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

All emotions

kMeans

======

Number of iterations: 69

Within cluster sum of squared errors: 106801.05937099157

Initial starting points (random):

Cluster 0: 48,32,51,59,79,124,75,54,102,40,134,59,102,27,139,63,136,171,143,101,40,64,148,115,59,130,138,40,150,133,146,90,42,37,108,132,157,123,86,81,112,97,90,86,128,80,66,24,71,137,189,151,151,96,43,138,68,131,146,51,87,89,76,101,86,141,89,96,83,108,91,183,32,106,115,114,111,93,127,44,47,185,118,83,85,97,102,173,77,92,185,106,164,129,160,111,184,116,112,181,2

Cluster 1: 153,154,139,151,160,152,151,137,164,140,148,160,157,154,166,144,194,157,207,151,168,147,172,148,154,189,171,158,200,206,136,168,160,163,178,207,165,170,137,139,163,167,148,167,206,137,147,168,161,191,144,202,190,166,172,205,143,159,202,159,170,134,170,171,152,202,183,136,161,166,152,51,148,177,196,199,186,175,161,150,163,63,155,187,169,182,170,186,145,181,39,207,204,204,77,185,157,201,197,53,6

Cluster 2: 168,157,205,164,195,207,217,200,183,175,214,196,196,170,161,155,129,184,135,214,161,156,125,186,204,122,124,159,150,122,215,173,161,153,123,144,164,148,225,171,176,198,177,160,137,167,138,158,150,124,181,171,157,167,169,163,149,197,140,138,128,153,208,154,150,129,186,144,147,149,150,188,140,149,193,177,170,112,175,159,131,177,152,119,153,142,126,181,223,147,184,121,193,143,158,165,162,162,187,163,6

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

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

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

Cluster 6: 165,180,121,160,174,176,179,115,174,132,144,155,179,185,171,164,174,176,174,187,183,115,177,143,138,173,173,148,176,182,178,171,177,184,178,178,173,170,186,170,170,144,125,168,178,171,111,186,173,174,177,181,174,77,168,177,162,184,168,145,165,173,126,97,173,169,155,176,174,99,171,169,173,100,84,93,89,171,175,179,145,178,176,175,161,99,162,178,205,112,177,183,182,179,187,80,178,87,99,183,2

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1 2 3 4 5 6

(35887.0) (5235.0) (5658.0) (5751.0) (6392.0) (4824.0) (3332.0) (4695.0)

