	-	-	-	-	-	-	136017	484.43	115	112	3
Medan	2435252	9189.63	72961	71929	1019	-	-	-	-	-	-	-	-	-	-
Padang Sidimpuan	-	-	-	-	-	-	-	-	-	-	225105	1963.24	519	516	3
Pematang Siantar	-	-	-	-	-	-	-	-	-	-	268254	4819.51	2550	2517	33

Sibolga	-	-	-	-	-	-	-	-	-	-	89584	2168.58	0	0	0
Tanjung Balai	-	-	-	-	-	-	-	-	-	-	176027	1632.45	614	585	29
Tebing Tinggi	-	-	-	-	-	-	-	-	-	-	172838	5575.42	1573	1498	75
Asahan	-	-	-	-	-	769960	207.97	1718	1688	30	-	-	-	-	-
Rata-Rata	2183346.5	5025.615	40883.5	40260.5	616.5	861974.5	236.2875	1579	1492	83.75	248403	895.3763	2150.741	2100.593	37.55556

Iterasi 2

a. Clustering 1

1. Jumlah Penduduk

$$C_{11} = \frac{\sum C_{1i}}{n}$$

$$C_{11} = \frac{72050434{,}5}{33}$$

$$C_{11} = 2183346.5$$

2. Kepadatan Penduduk

$$C_{21} = \frac{\sum C_{2i}}{n}$$

$$C_{21} = \frac{1658453}{33}$$

$$C_{21} = 5025{,}615$$

3. Positif CoViD-19

$$C_{31} = \frac{\sum C_{3i}}{n}$$

$$C_{31} = \frac{1349156}{33}$$

$$C_{31} = 40883{,}5$$

4. Sembuh CoViD-19

$$C_{41} = \frac{\sum C_{4i}}{n}$$

$$C_{41} = \frac{1328597}{33}$$

$$C_{41} = 40260{,}5$$

5. Meninggal CoViD-19

$$C_{51} = \frac{\sum C_{5i}}{n}$$

$$C_{51} = \frac{20344{,}5}{33}$$

$$C_{51} = 616{,}5$$

b. Clustering 2

1. Jumlah Penduduk

$$C_{12} = \frac{\sum C_{1i}}{n}$$

$$C_{12} = \frac{28445159}{33}$$

$$C_{12} = 861974{,}5$$

2. Kepadatan Penduduk

$$C_{22} = \frac{\sum C_{2i}}{n}$$

$$C_{22} = \frac{7797{,}488}{33}$$

$$C_{22} = 236{,}2875$$

3. Positif CoViD-19

$$C_{32} = \frac{\sum C_{3i}}{n}$$

$$C_{32} = \frac{52107}{33}$$

$$C_{32} = 1579$$

4. Sembuh CoViD-19

$$C_{42} = \frac{\sum C_{4i}}{n}$$

$$C_{42} = \frac{49236}{33}$$

$$C_{42} = 1492$$

5. Meninggal CoViD-19

$$C_{52} = \frac{\sum C_{5i}}{n}$$

$$C_{52} = \frac{2763{,}75}{33}$$

$$C_{52} = 83{,}75$$

d. Clustering 3

1. Jumlah Penduduk

$$C_{13} = \frac{\sum C_{1i}}{n}$$

$$C_{13} = \frac{8197299}{33}$$

$$C_{13} = 248403$$

2. Kepadatan Penduduk

$$C_{23} = \frac{\sum C_{2i}}{n}$$

$$C_{23} = \frac{29546{,}42}{33}$$

$$C_{23} = 895{,}3763$$

3. Positif CoVid-19

$$C_{33} = \frac{\sum C_{3i}}{n}$$

$$C_{33} = \frac{70974{,}45}{33}$$

$$C_{33} = 2150{,}741$$

4. Sembuh CoViD-19

$$C_{43} = \frac{\sum C_{4i}}{n}$$

