

```
R version 4.3.1 (2023-06-16 ucrt) -- "Beagle Scouts"
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Platform: x86_64-w64-mingw32/x64 (64-bit)
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```
> x10 <- c(0,50,100,0,0,0,0,0,0,0,25,0,0,0,0,25,0,0,0,0,0,50,0,0,33.333,0,0,0,0,0,10,0,50,33.333,
33.333,36.364,16.667,0,6.667,0,6.25,0,0,9.524,13.636,19.231,3.704,3.03,0,0,1.923,4.918,6.579,0.94
3,0.855,0,0.806,0.8,0,0,0,0,19.048,0,0,53.968,79.365,0,6.299,8.661,0,9.449,0.787,0,0,92.248,0,0,4
.724,0,0,0,0,0,70.866,0,5.512,0,0,0,0,0,0,82.677,3.15,0,0,25.984,35.433,3.15,74.016,15.748,34.6
46,3.937,0,15.748,0,59.843,8.661,18.11,55.906,0,37.008,2.362,63.78,0,0,0,7.087,0,18.898,0,0,13.28
1,0.781,4.724,7.087,0.787,19.685,2.344,0,56.25,21.094,0,0,13.636,0,10.526,0,0,12.121,21.97,6.061,
2.273,15.909,21.212,17.054,3.03,9.848,0,0.758,0,1.515,11.364,30.303,0,9.091,0,48.485,6.061,0,62.1
21,6.818,0.758,0.758,9.848,1.515,2.273,0.752,93.182,1.515,0,0.758,0,0,1.515,0,0.781,0.752,0,0.758
,2.542,9.16,1.504,9.023,3.759,11.278,6.767,6.25,12.069,4.202,7.563,8,5.405,12,7.273,11.765,8.861,
10.317,9.231,5.303,10.294,4.348,8.633,10,1.418,3.425,0,0,2.685,10.738,0,2.013,3.356,2.685,0.671,2
.685,92.667,0,25.333,0,10.714,2,0,0,31.333,0,0,28,0,6,13.333,2,6,0.667,87.248,10.738,69.128,1.342
,90.604,58.389,39.597,1.342,0,14.094,23.49,8.054,2.013,29.53,0,43.333,6.667,0,0,0.667,0,0,2,0,0,1
.333,1.333,0.671,1.342,11.409,0,21.477,8.725,0,0,18.792,13.333,80.667,28,2.667,90.667,76.667,2.66
7,0,0,22,4,98.667,0,0,0,12.667,1.333,0,8.725,19.463,1.342,3.356,55.705,0.667,0,0,13.514,0.676)
> x11 <- c(3.378,93.243,25.503,0.671,4.054,0.671,0,0.671,6.04,0,0,0,4.027,0,1.342,5.369,0.667,0,5
4,0,10.667,0,22,0,0,70,21.333,1.333,51.333,0.667,0,0,0,0,1.333,0,0,0,2,14,2.703,0,0,31.544,10.067
,22.148,0,26.846,26.846,0,2,19.333,0,0,16,31.333,0,0,6,0,0,0,0,0,77.333,0,0,20.667,0,5.333,4,14.6
67,0,5.333,0,1.333,0.667,0,1.333,0.667,2,0,0.671,0,0,96,4,0,7.333,2,0,0,0,0.667,26,4.667,14.667,4
1.611,0,19.333,0,0,50.667,0.667,0,3.333,70,0,0,32.215,0.671,77.181,38.255,18.792,83.221,0,60.403,
0,0,6,0,0.676,12.838,22.973,0,0,16.216,8.108,0.676,0,34.247,15.753,0,10.345,4.861,2.74,23.973,33.