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

Pixel1897 124.6701 64.6424 150.9696 186.4189 115.3343 129.4907 68.5846 131.8311

Pixel1898 124.4735 64.5228 152.2091 186.032 116.076 125.8885 69.6285 131.3928

Pixel1945 125.4293 62.4814 153.564 188.3504 116.5487 127.9712 66.0078 136.2882

Pixel1896 124.612 64.4061 149.5221 186.0636 114.1227 132.5659 68.6423 132.279

Pixel1503 147.7019 86.2237 144.0046 193.1815 106.1946 166.29 164.6861 190.3555

Pixel1504 147.0543 86.0185 143.8901 192.662 104.9809 166.0044 162.7206 189.7491

Pixel1456 150.2551 89.1383 147.489 195.0308 109.6558 168.175 166.8067 192.0032

Pixel1944 125.4101 62.7314 152.0919 187.9544 115.1406 131.1837 65.7617 136.9129

Pixel1551 144.2576 83.297 140.2632 190.0353 102.3312 163.1609 159.9538 187.4878

Pixel1946 125.3407 62.4388 154.652 188.1894 117.2749 124.6289 66.9343 136.3327

Pixel1993 126.6676 62.3018 153.9116 189.4345 116.5006 126.1408 71.922 141.9553

Pixel1992 126.8148 62.6797 152.4222 189.4227 115.3063 129.3269 72.1164 142.6833

Pixel1455 151.3958 90.1377 148.5143 195.932 111.4099 168.7266 168.617 193.029

Pixel1899 124.0449 64.6884 152.3768 184.4305 116.4839 122.2517 71.5294 131.5237

Pixel1599 141.1289 80.9857 137.1578 186.7176 99.6796 159.8516 154.9799 184.4967

Pixel1895 124.2765 64.4067 147.2259 184.775 112.2351 134.8136 69.9436 133.3968

Pixel1618 140.879 82.0548 154.6274 183.7458 115.3919 124.7295 155.8547 178.0567

Pixel1552 144.1328 83.3442 140.6568 190.0988 102.0014 163.182 158.6582 187.2756

Pixel1570 143.8122 84.3035 157.1014 186.6267 118.1416 128.6542 159.3409 181.2092

Pixel1408 153.8759 93.5908 151.822 197.4556 115.5668 169.8236 170.0555 194.476

Pixel1849 124.5373 67.3922 147.0689 181.6966 113.0472 128.1886 83.4877 132.1103

Pixel1943 125.3247 63.1614 149.524 186.8259 113.5196 133.9608 67.4724 138.3964

Pixel2041 128.1571 63.0239 153.9077 189.0829 116.9574 122.9071 85.0123 146.3815

Pixel1994 126.6964 62.5452 155.339 189.0497 117.5513 122.5315 73.6651 141.6965

Pixel1947 125.0334 62.804 154.8303 186.4476 117.5662 121.2799 69.6582 136.6066

Pixel1666 137.8411 79.7981 152.0551 180.2535 113.3561 120.7398 151.7179 174.5367

Pixel2040 128.2844 63.3566 152.0447 189.325 115.6604 126.3427 85.2821 146.9764

Pixel1991 126.8899 63.2858 150.1071 188.4102 113.8406 132.0305 73.9094 144.5568

Pixel1522 146.7558 86.6674 159.9859 189.2109 120.9936 132.9113 162.2545 184.1073

Pixel1665 137.9032 80.3958 151.6819 179.9082 113.2847 122.0354 150.3797 174.9335

Pixel1457 148.4424 89.3261 146.6036 193.2083 108.8744 165.1706 162.2446 188.6262

Pixel1550 144.1294 83.9973 140.8051 189.3194 104.3096 160.8078 158.8911 186.429

Pixel1848 124.5268 67.5677 145.6099 181.0543 111.901 130.7877 84.2311 132.7419

Pixel1850 124.4037 67.3072 148.0394 181.5331 114.2552 125.001 83.8061 131.6194

Pixel2042 128.2373 63.3448 155.2526 188.7578 118.0033 119.0585 86.4511 146.9235

Pixel1571 143.4537 84.3186 157.1022 185.7334 119.5025 126.176 159.1245 180.3923

Pixel1600 141.237 80.9599 137.4086 187.0821 99.8603 159.9519 154.7134 184.4435

Pixel1647 138.1951 79.166 135.111 183.4994 98.148 155.12 150.3361 180.7514

Pixel1409 151.5959 92.5551 150.0475 195.3516 113.8783 166.9293 166.1747 190.9455

Pixel2282 126.7556 58.3882 150.7964 186.6357 117.5127 81.2772 123.479 162.3031