$$C_{43} = \frac{69319{,}57}{33}$$

$$C_{43} = 2100{,}593$$

5. Meninggal CoViD-19

$$C_{53} = \frac{\sum C_{5i}}{n}$$

$$C_{53} = \frac{1239{,}333}{33}$$

$$C_{53} = 37{,}55556$$

Tabel Hasl Pusat Klaster Baru Pada Itrerasi Kedua

Kabupaten/Kota	Klaster 1					Klaster 2					Klaster3				
	X1	X2	X3	X4	X5	X1	X2	X3	X4	X5	X1	X2	X3	X4	X5
Asahan	-	-	-	-	-	769960	207.97	0	37	7	-	-	-	-	-
Batu Bara	-	-	-	-	-	410678	445.32	168	1	0	-	-	-	-	-
Deli Serdang	1931441	861.6	0	12	12	-	-	-	-	-	-	-	-	-	-
Humbang Hasundutan	-	-	-	-	-	-	-	-	-	-	197751	84.68	0	0	0
Karo	-	-	-	-	-	404998	190.41	0	4	0	-	-	-	-	-
Labuhanbatu	-	-	-	-	-	493899	229.08	0	106	1	-	-	-	-	-
Labuhanbatu Selatan	-	-	-	-	-	-	-	-	-	-	314094	87.35	0	3	0
Labuhanbatu Utara	-	-	-	-	-	381994	106.97	0	3	0	-	-	-	-	-
Langkat	-	-	-	-	-	1030202	164.52	0	70	12	-	-	-	-	-
Mandailing Natal	-	-	-	-	-	472886	77.09	0	0	0	-	-	-	-	-
Nias	-	-	-	-	-	-	-	-	-	-	146672	79.6	0	0	0
Nias Barat	-	-	-	-	-	-	-	-	-	-	89994	189.97	0	0	0

Nias Selatan	-	-	-	-	-	360531	197.53	0	2	0	-	-	-	-	-
Nias Utara	-	-	-	-	-	-	-	-	-	-	147274	122.44	0	0	0
Padang Lawas Utara	-	-	-	-	-	-	-	-	-	-	260720	66.54	0	1	0
Padang Lawas	-	-	-	-	-	-	-	-	-	-	261011	67.05	0	0	0
Pakpak Barat	-	-	-	-	-	-	-	-	-	-	52351	42.97	0	0	0
Samosir	-	-	-	-	-	-	-	-	-	-	136441	65.94	0	0	0
Serdang Bedagai	-	-	-	-	-	657490	346.01	0	3	0	-	-	-	-	-
Simalungun	-	-	-	-	-	990246	226.65	45	2	0	-	-	-	-	-
Tapanuli Selatan	-	-	-	-	-	-	-	-	-	-	300911	49.9	0	10	0
Tapanuli Tengah	-	-	-	-	-	365177	166.9	17	6	0	-	-	-	-	-
Tapanuli Utara	-	-	-	-	-	-	-	-	-	-	312758	82.49	10	17	0
Toba	-	-	-	-	-	-	-	-	-	-	206199	88.54	0	2	0
Binjai	-	-	-	-	-	-	-	-	-	-	291842	4930.6	0	1	0
Gunung Sitoli	-	-	-	-	-	-	-	-	-	-	136017	484.43	0	0	0
Medan	2435252	9189.63	451	367	4	-	-	-	-	-	-	-	-	-	-
Padang Sidimpuan	-	-	-	-	-	-	-	-	-	-	225105	1963.24	0	6	0

Pematang Siantar	-	-	-	-	-	-	-	-	-	-	268254	4819.51	1	6	0
Sibolga	-	-	-	-	-	-	-	-	-	-	89584	2168.58	0	0	0
Tanjung Balai	-	-	-	-	-	-	-	-	-	-	176027	1632.45	0	21	1
TebingTinggi	-	-	-	-	-	-	-	-	-	-	172838	5575.42	0	1	0
Rata-Rata	2183346.5	5025.615	40883.5	40260.5	616.5	861974.5	236.2875	1579	1492	83.75	248403	895.3763	2150.741	2100.593	37.55556

