Note: I copied output instead of screenshot (for debugging purposes)

Top 100 attributes

All Emotions

kMeans

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Number of iterations: 186

Within cluster sum of squared errors: 81538.99049996289

Initial starting points (random):

Cluster 0: 48,32,51,59,79,124,75,54,102,40,134,59,102,27,139,63,136,171,143,101,40,64,148,115,59,130,138,40,150,133,146,90,42,37,108,132,157,123,86,81,112,97,90,86,128,80,66,24,71,137,189,151,151,96,43,138,68,131,146,51,87,89,76,101,86,141,89,96,83,108,91,183,32,106,115,114,111,93,127,44,47,185,118,83,85,97,102,173,77,92,185,106,164,129,160,111,184,116,112,181

Cluster 1: 153,154,139,151,160,152,151,137,164,140,148,160,157,154,166,144,194,157,207,151,168,147,172,148,154,189,171,158,200,206,136,168,160,163,178,207,165,170,137,139,163,167,148,167,206,137,147,168,161,191,144,202,190,166,172,205,143,159,202,159,170,134,170,171,152,202,183,136,161,166,152,51,148,177,196,199,186,175,161,150,163,63,155,187,169,182,170,186,145,181,39,207,204,204,77,185,157,201,197,53

Cluster 2: 168,157,205,164,195,207,217,200,183,175,214,196,196,170,161,155,129,184,135,214,161,156,125,186,204,122,124,159,150,122,215,173,161,153,123,144,164,148,225,171,176,198,177,160,137,167,138,158,150,124,181,171,157,167,169,163,149,197,140,138,128,153,208,154,150,129,186,144,147,149,150,188,140,149,193,177,170,112,175,159,131,177,152,119,153,142,126,181,223,147,184,121,193,143,158,165,162,162,187,163

Cluster 3: 116,108,107,124,161,151,173,122,150,96,96,121,169,89,142,140,60,143,63,176,88,138,94,83,80,57,119,141,64,62,145,119,101,90,73,57,138,139,159,190,146,75,191,101,60,191,152,88,134,67,153,68,83,190,82,57,157,170,77,152,136,188,78,129,193,74,69,193,196,52,192,86,144,149,154,147,157,103,161,120,149,82,147,70,194,183,149,89,171,198,144,76,71,62,134,139,152,123,160,118

Cluster 4: 159,153,151,159,141,144,172,150,166,150,146,143,162,148,173,160,162,152,162,176,165,146,141,145,144,159,141,138,165,158,171,175,166,158,138,162,177,173,175,107,149,139,130,171,163,83,138,157,173,163,141,166,168,152,145,166,157,172,167,143,142,63,138,161,63,163,135,54,59,166,77,167,173,147,99,140,164,137,142,165,148,167,176,132,66,117,144,161,175,88,169,161,165,152,165,164,149,55,64,170

Cluster 5: 74,28,79,100,112,118,128,95,116,18,133,92,123,31,110,91,144,109,178,135,103,77,123,59,36,110,83,82,183,110,135,112,97,63,139,182,113,103,140,91,118,25,84,104,158,89,82,51,106,152,126,185,186,73,30,184,99,131,185,81,83,89,39,78,89,170,44,91,86,86,89,186,112,120,142,145,128,92,118,101,82,191,109,63,80,99,81,188,149,96,188,121,186,14,191,130,113,121,144,192

Cluster 6: 165,180,121,160,174,176,179,115,174,132,144,155,179,185,171,164,174,176,174,187,183,115,177,143,138,173,173,148,176,182,178,171,177,184,178,178,173,170,186,170,170,144,125,168,178,171,111,186,173,174,177,181,174,77,168,177,162,184,168,145,165,173,126,97,173,169,155,176,174,99,171,169,173,100,84,93,89,171,175,179,145,178,176,175,161,99,162,178,205,112,177,183,182,179,187,80,178,87,99,183

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1 2 3 4 5 6

(35887.0) (4181.0) (6205.0) (6465.0) (6079.0) (4403.0) (4243.0) (4311.0)

===================================================================================================