Pixel1502 147.7368 87.0902 144.6379 192.3636 108.2852 164.4743 163.7878 189.5519

Pixel1995 126.5945 63.1601 155.6605 187.6646 118.1122 118.7956 76.8598 142.3491

Pixel2283 126.478 58.477 151.1327 185.8842 118.2453 77.1005 125.9235 162.1568

Pixel1598 140.9086 81.8266 137.9984 185.7966 101.4736 157.1078 154.1471 182.958

Pixel1619 140.4357 81.8355 154.5007 182.8239 116.9186 122.3988 155.3995 176.8339

Pixel2281 126.7969 58.6195 149.6211 185.871 116.6962 85.4614 122.2503 162.3987

Pixel1942 125.0356 63.588 146.2094 184.9614 111.9584 135.8762 70.4718 140.0187

Pixel1851 123.9767 67.1679 148.1046 180.1388 115.1161 122.0029 84.2695 131.7199

Pixel1648 137.9556 78.7876 134.2879 183.0438 97.9856 155.4701 150.2494 180.8155

Pixel1617 141.2683 82.9941 154.5308 183.694 116.2991 126.0211 154.7758 178.3685

Pixel1505 146.1326 86.7601 144.1446 191.3815 105.6998 163.4357 159.6591 186.9727

Pixel1474 149.9293 89.7891 162.9017 191.8155 124.8537 136.9216 165.2119 186.7044

Pixel1473 149.0001 89.9855 161.7589 190.7587 123.128 137.7253 162.8016 185.289

Pixel2284 126.0631 58.9121 150.9889 184.6242 118.4395 73.3729 128.9805 161.6128

Pixel1900 123.6614 65.303 151.8832 182.5011 116.1663 118.7286 75.1993 132.3131

Pixel1523 146.6584 87.0468 160.1497 188.863 122.8234 130.1783 162.434 183.3576

Pixel1894 123.5847 64.6621 143.6962 182.2349 110.133 136.1636 72.7743 134.6552

Pixel1407 155.1167 94.7641 153.067 198.6521 117.3443 170.4714 171.8331 195.3384

Pixel1521 146.3297 87.0172 159.2616 188.5604 120.4229 134.1252 160.1618 183.1446

Pixel1990 126.7991 64.384 147.1713 186.7656 112.0463 133.5419 77.6197 146.4477

Pixel2039 128.4801 64.2621 150.3834 188.5276 114.2292 128.7792 86.7638 148.8356

Pixel2280 126.7555 59.528 147.8333 184.4344 115.6349 90.1341 121.557 162.1188

Pixel1948 124.9242 63.9956 154.1686 184.5662 117.7353 117.6126 74.5783 137.5913

Pixel2285 125.2999 59.6873 149.8077 182.5949 118.15 70.2316 131.8791 160.3894

Pixel2233 129.1142 60.0086 152.5186 189.0642 119.0934 91.8367 120.0702 162.8924

Pixel1569 143.9572 85.1312 157.0336 186.5538 118.4845 130.1984 157.5438 180.7872

Pixel1996 126.5061 64.2586 154.8802 185.5613 118.4125 114.528 82.6705 143.8173

Pixel2279 126.5334 60.591 145.4608 182.774 114.0734 94.4376 121.7206 161.7171

Pixel2234 129.2443 59.5534 153.9737 189.9165 120.2196 87.4049 121.8986 163.3191

Pixel2286 124.2802 60.4791 148.1122 179.0791 117.5332 68.9585 134.4217 158.4049

Pixel2232 129.089 60.7801 150.7879 187.8925 117.5754 96.17 120.1378 162.9267

Pixel745 152.0183 95.7379 158.3881 193.8101 127.1682 147.2108 167.4697 183.7097

Pixel1649 137.8822 79.6615 134.9567 182.4058 99.3971 154.1024 149.2884 179.4219

Pixel2238 126.6184 60.8659 152.0152 183.2939 120.6231 69.7942 134.1381 161.1154

Pixel2191 127.2004 62.6409 152.2139 182.4544 121.2254 72.5454 135.0075 160.1105

Pixel2192 125.3537 63.3744 148.6209 177.8357 119.2915 72.2135 136.1603 157.3206

Pixel2239 125.0285 61.3857 148.9615 179.0878 119.3844 68.8087 135.8415 158.7054

Pixel2089 129.5897 63.5421 153.8621 188.5655 117.6406 118.2749 99.3031 151.1301

Pixel1454 151.3831 91.0252 148.804 195.3745 113.2877 167.1142 167.8532 191.9178

Pixel1847 123.9994 67.345 143.1448 179.7505 109.816 133.0904 85.2815 133.2539

Pixel1989 126.7534 65.7356 144.3512 184.3749 110.7764 134.0927 84.7176 147.0437