Lampiran 6 Anova *Clustering*

No	Kabupaten/Kota	X11	X21	X31	X41	X51	X12	X22	X32	X42	X52	X13	X23	X33	X43	X53
1	Asahan	-	-	-	-	-	769960	207,97	1718	-	30	-	-	-	-	-
2	Batu Bara	-	-	-	-	-	-	-	-	-	-	410678	445,32	931	923	8
3	Dairi	-	-	-	-	-	-	-	-	-	-	30874	160,16	2963	2856	107
4	Deli Serdang	1931441	861,6	8806	8592	214	-	-	-	-	-	-	-	-	-	-
5	Humbang Hasundutan	-	-	-	-	-	-	-	-	-	-	197751	84,68	3615	3234	33
6	Karo	-	-	-	-	-	-	-	-	-	-	404998	190,41	1504	1466	58
7	Labuhanbatu	-	-	-	-	-	-	-	-	-	-	493899	229,08	2321	2237	84
8	Labuhanbatu Selatan	-	-	-	-	-	-	-	-	-	-	314094	87,35	1438	1367	71
9	Labuhanbatu Utara	-	-	-	-	-	-	-	-	-	-	381994	106,97	1773	1694	79
10	Langkat	-	-	-	-	-	1030202	164,52	1573	1511	49	-	-	-	-	-
11	Mandailing Natal	-	-	-	-	-	-	-	-	-	-	472886	77,09	1164	1119	45
12	Nias	-	-	-	-	-	-	-	-	-	-	146672	79,6	12	8	0
13	Nias Barat	-	-	-	-	-	-	-	-	-	-	89994	189,97	0	0	0
14	Nias Selatan	-	-	-	-	-	-	-	-	-	-	360531	197,53	0	0	0
15	Nias Utara	-	-	-	-	-	-	-	-	-	-	147274	122,44	37	33	0
16	Padang Lawas Utara	-	-	-	-	-	-	-	-	-	-	260720	66,54	513	484	29
17	Padang Lawas	-	-	-	-	-	-	-	-	-	-	261011	67,05	121	118	3
18	Pakpak Barat	-	-	-	-	-	-	-	-	-	-	52351	42,97	557	524	33
19	Samosir	-	-	-	-	-	-	-	-	-	-	136441	65,94	1849	1815	34
20	Serdang Bedagai	-	-	-	-	-	657490	346,01	3025	2769	256	-	-	-	-	-

21	Simalungun	-	-	-	-	-	990246	226,65	0	0	0	-	-	-	-	-
22	Tapanuli Selatan	-	-	-	-	-	-	-	-	-	-	300911	49,9	1935	1890	45
23	Tapanuli Tengah	-	-	-	-	-	-	-	-	-	-	365177	166,9	1179	1161	18
24	Tapanuli Utara	-	-	-	-	-	-	-	-	-	-	312758	82,49	5001	4921	80
25	Toba	-	-	-	-	-	-	-	-	-	-	206199	88,54	53	48	1
26	Binjai	-	-	-	-	-	-	-	-	-	-	291842	4930,6	25733	25590	143
27	Gunung Sitoli	-	-	-	-	-	-	-	-	-	-	136017	484,43	115	112	3
28	Medan	2435252	9189,63	72961	71929	1019	-	-	-	-	-	-	-	-	-	-
29	Padang Sidimpuan	-	-	-	-	-	-	-	-	-	-	225105	1963,24	519	516	3
30	Pematang Siantar	-	-	-	-	-	-	-	-	-	-	268254	4819,51	2550	2517	33
31	Sibolga	-	-	-	-	-	-	-	-	-	-	89584	2168,58	0	0	0
32	Tanjung Balai	-	-	-	-	-	-	-	-	-	-	176027	1632,45	614	585	29
33	Tebing Tinggi	-	-	-	-	-	-	-	-	-	-	172838	5575,42	1573	1498	75
	Total	4366693	10051,23	81767	80521	1233	3447898	945,15	6316	4280	335	6706880	24175,16	58070	56716	1014
	Rata-rata	2183346,5	5025,615	40883,5	40260,5	616,5	861974,5	236,2875	1579	1426,667	83,75	248403	895,3763	2150,741	2100,593	37,55556