Pixel1897 124.6701 62.4439 153.3892 176.8288 111.4326 154.8403 91.3632 86.097

Pixel1898 124.4735 62.5901 154.2932 176.4614 112.9655 152.4819 88.3469 86.7847

Pixel1945 125.4293 61.0366 156.0163 179.5663 112.1487 154.933 87.7994 88.2985

Pixel1896 124.612 61.7111 151.8475 176.6647 109.5759 157.0111 94.4339 86.1679

Pixel1503 147.7019 74.8017 145.0479 198.9954 101.3112 174.0193 156.0898 175.5829

Pixel1504 147.0543 74.552 143.8308 198.6025 101.014 174.1113 154.6797 174.4878

Pixel1456 150.2551 77.756 147.9971 200.5706 105.7077 176.4606 156.9031 177.8713

Pixel1944 125.4101 60.642 154.4032 179.4433 110.2277 156.945 91.1388 88.3953

Pixel1551 144.2576 71.8673 140.7223 196.2343 97.3075 170.8324 153.3394 171.7309

Pixel1946 125.3407 61.3183 156.8039 179.4312 113.5917 152.963 84.6514 89.4326

Pixel1993 126.6676 60.7355 156.282 181.9547 111.9008 153.9612 86.8282 97.2324

Pixel1992 126.8148 60.5664 154.6688 181.9248 110.0581 155.9564 90.6792 97.7595

Pixel1455 151.3958 78.6848 149.894 201.2657 106.4897 177.0129 158.6165 179.3405

Pixel1899 124.0449 62.823 154.039 175.3281 114.2354 149.921 85.4344 88.7476

Pixel1599 141.1289 69.3494 136.9658 193.3016 95.0732 167.6561 149.935 167.6783

Pixel1895 124.2765 61.1239 149.3426 175.9126 106.938 158.6691 97.7818 87.4096

Pixel1618 140.879 78.9122 146.575 190.854 124.2431 152.4038 99.3745 170.3711

Pixel1552 144.1328 72.067 140.1038 196.4662 97.9067 171.2682 151.9074 171.1598

Pixel1570 143.8122 80.9397 149.5352 193.4653 126.7585 156.1585 103.0973 173.5996

Pixel1408 153.8759 82.6286 152.8182 202.6014 111.3394 178.9103 158.6323 181.1575

Pixel1849 124.5373 64.928 148.7589 172.9357 109.6542 152.1029 94.9677 96.8413

Pixel1943 125.3247 60.386 151.7744 179.1063 107.8668 158.2326 95.3165 90.1234

Pixel2041 128.1571 60.802 156.1334 182.8631 112.2744 150.0838 89.3502 109.3702

Pixel1994 126.6964 61.3054 157.5317 181.6857 113.7649 151.4224 83.8195 98.45

Pixel1947 125.0334 61.746 156.5196 178.3991 114.743 150.5501 81.9913 91.8759

Pixel1666 137.8411 76.9232 144.2047 187.1977 121.8625 148.7577 95.7709 166.5338

Pixel2040 128.2844 60.6836 154.552 183.0811 110.1647 151.8948 93.362 109.6706

Pixel1991 126.8899 60.6121 152.6161 181.6063 107.7766 156.6464 94.9394 100.0916

Pixel1522 146.7558 83.1136 152.7633 195.8249 129.3614 160.4411 106.9043 176.0195

Pixel1665 137.9032 77.2074 143.982 187.2442 121.9128 149.2512 96.8822 165.3572

Pixel1457 148.4424 78.7113 146.2841 198.4733 105.5269 174.6732 152.2048 174.1705

Pixel1550 144.1294 72.9682 142.0145 195.0421 98.7087 169.1106 152.1772 170.4502

Pixel1848 124.5268 64.4709 147.2861 172.5053 107.9556 153.7415 98.3747 97.3308

Pixel1850 124.4037 65.0108 149.6725 172.8843 111.6309 149.4372 92.3099 96.9622

Pixel2042 128.2373 61.4229 157.6688 182.7415 114.1188 147.3007 86.1346 110.8144

Pixel1571 143.4537 81.226 150.1376 192.2863 128.0308 153.8113 102.1226 172.8012

Pixel1600 141.237 69.5893 136.5994 193.6048 95.7269 168.3579 148.8284 167.8692

Pixel1647 138.1951 68.1186 135.0986 189.9026 94.1609 163.4583 144.1362 163.5152

Pixel1409 151.5959 81.9878 150.2029 200.1825 110.377 176.7901 154.744 177.5398

Pixel2282 126.7556 57.5484 165.3149 187.02 112.1383 96.4958 78.5798 146.9334

Pixel1502 147.7368 76.1636 146.4245 197.9456 102.6496 172.6745 155.0936 174.6124

Pixel1995 126.5945 61.9806 157.4532 180.8362 115.0834 148.6641 81.3448 101.7277

Pixel2283 126.478 57.784 166.005 186.9292 113.9365 92.0883 75.4589 148.5748

Pixel1598 140.9086 70.84 138.6134 191.7678 96.48 165.5253 148.2482 166.18

Pixel1619 140.4357 78.9703 147.4574 189.2871 125.3655 150.1851 98.4287 169.3185

Pixel2281 126.7969 57.4707 163.8185 186.3548 110.3971 100.7311 82.2168 145.0543

Pixel1942 125.0356 60.3631 148.9251 177.9643 105.3708 158.1149 99.4099 93.1645

Pixel1851 123.9767 64.9067 149.6255 171.8421 113.4205 147.191 89.7012 97.4776

Pixel1648 137.9556 67.7852 133.6137 189.7352 94.5007 163.9582 143.6526 163.7193

Pixel1617 141.2683 79.5841 147.1808 190.866 124.5965 153.0997 100.7389 169.5184

Pixel1505 146.1326 76.1162 143.4372 197.1104 102.2344 172.7888 150.6686 171.6804

Pixel1474 149.9293 86.0973 156.5397 197.9522 132.5353 163.9864 111.304 178.4906

Pixel1473 149.0001 86.0077 155.4766 196.6815 130.5545 164.3913 111.49 176.4748

Pixel2284 126.0631 58.4726 165.4543 186.196 115.267 88.7988 72.8355 150.4106

Pixel1900 123.6614 63.519 153.0614 174.1318 114.9987 147.3872 82.559 92.4226

Pixel1523 146.6584 83.8522 153.801 195.1287 130.9531 157.7531 105.7615 175.6678

Pixel1894 123.5847 60.7993 146.0717 174.3196 104.1415 158.2139 101.403 89.9065

Pixel1407 155.1167 83.8682 155.1281 203.1726 112.3685 179.4245 159.9606 182.8186

Pixel1521 146.3297 83.2083 152.3666 194.8862 128.3237 161.1281 107.7879 174.2508

Pixel1990 126.7991 61.1397 149.9987 180.9323 105.2129 155.9936 99.6279 103.27

Pixel2039 128.4801 61.1619 153.1805 182.709 108.0273 152.4093 97.3754 111.9068

Pixel2280 126.7555 58.0069 161.4316 184.9217 108.9266 104.8612 85.9324 143.9722

Pixel1948 124.9242 62.8199 155.2882 177.6116 115.9296 147.3395 79.828 96.6138

Pixel2285 125.2999 59.5154 164.0073 184.4263 116.3591 85.2457 70.6752 151.9984

Pixel2233 129.1142 58.7297 165.3792 188.4354 112.7014 109.9902 83.8977 143.3967

Pixel1569 143.9572 81.5886 149.9118 193.2051 126.4035 157.1092 104.3512 172.3206

Pixel1996 126.5061 63.1002 156.5446 179.7787 116.4159 144.7436 79.404 106.8351

Pixel2279 126.5334 58.4652 157.9868 183.1873 107.0025 109.4006 89.873 143.4368

Pixel2234 129.2443 58.5448 167.0232 189.2903 114.6975 105.9337 80.4205 145.7611

Pixel2286 124.2802 60.421 161.877 181.0215 116.8589 83.4869 69.8397 152.7172

Pixel2232 129.089 59.0926 163.094 187.3118 110.7829 113.5358 87.9413 142.9137

Pixel745 152.0183 90.5848 159.0417 196.0483 127.7564 167.0572 130.4537 175.537

Pixel1649 137.8822 69.3198 134.2222 189.0677 95.9015 162.9871 141.8414 162.5451

Pixel2238 126.6184 60.6422 165.7004 185.3423 119.6391 85.4199 70.3483 153.5887

Pixel2191 127.2004 62.5094 164.3462 183.8645 121.1897 90.1508 70.4791 153.6416

Pixel2192 125.3537 63.3609 160.3001 179.4247 120.0679 88.1794 70.3832 153.6145

Pixel2239 125.0285 61.2382 162.3234 181.0978 119.3593 83.9264 69.3144 153.939

Pixel2089 129.5897 61.023 157.2564 183.7026 113.0727 144.1999 91.2783 121.1925

Pixel1454 151.3831 80.2167 151.1818 200.1559 107.5292 175.9818 157.1695 178.5709

Pixel1847 123.9994 63.7017 144.5534 171.5666 105.5623 154.7499 101.679 98.1202

Pixel1989 126.7534 61.7893 147.9215 179.1157 103.0905 154.4159 104.0429 108.2322

Pixel746 148.693 88.8041 155.7196 192.2947 125.6827 163.5571 125.2993 171.5653

Pixel1601 141.3037 71.5317 138.0575 192.9228 97.6981 167.0881 146.1416 166.6258

Pixel2043 128.3331 62.3042 157.9923 182.1064 115.9304 144.0945 83.6981 114.3626

Pixel2235 129.036 58.7029 168.0053 189.5572 116.6231 100.6377 77.2022 147.9214

Pixel2237 127.8295 60.2849 167.292 187.7671 119.0938 90.613 71.8607 152.0668

Pixel2038 128.4746 61.734 150.9365 181.9954 105.826 151.7658 101.8343 114.9789

Pixel1425 152.1243 89.2325 159.3204 198.7839 133.9365 167.2778 115.5993 178.9072

Pixel1361 155.2 86.5384 155.3051 202.2 115.3803 179.2444 157.0884 180.8903

Pixel2236 128.5036 59.1005 168.1139 188.9559 117.8562 95.7216 74.3799 149.9091

Pixel697 153.6074 92.4465 160.7658 196.731 129.3723 168.9166 132.8388 176.9297

Pixel1664 138.1059 77.9146 145.3455 186.8845 122.4884 148.6357 98.0431 163.6101

Pixel1426 153.3476 89.9524 161.2011 200.0232 136.4652 166.754 115.0573 181.3296

Pixel1713 134.4647 75.2045 141.5531 183.0868 119.4055 145.8319 92.9239 159.3301

Pixel747 143.2887 85.625 151.0551 185.6841 121.8939 158.0738 118.6003 163.8239

Pixel2240 122.9873 62.3298 156.8769 175.6357 117.8029 85.6934 69.7311 151.8991

Pixel1553 143.9719 73.8876 140.872 195.6042 99.7727 170.0949 149.1193 169.553

Pixel2144 127.1971 64.8885 160.9895 180.7524 120.9946 96.0323 72.6679 152.919

Pixel2190 128.7393 62.4396 166.1478 186.4733 121.3909 95.8658 72.6995 151.708

Pixel698 151.0929 90.758 158.2042 193.985 128.1523 166.4808 128.7634 173.6595

Clustered Instances

0 4181 ( 12%)

1 6205 ( 17%)

2 6465 ( 18%)

3 6079 ( 17%)

4 4403 ( 12%)

5 4243 ( 12%)

6 4311 ( 12%)

Class attribute: Class

Classes to Clusters:

0 1 2 3 4 5 6 <-- assigned to cluster

763 764 709 944 594 670 509 | 0

49 99 125 98 56 50 70 | 1

511 815 992 793 603 634 773 | 2

826 2436 1689 1907 1027 658 446 | 3

1044 835 770 1126 773 942 587 | 4

176 393 908 305 401 467 1352 | 5

812 863 1272 906 949 822 574 | 6

Cluster 0 <-- 4

Cluster 1 <-- 3

Cluster 2 <-- 2

Cluster 3 <-- 0

Cluster 4 <-- 6

Cluster 5 <-- 1

Cluster 6 <-- 5

Incorrectly clustered instances : 28120.0 78.3571 %

Angry

kMeans

======

Number of iterations: 16

Within cluster sum of squared errors: 99109.86713210074

Initial starting points (random):