333,6.604,3.175,0.781,0,2.74,39.041,26.027,10.959,44.521,10.959,17.808,4.11,17.808,12.329,6.897,0
.69,59.31,36.552,0,81.379,12.414,17.241,10.959,1.37,0,0,0,5.556,0.694,10.417,29.167,0.694,79.167,
21.528,0,0.699,0.694,1.399,0,0,4.895,1.399,56.643,60.839,13.287,36.364,1.399,25.694,20.139,0.69,1
0.345,12.414,2.759,4.828,0,0,3.448,0.69,0,8.392,0,0.699,13.287,6.294,2.797,0,8.392,0,5.594,0,32.3
94,0,2.113,1.408,2.113,7.042,22.535,9.155,4.196,0.699,19.718,1.408,1.408,14.286,6.338,13.475,0,1.
418,31.206,31.915,39.716,42.553,2.857,7.092,34.752,15.603,4.317,2.899,42.029,7.971,2.19,5.882,0.7
3,0.73,56.204,2.92,11.679,2.19,0,0.741,2.222,1.471,0.735,5.882,0.735,0.735,2.963,2.222,36.296,0,0
.741,28.889,35.556,3.704,45.185,12.5,0,15.556,35.556,12.687,6.015,2.256,25.191,2.29,2.308,19.38,1
.562,6.299,40,20.968,2.439,7.563,0,0,0,46.847,13.393,1.852,0.943,43.269,4.95,10.753,38.372,13.095
,1.19,0,5.97,0,0,12.121,0,31.818)
> x12 <- c(22.222,0,0,0,0,0,0,0,0,0,75,0,0,0,62.5,0,14.286,21.429,0,0,0,0,50,0,0,0,50,0,0,0,0,0,0
,0,0,0,0,0,0,0,0,0,0,0,0,0,100,0,80,20,0,0,0,0,0,0,0,33.333,0,0,0,0,40,36.364,7.692,8.696,0,0,0
,0,3.846,4.11,8.14,1.02,0,0,0.877,0,0,0,0,0,23.684,0,0,51.304,75.862,0.855,2.564,6.034,0,6.034,0
,0,0,93.103,0,0,4.31,1.724,0,0,0,0,75.424,0,3.39,0,0,0,0,0,0,0,81.452,5.785,0,0,32.5,35.833,1.667,
73.554,12.397,28.099,4.959,0,18.182,0,58.678,9.917,14.05,58.678,0,36.885,1.639,62.295,0,0.813,1.6
26,5.691,0.813,13.008,0,0.813,16.26,0,1.626,5.691,0.813,21.138,1.626,0,44.715,25.806,0,0,20.472,0
,11.811,0,0,6.25,17.969,8.594,0.781,18.75,24.806,19.531,3.101,7.752,0,0,0,3.876,7.752,29.457,0,6.
202,0,52.713,8.527,0,65.116,3.101,0.775,0,9.231,0.775,0.775,2.308,88.462,1.538,0,0,0.781,0,0.8,0
,0.8,0.775,0,1.55,2.479,5.512,0.758,5.344,2.29,8.8,3.252,8.475,10.619,3.636,8,8.75,13.846,0,5.085,
1.724,12.037,6.557,3.077,4.878,4,2.941,12.319,2.174,2.837,0.68,0,0.68,6.122,0.68,0.685,6.081,2.75
9,1.379,3.425,91.892,0,20.27,0,15.385,0,0.676,0,29.333,0.667,0.667,26.846,0,6,18.121,1.342,4.667,
0,85.333,9.333,60.667,1.333,90.667,56.667,46.667,0,0,14.765,30.872,6.667,0,28,0,45.333,3.333,0,0
2.667,0,0,2.667,0,0,0.667,0.667,0,4,7.333,0,25.333,5.333,0,0,11.409,8.725,81.879,25.503,2.013,91.