Pixel746 148.693 93.4348 155.8169 190.176 124.6217 143.4921 162.4502 179.2605

Pixel1601 141.3037 82.0592 138.4376 186.5834 101.8051 157.9768 153.6912 183.2051

Pixel2043 128.3331 64.0703 155.3754 187.8225 118.8087 115.5222 90.3655 147.6038

Pixel2235 129.036 59.702 154.638 189.4444 120.7814 82.4577 124.7713 163.6185

Pixel2237 127.8295 60.6008 153.7895 186.3208 121.1034 73.3725 131.2242 162.56

Pixel2038 128.4746 65.358 147.6665 187.2638 112.696 130.4167 90.729 149.9845

Pixel1425 152.1243 93.2707 164.766 193.3556 127.3731 141.0676 165.2581 187.744

Pixel1361 155.2 96.7091 154.7747 197.8127 119.2608 168.7347 169.7626 193.4215

Pixel2236 128.5036 59.9265 154.7527 188.0629 120.8936 77.7465 127.8968 163.3225

Pixel697 153.6074 97.5906 160.1211 194.606 128.9687 149.4807 169.1053 184.7832

Pixel1664 138.1059 81.0544 151.5048 180.2933 114.8612 122.6673 148.3833 174.1116

Pixel1426 153.3476 93.5836 166.0355 194.6022 129.8964 140.0757 168.0108 189.3191

Pixel1713 134.4647 78.0208 148.5732 176.6103 111.7697 118.0792 143.9973 169.7419

Pixel747 143.2887 89.7964 150.9657 184.3432 120.8387 138.0369 153.9955 171.7553

Pixel2240 122.9873 62.3165 144.988 174.1113 116.9585 70.5723 135.5987 154.6128

Pixel1553 143.9719 84.3864 141.5394 189.5849 103.645 161.1627 157.1552 185.3531

Pixel2144 127.1971 65.0304 150.9461 179.9437 119.9739 77.5025 135.0549 158.6011

Pixel2190 128.7393 62.8013 154.2464 185.5842 122.1887 76.4355 132.3992 161.9534

Pixel698 151.0929 95.5757 158.0788 191.9925 127.2677 146.5794 165.0654 181.636

Class 3 4 6 3 3 4 5 2

Clustered Instances

0 5235 ( 15%)

1 5658 ( 16%)

2 5751 ( 16%)

3 6392 ( 18%)

4 4824 ( 13%)

5 3332 ( 9%)

6 4695 ( 13%)

Angry

kMeans

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Number of iterations: 16

Within cluster sum of squared errors: 104062.86713210065

Initial starting points (random):

Cluster 0: 105,108,114,85,115,100,93,144,146,78,148,146,93,97,148,140,67,110,110,149,145,142,101,86,119,73,116,71,92,142,136,106,82,90,96,149,146,130,122,65,118,92,81,113,89,116,103,146,136,136,85,127,136,145,69,65,87,120,130,92,87,135,85,124,120,140,86,90,108,145,87,175,89,187,149,76,133,84,100,187,94,89,49,145,76,149,152,95,151,95,68,156,131,112,125,107,148,148,96,134,1

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

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1

(35887.0) (15669.0) (20218.0)

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

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

Class 0 0 0

Clustered Instances

0 15669 ( 44%)

1 20218 ( 56%)

Disgust

kMeans

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Number of iterations: 18

Within cluster sum of squared errors: 108297.78065371394

Initial starting points (random):

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

Cluster 1: 113,114,73,122,118,86,64,99,82,97,100,133,159,80,100,116,72,156,131,131,139,159,99,140,162,156,152,157,115,158,128,151,164,106,122,84,122,139,127,156,156,159,114,152,55,148,165,140,148,156,122,139,161,136,61,86,139,148,78,50,71,165,151,156,143,136,155,114,80,161,162,167,131,107,145,168,149,148,143,162,39,155,173,132,72,168,140,128,161,121,154,56,171,146,135,173,89,48,158,69,0

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

Class 0 0 0

Clustered Instances

0 14889 ( 41%)