Cluster 0: 105,108,114,85,115,100,93,144,146,78,148,146,93,97,148,140,67,110,110,149,145,142,101,86,119,73,116,71,92,142,136,106,82,90,96,149,146,130,122,65,118,92,81,113,89,116,103,146,136,136,85,127,136,145,69,65,87,120,130,92,87,135,85,124,120,140,86,90,108,145,87,175,89,187,149,76,133,84,100,187,94,89,49,145,76,149,152,95,151,95,68,156,131,112,125,107,148,148,96,134

Cluster 1: 212,221,189,208,218,179,218,173,171,175,148,173,189,223,165,184,215,193,225,173,186,166,201,220,187,185,220,224,173,161,181,215,215,181,175,163,180,160,224,206,214,179,213,199,207,201,221,178,164,162,210,224,223,213,218,174,211,151,229,175,218,198,215,223,197,185,216,201,211,165,214,177,172,184,184,224,216,212,228,171,188,212,223,211,213,186,168,200,156,215,213,189,228,149,169,184,185,188,198,223

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1

(35887.0) (15669.0) (20218.0)

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Pixel1362 152.0846 115.9726 180.0714

Pixel1314 155.6874 120.4942 182.9622

Pixel1363 149.4414 114.7739 176.3088

Pixel1409 151.5959 115.0403 179.9266

Pixel1315 152.9472 118.8733 179.3546

Pixel1410 148.7629 112.2153 177.0874

Pixel1361 155.2 119.1921 183.1062

Pixel1423 147.7067 111.9756 175.3984

Pixel1375 150.9266 115.6073 178.2991

Pixel1457 148.4424 111.4083 177.144

Pixel1327 154.4527 119.7355 181.3587

Pixel1374 149.4563 115.7328 175.5921

Pixel1458 146.3016 109.3621 174.9298

Pixel1313 158.5287 123.6127 185.5888

Pixel1326 152.6913 119.2743 178.5895

Pixel1424 149.9857 113.9336 177.9261

Pixel1408 153.8759 118.1939 181.5296

Pixel1411 146.1403 110.9225 173.4342

Pixel1266 158.6088 124.8574 184.7661

Pixel1279 157.4431 123.6582 183.6264

Pixel1422 146.0614 111.6753 172.7107

Pixel1471 145.7673 109.4425 173.9191

Pixel1609 136.7802 97.9613 166.865

Pixel1506 144.731 107.3638 173.6907

Pixel1364 148.5745 115.9399 173.8663

Pixel1505 146.1326 108.9138 174.9773

Pixel1267 156.0144 122.845 181.7207

Pixel1360 157.5766 122.5122 184.7516

Pixel1657 135.2941 97.1279 164.873

Pixel1376 153.3158 117.6668 180.9439

Pixel1472 147.5289 111.1178 175.7476

Pixel1610 137.0299 98.4823 166.9044

Pixel1653 135.901 98.521 164.8706

Pixel1656 135.219 96.9421 164.8838

Pixel1608 136.7071 97.7926 166.866

Pixel1278 155.483 122.4737 181.0653

Pixel1328 156.8275 121.9426 183.8633

Pixel1519 144.6279 107.5572 173.3578

Pixel1562 137.5528 100.3324 166.3986

Pixel1456 150.2551 114.1492 178.2373

Pixel1561 137.3898 100.0829 166.3028

Pixel1658 135.6707 97.9244 164.9243

Pixel1554 143.3744 106.0623 172.2914

Pixel1560 137.1755 99.9211 166.0478

Pixel1655 135.2303 97.1497 164.7428

Pixel1412 144.6172 111.2649 170.4653

Pixel1459 143.8998 108.0139 171.7114

Pixel1520 145.7918 109.083 174.2413

Pixel1518 142.7274 106.0987 171.1147

Pixel1567 143.5382 106.3044 172.3945

Pixel1654 135.2281 97.6266 164.3694

Pixel1513 139.8486 104.5425 167.2109

Pixel1417 151.4464 119.1567 176.471

Pixel1373 149.2124 117.1591 174.0537

Pixel1652 136.9772 100.0708 165.5797

Pixel1504 147.0543 110.912 175.0646

Pixel1605 138.0184 99.7655 167.6645

Pixel1566 142.2261 104.6685 171.3333

Pixel1514 139.1349 104.112 166.2777

Pixel1607 136.6007 97.7931 166.6767

Pixel1604 139.6755 101.7261 169.0864

Pixel1517 140.2729 104.4902 168.0046

Pixel1555 142.1629 104.3968 171.4317

Pixel1563 137.7686 100.8016 166.4182

Pixel1316 151.7404 119.2954 176.8853

Pixel1470 143.6977 108.3206 171.1151

Pixel1603 140.8768 103.4456 169.8861

Pixel1606 136.7435 98.2167 166.6019

Pixel1611 137.3427 99.3174 166.8124

Pixel1661 137.1019 100.5545 165.4263

Pixel1703 132.4989 97.0217 159.9938

Pixel1662 137.7667 101.5778 165.8131

Pixel1659 135.9827 98.808 164.7932

Pixel1568 144.0913 107.7798 172.2328

Pixel1230 157.6913 125.3957 182.7204

Pixel1312 160.4039 126.2799 186.85

Pixel1516 138.4709 103.3596 165.6823

Pixel1704 132.4957 96.772 160.1816

Pixel1265 160.722 127.239 186.6714

Pixel1615 141.4798 104.9689 169.7759

Pixel1706 132.6421 97.1378 160.1581

Pixel1556 140.2288 102.6155 169.3792

Pixel1359 158.5072 124.4825 184.8765

Pixel1280 159.4743 125.8618 185.524

Pixel1553 143.9719 107.2223 172.4529

Pixel1473 149.0001 113.2675 176.693

Pixel1425 152.1243 116.6452 179.6206

Pixel1557 138.0717 100.9454 166.8446

Pixel1614 140.7768 103.3701 169.7671

Pixel1507 142.8265 105.9613 171.3972

Pixel1701 132.4224 97.6723 159.3537

Pixel1710 133.3447 99.3358 159.7016

Pixel1515 138.2496 103.4739 165.2008

Pixel1613 139.3846 101.6432 168.6342

Pixel1565 140.1518 102.8824 169.0357

Pixel1559 137.0375 99.9461 165.7834

Pixel1709 132.9473 98.7318 159.4643

Pixel1231 159.3271 126.7533 184.572

Pixel1705 132.4749 96.5633 160.3064

Pixel1416 150.9845 118.6711 176.0274

Clustered Instances

0 15669 ( 44%)

1 20218 ( 56%)

Class attribute: Class

Classes to Clusters:

0 1 <-- assigned to cluster

13026 17908 | 0

2643 2310 | 1

0 0 | 2

0 0 | 3

0 0 | 4

0 0 | 5

0 0 | 6

Cluster 0 <-- 1

Cluster 1 <-- 0

Incorrectly clustered instances : 15336.0 42.7341 %

Disgust

kMeans

======

Number of iterations: 18

Within cluster sum of squared errors: 107750.78065371394

Initial starting points (random):

Cluster 0: 31,3,173,70,131,161,168,9,203,209,138,73,17,172,147,174,9,177,197,35,213,128,183,101,219,218,175,221,127,216,162,49,109,135,12,161,8,7,9,208,195,218,182,8,149,154,13,197,155,187,166,143,11,179,8,8,157,152,8,143,180,217,175,198,9,113,28,8,8,216,157,109,192,183,12,150,10,108,138,188,148,8,192,184,8,44,110,185,93,189,8,159,143,119,117,105,8,79,11,10

