rm(list = ls())

Aa <-c(0, 57.895, 0, 45.455, 0, 0, 0, 3.03, 8.333, 0, 9.639, 5.747, 8.889, 0, 21.875, 37.755, 28.972, 15.126, 5.833, 17.46, 3.876, 8.462, 4.38, 0, 0.714, 0, 9.22, 10.638, 0.709, 0, 6.383, 10.49, 48.611, 0, 0, 2.069, 0, 8.966, 0.69, 41.781, 0, 17.143, 3.378, 25.676, 0, 0, 0, 0, 0, 0, 8.163, 1.351, 0, 1.351, 0.694, 4.054, 0, 0, 0.676, 0, 2.703, 0, 5.405, 2.703, 0.676, 30.872, 2.667, 0, 22.667, 0, 0, 18, 2, 0.667, 0, 4.667, 0, 4, 0, 1.333, 0, 2, 2, 2, 0, 3.333, 14, 0, 2.667, 2.667, 1.342, 0, 1.333, 0, 2.667, 0.667, 3.333, 0.826, 6.593, 2.532, 1.342, 2.013, 1.333, 28.667, 0.667, 18, 1.333, 0, 1.333, 0, 0, 0.667, 0, 0, 8.667, 2, 12.667, 3.333, 0, 0.667, 26.667, 0, 0.667, 0, 1.342, 0.671, 41.333, 0, 0, 0, 5.333, 3.333, 57.333, 0.667, 0, 2, 0, 0, 0, 9.333, 0.667, 9.333, 0, 0, 6, 4.667, 0, 0, 0, 0, 0, 0, 0, 1.333, 3.333, 4.667, 0, 0.667, 13.333, 0, 1.333, 6, 2.667, 0, 20.667, 46, 4.667, 4, 0, 17.333, 0, 0, 0, 0, 0, 6, 10, 2.667, 0.667, 0, 0, 4, 0, 4, 5.333, 18, 8, 25.333, 8.667, 0, 10, 6, 2, 0, 0, 0, 0, 89.333, 2.667, 0, 0.667, 29.333, 0, 8, 15.972, 2, 0.671, 6.667, 52.667, 4.667, 0.667, 0, 2.667, 37.333, 8.784, 0, 0, 0, 0.69, 0.69, 6.897, 0, 1.379, 94.483, 55.172, 0, 0, 0, 34.483, 7.586, 0, 14.483, 0, 44.828, 2.069, 6.897, 21.379, 0.69, 6.897, 0, 0, 0, 97.931, 0, 0, 0, 0.69, 0, 0, 1.429, 1.562, 12.613, 3.39, 1.802, 2.105, 5.405, 7.965, 0, 1.818, 1.681, 0.885, 2.703, 1.818, 5.405, 10, 23.894, 2.632, 6.78, 0.855, 1.724, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Ca <-c(0, 0, 0, 0, 0, 0, 0, 6.061, 1.389, 0, 2.41, 1.149, 5.556, 6.452, 25, 9.184, 0.935, 0, 5.833, 1.587, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.694, 0, 0, 0, 100, 0, 0.69, 0.685, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 19.595, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 100, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 42, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 99.333, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 100, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 0, 0, 0.69, 0.69, 0, 0.69, 0, 0, 0.69, 0.69, 0, 9.655, 3.448, 0, 0, 0, 2.759, 0, 0, 1.379, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.885, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.877)