1 20998 ( 59%)

Fear

kMeans

======

Number of iterations: 21

Within cluster sum of squared errors: 193847.82779788732

Initial starting points (random):

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

Cluster 1: 102,100,104,102,99,110,102,156,106,153,179,100,181,177,99,109,140,104,114,106,184,102,169,101,137,92,161,93,103,130,113,125,212,106,101,114,103,110,147,105,201,124,195,151,92,126,97,97,147,145,144,170,104,105,151,111,88,108,101,157,107,95,183,97,75,116,109,108,96,112,117,124,139,97,123,130,125,177,153,96,144,98,141,158,153,86,92,90,152,99,148,95,115,144,107,109,154,85,135,91,0

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

Class 0 0 0

Clustered Instances

0 16213 ( 45%)

1 19674 ( 55%)

Happy

kMeans

======

Number of iterations: 14

Within cluster sum of squared errors: 115789.62775104825

Initial starting points (random):

Cluster 0: 110,118,155,114,113,100,108,181,125,120,125,121,103,136,121,125,127,139,139,192,139,124,141,149,155,137,126,143,166,149,145,131,159,146,129,128,149,217,137,191,166,157,126,136,184,150,147,198,159,180,154,160,149,89,166,180,141,159,156,143,162,202,158,149,156,164,144,161,152,159,148,224,185,191,156,116,166,226,158,143,149,169,168,159,136,136,162,143,139,189,162,156,133,153,141,122,113,165,159,185,1

Cluster 1: 143,127,149,161,156,136,140,152,173,179,128,172,140,184,163,131,175,173,168,130,177,173,172,199,146,165,173,118,208,159,169,174,143,134,173,148,180,125,143,141,178,164,143,150,209,140,110,157,160,144,144,128,157,163,129,199,171,141,167,174,163,141,132,130,131,169,157,167,121,138,127,125,204,154,129,174,200,128,154,121,137,166,125,138,125,173,129,166,149,145,182,120,174,154,146,147,178,188,127,161,0

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1

(35887.0) (16796.0) (19091.0)