Cluster 1: 113,114,73,122,118,86,64,99,82,97,100,133,159,80,100,116,72,156,131,131,139,159,99,140,162,156,152,157,115,158,128,151,164,106,122,84,122,139,127,156,156,159,114,152,55,148,165,140,148,156,122,139,161,136,61,86,139,148,78,50,71,165,151,156,143,136,155,114,80,161,162,167,131,107,145,168,149,148,143,162,39,155,173,132,72,168,140,128,161,121,154,56,171,146,135,173,89,48,158,69

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1

(35887.0) (14889.0) (20998.0)

=========================================

Pixel24 133.587 75.6303 174.6822

Pixel25 133.5057 74.5528 175.3073

Pixel30 129.1334 69.5321 171.3948

Pixel26 133.1146 73.3859 175.4664

Pixel27 132.5979 72.359 175.3114

Pixel29 130.5774 70.3953 173.2506

Pixel31 127.3634 69.0606 168.7041

Pixel19 129.8853 79.5252 165.594

Pixel78 134.3539 73.1003 177.7869

Pixel79 132.4933 71.9262 175.4394

Pixel28 131.6248 71.2056 174.4661

Pixel23 133.4056 76.856 173.503

Pixel22 132.9956 77.8145 172.1227

Pixel77 135.9896 74.3181 179.7188

Pixel76 137.1736 75.6086 180.8274

Pixel75 138.132 77.0989 181.4086

Pixel18 128.4133 80.0725 162.6902

Pixel174 142.755 84.8661 183.8021

Pixel126 139.1177 78.6077 182.0233

Pixel73 139.0968 79.7085 181.2071

Pixel127 137.0389 76.7085 179.8173

Pixel222 145.5157 91.3218 183.9428

Pixel80 130.1281 71.0605 172.011

Pixel74 138.773 78.5115 181.5025

Pixel271 145.3712 94.6481 181.3372

Pixel175 140.6061 82.5676 181.7593

Pixel177 134.9828 77.9492 175.4234

Pixel223 143.3695 88.7311 182.1118

Pixel125 140.8068 80.3866 183.6487

Pixel224 140.6971 85.7142 179.6837

Pixel129 131.6241 73.6504 172.7314

Pixel173 144.4472 87.2331 185.0159

Pixel270 147.5347 97.5121 183.0042

Pixel124 142.0439 82.1339 184.5241

Pixel72 139.1268 80.8217 180.469

Pixel81 127.3396 70.4503 167.6779

Pixel71 138.9351 81.9203 179.3624

Pixel70 138.4583 82.7494 177.9597

Pixel20 131.1342 79.1057 168.0259

Pixel176 137.9438 80.0084 179.0239

Pixel273 139.7463 88.1282 176.347

Pixel272 142.7813 91.4136 179.2044

Pixel123 142.9177 83.8731 184.7843

Pixel21 132.2218 78.5781 170.2588

Pixel32 125.2765 68.7758 165.3394

Pixel274 136.4852 85.2567 172.8097

Pixel269 149.4764 100.4787 184.2191

Pixel128 134.4954 74.8915 176.7585

Pixel178 131.7862 76.3133 171.1202

Pixel225 137.6303 82.9053 176.434

Pixel130 128.4423 72.7383 167.9402

Pixel172 145.7314 89.2298 185.7948

Pixel221 147.2678 93.924 185.0921

Pixel179 128.2483 74.958 166.0348

Pixel17 126.4563 80.4483 159.0791

Pixel67 135.0601 83.867 171.3594

Pixel227 130.9524 78.438 168.1886

Pixel226 134.3666 80.4918 172.5675

Pixel66 133.3153 83.9001 168.354

Pixel33 122.8105 68.6808 161.1922

Pixel82 124.4142 70.256 162.816

Pixel319 146.8248 99.9564 180.0576

Pixel322 138.2107 89.8921 172.4719

Pixel321 141.4365 93.3143 175.5584

Pixel69 137.673 83.3055 176.2233

Pixel122 143.6606 85.5396 184.8723

Pixel121 144.1757 87.0493 184.6822

Pixel68 136.5174 83.6855 173.9788

Pixel65 131.2465 83.9605 164.7755

Pixel320 144.3227 96.751 178.0543

Pixel220 148.6175 96.1354 185.8308

Pixel318 149.0996 103.1336 181.6926

Pixel171 146.715 91.1311 186.1277

Pixel131 124.9869 72.167 162.4398

Pixel119 143.9906 89.0719 182.9316

Pixel268 150.9161 102.8183 185.0206

Pixel120 144.308 88.249 184.0576

Pixel323 134.8732 86.9784 168.8338

Pixel275 133.1265 82.6537 168.915

Pixel219 149.7277 98.2392 186.2365

Pixel34 120.1901 69.0357 156.4621

Pixel118 143.48 89.7049 181.6102

Pixel267 151.9881 104.7053 185.5149

Pixel276 129.5131 80.5364 164.2408

Pixel16 123.9421 80.423 154.8001

Pixel317 151.1471 106.3374 182.9202

Pixel170 147.4643 92.8923 186.1595

Pixel228 127.0852 76.8224 162.7248

Pixel218 150.4815 99.9735 186.2951

Pixel180 124.322 73.87 160.0959

Pixel117 142.6846 90.0905 179.9774

Pixel83 121.1584 70.2599 157.2489

Pixel316 152.6563 108.7215 183.8091

Pixel371 136.1929 90.9272 168.2893

Pixel324 131.4428 84.5333 164.7048

Pixel266 152.8454 106.5624 185.6632

Pixel64 128.6502 83.6912 160.5291

Pixel2004 125.2116 107.3431 137.8815

Pixel169 147.9731 94.4328 185.9368

Pixel114 138.0447 89.5852 172.4058

Clustered Instances

0 14889 ( 41%)

1 20998 ( 59%)

Class attribute: Class

Classes to Clusters:

0 1 <-- assigned to cluster

14749 20591 | 0

140 407 | 1

0 0 | 2

0 0 | 3

0 0 | 4

0 0 | 5

0 0 | 6

Cluster 0 <-- 1

Cluster 1 <-- 0

Incorrectly clustered instances : 15156.0 42.2326 %

Fear

kMeans

======

Number of iterations: 21

Within cluster sum of squared errors: 188726.82779788732

Initial starting points (random):

Cluster 0: 72,69,71,97,105,143,94,83,76,164,73,172,143,98,69,196,79,199,181,72,81,74,149,89,189,71,73,71,200,102,145,111,125,64,73,171,72,184,200,109,137,186,106,107,73,86,70,79,138,175,136,70,72,191,131,172,92,63,168,72,162,69,172,69,102,173,191,167,71,111,174,99,190,69,153,190,166,197,121,123,158,72,166,179,148,71,76,76,168,71,181,139,186,189,199,181,166,70,198,73

Cluster 1: 102,100,104,102,99,110,102,156,106,153,179,100,181,177,99,109,140,104,114,106,184,102,169,101,137,92,161,93,103,130,113,125,212,106,101,114,103,110,147,105,201,124,195,151,92,126,97,97,147,145,144,170,104,105,151,111,88,108,101,157,107,95,183,97,75,116,109,108,96,112,117,124,139,97,123,130,125,177,153,96,144,98,141,158,153,86,92,90,152,99,148,95,115,144,107,109,154,85,135,91

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1

(35887.0) (16213.0) (19674.0)