275,86.577,5.369,0)
> x13 <- c(0,20.946,6.04,97.315,0,0,0,11.333,1.333,0,12,21.333,0,4,49.333,1.333,0,0,12.752,1.342,
6.711,87.838,27.517,0,4.027,1.342,0.667,0,8.054,0,0,1.342,2.013,0,4.027,5.369,0.671,0,52.667,0,10
,0,20,0,1.333,76.667,15.333,0,54.667,0,0,0.667,0,0,0.667,0,0,0,2,10,1.333,0,0,27.517,14.094,26.17
4,0,27.517,28.188,0,2.013,22.148,0,0,18.792,25.503,0,0,3.356,0,0,0,0,0,78.667,0,0,18.121,0,2.013,
4.698,17.45,0,5.369,0.671,2.027,0,1.342,6.711,0.671,1.333,0.667,0,0,0,97.315,2.685,0,8.054,1.342,
0,0,0.667,1.333,28.667,5.333,11.333,40.667,0,24.667,0,0,56,0.667,0.667,6.667,60.667,0,0,32,1.333,
74,38.667,22,88.667,0,63.333,0,0,4,3.356,1.342,12.081,18.792,0,0.671,22.148,3.356,0.671,0.676,33.
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108,17.568,0,14.384,6.803,0,2.721,23.81,4.615,1.538,2.041,0,4.762,38.776,25.85,15.646,49.66,8.163
,15.646,2.041,13.605,17.007,10.811,3.401,61.905,42.177,0.68,70.748,11.565,9.655,6.849,0.685,0,0,0
,9.524,0,10.884,24.49,2.721,85.034,19.863,0,0.685,0,0,0,0,7.534,0.685,52.74,62.329,11.644,24.658,
0.685,16.438,25.342,0,11.644,8.219,1.37,4.795,0,0,5.517,0,0,6.897,0,1.389,18.75,4.861,2.083,0,6.2
94,0.699,6.294,0,27.778,0,0.694,1.389,5.556,4.861,25.175,7.692,2.797,1.399,17.483,4.196,2.797,11.
972,7.042,19.149,0,0,25.352,25.532,37.857,29.078,3.546,6.429,34.532,16.912,6.618,2.206,44.853,9.5
59,1.471,0.735,0.735,1.471,47.407,1.493,9.701,0.746,0,3.846,2.273,0.752,0,3.03,0,0,5.303,2.273,43
.939,0,2.256,24.06,30.827,5.224,42.537,9.701,0,18.797,31.061,9.16,6.87,1.538,25.385,3.077,3.077,2
0.472,0.787,1.587,38.71,19.835,4.274,8.547)
> x14 <- c(0.862,0.87,0,40.909,9.259,0,0,40.196,5.208,10.87,33.708,20.482,1.299,0,2.899,3.922,2.3
26,25,4.762,27.778,6.667,0,0,0,0,0,0,20,0,75,0,0,0,80,33.333,0,0,0,0,0,100,0,0,0,0,0,66.667,0
,0,0,0,0,0,0,20,0,0,0,28.571,50,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,6.667,0,0,5.882,0
,0,0,0,0,12.5,0,10,9.091,18.182,0,21.429,0,4.348,7.692,0,21.212,2.5,2.273,4.082,7.547,3.39,8.333,
4.301,0.935,0.885,0,1.77,0,0,0,23.009,0,0,52.212,76.106,0,3.54,7.965,0,4.386,4.348,0,0,95.652,0
,0,7.018,0,0,0,0,75.862,0,3.448,0,0.847,0,0.84,0,0,85.124,6.667,0,0,30,40,6.612,71.311,18.852
,22.131,4.918,0,14.754,0,57.377,9.836,18.852,55.738,0,41.803,3.279,62.295,0.82,0,0.82,5.738,0.82,
9.016,0.82,0,11.475,0.82,6.557,7.377,0,0,18.852,0,0.82,52.846,24.194,0,0,12.903,0,9.677,0,0,10.48
4,19.355,7.258,0.806,21.774,16.935,20.833,4.839,8.871,0,0.806,0,2.419,13.71,26.613,0,8.871,0,58.0
65,12.903,0,72.581,3.226,0.8,0,7.087,0,0,0.775,86.822,0.775,0.775,3.2,3.101,0.775,2.326,0,0,0,0.7
94,0,0.787,10,0.775,10.078,2.326,9.302,9.302,1,5.882,1.961,8.197,10.638,4.688,7.407,12.593,11.029
,5.594,10.274,2.041,1.351,0.671,0,3.356,5.333,1.333,2.013,2.667,2.013,0.671,6.04,95.302,0,22,0,6.