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

Pixel1897 124.6701 89.3432 155.7501

Pixel1896 124.612 89.3738 155.6141

Pixel1849 124.5373 91.5812 153.5317

Pixel1945 125.4293 88.3746 158.0295

Pixel1944 125.4101 88.4533 157.9243

Pixel1850 124.4037 91.638 153.2305

Pixel1898 124.4735 89.2326 155.478

Pixel1848 124.5268 91.7511 153.3624

Pixel1993 126.6676 87.9449 160.7353

Pixel1992 126.8148 88.1966 160.7906

Pixel1895 124.2765 89.4206 154.9423

Pixel1946 125.3407 88.1193 158.0876

Pixel1851 123.9767 91.4966 152.5523

Pixel1994 126.6964 87.9209 160.8105

Pixel1943 125.3247 88.7027 157.5441

Pixel1899 124.0449 89.0097 154.8684

Pixel1991 126.8899 88.5167 160.6501

Pixel2041 128.1571 88.4047 163.1307

Pixel2040 128.2844 88.6499 163.1543

Pixel1847 123.9994 91.6989 152.4169

Pixel1947 125.0334 88.0027 157.6125

Pixel1942 125.0356 88.8154 156.9017

Pixel2042 128.2373 88.3726 163.3097

Pixel1995 126.5945 87.9449 160.5979

Pixel1894 123.5847 89.3655 153.6903

Pixel2039 128.4801 89.1097 163.1178

Pixel1990 126.7991 88.9608 160.0888

Pixel1900 123.6614 88.9081 154.2369

Pixel1996 126.5061 88.3421 160.0823

Pixel2043 128.3331 88.8485 163.0711

Pixel2089 129.5897 89.3688 164.9755

Pixel1989 126.7534 90.0869 159.0122

Pixel1948 124.9242 88.2736 157.1689

Pixel2090 129.7254 89.6528 164.9807

Pixel1941 125.0368 89.6422 156.1766

Pixel1852 123.4052 91.3545 151.603

Pixel2088 129.6896 89.5292 165.0221

Pixel1846 123.0373 91.2971 150.962

Pixel2038 128.4746 89.9762 162.345

Pixel1801 125.56 95.3142 152.1698

Pixel2044 128.3827 89.5646 162.5343

Pixel2087 129.7668 90.1051 164.6606

Pixel1802 125.5232 95.3091 152.1052

Pixel2037 128.3731 91.1426 161.1281

Pixel1997 126.8859 89.5413 159.7411

Pixel2137 130.3824 89.8682 166.0262

Pixel2091 129.9176 90.3409 164.7367

Pixel1800 125.5653 95.4709 152.0419

Pixel2086 129.6828 90.9824 163.7309

Pixel1949 125.1285 88.9648 156.9449

Pixel2138 130.5908 90.3558 165.9889

Pixel1893 123.1859 89.6359 152.7027

Pixel2136 130.4335 90.0578 165.9555

Pixel1803 125.0754 95.2621 151.3046

Pixel1901 123.735 89.9083 153.4953

Pixel2045 128.6868 91.081 161.7718

Pixel1988 127.2994 92.1201 158.2497

Pixel2092 129.9555 91.1126 164.129

Pixel2135 130.5575 90.8377 165.5025

Pixel1940 125.6355 91.4014 155.7542

Pixel2085 129.7264 92.3601 162.6008

Pixel1799 124.9711 95.3834 151.0019

Pixel2185 130.4161 90.5301 165.5072

Pixel2139 130.8014 91.0863 165.7422

Pixel2184 130.3738 90.7025 165.2762

Pixel2134 130.4482 91.8442 164.4115

Pixel2036 128.7494 93.1633 160.0576

Pixel2093 129.6657 92.3131 162.528

Pixel2186 130.5804 90.8556 165.5298

Pixel2183 130.298 91.4409 164.484

Pixel2140 130.6298 91.9481 164.6613

Pixel1845 122.5689 91.4683 149.9308

Pixel1998 127.9245 92.2827 159.2816

Pixel1950 126.1372 91.1382 156.9287

Pixel2233 129.1142 91.0704 162.5847

Pixel1804 124.702 95.4074 150.4749

Pixel2046 129.1189 93.4231 160.5236

Pixel1798 124.1367 95.2567 149.545

Pixel1853 123.4403 92.3473 150.7956

Pixel2187 130.5688 91.476 164.9621

Pixel1892 123.7508 91.3128 152.2894

Pixel2133 130.3289 93.4388 162.7843

Pixel2084 129.9051 94.6303 160.9394

Pixel2232 129.089 91.3406 162.2996

Pixel2234 129.2443 91.2894 162.6365

Pixel2141 129.9945 93.1906 162.3742

Pixel2182 130.1479 92.6877 163.1048

Pixel1987 128.4362 94.9389 157.9068

Pixel2094 129.5968 94.1425 160.789

Pixel1902 124.6517 91.8245 153.5326

Pixel1939 126.8982 94.181 155.6823

Pixel2231 128.8916 91.9787 161.3671

Pixel2188 130.1119 92.4106 163.2811

Pixel2035 129.4671 96.039 158.8766

Pixel2281 126.7969 90.8466 158.4255

Pixel2235 129.036 91.884 161.7219

Pixel2282 126.7556 90.9965 158.2159

Pixel1999 128.8623 95.0001 158.6538

Pixel2280 126.7555 91.2362 158.0048

Pixel1951 127.5893 94.0433 157.1026

Class 0 0 0

Clustered Instances

0 16796 ( 47%)

1 19091 ( 53%)

Neutral

kMeans

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Number of iterations: 15

Within cluster sum of squared errors: 172706.18222758884

Initial starting points (random):