Da <-c(0, 0, 0, 4.545, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.869, 1.681, 0, 0.794, 0, 3.077, 7.299, 3.704, 0, 2.837, 0, 3.546, 0, 0, 4.255, 1.399, 0, 57.241, 0, 0.69, 0, 2.759, 0.69, 0.685, 46.575, 0, 12.162, 0, 0, 0, 0, 0, 0, 0, 36.735, 0.676, 4.73, 4.054, 0, 0, 0, 0, 0, 0, 41.216, 1.351, 0.676, 0, 0, 12.081, 6.667, 0, 0, 34.667, 0, 0, 2.667, 0, 0, 9.333, 2.667, 1.333, 0, 0, 0, 2, 0.667, 0, 0, 0, 2, 99.333, 0, 0, 10.738, 0, 23.333, 0, 3.333, 0, 0, 12.397, 12.088, 34.177, 4.027, 2.013, 0, 6.667, 2.667, 1.333, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 2.667, 0, 0, 0, 0, 0, 0.667, 0, 0.667, 44, 0.667, 56.667, 0, 0, 0, 0.667, 0, 0.667, 0, 0, 0, 0, 0, 65.333, 6, 0.667, 0.667, 0, 0, 8.667, 56.667, 0, 0.667, 0.667, 2, 1.333, 0.667, 0.667, 0, 0, 0, 0, 0, 0, 0, 39.333, 0.667, 10.667, 1.333, 0, 3.333, 0, 2.667, 0, 19.333, 0, 0, 0, 0, 0.667, 97.333, 0, 0, 32, 0, 0, 0, 0, 0, 0.667, 0, 11.333, 0, 0.667, 0.667, 0, 0, 0, 30.667, 0, 0, 0, 0, 10.667, 0, 7.432, 52.74, 0, 2.069, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 0, 0, 12.857, 0, 0, 3.39, 12.613, 2.105, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 24.779, 26.316, 19.492, 52.991, 0, 26.316, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Ea <-c(0, 5.263, 5, 0, 12, 7.407, 3.448, 6.061, 0, 0, 1.205, 0, 0, 3.226, 0, 0, 0, 0, 1.667, 0.794, 0, 3.077, 1.46, 14.815, 0.714, 21.986, 0, 5.674, 96.454, 0, 35.461, 5.594, 0, 4.828, 0, 0, 0, 4.828, 0, 1.37, 3.425, 0, 2.703, 0, 0, 0, 96.622, 0, 0, 0, 0.68, 0, 1.351, 1.351, 2.083, 0, 0, 0, 0, 0, 3.378, 2.027, 15.541, 0, 0, 20.805, 1.333, 0, 22, 3.333, 0, 0, 10.667, 0, 0, 2, 0, 5.333, 0, 0.667, 0, 3.333, 1.333, 0, 0.667, 0, 18, 0, 0, 0, 14.094, 0, 0.667, 0, 70, 0, 0, 12.397, 28.571, 3.797, 1.342, 2.013, 0, 0.667, 68.667, 0, 18, 0, 4.667, 0, 0.667, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0, 6, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 1.333, 0, 8.667, 0, 0, 0, 4, 56, 5.333, 17.333, 0, 0, 0, 0.667, 0, 24, 0, 0.667, 0, 0, 0, 0, 0, 1.333, 9.333, 0, 0, 28.667, 20, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 3.333, 0, 0, 33.333, 0, 30, 0, 17.333, 0, 0, 0, 0, 0.667, 0, 1.333, 0, 33.333, 0, 0, 0, 71.333, 0, 3.333, 0, 6, 8, 0.667, 0.667, 0, 1.333, 0, 13.333, 2, 0.667, 0, 0, 68, 0, 0.676, 41.096, 0.685, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 0, 0, 0, 0, 0, 0, 0, 3.571, 0.781, 7.207, 0, 33.333, 1.053, 0.901, 3.54, 0.826, 0, 0, 0, 0.901, 0, 0, 0, 16.814, 14.035, 16.102, 37.607, 4.31, 