No	Kabupaten/Kota	$X11^2$	$X21^2$	$X31^2$	$X41^2$	$X51^2$	$X12^2$	$X22^2$	$X32^2$	$X42^2$	$X52^2$	$X13^2$	$X23^2$	$X33^2$	$X43^2$	$X53^2$
1	Asahan	-	-	-	-	-	5,93E+11	43251,52	2951524	-	900	-	-	-	-	-
2	Batu Bara	-	-	-	-	-	-	-	-	-	-	1,69E+11	198309,9	866761	851929	64
3	Dairi	-	-	-	-	-	-	-	-	-	-	9,53E+08	25651,23	8779369	8156736	11449
4	Deli Serdang	3,73046E+12	742354,6	77545636	73822464	45796	-	-	-	-	-	-	-	-	-	-
5	Humbang Hasundutan	-	-	-	-	-	-	-	-	-	-	3,91E+10	7170,702	13068225	10458756	1089
6	Karo	-	-	-	-	-	-	-	-	-	-	1,64E+11	36255,97	2262016	2149156	3364
7	Labuhanbatu	-	-	-	-	-	-	-	-	-	-	2,44E+11	52477,65	5387041	5004169	7056
8	Labuhanbatu Selatan	-	-	-	-	-	-	-	-	-	-	9,87E+10	7630,023	2067844	1868689	5041
9	Labuhanbatu Utara	-	-	-	-	-	-	-	-	-	-	1,46E+11	11442,58	3143529	2869636	6241
10	Langkat	-	-	-	-	-	1,06E+12	27066,83	2474329	2283121	2401	-	-	-	-	-
11	Mandailing Natal	-	-	-	-	-	-	-	-	-	-	2,24E+11	5942,868	1354896	1252161	2025
12	Nias	-	-	-	-	-	-	-	-	-	-	2,15E+10	6336,16	144	64	0
13	Nias Barat	-	-	-	-	-	-	-	-	-	-	8,1E+09	36088,6	0	0	0
1	Nias Selatan	-	-	-	-	-	-	-	-	-	-	1,3E+1	39018,	0	0	0

4												1	1			
15	Nias Utara	-	-	-	-	-	-	-	-	-	-	2,17E+10	14991,55	1369	1089	0
16	Padang Lawas Utara	-	-	-	-	-	-	-	-	-	-	6,8E+10	4427,572	263169	234256	841
17	Padang Lawas	-	-	-	-	-	-	-	-	-	-	6,81E+10	4495,703	14641	13924	9
18	Pakpak Barat	-	-	-	-	-	-	-	-	-	-	2,74E+09	1846,421	310249	274576	1089
19	Samosir	-	-	-	-	-	-	-	-	-	-	1,86E+10	4348,084	3418801	329422 5	1156
20	Serdang Bedagai	-	-	-	-	-	4,32E+11	119722,9	915062 5	76673 61	65536	-	-	-	-	-
21	Simalungun	-	-	-	-	-	9,81E+11	51370,22	0	0	0	-	-	-	-	-
22	Tapanuli Selatan	-	-	-	-	-	-	-	-	-	-	9,05E+10	2490,01	3744225	3572100	2025
23	Tapanuli Tengah	-	-	-	-	-	-	-	-	-	-	1,33E+11	27855,61	1390041	1347921	324
24	Tapanuli Utara	-	-	-	-	-	-	-	-	-	-	9,78E+10	6804,6	25010001	24216241	6400
25	Toba	-	-	-	-	-	-	-	-	-	-	4,25E+10	7839,332	2809	2304	1
26	Binjai	-	-	-	-	-	-	-	-	-	-	8,52E+10	24310816	6,62E+08	6,55E+08	20449
27	Gunung Sitoli	-	-	-	-	-	-	-	-	-	-	1,85E+10	234672,4	13225	12544	9
28	Medan	5,93045E	844493	5,32E+	5,17E+	103836	-	-	-	-	-	-	-	-	-	-