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

Cluster 1: 32,48,181,168,77,44,167,160,69,58,48,160,168,66,63,69,173,177,168,60,180,68,24,121,170,172,77,56,173,139,20,102,98,163,102,142,80,122,68,62,109,133,166,107,101,130,97,177,110,69,82,45,104,119,106,102,109,107,173,62,100,25,121,139,103,137,138,186,140,126,81,141,62,108,106,44,85,48,101,74,168,49,147,136,132,128,83,98,130,81,42,38,139,99,179,101,99,74,152,138,0

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1

(35887.0) (18710.0) (17177.0)

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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

Class 0 0 0

Clustered Instances

0 18710 ( 52%)

1 17177 ( 48%)

Sad

kMeans

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Number of iterations: 18

Within cluster sum of squared errors: 94778.61835216204

Initial starting points (random):

Cluster 0: 191,201,199,192,183,185,197,197,179,192,176,195,201,161,166,174,188,162,150,174,171,188,189,177,175,210,167,117,133,161,177,184,169,129,196,103,162,198,140,149,168,157,173,165,172,130,95,171,174,89,101,186,181,200,171,176,170,213,181,115,86,143,175,121,180,168,169,156,182,182,179,84,124,208,143,119,184,186,171,116,87,165,109,174,95,104,97,187,97,199,186,172,111,115,109,188,179,185,115,116,1

Cluster 1: 217,219,210,207,218,214,205,209,201,192,202,205,199,205,219,201,205,221,212,191,217,186,131,164,179,187,201,214,203,217,186,110,198,221,202,221,221,178,199,110,165,192,147,202,44,164,226,208,166,219,213,155,97,183,212,113,162,179,77,208,224,113,106,182,148,193,192,40,163,121,149,206,209,187,149,128,183,60,152,139,81,23,132,95,81,142,72,98,211,130,201,130,199,62,134,204,41,189,72,119,0

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1

(35887.0) (14307.0) (21580.0)