70.175, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Fa <-c(0, 0, 0, 0, 0, 0, 0, 0, 8.333, 0, 3.614, 25.287, 7.778, 3.226, 1.042, 2.041, 0, 0, 0.833, 0, 44.961, 0, 0, 0, 0, 0, 0, 0, 0, 9.22, 0, 0, 0, 0.69, 2.069, 1.379, 0, 0, 6.897, 3.425, 21.918, 0, 0, 0.676, 0, 0, 0, 0, 0, 85.135, 0, 0, 0, 0, 0.694, 0.676, 20.946, 14.189, 8.784, 35.135, 0, 0, 0, 10.135, 0, 0, 0, 4, 0, 0, 0, 0.667, 0, 41.333, 8.667, 0, 0.667, 0, 0, 0, 79.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.342, 1.342, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0.671, 30, 0, 0.667, 0, 0, 1.333, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 1.333, 0, 12, 0, 0, 0, 0, 3.333, 0, 0, 0, 0, 26.667, 0, 0, 28.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 18.667, 0.667, 0, 88, 0, 0, 0.667, 0, 1.333, 0, 1.333, 0, 0, 6.667, 0, 0, 0, 0, 0, 98, 0, 0.667, 0, 0, 0, 15.333, 0, 0, 0, 0, 1.333, 18, 0, 0, 0, 10, 0, 0, 4.667, 0, 0, 0, 0, 0, 0, 0, 6.667, 4, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.069, 4.138, 3.448, 0.69, 1.379, 1.379, 0, 0, 8.276, 0, 0, 70.345, 0, 0, 4.138, 57.241, 0, 0, 0, 0, 0, 8.966, 48.611, 0.714, 0, 0, 0.847, 0.901, 2.105, 0, 0, 0, 0, 1.681, 0, 0, 0, 0, 0, 0, 0.877, 0, 0, 0, 0, 100, 0, 0, 0, 0, 0, 100, 0, 0)

Ga <-c(0, 10.526, 10, 4.545, 56, 3.704, 0, 0, 2.778, 0, 1.205, 8.046, 1.111, 3.226, 11.458, 6.122, 42.056, 3.361, 24.167, 34.127, 23.256, 8.462, 4.38, 0, 0, 0, 0, 1.418, 0, 5.674, 3.546, 45.455, 0, 0, 0, 0, 0, 0.69, 0, 24.658, 0, 4.286, 0, 0, 0, 0, 0, 0.676, 0, 0, 0.68, 0.676, 41.892, 4.73, 0, 4.054, 0, 0, 0, 0, 14.865, 56.081, 0, 0, 0, 13.423, 1.333, 0, 0.667, 27.333, 0, 0, 0, 0, 0, 18.667, 18, 46, 0, 0, 0, 1.333, 2, 0, 0, 0, 1.333, 0, 0, 97.333, 0, 0, 0, 0, 0.667, 0, 0, 42.975, 21.978, 40.506, 16.107, 12.752, 0, 49.333, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 10.667, 0, 0, 0, 0, 4, 0, 0, 0, 0, 0.667, 0, 0, 91.333, 2.667, 0.667, 0, 0, 0, 0, 0, 0, 0, 5.333, 0, 86, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3.333, 56.667, 0, 0, 0, 0, 0, 0, 0, 4, 2, 2.667, 0.667, 12.667, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0.667, 99.333, 0, 0, 0, 0, 0.667, 0.667, 0, 8, 10, 0.667, 0, 1.333, 94, 0, 0, 0, 0, 0, 0, 1.333, 0, 42, 0, 98.667, 0.667, 0, 0, 0, 1.333, 6, 2.667, 0, 0, 0, 0, 0.676, 1.37, 0, 0.69, 0, 91.034, 91.724, 0.69, 0, 0, 43.448, 0, 0, 0, 2.069, 0, 0, 0, 0.69, 37.931, 0.69, 0.69, 24.828, 