		+12	00	09	09	1										
29	Padang Sidimpuan	-	-	-	-	-	-	-	-	-	-	5,07E+10	3854311	269361	266256	9
30	Pematang Siantar	-	-	-	-	-	-	-	-	-	-	7,2E+10	23227677	650250	633528	1089
31	Sibolga	-	-	-	-	-	-	-	-	-	-	8,03E+09	4702739	0	0	0
32	Tanjung Balai	-	-	-	-	-	-	-	-	-	-	3,1E+10	2664893	376996	342225	841
33	Tebing Tinggi	-	-	-	-	-	-	-	-	-	-	2,99E+10	31085308	247432	224400	5625
	Total	9,66092E+12	85191654	5,4E+09	5,25E+09	1084157	3,07E+12	241411,5	14576478	9950482	68837	2,08E+12	90581840	7,43E+08	7,3E+08	76196
	Rata-rata	4,83046E+12	42595827	2,7E+09	2,62E+09	542078,5	7,67E+11	60352,87	3644120	3316827	17209,25	7,71E+10	3354883	275151	270228	2822,074

1. Jumlah Penduduk

X1	C1	C2	C3	Jumlah
N	2	4	27	33
$\sum_{i=1}^{n} x_i$	4366693	3447898	6706880	14521471
$\sum_{i=1}^{n} {x_i}^2$	9,66092E+12	3,06703E+12	2,08304E+12	1,48E+13

$$MS_{beetwen} = \frac{\left\{\left(\sum_{i=1}^{n} \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}\right) - \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}\right\}}{N-1}$$

$$MS_{beetwen} = \frac{\left\{\left(\left(\frac{(4366693)^2}{2} + \frac{(3447898)^2}{4} + \frac{(6706880)^2}{27}\right)\right) - \frac{(14521471)^2}{33}\right\}}{3-1}$$

$$MS_{beetwen} = 3890959175695{,}8$$

$$MS_{without} = \frac{\sum_{i=1}^{n} {x_i}^2 - \sum_{i=1}^{n} \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}}{n-N}$$

$$MS_{without} = \frac{(1{,}48\text{E}+13) - \left(\left(\frac{(4366693)^2}{2} + \frac{(3447898)^2}{4} + \frac{(6706880)^2}{27}\right)\right)}{33-3}$$

$$MS_{without} = 21299233425{,}820$$

$$F = \frac{between\ cluster\ mean}{within\ cluster\ mean} = \frac{MS_{beetwen}}{MS_{without}}$$

$$F = \frac{3890959175695{,}8}{21299233425{,}82}$$

$$F = 182{,}681$$

2. Kepadatan Penduduk

X2	C1	C2	C3	Jumlah
N	2	4	27	33
$\sum_{i=1}^{n} x_i$	10051,23	945,15	24175,16	35171,54
$\sum_{i=1}^{n} {x_i}^2$	85191654,1	241411,5	90581839,8	1,76E+08

$$MS_{beetwen} = \frac{\left\{\left(\sum_{i=1}^{n} \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}\right) - \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}\right\}}{N-1}$$

$$MS_{beetwen} = \frac{\left\{\left(\left(\frac{(10051{,}23)^2}{2} + \frac{(945{,}15)^2}{4} + \frac{(24175{,}16)^2}{27}\right)\right) - \frac{(35171{,}54)^2}{33}\right\}}{3-1}$$

$$MS_{beetwen} = 17448414.033$$

$$MS_{without} = \frac{\sum_{i=1}^{n} {x_i}^2 - \sum_{i=1}^{n} \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}}{n-N}$$

$$MS_{without} = \frac{(1{,}76\text{E}+08) - \left(\left(\frac{(10051{,}23)^2}{2} + \frac{(945{,}15)^2}{4} + \frac{(24175{,}16)^2}{27}\right)\right)}{33-3}$$

$$MS_{without} = 3454403.359$$

$$F = \frac{between\ cluster\ mean}{within\ cluster\ mean} = \frac{MS_{beetwen}}{MS_{without}}$$

$$F = \frac{17448414.033}{3454403.359}$$

$$F = 5{,}051$$

3. Positif COViD-19

X3	C1	C2	C3	Jumlah
N	2	4	27	33
$\sum_{i=1}^{n} x_i$	81767	6316	58070	146153
$\sum_{i=1}^{n} {x_i}^2$	5,4E+09	14576478	7,43E+08	6,16E+09