061,0.667,0.667,0,32.667,0,0.667,35.333,0,6.667,10.667,0.667,3.333,0,88,12,68,2.667,90,55.333,44.
667,0,0.667)
> x15 <- c(15.333,28.667,8.667,0,28,0,36.667,5.333,0,0,2,0,0,2.667,0,0.667,0.671,2.027,0,1.351,6.
04,0,17.45,8.725,0,0,18.919,10.811,83.784,24.324,1.351,92.568,77.703,2.685,0,0,28,8,97.333,0,0,0,
16.667,1.333,0,14,22.667,0,6.04,55.705,0.671,0,0.671,16.107,2.013,4.027,91.275,27.333,0.667,6.667
,0.667,0.667,0,10.067,0,0,0.671,4.027,0,0.671,8.054,0,0,55.705,0,9.333,0,18.667,0,0,71.141,18.121
,0,50.336,0,0,0,0,0,2.027,0,0,0,1.361,12.245,2.041,0,0,37.584,11.409,27.517,0,27.517,30.201,0,0.6
71,20.805,0,0,17.333,26,0,0,6.667,0,0,0,0,0,80,0,0,13.333,0,0.667,3.333,21.333,0,14.667,0.667,0.6
67,0,0.667,3.333,0.667,1.333,0,0,0.671,0,95.973,4.027,0.671,6.711,2.013,0.671,0,0,32.215,3.35
6,17.568,43.243,0.676,25.676,0,0,55.705,0,0,4,62,0.667,0,33.333,0.667,71.812,37.584,20.134,91.275
,0,67.114,0,0,4.027,0,0,11.333,23.333,0,0.667,24,3.333,0,0.671,34.228,17.45,0,11.486,3.401,0.68,2
.174,22.297,42.149,3.008,0,2.027,0.676,4.054,42.568,27.027,14.865,52.703,8.108,17.45,2.013,16.892
,13.514,11.486,0,57.432,42.568,0.676,74.324,14.189,18.919,7.432,1.361,0,0,0,11.565,0.68,13.605,30
.612,2.041,87.755,26.531,0,1.361,0,0,0.68,0,4.762,0.68,55.782,60.544,12.245,25.85,0.68,24.658,20.
548,0.685,8.276,10.345,0,7.586,0,0.69,6.207,0,0,11.034,1.389,0.694,14.685,8.392,4.895,0,5.634,0.7
04,3.521,0,35.417,0,0.694,0,5.556,4.895,23.776,10.49,3.497,2.098,14.685,2.098,1.399,16.901,9.155,
18.182,0,1.389,22.759,24.306,36.806,40.972,5.556,9.722,31.25,16.783,6.294,0.704,48.936,9.22,3.546
,3.546,0,0.704,51.064)
> x16 <- c(0.709,9.929,1.418,0,2.128,2.837,2.143,1.418,4.965,0.704,0.704,3.521,6.294,39.161,0,3.4
97,23.077,34.266,2.797,41.549,10,0.719,15.108,38.129,14.493,0.725,2.19,32.117,1.481,0,24.615,4.61
5,3.077,36.923,23.622,4.132,4.959,0,0,0,44.444,10.435,0,0,44.444,12.5,11.111,29.167,14.13,0,0,4.6
15,0,0,21.739,0,14.286,0,0,0,0,0,66.667,0,0,20,0,63.636,0,0,14.286,75,0,0,5,4.545,3.226,20,96,0
,0,0,0,0,0,0,93.22,0,94.915,13.559,0,0,0,6.78,0,96.61,88.333,91.667,0,0,0,96.721,83.607,1.587,1
.562,1.538,1.449,0,0,5.714,0,0,1.515,95.455,0,0,13.636,3.03,1.515,1.515,0,0,1.587,23.438,1.587,11
.111,5.357,9.091,0,8.333,3.39,0,8.889,0,16.327,4.082,0,35.714,0,6,1.754,0,12.121,3.03,4.615,13.84
6,12.121,0,30.508,1.562,1.562,0,3.125,3.175,1.587,1.613,14.035,8.929,0,0,6.25,0,1.818,0,7.547,14.