2.069, 90.345, 0, 0, 0.69, 0.69, 0, 0, 1.379, 99.31, 0, 0, 9.286, 0, 1.802, 0, 1.802, 28.421, 4.505, 8.85, 14.05, 1.818, 0.84, 0, 0, 0.909, 0, 2.727, 0.885, 1.754, 4.237, 0, 80.172, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Ha <-c(0, 0, 0, 0, 0, 0, 6.897, 0, 0, 0, 0, 0, 0, 0, 3.125, 1.02, 0, 0, 9.167, 0, 0, 0.769, 0, 0, 0, 0, 0, 1.418, 0, 9.22, 0, 0, 0, 0, 0, 0.69, 0, 0, 0, 0.685, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.351, 0, 4.054, 0, 2.027, 0, 0.676, 0, 0, 0, 8.108, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0.667, 6, 0.667, 0.667, 0, 14, 0, 10.667, 0, 0, 0, 0, 1.333, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.532, 0, 8.054, 0, 0, 0, 0, 1.333, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 18.667, 0, 0, 0, 0, 0, 0, 0, 0, 4, 0.667, 0, 0.667, 0, 0.667, 0, 19.333, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0.667, 7.333, 0, 0, 0, 0.667, 0, 0.667, 0, 0, 1.333, 0, 0, 0.667, 0, 0, 0, 0, 0.667, 0, 8, 0, 0, 0, 2, 0, 0, 0.667, 0, 0.667, 0, 0, 0, 0, 0, 0, 12.667, 0, 0.667, 0, 2.703, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 16.552, 0, 0, 0, 0.69, 0, 0, 0, 0, 0, 0, 0, 0, 0.885, 0, 1.818, 1.681, 0, 0.901, 0, 0, 0, 5.31, 0, 0, 0, 0, 0, 0, 0, 10.435, 0, 0, 0, 0, 0, 0)

Ia <-c(0, 0, 0, 0, 0, 0, 0, 3.03, 4.167, 0, 1.205, 3.448, 12.222, 6.452, 0, 3.061, 0, 0.84, 1.667, 0.794, 5.426, 1.538, 0, 1.481, 5, 0, 2.128, 0.709, 0, 0, 0, 0, 2.083, 5.517, 12.414, 0, 0, 2.069, 3.448, 0, 0, 0.714, 1.351, 1.351, 0, 29.73, 0, 0, 0.676, 0, 5.442, 0, 0, 7.432, 3.472, 0, 0.676, 10.811, 12.162, 0.676, 0.676, 0, 0, 26.351, 0, 0, 0, 0, 0, 0, 0, 10, 1.333, 4.667, 0.667, 0, 0.667, 0, 51.333, 0, 10, 0.667, 0, 0.667, 1.333, 0, 0, 0, 0, 0, 2.013, 0, 19.333, 0, 0.667, 6, 0, 0, 1.099, 0, 0.671, 1.342, 15.333, 0, 0, 5.333, 1.333, 31.333, 0.667, 0, 30.667, 0, 0, 0, 0, 0, 0, 2, 0, 3.333, 2.667, 1.333, 45.333, 0, 0.671, 0, 0.667, 1.333, 36, 0, 0, 0, 3.333, 8, 0, 1.333, 0, 1.333, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 14.667, 0, 0.667, 0, 2, 0, 0, 0, 0, 18, 0, 3.333, 0, 2.667, 0, 3.333, 0, 0, 0.667, 16, 0, 0.667, 0.667, 0, 0, 2.667, 0, 11.333, 0.667, 0, 1.333, 2, 0.667, 0, 4.667, 0, 3.333, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 2, 6.667, 0, 1.333, 0, 0, 0.671, 1.333, 0.667, 10.667, 0, 0, 0, 6.667, 0, 0, 6.849, 0, 0.69, 0, 0, 97.931, 6.897, 2.759, 0, 0, 49.655, 15.862, 1.379, 2.069, 28.966, 9.655, 5.517, 1.379, 1.379, 8.276, 29.655, 1.379, 0, 44.138, 0, 0, 0, 0, 0, 0, 0, 0, 5.556, 0, 0, 0, 1.695, 0, 0, 0, 0, 0, 0, 44.538, 0, 0, 0, 0, 1.818, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3.478, 10.526)