=========================================

Pixel818 114.1564 176.6545 62.6527

Pixel770 113.1405 175.8676 61.4482

Pixel866 115.1103 177.2681 63.8871

Pixel819 112.986 172.5755 63.8793

Pixel867 114.1769 173.5567 65.243

Pixel911 114.1414 158.3103 77.7426

Pixel771 111.7774 171.3719 62.6666

Pixel863 112.9345 157.3279 76.3506

Pixel914 116.1505 177.7486 65.3886

Pixel623 109.1582 153.3298 72.7571

Pixel767 111.0152 155.9738 73.9657

Pixel915 115.3011 174.1104 66.8373

Pixel671 109.5271 153.9852 72.89

Pixel815 111.8681 156.5816 75.0204

Pixel722 112.2398 174.6888 60.7766

Pixel959 115.1186 158.9339 79.0112

Pixel862 112.6695 154.5924 78.1217

Pixel1011 117.5126 174.8068 70.2975

Pixel1012 118.6116 170.6841 75.6996

Pixel913 117.6102 179.2381 66.8238

Pixel719 110.1266 154.8232 73.293

Pixel865 116.7602 179.0108 65.4606

Pixel912 115.3159 160.2371 78.297

Pixel723 110.7512 170.1895 61.7692

Pixel960 116.2346 160.8795 79.4434

Pixel579 108.2687 165.7062 60.9355

Pixel814 111.2284 153.4148 76.4633

Pixel531 107.7838 164.4149 61.1152

Pixel963 116.4351 174.5927 68.5084

Pixel910 114.0587 155.5286 79.8841

Pixel575 108.9055 152.5765 72.917

Pixel622 106.9907 148.9593 72.4051

Pixel768 112.8764 158.2129 75.5153

Pixel961 118.3945 179.1202 68.3514

Pixel817 115.9094 178.3782 64.43

Pixel1929 116.9428 148.6852 90.7845

Pixel769 115.0797 177.5225 63.6216

Pixel964 117.2111 169.7641 73.903

Pixel1007 116.1422 159.4758 80.4318

Pixel962 117.0866 177.8584 67.0057

Pixel816 113.5894 158.8036 76.3292

Pixel1060 119.6645 171.0756 77.2975

Pixel864 114.4591 159.5248 77.3213

Pixel720 112.3572 157.552 75.1129

Pixel627 108.8094 166.9837 60.869

Pixel670 107.6752 149.843 72.9255

Pixel578 110.684 170.6589 61.2597

Pixel675 109.662 168.5559 61.1285

Pixel672 112.1729 157.222 75.0487

Pixel1817 120.4016 145.9198 99.3724

Pixel958 115.387 156.3328 81.6443

Pixel766 109.9326 152.3276 74.9957

Pixel721 114.4521 176.468 63.3459

Pixel916 115.8129 168.8509 72.1053

Pixel1816 123.3814 145.5348 105.1251

Pixel1928 115.7511 150.2132 87.3515

Pixel772 111.2828 164.7754 67.2005

Pixel1009 119.0284 178.7806 69.7876

Pixel868 114.3498 167.9136 70.2087

Pixel718 108.7627 151.1537 73.829

Pixel1010 117.8565 177.6408 68.5893

Pixel626 110.9479 171.8254 60.7799

Pixel624 111.9138 156.6416 75.0543

Pixel530 110.3043 169.0411 61.9004

Pixel724 110.0445 163.4351 66.0462

Pixel1881 118.5476 149.9014 92.7096

Pixel1059 118.4165 174.7112 72.025

Pixel1977 115.3977 147.2052 89.1857

Pixel625 113.6887 174.1359 63.8752

Pixel1057 119.6242 178.3477 71.2311

Pixel1013 121.2149 166.3041 84.0576

Pixel574 106.5906 148.2655 72.247

Pixel1865 118.6539 144.5614 97.304

Pixel674 111.4914 173.21 60.6302

Pixel1930 119.109 147.5964 95.633

Pixel1008 117.1478 161.3216 80.745

Pixel1978 117.0591 145.9573 93.2446

Pixel1055 117.0632 159.9315 81.7361

Pixel1768 125.2639 146.6476 107.642

Pixel820 112.7469 166.4012 68.5314

Pixel1006 116.608 157.0191 83.306

Pixel577 113.3406 172.9598 64.2095

Pixel576 111.5971 155.7869 75.1811

Pixel1247 119.0249 159.4688 85.6958

Pixel1864 121.4109 144.3043 102.5449

Pixel532 106.4033 158.8483 63.1842

Pixel483 107.4594 162.9949 61.6936

Pixel434 109.9841 166.0319 63.7961

Pixel1769 122.1805 146.9455 101.772

Pixel673 114.1448 175.3966 63.6682

Pixel1295 119.3447 159.4368 86.3055

Pixel527 108.8123 151.8419 73.3524

Pixel1105 120.0776 177.7167 72.5782

Pixel1056 117.8854 161.57 81.8857

Pixel1058 118.6751 177.2877 70.3735

Pixel965 119.5208 164.7303 82.2644

Pixel1912 119.3404 142.7972 100.0101

Pixel580 107.0107 159.7932 63.5135

Pixel1913 116.7801 143.0372 95.1421

Pixel482 110.0029 167.4084 62.6961

Clustered Instances

0 16213 ( 45%)

1 19674 ( 55%)

Class attribute: Class

Classes to Clusters:

0 1 <-- assigned to cluster

13449 17317 | 0

2764 2357 | 1

0 0 | 2

0 0 | 3

0 0 | 4

0 0 | 5

0 0 | 6

Cluster 0 <-- 1

Cluster 1 <-- 0

Incorrectly clustered instances : 15806.0 44.0438 %

Happy

kMeans

======

Number of iterations: 10

Within cluster sum of squared errors: 106800.65796092547

Initial starting points (random):

Cluster 0: 110,118,155,114,113,100,108,181,125,120,125,121,103,136,121,125,127,139,139,192,139,124,141,149,155,137,126,143,166,149,145,131,159,146,129,128,149,217,137,191,166,157,126,136,184,150,147,198,159,180,154,160,149,89,166,180,141,159,156,143,162,202,158,149,156,164,144,161,152,159,148,224,185,191,156,116,166,226,158,143,149,169,168,159,136,136,162,143,139,189,162,156,133,153,141,122,113,165,159,185

Cluster 1: 143,127,149,161,156,136,140,152,173,179,128,172,140,184,163,131,175,173,168,130,177,173,172,199,146,165,173,118,208,159,169,174,143,134,173,148,180,125,143,141,178,164,143,150,209,140,110,157,160,144,144,128,157,163,129,199,171,141,167,174,163,141,132,130,131,169,157,167,121,138,127,125,204,154,129,174,200,128,154,121,137,166,125,138,125,173,129,166,149,145,182,120,174,154,146,147,178,188,127,161

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1

(35887.0) (16819.0) (19068.0)