894,17.021,4,1.961,7.547,8.621,5.263,3.448,0,5,7.937,14.286,6.154,2.667,1.351,1.351,4.348,5.714,8
.451,1.22,4.819,2.273,2.247,2.247,1.124,28.09,4.494,0,0,2.128,2.97,81.132,16.814,0,0.806,0.781,3.
65,0,6.849,0,47.26,82.192,14.384,0,0,0,0,36.735,14.286,0,89.116,45.578,3.401,0,2.041,13.605,0,0,1
3.605,74.15,0,0.68,0,2.041,0,0,0,15.541,1.351,22.973,12.838,8.784,0,27.027,6.04,3.356,18,9.333,47
.333,0.667,0,26,10.667,0.667,0.667,4.667,0,0,0,1.333,3.333,36,98.667,12.667,21.333,0,0.667,0,81.3
33,0,0,12,0,0,0,1.333,1.333,0.667,0,0,0,44.595,0,18.919,62.162,0,0,2.685,0.676,1.351,0,0,1.361,0,
0,0,0.667,26,0.667,5.333,0,86.667)
> x17 <- c(0,0,57.047,0,46.98,0,6.04,93.333,4.667,0,0,0,2,0,0,5.333,39.333,0.667,0,10,4,0,0,1.333
,3.333,0,2,84,8.667,88.667,0,13.333,61.333,0.667,80,42,3.356,3.356,20.805,70.667,20.667,82,24.667
,2,64,0.671,4.762,3.401,3.571,3.478,0,1.351,2.685,2.703,4.73,1.342,0,0,0,45.27,21.477,0,96.644,59
.184,4.054,0.671,0,2.013,0,57.718,8.725,0.671,1.342,0.671,0,48.322,0.671,6.711,0,0.667,8.667,0,27
.333,0.667,0.667,89.333,0.667,0,0,70,0,24,0,10,10,0,0,8,0,0,0.667,0,1.333,2.667,50.667,0,15.436,0
,4.082,82.313,0,0,0.676,3.378,0,0.676,68.243,19.595,0,2.721,0,48.299,0,0,2.721,75.51,2.721,1.37,0
.685,2.703,0,0,0,70.548,1.37,0,35.135,28.378,0,40.136,12.925,23.81,4.082,0,16.216,0,45.27,35.135,
14.865,2.703,0,30.405,0,1.351,0,6.849,3.425,0.685,93.151,5.479,13.699,0.685,13.793,5.517,3.448,52
.74,0,13.014,0,2.74,0,27.211,1.361,0.685,0.69,0,36.301,28.082,0,17.808,54.795,0,1.37,94.521,0,0,3
4.932,0,2.113,0,0.685,1.37,0,0,0.685,0,0,0,6.164,0,0,0.69,0,11.034,0,41.379,0,1.379,0,25.517,0,0,
8.276,20.833,0,0,1.399,27.273,1.399,0,3.497,12.587,0,0.699,7.692,0.699,76.224,18.182,9.091,11.888
,3.497,0,18.881,24.648,0.699,25.175,42.657,0,0,0,62.238,44.755,18.881,25.874,94.366,0,2.206,0.84,
0.909,0.926,0.943,0.943,1.905,0,9.278,1.075,43.023,54.217,0,0,0,3.279,0,8.772,0,1.754,3.704,0,0,7
.692,0,0,0,2.564,35.714,2.632,0,10.256,0,59.524,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,85,0,0,46.667,0,48.48
5)
> x18 <- c(35.897,0,9.434,76.667,0,0,1.471,0,0,1.449,0,0,88.406,2.899,92.754,11.594,1.471,0,0,14.