Ka <-c(0, 5.263, 45, 0, 0, 3.704, 41.379, 3.03, 0, 0, 0, 0, 0, 0, 0, 0, 4.673, 0, 0.833, 7.143, 0, 0.769, 5.109, 3.704, 6.429, 22.695, 0, 36.879, 0, 0, 24.113, 0, 0, 13.793, 0, 17.931, 0, 8.966, 4.138, 2.055, 1.37, 2.143, 2.027, 2.027, 0.676, 0, 0, 0, 95.27, 7.432, 1.361, 20.946, 29.054, 0, 1.389, 4.73, 0, 0, 0, 0, 0.676, 3.378, 54.054, 0, 0.676, 2.685, 4.667, 0, 22, 0, 0.667, 0, 0.667, 3.333, 0, 0.667, 1.333, 0.667, 0, 0, 0, 8.667, 38.667, 0, 0, 0.667, 46.667, 0, 0, 0, 14.765, 0, 0, 0, 0, 0, 0, 2.479, 4.396, 1.266, 2.685, 6.711, 0, 2.667, 16.667, 6, 12, 0, 35.333, 0, 0.667, 0, 0.667, 0, 0, 0, 0, 49.333, 0, 5.333, 0, 5.333, 0, 0, 0, 0, 0, 0.667, 0.667, 0, 12.667, 17.333, 0, 2.667, 0, 2, 0, 7.333, 0, 19.333, 0, 0, 0, 0, 0.667, 0, 11.333, 0, 32.667, 0, 0, 80, 0, 6.667, 0.667, 0, 0, 0, 0, 5.333, 0, 44.667, 38.667, 0, 0, 2.667, 2, 34.667, 0, 0, 0, 0, 26, 0, 0, 4.667, 36, 0.667, 0, 5.333, 0, 2.667, 0, 0, 4, 0, 4.667, 48, 1.333, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0.667, 0, 8.667, 0, 0, 1.333, 0, 3.333, 26.174, 17.333, 0.667, 8, 18.667, 0, 0.667, 0, 2.027, 2.055, 0, 0, 0.69, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3.448, 36.552, 51.034, 0, 0, 0, 3.571, 47.656, 37.838, 28.814, 28.829, 1.053, 35.135, 9.735, 37.19, 47.273, 0.84, 0.885, 0, 0.909, 0, 0, 0.885, 0, 0.847, 0.855, 5.172, 0, 0, 67.826, 0, 45.217, 10.435, 0, 0, 0, 0)

La <-c(0, 0, 0, 0, 0, 11.111, 6.897, 51.515, 27.778, 100, 48.193, 32.184, 38.889, 59.14, 14.583, 4.082, 4.673, 32.773, 1.667, 8.73, 1.55, 2.308, 0, 0, 5.714, 0, 0, 1.418, 0.709, 0, 0.709, 0, 0, 0, 82.069, 1.379, 0, 0.69, 0.69, 4.11, 0.685, 0, 0, 3.378, 2.027, 7.432, 0, 0, 0, 1.351, 0.68, 21.622, 2.027, 1.351, 17.361, 2.703, 50.676, 1.351, 0.676, 0, 0, 0, 0, 25.676, 1.351, 0.671, 1.333, 4.667, 0.667, 0, 0, 3.333, 0, 11.333, 6.667, 1.333, 0, 0, 46, 0.667, 10.667, 2, 0, 1.333, 2.667, 0, 0.667, 0, 0, 0, 4.698, 0, 0, 0, 0, 0, 6.667, 0, 0, 0, 0, 0.671, 6, 0.667, 0.667, 0, 0.667, 0, 0, 94.667, 3.333, 0, 68.667, 0, 0, 0, 0, 1.333, 0, 20.667, 0, 1.333, 0, 0, 0, 0, 0.667, 1.333, 0.667, 0, 0, 0, 0, 14, 97.333, 0.667, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2, 