=========================================

Pixel1897 124.6701 89.369 155.8075

Pixel1896 124.612 89.3972 155.6733

Pixel1849 124.5373 91.603 153.5871

Pixel1945 125.4293 88.422 158.0717

Pixel1944 125.4101 88.4928 157.9733

Pixel1850 124.4037 91.6562 153.2888

Pixel1898 124.4735 89.2625 155.5315

Pixel1848 124.5268 91.7734 153.4171

Pixel1993 126.6676 87.9966 160.7774

Pixel1992 126.8148 88.2563 160.8255

Pixel1895 124.2765 89.4391 155.005

Pixel1946 125.3407 88.1846 158.1145

Pixel1851 123.9767 91.5137 152.6109

Pixel1994 126.6964 87.976 160.8499

Pixel1943 125.3247 88.7451 157.5898

Pixel1899 124.0449 89.0558 154.9072

Pixel1991 126.8899 88.5782 160.6829

Pixel2041 128.1571 88.4555 163.1761

Pixel2040 128.2844 88.7015 163.1986

Pixel1847 123.9994 91.7222 152.4696

Pixel1947 125.0334 88.076 157.6318

Pixel1942 125.0356 88.8578 156.9465

Pixel2042 128.2373 88.4189 163.3592

Pixel1995 126.5945 88.0109 160.6273

Pixel1894 123.5847 89.3902 153.7462

Pixel2039 128.4801 89.1596 163.1629

Pixel1990 126.7991 89.0124 160.1291

Pixel1900 123.6614 88.9599 154.2699

Pixel1996 126.5061 88.4114 160.1077

Pixel2043 128.3331 88.9013 163.1141

Pixel2089 129.5897 89.4125 165.0282

Pixel1989 126.7534 90.1303 159.057

Pixel1948 124.9242 88.3498 157.1848

Pixel2090 129.7254 89.6909 165.0379

Pixel1941 125.0368 89.6744 156.2284

Pixel1852 123.4052 91.3818 151.6517

Pixel2088 129.6896 89.566 165.0807

Pixel1846 123.0373 91.3197 151.014

Pixel2038 128.4746 90.0226 162.3914

Pixel1801 125.56 95.3429 152.213

Pixel2044 128.3827 89.6192 162.5742

Pixel2087 129.7668 90.134 164.725

Pixel1802 125.5232 95.3296 152.1556

Pixel2037 128.3731 91.1873 161.173

Pixel1997 126.8859 89.6042 159.7703

Pixel2137 130.3824 89.9266 166.0666

Pixel2091 129.9176 90.3814 164.7906

Pixel1800 125.5653 95.4963 152.0877

Pixel2086 129.6828 91.0143 163.7905

Pixel1949 125.1285 89.0437 156.9573

Pixel2138 130.5908 90.4129 166.0298

Pixel1893 123.1859 89.6667 152.7516

Pixel2136 130.4335 90.112 165.9993

Pixel1803 125.0754 95.2929 151.3451

Pixel1901 123.735 89.959 153.5272

Pixel2045 128.6868 91.1379 161.8069

Pixel1988 127.2994 92.1641 158.2907

Pixel2092 129.9555 91.1672 164.1689

Pixel2135 130.5575 90.8806 165.5547

Pixel1940 125.6355 91.4345 155.8026

Pixel2085 129.7264 92.3938 162.6558

Pixel1799 124.9711 95.4011 151.0534

Pixel2185 130.4161 90.5877 165.5468

Pixel2139 130.8014 91.1379 165.7868

Pixel2184 130.3738 90.7612 165.3143

Pixel2134 130.4482 91.8816 164.466

Pixel2036 128.7494 93.207 160.0997

Pixel2093 129.6657 92.3721 162.5606

Pixel2186 130.5804 90.9109 165.5711

Pixel2183 130.298 91.4955 164.524

Pixel2140 130.6298 92.0068 164.6973

Pixel1845 122.5689 91.493 149.9796

Pixel1998 127.9245 92.3572 159.2967

Pixel1950 126.1372 91.208 156.9465

Pixel2233 129.1142 91.1152 162.6314

Pixel1804 124.702 95.4485 150.5051

Pixel2046 129.1189 93.4932 160.5427

Pixel1798 124.1367 95.2784 149.5913

Pixel1853 123.4403 92.3884 150.8298

Pixel2187 130.5688 91.5294 165.0036

Pixel1892 123.7508 91.3443 152.3351

Pixel2133 130.3289 93.4784 162.8331

Pixel2084 129.9051 94.6674 160.9866

Pixel2232 129.089 91.3884 162.343

Pixel2234 129.2443 91.3426 162.6756

Pixel2141 129.9945 93.2502 162.405

Pixel2182 130.1479 92.7437 163.1403

Pixel1987 128.4362 94.9805 157.946

Pixel2094 129.5968 94.2044 160.8148

Pixel1902 124.6517 91.8674 153.5692

Pixel1939 126.8982 94.2177 155.724

Pixel2231 128.8916 92.031 161.4047

Pixel2188 130.1119 92.4691 163.315

Pixel2035 129.4671 96.0794 158.9168

Pixel2281 126.7969 90.908 158.4529

Pixel2235 129.036 91.9435 161.7536

Pixel2282 126.7556 91.0646 158.2369

Pixel1999 128.8623 95.0734 158.6659

Pixel2280 126.7555 91.2982 158.0306

Pixel1951 127.5893 94.115 157.1154

Clustered Instances

0 16819 ( 47%)

1 19068 ( 53%)

Class attribute: Class

Classes to Clusters:

0 1 <-- assigned to cluster

13683 13215 | 0

3136 5853 | 1

0 0 | 2

0 0 | 3

0 0 | 4

0 0 | 5

0 0 | 6

Cluster 0 <-- 0

Cluster 1 <-- 1

Incorrectly clustered instances : 16351.0 45.5625 %

Neutral

kMeans

======

Number of iterations: 15

Within cluster sum of squared errors: 166508.18222758872

Initial starting points (random):

Cluster 0: 18,22,20,19,27,27,16,19,26,54,34,19,20,20,27,31,15,13,25,37,23,49,24,22,17,21,43,32,16,20,21,167,125,12,148,20,60,13,21,27,166,171,18,161,151,22,117,12,161,65,42,29,136,170,160,158,169,152,21,40,166,30,24,15,153,181,164,19,181,176,40,181,34,168,173,18,18,21,160,29,18,31,20,167,167,175,52,146,166,14,33,27,178,148,15,155,114,30,12,183

Cluster 1: 32,48,181,168,77,44,167,160,69,58,48,160,168,66,63,69,173,177,168,60,180,68,24,121,170,172,77,56,173,139,20,102,98,163,102,142,80,122,68,62,109,133,166,107,101,130,97,177,110,69,82,45,104,119,106,102,109,107,173,62,100,25,121,139,103,137,138,186,140,126,81,141,62,108,106,44,85,48,101,74,168,49,147,136,132,128,83,98,130,81,42,38,139,99,179,101,99,74,152,138

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1

(35887.0) (18710.0) (17177.0)