```

```
706,0,97.059,88.235,92.647,0,0,4.286,98.571,83.099,0,1.408,0,0,0,0,5.195,0,0,1.299,92.208,2.597,0
,21.333,0,1.333,0,0,4.054,5.479,16.438,6.849,8.333,2.778,5.556,5.172,9.434,2.564,8,37.736,1.961,2
.857,21.429,2.817,4.225,1.389,0,10.345,1.613,3.226,9.375,15.625,3.125,31.25,1.562,0,0,0,8.108,6.4
1,9.091,8.974,5.128,1.282,6.579,1.351,2.941,0,33.333,0,12.963,1.852,7.692,1.493,6.25,3.077,6.349,
7.812,4.688,2.941,0,2.597,10.588,3.529,4.651,12.791,4.545,1.099,3.158,3.125,20,5.155,1.942,0,4.50
5,6.034,75.214,19.492,0,2.857,0,4.795,0,4.762,0,47.619,85.714,12.925,0,0,0,0,31.973,14.286,0,85.7
14,51.701,1.361,0,0.68,15.646,0,0,12.245,70.748,0,0.68,0,4.138,0,0,0.69,21.379,0.69,22.069,13.793
,5.442,0.68,28.767,10.274,2.74,17.808,8.904,42.466,0.685,0,28.188,13.423,0,0,6.711,0,0,0,2.013,4.
027,36.242,95.973,14.765,24.161,0,0.671,0,79.195,0,0,15.436,0,0,0.671,2.685,1.342,0,0,0,0,41.216,
0,15.541,62.162,0,0,4.73,0,0,0.676,0,1.351,0,0,0,0,0,27.517,0,4.667,0,90,0.667,0,57.718,0.671,45.
638,0,5.369,87.919,3.356,0,0,0,0,0,0,7.333,45.333,0,0,8.667,4,0,0,0.667,4,0,0,84,7.333,92.667,0,1
0.667,62.667,0.667,79.333,38.667,2.685,4.698,20.805,71.233,19.31,76.552,23.611,0.694,64.583,0,4.2
86,1.429,0.935,2.113,1.408,1.389,1.389,2.685,3.356,1.342,0.671,2.013,0.676,51.333,20.805,0.671,97
.333,55.333,3.356,0,0.671,2.685,0,54.362,7.432,0.671,0.671,0.671,0.676,47.297,2.041,7.432,0.676,0
,8.725,0,28.188)
> x19 <- c(0.676,2.703,87.838,0.671,0,0,67.785,0,24.161,0,8.725,10.067,0,0.671,4.698,0,0,0,0,3.35
6,1.342,50.667,0,20.946,0,0.68,80.405,0,0.671,0,6.04,0,0,62.416,22.819,0,0.676,2.027,45.638,2.703
,0,3.356,77.852,2.685,2.013,1.342,7.383,0,0,0,71.141,4.027,0,40.541,35.135,0,38.776,12.245,27.211
,3.401,0,14.966,0,42.857,40.136,16.327,6.122,0,23.81,0.685,0,0,3.425,4.11,1.37,92.414,6.207,17.36
1,1.389,19.014,2.817,2.817,47.887,0,14.685,0,2.759,0,26.712,4.11,0,0,0,38.889,30.556,0,18.056,50,
0,4.167,92.361,0,0,38.194,0,0.704,0.694,0,0,0,0,0,0,4.861,0.694,0,2.083,0,11.806,0,33.333,0,0
.694,0.69,32.414,0,0,7.639,16.667,0,0,0,24.823,0,0.709,4.965,14.184,0,0.709,3.546,0,76.596,14.894
,13.475,10.638,0.709,0,25.532,17.857,1.429,20.714,58.571,0,0,0.714,63.571,46.763,26.619,25.362,97
.08,0,1.471,0,1.02,2.041,0,0,0,2.174,10.87,1.19,32.911,57.692,7.143,0,0,0,0,0,6.557,3.279,3.39,0,
1.754,0,2.128,0,0,0,10.811,0,0,5,0,59.459,0,0,0,0,0,3.03,0,0,0,0,0,0,0,0,0,0,0,0,0,0,12.5,0,0,0,0