0, 0.667, 0, 0, 0, 0.667, 45.333, 60, 6.667, 3.333, 0, 0, 0, 1.333, 2.667, 3.333, 1.333, 1.333, 0, 0, 9.333, 0, 0, 2, 58, 0, 0.667, 3.333, 1.333, 0, 1.333, 99.333, 6.667, 0, 0.667, 0, 13.333, 2, 3.333, 10.667, 0, 0, 0, 0.667, 0, 0.667, 0, 0.667, 0, 0.667, 0, 0, 0.667, 0, 7.333, 0, 0, 0.671, 0, 1.333, 7.333, 3.333, 3.333, 0, 0.667, 0.676, 0, 50.685, 0, 0.69, 0, 0, 0.69, 0, 0, 0, 0.69, 16.552, 5.517, 20.69, 86.207, 60, 49.655, 69.655, 4.138, 73.103, 63.448, 6.207, 19.31, 0, 25.517, 0.69, 0, 0, 0, 0, 0, 0, 0.69, 42.361, 0, 1.562, 1.802, 0, 0, 0, 0, 0, 0, 0, 1.681, 0, 0, 0, 0, 0.909, 0.885, 0.877, 0, 0, 0, 0, 0, 0, 0, 0, 0.87, 0, 0, 43.478, 0)

Ma <-c(0, 5.263, 0, 0, 4, 0, 3.448, 3.03, 0, 0, 0, 4.598, 1.111, 0, 0, 0, 0, 0, 0, 0, 0, 0.769, 0, 0, 1.429, 2.128, 0, 0, 0, 0, 0, 0, 0, 0.69, 2.759, 0, 0, 0, 0.69, 0, 0, 2.857, 0, 0, 0, 0.676, 0, 0, 0.676, 1.351, 0, 4.054, 0, 0, 0.694, 0.676, 0, 0.676, 0.676, 0, 0, 0, 0.676, 0, 0.676, 0, 0, 0.667, 0, 0, 0.667, 1.333, 0, 21.333, 0, 0, 0, 2, 1.333, 0, 0, 0, 0, 3.333, 0, 0, 0, 0, 1.333, 0, 8.054, 0, 0.667, 0, 20.667, 0, 0.667, 0, 0, 0, 0, 0.671, 0, 0.667, 0, 0, 0, 0.667, 1.333, 2, 0, 0, 0, 0, 0, 0, 0, 2, 0, 8.667, 0.667, 0.667, 0, 0, 0, 0, 0, 7.333, 0, 0, 0, 2, 0.667, 4, 2, 0, 0, 1.333, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 8.667, 1.333, 35.333, 0.667, 0, 0, 0, 0, 0.667, 0.667, 0, 2, 0, 0.667, 0, 6, 0, 0, 1.333, 18.667, 0, 1.333, 0.667, 1.333, 0, 2.667, 0, 1.333, 0, 0, 0, 0, 2.667, 0, 16.667, 0, 0.667, 0, 0, 0, 3.333, 0, 0, 0, 3.333, 0, 0, 0, 0, 0.667, 0, 14, 1.342, 0, 0.667, 6.667, 1.333, 96.667, 2, 0, 0, 0, 2.74, 0, 0.69, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 7.586, 0, 4.828, 0, 0, 0.69, 0, 0.69, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.083, 0, 0, 11.712, 0, 0, 0, 1.802, 0, 0, 0.909, 0.84, 0, 0, 0, 0, 0, 0.885, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Na <-c(0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.205, 0, 1.111, 0, 0, 0, 0, 0, 0.833, 0, 0, 1.538, 1.46, 31.111, 0.714, 1.418, 0, 1.418, 0, 74.468, 6.383, 0.699, 0, 3.448, 0, 0, 0, 1.379, 0, 0.685, 2.74, 5, 29.054, 0.676, 0, 0, 0, 0, 0.676, 0, 10.884, 2.027, 2.027, 0.676, 0, 0, 0.676, 0, 0, 0, 33.108, 25.676, 2.027, 0, 0, 0, 5.333, 0, 0, 24, 0, 0, 1.333, 0, 0, 14.667, 8.667, 24, 0, 0, 0, 18, 6.667, 0, 0.667, 0, 4, 0, 32, 0, 1.342, 0, 0.667, 0, 0, 0, 1.333, 2.479, 3.297, 2.532, 