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

Pixel551 158.422 108.4835 191.53

Pixel599 156.6733 108.1424 188.8481

Pixel600 157.6896 108.9117 190.0282

Pixel648 155.6889 108.9374 186.684

Pixel552 159.0472 108.9853 192.2371

Pixel647 154.1483 107.8694 184.8301

Pixel601 157.5414 108.9467 189.7585

Pixel649 155.7644 109.3118 186.5613

Pixel553 158.8156 109.0363 191.818

Pixel550 157.1449 107.8209 189.8455

Pixel697 153.6074 109.8185 182.6384

Pixel598 154.6316 106.9084 186.2709

Pixel650 154.0323 108.7463 184.0557

Pixel696 153.5024 109.4752 182.6914

Pixel504 159.4434 108.8477 192.9872

Pixel503 159.032 108.63 192.4474

Pixel602 156.3983 108.8091 187.9487

Pixel505 159.3235 109.0987 192.6213

Pixel695 151.2742 108.0225 179.9491

Pixel554 157.9264 108.9325 190.4081

Pixel646 151.1198 106.1037 180.9643

Pixel698 151.0929 108.7814 179.1444

Pixel549 155.1159 106.9387 187.0562

Pixel502 158.1548 108.1685 191.2944

Pixel597 151.7928 105.5181 182.4718

Pixel651 150.6395 107.0634 179.5293

Pixel506 158.5633 109.08 191.3695

Pixel744 151.8484 110.7531 179.0937

Pixel745 152.0183 111.2147 179.0701

Pixel456 159.0475 108.6856 192.4362

Pixel555 156.2497 108.482 187.9184

Pixel501 156.6332 107.5007 189.2069

Pixel455 158.6883 108.4931 191.9664

Pixel694 147.2856 105.772 174.8082

Pixel603 154.0922 107.8778 184.7312

Pixel743 148.7988 108.9249 175.2342

Pixel457 158.9671 108.9866 192.103

Pixel699 146.6847 106.6601 173.22

Pixel645 147.1475 104.1189 175.6743

Pixel548 152.4727 105.6188 183.5356

Pixel507 157.0675 108.5383 189.2412

Pixel746 148.693 109.6587 174.5717

Pixel454 157.8812 108.2106 190.8115

Pixel458 158.297 108.9274 191.0278

Pixel500 154.5431 106.6853 186.2716

Pixel596 148.5199 104.0351 178.0121

Pixel742 143.5109 105.9971 168.3816

Pixel408 158.1147 108.764 190.8329

Pixel407 157.8259 108.5517 190.4935

Pixel792 151.4903 113.3663 176.7656

Pixel793 151.8102 113.9212 176.9297

Pixel556 153.8338 107.4156 184.6079

Pixel453 156.6624 107.7389 189.0975

Pixel604 150.7843 106.2977 180.2778

Pixel409 157.882 108.858 190.3837

Pixel406 157.0779 108.3563 189.3791

Pixel459 157.091 108.6951 189.1763

Pixel652 146.2068 104.9311 173.5715

Pixel452 155.0893 107.3617 186.7316

Pixel693 142.0253 103.0898 167.8386

Pixel791 147.2277 110.8281 171.3597

Pixel547 149.6998 104.7324 179.512

Pixel508 155.2739 108.0373 186.5906

Pixel644 142.7733 102.1215 169.7244

Pixel360 156.7652 108.7977 188.5665

Pixel747 143.2887 106.9334 167.3913

Pixel410 157.3952 108.9138 189.5371

Pixel499 152.1437 105.9505 182.7686

Pixel359 156.497 108.4615 188.3434

Pixel405 155.9751 108.0232 187.7661

Pixel361 156.5237 108.7906 188.1696

Pixel841 153.2405 117.838 176.7115

Pixel794 147.6719 111.9279 171.3692

Pixel700 141.1922 104.0137 165.8407

Pixel595 145.1341 102.875 173.1509

Pixel1262 161.714 129.2662 183.226

Pixel358 155.8299 108.2583 187.3686

Pixel557 151.028 106.3544 180.6456

Pixel411 156.4528 108.9802 187.9259

Pixel1214 161.0266 129.156 182.1561

Pixel1235 160.4341 129.5252 180.9259

Pixel451 153.0598 106.8339 183.7064

Pixel1261 160.2605 128.3658 181.4058

Pixel460 155.52 108.4716 186.7119

Pixel1236 159.2912 128.8012 179.5054

Pixel1213 159.7552 128.3592 180.57

Pixel1284 159.3689 128.6769 179.717

Pixel404 154.4796 107.7019 185.4921

Pixel840 152.8897 117.4071 176.4138

Pixel605 147.1209 104.7571 175.2071

Pixel312 155.1649 108.7693 185.924

Pixel362 156.0957 108.802 187.4502

Pixel741 137.14 102.7661 159.9291

Pixel1283 160.7994 129.7002 181.4173

Pixel1309 159.1667 127.3868 180.2361

Pixel311 154.8901 108.4812 185.6581

Pixel509 153.1932 107.7598 183.3145

Pixel313 155.0539 108.9047 185.6497

Pixel1237 157.3331 127.6109 177.0382

Pixel1310 160.628 128.1524 182.1586

Class 0 0 0

Clustered Instances

0 14307 ( 40%)

1 21580 ( 60%)

Surprise

kMeans

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Number of iterations: 18

Within cluster sum of squared errors: 91632.7168104325

Initial starting points (random):

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

Cluster 1: 127,141,145,118,116,125,119,128,126,131,131,160,134,146,121,138,139,135,113,118,126,129,165,127,135,175,130,125,151,133,124,130,167,119,136,137,133,134,141,119,155,117,136,119,135,135,120,151,129,114,125,124,124,137,125,165,153,130,133,136,155,118,152,131,119,110,113,165,124,106,142,113,154,140,110,139,124,130,160,124,128,121,115,113,147,99,141,130,143,107,142,127,159,109,167,133,120,150,130,78,0

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1

(35887.0) (14824.0) (21063.0)

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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

Class 0 0 0

Clustered Instances

0 14824 ( 41%)

1 21063 ( 59%)