,46.154,7.143,0,5.882,40,9.524,0,5.882,72.917,0,0,0,0,0,0,0,82.09,7.463,94.03,13.433,0,0,0,4.47
8,0,97.015,83.582,97.059,0,0,4.348,98.551,63.768,0,0,0,0,0,0,4.348,0,0,1.429,77.143,2.857,0,19.11
8,0,0,0,0,1.429,0,7.042,11.94,9.091,1.562,8.889,1.961,23.529,0,0,0,0,33.333,8.824,7.692,6.818,0,2
2.807,0,8.696,0,2.564,0,21.429,1.724)
> x110 <- c(1.695,4.615,0,1.724,5.455,3.333,2.857,4.286,1.408,11.268,6.944,2.198,4.255,5.319,6.18
6,4.082,33.333,0,1.01,0.98,3.846,0.935,63.478,14.504,0,4.11,0,4,0.667,3.333,0,43.333,80,2,0,0,0,0
,29.333,14.765,0,91.946,49.664,0,0,0.667,18,0,0,7.333,68.667,0.667,0,0,2.013,0,0,0,12.162,0.671,2
4.161,14.765,4.027,0,39.597,4.054,0,10.135,0,44.295,0,0,19.333,10.738,0,0,6.667,0,0,0,0,1.333,42,
97.333,6.667,20.667,0,0,0,82,0,0,18,0,0,0,0,0.667,0.667,0,0,0,49.664,0,8.725,58.389,0,0,0.667,0,0
,0,0,2,0,0,0,0,0,35.333,0,2,0,97.333,0,0,58.389,0,37.584,0,0.671,99.333,0.667,0,0,0,0,0,0,3.333,4
4.667,0,0,4.667,0.667,0,0,0.667,4.667,0,0,82,6,97.333,0,16.667,64,0.667,84.667,34,3.333,0.667,22,
76,26,78.667,28.667,5.333,64,0.667,0.671,3.356,1.695,5.455,18.421,0,7.407,1.333,0,1.333,0,5.369,2
.013,0.671,0,0.671,0,46.667,20.667,0,98.658,49.324,8.108,0,0,0.671,0.676,51.007,5.333,0,0,0.667,0
,56,0,2,0,0,4,0,36.667,0,0,90,0,0,0,62,0,20.667,0,2,5.333,0,0,6.667,0,0,0.667,0,2.667,1.333,44,0,
22.667,0,0,90,0,0,0,3.333,0,0,60.667,26.667,0,0,0,54.667,0,0,3.356,78.523,1.342,2.013,3.356,0.671
,0,0,33.333,0,0,76.871,2.041,0,36.054,25.85,0,44.898,6.803,27.211,2.041,0,15.646,0,43.151,36.986,
2.703,6.081,0,30.405,0,0,0,1.361,2.721,2.721,93.197,1.361,9.524,0,23.129,2.027,1.351,50.676,0,2.0
27,0,3.356)
> x111 <- c(0,35.57,0,0,0.676,0,36.913,39.597,0,10.067,50.336,0,2.013,97.315,0,0,40.94,0,0,0,0,1.
342,0,0,0,0.671,0,0,1.342,0,0,0.671,0,8.725,0,30.405,0,0,0,31.757,0,0,4.11,15.753,0,0,2.759,21.37
9,1.379,0,2.759,17.931,0,0,3.448,0,77.931,15.862,13.793,9.655,0.69,0,26.207,12.414,1.379,25.517,6
0,0.69,0.69,0,62.759,43.448,22.759,25.517,100,0,0,1.739,0,13.433,15.254,0,0,1.786,0,0,0,0,0,3.922
,86,48,0,0,0,0,2.174,0,46.667,0,0,0,0,2.381,30.952,0,0,0,0,6.452,7.407,0,0,0,20,6.667,15.385,0,14
.286,0,0,0,0,0,0,12.5,0,0,0,0,16.667,0,0,0,0,0,0,9.091,0,0,18.75,6.25,0,0,0,9.091,0,0,0,0,0,4.545,0,0,6.897,4.839,0,0,2.817,0,1.149,43.269,0,0.781,0.758,0,15.217,50.714,2.113,76.224,9.