26.174, 8.725, 0, 0, 0.667, 2, 6.667, 0, 18, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 14, 0, 0, 1.342, 0, 0, 0, 1.333, 2.667, 18, 10, 0, 0, 0, 0, 0, 2.667, 0, 9.333, 3.333, 0, 4.667, 0, 0, 0, 1.333, 0, 2, 0, 0, 0, 30.667, 20.667, 0.667, 0, 0, 0, 0.667, 13.333, 0, 2, 4, 15.333, 0, 7.333, 0, 1.333, 98.667, 0, 0, 0, 1.333, 0, 58, 0, 3.333, 26.667, 0, 27.333, 0, 0.667, 0, 14.667, 0, 0, 0.667, 0.667, 4, 2.667, 2, 0, 1.333, 0, 0, 0, 0, 0, 4, 100, 16.667, 0.667, 0, 0, 0, 0, 0, 4.667, 0, 0, 0.667, 0, 0, 0, 4.054, 2.055, 0, 97.241, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 13.793, 1.379, 0, 0, 0, 0, 5.714, 0, 2.703, 1.695, 0.901, 0, 1.802, 1.77, 11.57, 2.727, 0, 0, 2.703, 0, 0, 0, 4.425, 0, 0.847, 1.709, 2.586, 2.632, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Pa <-c(0, 0, 0, 0, 0, 0, 0, 0, 1.389, 0, 0, 0, 0, 0, 0, 1.02, 0, 0, 0, 0, 0, 0, 2.92, 1.481, 1.429, 0, 0, 27.66, 0, 0, 0, 22.378, 0, 0, 0, 22.069, 0, 0, 1.379, 0.685, 1.37, 3.571, 4.73, 59.459, 0, 0, 0, 0, 0, 0, 0, 5.405, 0.676, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 31.081, 0, 0, 38.667, 0, 0, 0, 0, 0, 0.667, 0.667, 0, 25.333, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.826, 1.099, 0, 2.013, 2.013, 1.333, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0.667, 0, 90.667, 96.667, 0, 12, 100, 0, 0, 0, 0, 100, 5.369, 0, 1.333, 0, 0, 0, 0, 2.667, 0, 0, 0, 0, 0, 0, 0, 8, 0, 0, 0, 100, 81.333, 56.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 27.333, 0, 90, 12, 0, 93.333, 0, 0.667, 0, 30.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 36.667, 0, 0, 0, 0, 0.667, 0, 0, 34.667, 50, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 33.333, 68.75, 0, 0, 2, 6.667, 0, 0, 0, 0, 0, 0, 0, 2.74, 0, 0.69, 0.69, 0.69, 0, 0, 0.69, 0.69, 0, 0, 1.379, 0.69, 0.69, 0, 0.69, 0, 0.69, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 0, 0, 0, 39.286, 0, 0, 1.695, 0, 0, 0.901, 30.973, 1.653, 23.636, 0, 0.885, 0, 34.545, 78.378, 7.273, 0.885, 0, 0.847, 0.855, 0, 0, 0, 0, 0.87, 0, 0, 0, 0, 0, 0)