$$MS_{beetwen} = \frac{\left\{\left(\sum_{i=1}^{n} \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}\right) - \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}\right\}}{N-1}$$

$$MS_{beetwen} = \frac{\left\{\left(\left(\frac{(81767)^2}{2} + \frac{(6316)^2}{4} + \frac{(58070)^2}{27}\right)\right) - \frac{(146153)^2}{33}\right\}}{3-1}$$

$$MS_{beetwen} = 1415246850.915$$

$$MS_{without} = \frac{\sum_{i=1}^{n} {x_i}^2 - \sum_{i=1}^{n} \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}}{n-N}$$

$$MS_{without} = \frac{(6{,}16\text{E}+09) - \left(\left(\frac{(81767)^2}{2} + \frac{(6316)^2}{4} + \frac{(58070)^2}{27}\right)\right)}{33-3}$$

$$MS_{without} = 89351694.723$$

$$F = \frac{between\ cluster\ mean}{within\ cluster\ mean} = \frac{MS_{beetwen}}{MS_{without}}$$

$$F = \frac{1415246850.915}{89351694.723}$$

$$F = 15{,}839$$

4. Sembuh CoViD-19

X4	C1	C2	C3	Jumlah
N	2	4	27	33
$\sum_{i=1}^{n} x_i$	80521	4280	56716	141517
$\sum_{i=1}^{n} {x_i}^2$	5247603505	9950482	7,3E+08	5,99E+09

$$MS_{beetwen} = \frac{\left\{\left(\sum_{i=1}^{n} \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}\right) - \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}\right\}}{N-1}$$

$$MS_{beetwen} = \frac{\left\{\left(\left(\frac{(80521)^2}{2} + \frac{(4280)^2}{4} + \frac{(56716)^2}{27}\right)\right) - \frac{(141517)^2}{33}\right\}}{3-1}$$

$$MS_{beetwen} = 1374206289.582$$

$$MS_{without} = \frac{\sum_{i=1}^{n} {x_i}^2 - \sum_{i=1}^{n} \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}}{n-N}$$

$$MS_{without} = \frac{(5{,}99\text{E}+09) - \left(\left(\frac{(80521)^2}{2} + \frac{(4280)^2}{4} + \frac{(56716)^2}{27}\right)\right)}{33-3}$$

$$MS_{without} = 87338749.834$$

$$F = \frac{between\ cluster\ mean}{within\ cluster\ mean} = \frac{MS_{beetwen}}{MS_{without}}$$

$$F = \frac{1374206289.582}{87338749.834}$$

$$F = 15{,}734$$

5. Meninggal CoViD-19

X5	C1	C2	C3	Jumlah
N	2	4	27	33
$\sum_{i=1}^{n} y_i$	1233	335	1014	2582
$\sum_{i=1}^{n} {y_i}^2$	1084157	68837	76196	1229190

$$MS_{beetwen} = \frac{\left\{\left(\sum_{i=1}^{n} \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}\right) - \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}\right\}}{N-1}$$

$$MS_{beetwen} = \frac{\left\{\left(\left(\frac{(1233)^2}{2} + \frac{(335)^2}{4} + \frac{(1014)^2}{27}\right)\right) - \frac{(2582)^2}{33}\right\}}{3-1}$$

$$MS_{beetwen} = 312130.072$$

$$MS_{without} = \frac{\sum_{i=1}^{n} {x_i}^2 - \sum_{i=1}^{n} \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}}{n-N}$$

$$MS_{without} = \frac{(1229190) - \left(\left(\frac{(1233)^2}{2} + \frac{(335)^2}{4} + \frac{(1014)^2}{27}\right)\right)}{33-3}$$

$$MS_{without} = 13430.264$$

$$F = \frac{between\ cluster\ mean}{within\ cluster\ mean} = \frac{MS_{beetwen}}{MS_{without}}$$

$$F = \frac{312130.072}{13430.264}$$

$$F = 23{,}241$$