79,1.399,22.222,0,18.621,8.219,0,20.548,2.74,0,0,6.164,0.685,2.055,0,27.397,53.061,0,0,0.676,0,0,
2.027,0.671,0,5.333,4,0,0,9.333,0,0,0,2.667,0,0,56,0.667,0,0,0.667,0.667,0,69.333,0,0.667,34,46,0
.667,0,46.667,21.333,26.667,0,0,7.333,54.667,0,4.667,8,0,2.667,0,8,24,22.667,9.333,0.667,0,31.333
,8.667,8.054,0.671,0,1.342,0.671,0,4.667,76,0,0.667,53.333,94.667,0,5.333,6.667,0,0,0,3.333,10,0,
4,0.667,61.333,0,6.667,36,6.667,0,0,9.333,2,0,35.333,0,0,0,0.667,0.667,22,0,0,0.667,0.667,0.667,9
.333,32,0.667,0,0.667,0,0,0,0)
> x112 <- c(2,0,0,0.667,40.667,0,4,88.667,0,3.333,0.667,1.333,0,85.333,0,75.333,0.667,46,0,0,3.33
3,31.333,0,0,16.667,86.667,0,0,18,0.667,0.667,0,0,34.667,0,0,13.333,15.333,73.333,0,2,22.667,46,5
7.333,51.333,9.333,2,6.667,42,0.667,8,8,22.667,89.333,0,0.667,1.333,0,0,3.497,0,1.333,0.667,0.667
,1.333,10,22.667,0,72,56,4,28,1.333,2,0.667,22.667,51.333,14,2,34,4,2,3.333,0,37.333,0,4,0,38.667
,0,1.333,90,0,0.671,0.671,79.866,0,44.295,0,52.349,30.38,2.013,0.667,6,1.333,87.919,0.671,0.671,1
.342,10.667,20.667,0,82.667,8,3.333,70.667,24,40.667,0,44,14,0,0,44.667,2,0,0,54.667,20,0,22.667,
49.333,2,0,0,9.459,4.698,2.013,21.477,1.351,1.408,8.108,34.459,23.649,8.108,16.216,0,14.189,38.92
6,25.333,2,0,17.333,0,15.333,31.333,62.667,66,0,0.667,3.333,0,15.333,52,0.667,20.134,0,0.676,2.02
7,87.162,2.041,59.864,26.531,11.565,46.259,0,93.878,0.68,37.415,21.769,0,26.531,0.676,30.405,0,21
.088,4.054,44.595,10.135,1.351,2.027,2.703,2.027,1.351,12.838,72.973,0.676,0.676,0,1.351,0,5.405,
0,12.162,0,0,0,73.649,0,6.081,45.946,0,62.838,1.351,0,0,69.595,2.027,0,0,4.054,0,0,58.108,0,0,1.3
61,16.438,0,0,2.055,44.521,0,0,17.808,74.658,10.274,0,1.37,32.877,0,0,0,3.425,0.685,0,4.795,9.028
,2.098,0.699,19.58,38.732,4.965,51.064,41.007,5.224,0,30.952,30.4,29.6,22.4,32.258,1.613,16.393,2
8.448,24.324,0.935,1,6.383,0,0,0,0,0,0,29.412,7.692,4.255,3.846,28.302,0,0,2.273,0,0,0,0,1.961,91
```

[illegible]

[illegible]

```
628,14.634,5.195,4.615,11.538,3.922,38.462,2.128,1.923,3.774,12.281,1.852,0,10.909,0,12.5,5.556,1
.961,2.128,0,2.703,0,0,0)
> x2 <- c(x20,x21,x22,x23,x24,x25,x26,x27,x28,x29,x210,x211,x212) #After
> wilcox.test(x2, x1, alternative = "two.sided", mu = 0, paired = TRUE, exact = FALSE, correct =
TRUE)
```

Wilcoxon signed rank test with continuity correction

```
data: x2 and x1
V = 830522, p-value < 2.2e-16
alternative hypothesis: true location shift is not equal to 0
```

```
>
```