=========================================

Pixel11 110.535 62.7416 162.5938

Pixel12 112.9878 66.1817 163.9712

Pixel53 108.3701 62.4468 158.3919

Pixel197 106.0683 58.2521 158.152

Pixel89 105.8572 73.4282 141.1805

Pixel59 112.5978 65.7458 163.6314

Pixel150 106.0373 56.8346 159.6313

Pixel245 105.5688 58.1321 157.239

Pixel137 106.3926 74.6418 140.9772

Pixel14 118.7617 74.3948 167.0882

Pixel13 115.9113 70.2259 165.674

Pixel244 106.9036 61.4011 156.467

Pixel198 105.6046 56.832 158.7302

Pixel138 105.3731 73.5295 140.0586

Pixel186 105.3905 74.1637 139.4043

Pixel90 105.5477 73.4905 140.4659

Pixel149 106.7117 59.047 158.6304

Pixel101 107.4937 60.4505 158.7353

Pixel196 107.6046 62.284 156.97

Pixel187 105.04 73.9904 138.8606

Pixel54 106.9803 58.5967 159.6819

Pixel185 106.9008 76.2396 140.2985

Pixel58 110.0787 61.872 162.5878

Pixel103 106.4004 56.5709 160.677

Pixel102 106.5053 57.3872 160.0071

Pixel6 107.7459 60.8165 158.8637

Pixel41 105.6071 73.0827 141.0343

Pixel139 105.4239 74.1948 139.4401

Pixel148 108.3384 63.6177 157.0504

Pixel151 106.4137 57.1732 160.0489

Pixel10 108.7033 59.9346 161.8245

Pixel67 135.0601 100.3081 172.9136

Pixel63 125.5983 84.806 170.0311

Pixel246 105.438 57.5983 157.5473

Pixel111 129.7378 92.0421 170.7978

Pixel293 105.1632 58.6028 155.8789

Pixel15 121.3778 78.4978 168.0848

Pixel294 105.427 58.9571 156.0442

Pixel57 108.088 58.7485 161.8309

Pixel235 104.7457 74.0784 138.15

Pixel114 138.0447 105.2692 173.7454

Pixel23 133.4056 100.0128 169.7785

Pixel56 106.7197 56.8854 161.0016

Pixel66 133.3153 97.2478 172.6016

Pixel18 128.4133 89.8153 170.456

Pixel199 106.5566 58.4913 158.9116

Pixel110 126.1989 86.798 169.1161

Pixel100 109.2673 65.351 157.1029

Pixel160 136.3646 103.8592 171.7709

Pixel62 122.4049 79.9452 168.654

Pixel88 107.1165 74.8861 142.2234

Pixel60 115.9161 70.4779 165.4095

Pixel158 129.4987 93.2195 169.0158

Pixel22 132.9956 98.769 170.2768

Pixel113 135.635 101.3933 172.9326

Pixel19 129.8853 92.5433 170.5599

Pixel161 139.289 108.3505 172.9888

Pixel159 133.1463 98.7503 170.612

Pixel55 106.4248 56.7739 160.5068

Pixel234 105.5659 75.1528 138.6934

Pixel68 136.5174 102.8606 173.178

Pixel105 109.2004 60.9072 161.8036

Pixel9 107.186 57.7808 161.0006

Pixel292 106.3065 61.1139 155.5325

Pixel112 132.9358 96.9937 172.0855

Pixel73 139.0968 109.8004 171.0078

Pixel25 133.5057 101.6466 168.2081

Pixel5 109.2789 64.9432 157.5714

Pixel72 139.1268 109.1186 171.8131

Pixel70 138.4583 106.793 172.9497

Pixel136 108.1063 77.0737 141.9084

Pixel71 138.9351 108.1763 172.439

Pixel283 104.5884 74.6225 137.2287

Pixel69 137.673 104.9668 173.2982

Pixel115 140.0421 108.5136 174.3845

Pixel106 111.7781 65.2478 162.461

Pixel104 107.3009 57.8857 161.1263

Pixel91 106.1738 75.026 140.1015

Pixel20 131.1342 94.9707 170.5252

Pixel152 107.8775 59.781 160.2665

Pixel8 106.5815 57.1703 160.4026

Pixel61 119.3101 75.2883 167.2606

Pixel7 106.8492 58.1201 159.9272

Pixel26 133.1146 101.9445 167.0667

Pixel24 133.587 100.9505 169.1362

Pixel116 141.5445 111.0228 174.7902

Pixel87 108.9328 77.4589 143.2156

Pixel17 126.4563 86.4032 170.084

Pixel27 132.5979 101.8759 166.0617

Pixel342 105.4863 60.5706 154.4107

Pixel236 105.1711 75.0621 137.9674

Pixel188 105.7239 75.4579 138.691

Pixel74 138.773 110.0433 170.0667

Pixel64 128.6502 89.4373 171.3628

Pixel341 104.984 59.4314 154.602

Pixel65 131.2465 93.6766 172.1694

Pixel16 123.9421 82.447 169.1406

Pixel42 105.8859 74.0028 140.6144

Pixel243 109.0269 66.5366 155.3094

Pixel117 142.6846 113.137 174.8692

Clustered Instances

0 18710 ( 52%)

1 17177 ( 48%)

Class attribute: Class

Classes to Clusters:

0 1 <-- assigned to cluster

14836 14853 | 0

3874 2324 | 1

0 0 | 2

0 0 | 3

0 0 | 4

0 0 | 5

0 0 | 6

Cluster 0 <-- 1

Cluster 1 <-- 0

Incorrectly clustered instances : 17160.0 47.8168 %

Sad

kMeans

======

Number of iterations: 28

Within cluster sum of squared errors: 88701.61835216184

Initial starting points (random):

Cluster 0: 191,201,199,192,183,185,197,197,179,192,176,195,201,161,166,174,188,162,150,174,171,188,189,177,175,210,167,117,133,161,177,184,169,129,196,103,162,198,140,149,168,157,173,165,172,130,95,171,174,89,101,186,181,200,171,176,170,213,181,115,86,143,175,121,180,168,169,156,182,182,179,84,124,208,143,119,184,186,171,116,87,165,109,174,95,104,97,187,97,199,186,172,111,115,109,188,179,185,115,116

Cluster 1: 217,219,210,207,218,214,205,209,201,192,202,205,199,205,219,201,205,221,212,191,217,186,131,164,179,187,201,214,203,217,186,110,198,221,202,221,221,178,199,110,165,192,147,202,44,164,226,208,166,219,213,155,97,183,212,113,162,179,77,208,224,113,106,182,148,193,192,40,163,121,149,206,209,187,149,128,183,60,152,139,81,23,132,95,81,142,72,98,211,130,201,130,199,62,134,204,41,189,72,119

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1

(35887.0) (21580.0) (14307.0)

=========================================

Pixel551 158.422 191.53 108.4835

Pixel599 156.6733 188.8481 108.1424

Pixel600 157.6896 190.0282 108.9117

Pixel648 155.6889 186.684 108.9374

Pixel552 159.0472 192.2371 108.9853

Pixel647 154.1483 184.8301 107.8694

Pixel601 157.5414 189.7585 108.9467

Pixel649 155.7644 186.5613 109.3118

Pixel553 158.8156 191.818 109.0363

Pixel550 157.1449 189.8455 107.8209

Pixel697 153.6074 182.6384 109.8185

Pixel598 154.6316 186.2709 106.9084

Pixel650 154.0323 184.0557 108.7463

Pixel696 153.5024 182.6914 109.4752

Pixel504 159.4434 192.9872 108.8477

Pixel503 159.032 192.4474 108.63

Pixel602 156.3983 187.9487 108.8091

Pixel505 159.3235 192.6213 109.0987

Pixel695 151.2742 179.9491 108.0225

Pixel554 157.9264 190.4081 108.9325

Pixel646 151.1198 180.9643 106.1037

Pixel698 151.0929 179.1444 108.7814

Pixel549 155.1159 187.0562 106.9387

Pixel502 158.1548 191.2944 108.1685

Pixel597 151.7928 182.4718 105.5181

Pixel651 150.6395 179.5293 107.0634

Pixel506 158.5633 191.3695 109.08

Pixel744 151.8484 179.0937 110.7531

Pixel745 152.0183 179.0701 111.2147

Pixel456 159.0475 192.4362 108.6856

Pixel555 156.2497 187.9184 108.482

Pixel501 156.6332 189.2069 107.5007

Pixel455 158.6883 191.9664 108.4931

Pixel694 147.2856 174.8082 105.772

Pixel603 154.0922 184.7312 107.8778

Pixel743 148.7988 175.2342 108.9249

Pixel457 158.9671 192.103 108.9866

Pixel699 146.6847 173.22 106.6601

Pixel645 147.1475 175.6743 104.1189

Pixel548 152.4727 183.5356 105.6188

Pixel507 157.0675 189.2412 108.5383

Pixel746 148.693 174.5717 109.6587

Pixel454 157.8812 190.8115 108.2106

Pixel458 158.297 191.0278 108.9274

Pixel500 154.5431 186.2716 106.6853

Pixel596 148.5199 178.0121 104.0351

Pixel742 143.5109 168.3816 105.9971

Pixel408 158.1147 190.8329 108.764

Pixel407 157.8259 190.4935 108.5517

Pixel792 151.4903 176.7656 113.3663

Pixel793 151.8102 176.9297 113.9212

Pixel556 153.8338 184.6079 107.4156

Pixel453 156.6624 189.0975 107.7389

Pixel604 150.7843 180.2778 106.2977

Pixel409 157.882 190.3837 108.858

Pixel406 157.0779 189.3791 108.3563

Pixel459 157.091 189.1763 108.6951

Pixel652 146.2068 173.5715 104.9311

Pixel452 155.0893 186.7316 107.3617

Pixel693 142.0253 167.8386 103.0898

Pixel791 147.2277 171.3597 110.8281

Pixel547 149.6998 179.512 104.7324

Pixel508 155.2739 186.5906 108.0373

Pixel644 142.7733 169.7244 102.1215

Pixel360 156.7652 188.5665 108.7977

Pixel747 143.2887 167.3913 106.9334

Pixel410 157.3952 189.5371 108.9138

Pixel499 152.1437 182.7686 105.9505

Pixel359 156.497 188.3434 108.4615

Pixel405 155.9751 187.7661 108.0232

Pixel361 156.5237 188.1696 108.7906

Pixel841 153.2405 176.7115 117.838

Pixel794 147.6719 171.3692 111.9279

Pixel700 141.1922 165.8407 104.0137

Pixel595 145.1341 173.1509 102.875

Pixel1262 161.714 183.226 129.2662

Pixel358 155.8299 187.3686 108.2583

Pixel557 151.028 180.6456 106.3544

Pixel411 156.4528 187.9259 108.9802

Pixel1214 161.0266 182.1561 129.156

Pixel1235 160.4341 180.9259 129.5252

Pixel451 153.0598 183.7064 106.8339

Pixel1261 160.2605 181.4058 128.3658

Pixel460 155.52 186.7119 108.4716

Pixel1236 159.2912 179.5054 128.8012

Pixel1213 159.7552 180.57 128.3592

Pixel1284 159.3689 179.717 128.6769

Pixel404 154.4796 185.4921 107.7019

Pixel840 152.8897 176.4138 117.4071

Pixel605 147.1209 175.2071 104.7571

Pixel312 155.1649 185.924 108.7693

Pixel362 156.0957 187.4502 108.802

Pixel741 137.14 159.9291 102.7661

Pixel1283 160.7994 181.4173 129.7002

Pixel1309 159.1667 180.2361 127.3868

Pixel311 154.8901 185.6581 108.4812

Pixel509 153.1932 183.3145 107.7598

Pixel313 155.0539 185.6497 108.9047

Pixel1237 157.3331 177.0382 127.6109

Pixel1310 160.628 182.1586 128.1524

Clustered Instances

0 21580 ( 60%)

1 14307 ( 40%)

Class attribute: Class

Classes to Clusters:

0 1 <-- assigned to cluster

18733 11077 | 0

2847 3230 | 1

0 0 | 2

0 0 | 3

0 0 | 4

0 0 | 5

0 0 | 6

Cluster 0 <-- 0

Cluster 1 <-- 1

Incorrectly clustered instances : 13924.0 38.7996 %

Surprise

kMeans

======

Number of iterations: 18

Within cluster sum of squared errors: 87630.71681043252

Initial starting points (random):

Cluster 0: 78,69,84,42,71,52,20,20,97,67,75,73,94,61,29,61,91,74,114,57,65,103,102,69,106,97,82,37,59,57,68,99,56,28,105,89,91,57,107,73,42,90,98,55,84,35,63,75,86,59,69,72,79,118,51,94,90,107,34,101,72,58,106,69,64,102,62,72,94,93,53,52,105,72,65,25,72,37,83,60,64,61,50,50,70,79,73,73,62,52,95,50,92,56,98,74,54,91,40,54

Cluster 1: 127,141,145,118,116,125,119,128,126,131,131,160,134,146,121,138,139,135,113,118,126,129,165,127,135,175,130,125,151,133,124,130,167,119,136,137,133,134,141,119,155,117,136,119,135,135,120,151,129,114,125,124,124,137,125,165,153,130,133,136,155,118,152,131,119,110,113,165,124,106,142,113,154,140,110,139,124,130,160,124,128,121,115,113,147,99,141,130,143,107,142,127,159,109,167,133,120,150,130,78

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1

(35887.0) (14824.0) (21063.0)

=========================================

Pixel1408 153.8759 110.2542 184.5766

Pixel1456 150.2551 106.7771 180.8547

Pixel1409 151.5959 109.6854 181.0922

Pixel840 152.8897 115.8172 178.9811

Pixel744 151.8484 114.4535 178.1668

Pixel745 152.0183 115.4354 177.7651

Pixel792 151.4903 113.9432 177.9157

Pixel793 151.8102 115.2111 177.5684

Pixel1361 155.2 113.0924 184.8351

Pixel1455 151.3958 106.813 182.7729

Pixel1407 155.1167 110.2185 186.7157

Pixel1457 148.4424 106.6973 177.8223

Pixel1360 157.5766 113.9806 188.2592

Pixel1504 147.0543 103.9319 177.4035

Pixel841 153.2405 117.3057 178.5312

Pixel1503 147.7019 103.5573 178.7706

Pixel1359 158.5072 113.7109 190.0346

Pixel1406 155.0962 109.6787 187.0608

Pixel696 153.5024 116.6854 179.414

Pixel888 155.6265 119.3564 181.1531

Pixel1454 151.3831 106.2051 183.179

Pixel697 153.6074 117.3894 179.0975

Pixel1362 152.0846 112.2104 180.1477

Pixel1551 144.2576 100.752 174.8766

Pixel1313 158.5287 116.5383 188.0813

Pixel1410 148.7629 109.1816 176.62

Pixel1358 158.228 112.9855 190.0695

Pixel889 156.1651 121.2686 180.725

Pixel1505 146.1326 104.6053 175.3593

Pixel1502 147.7368 103.0774 179.1678

Pixel743 148.7988 111.6956 174.9117

Pixel1311 161.0615 116.9259 192.1238

Pixel746 148.693 114.0647 173.0641

Pixel791 147.2277 110.3046 173.2139

Pixel1312 160.4039 117.071 190.9012

Pixel1314 155.6874 115.7419 183.8007

Pixel1310 160.628 116.244 191.8652

Pixel1552 144.1328 101.5664 174.0907

Pixel1263 162.2987 119.233 192.6081

Pixel1599 141.1289 98.5969 171.0627

Pixel794 147.6719 113.5664 171.6751

Pixel695 151.2742 114.4676 177.1785

Pixel1262 161.714 118.22 192.3247

Pixel839 147.2791 110.9681 172.8345

Pixel1261 160.2605 116.4945 191.0627

Pixel937 159.5899 125.9602 183.2582

Pixel1453 150.2304 105.301 181.8514

Pixel1213 159.7552 117.0882 189.784

Pixel1309 159.1667 114.7394 190.4344

Pixel1501 146.7434 102.2165 178.0812

Pixel1550 144.1294 100.1911 175.0528

Pixel1405 153.7371 108.6227 185.4883

Pixel1357 156.8544 111.8749 188.5107

Pixel1264 161.9975 119.5726 191.856

Pixel936 158.885 123.8654 183.5316

Pixel698 151.0929 116.4342 175.4854

Pixel1214 161.0266 118.6799 190.83

Pixel1265 160.722 119.4624 189.7602

Pixel842 148.2587 115.1172 171.5834

Pixel1266 158.6088 119.1156 186.4038

Pixel1458 146.3016 106.7671 174.1256

Pixel1600 141.237 99.4654 170.6357

Pixel1215 161.6172 119.9706 190.9278

Pixel1260 157.6636 114.2528 188.2158

Pixel1598 140.9086 97.9852 171.1177

Pixel648 155.6889 119.6292 181.0676

Pixel1549 143.3384 99.8202 173.9662

Pixel1165 157.577 116.2595 186.656

Pixel649 155.7644 120.331 180.7022

Pixel647 154.1483 118.028 179.5696

Pixel1553 143.9719 102.5866 173.0985

Pixel1648 137.9556 97.2091 166.6326

Pixel1216 161.5874 120.5692 190.4557

Pixel1212 157.5961 115.2165 187.4226

Pixel1647 138.1951 96.7606 167.3564

Pixel985 162.1997 129.9924 184.867

Pixel1308 156.4998 112.6664 187.3495

Pixel984 161.5378 127.8892 185.2195

Pixel1166 158.4847 117.5265 187.3108

Pixel1259 154.1547 112.2017 183.681

Pixel1211 154.392 113.0956 183.4561

Pixel1356 154.2735 110.2365 185.2664

Pixel1452 147.9958 104.3685 178.7005

Pixel1404 151.2568 107.2448 182.2321

Pixel1164 155.8827 114.6098 184.9304

Pixel1473 149.0001 121.4367 168.399

Pixel747 143.2887 111.2876 165.8109

Pixel887 149.1951 113.6597 174.2046

Pixel1506 144.731 104.7474 172.8712

Pixel1500 144.7113 101.7916 174.9179

Pixel1217 161.0786 120.9878 189.2943

Pixel1601 141.3037 100.5113 170.0132

Pixel1167 158.9059 118.5801 187.2869

Pixel1597 140.372 98.1866 170.0618

Pixel1315 152.9472 115.8149 179.0807

Pixel742 143.5109 107.9877 168.5119

Pixel1307 152.8448 110.6051 182.5729

Pixel650 154.0323 119.8389 178.0973

Pixel890 150.5212 118.5783 173.0024

Pixel1522 146.7558 119.7634 165.753

Clustered Instances

0 14824 ( 41%)

1 21063 ( 59%)

Class attribute: Class

Classes to Clusters:

0 1 <-- assigned to cluster

14079 17806 | 0

745 3257 | 1

0 0 | 2

0 0 | 3

0 0 | 4

0 0 | 5

0 0 | 6

Cluster 0 <-- 1

Cluster 1 <-- 0

Incorrectly clustered instances : 17336.0 48.3072 %