Qa <-c(0, 0, 10, 4.545, 4, 0, 0, 18.182, 0, 0, 0, 0, 0, 1.075, 4.167, 1.02, 0.935, 1.681, 1.667, 1.587, 0, 2.308, 4.38, 5.926, 2.857, 13.475, 0.709, 1.418, 0.709, 0, 10.638, 0.699, 0, 0, 0, 1.379, 0, 2.759, 0, 1.37, 0, 2.857, 1.351, 0.676, 0, 2.703, 0, 0, 0, 0, 19.728, 14.865, 5.405, 0.676, 34.722, 2.027, 0, 0, 0, 0, 0.676, 0.676, 16.216, 0, 0.676, 2.685, 6, 0, 4.667, 0, 0.667, 0, 13.333, 6, 1.333, 4, 4, 0, 0, 4.667, 0, 5.333, 0.667, 0, 0.667, 0, 4, 0, 0, 0, 2.013, 0, 2, 0, 0, 0, 0, 0.826, 3.297, 3.797, 11.409, 29.53, 0, 3.333, 6, 0, 4.667, 0, 16, 0, 0.667, 0, 26.667, 0, 0, 0, 0, 2, 0, 0.667, 0, 4.667, 0, 0, 2.013, 0, 0, 0, 0, 0, 0.667, 4, 0, 2.667, 0, 0.667, 0, 0, 0, 4.667, 8.667, 0, 0, 0, 0, 0, 6, 0, 10, 0, 0, 0, 0, 2.667, 0, 5.333, 0, 0, 4, 0, 0, 0.667, 4, 0, 0.667, 0.667, 0, 10.667, 0, 0, 0, 0, 0, 0.667, 2, 4.667, 5.333, 0, 0, 0.667, 0, 2, 0, 4, 0, 0, 0.667, 3.333, 0, 0, 0, 0, 16, 0, 0.667, 0, 20.667, 0, 16.667, 0, 0, 4, 0, 3.333, 0, 67.333, 2.013, 4, 0, 0, 4.667, 0, 14, 0, 1.351, 0.685, 1.37, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 7.586, 0, 0.69, 0, 0, 0, 1.429, 2.344, 0.901, 0, 3.604, 1.053, 5.405, 4.425, 4.959, 3.636, 4.202, 0, 31.532, 53.636, 2.703, 0.909, 0.885, 3.509, 0.847, 2.564, 0, 0.877, 0, 2.609, 88.696, 0, 0.87, 0, 0, 0, 0)

Ra <-c(0, 0, 30, 9.091, 8, 70.37, 20.69, 6.061, 0, 0, 0, 0, 0, 0, 2.083, 1.02, 2.804, 0, 2.5, 9.524, 0, 0, 0.73, 0.741, 2.857, 24.823, 0, 7.092, 0, 0, 0.709, 1.399, 0.694, 0, 0, 3.448, 0, 1.379, 0, 10.959, 0.685, 2.143, 0, 0, 97.297, 0, 2.027, 0, 0.676, 0.676, 1.361, 10.811, 2.027, 0, 0.694, 4.054, 0, 0, 0, 0, 0, 1.351, 1.351, 0, 0, 0, 0, 0, 13.333, 0, 98, 0, 3.333, 0.667, 0.667, 3.333, 2, 0, 0, 55.333, 0, 9.333, 2.667, 0, 0, 92.667, 4, 0, 0, 0, 5.369, 0, 9.333, 0, 0, 0, 0, 0, 0, 0, 0.671, 2.013, 0, 1.333, 0.667, 0, 13.333, 0, 2, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 33.333, 0, 0, 0, 0, 0, 2.667, 0, 0, 6.667, 33.333, 0, 4.667, 0, 21.333, 0, 1.333, 0, 0.667, 0.667, 0, 0, 0, 6.667, 0, 0.667, 0, 28, 0, 0, 20, 0, 0, 0.667, 0.667, 0, 0.667, 0.667, 0, 0, 2.667, 1.333, 0.667, 20.667, 4, 0, 25.333, 0.667, 0, 0, 0, 6, 0, 0, 2, 4, 0, 0, 0.667, 0, 0.667, 0, 0, 6, 0, 4.667, 1.333, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 3.333, 0, 0, 0, 0, 2.667, 0, 2, 55.705, 5.333, 0, 0.667, 48.667, 0, 0, 0, 31.081, 0, 1.37, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 0.69, 0, 0, 0.69, 0, 0, 0, 0, 0, 0, 0, 0, 0, 4.138, 25.517, 46.207, 0, 0, 0, 1.429, 34.375, 10.811, 6.78, 0.901, 5.263, 1.802, 0.885, 3.306, 1.818, 2.521, 0, 2.703, 0.909, 0, 3.636, 6.195, 43.86, 0, 0, 2.586, 0, 0, 27.826, 0, 0, 0, 0, 0, 0, 0)

Sa <-c(5.556, 0, 0, 0, 8, 0, 3.448, 0, 0, 0, 21.687, 1.149, 12.222, 5.376, 9.375, 19.388, 4.673, 5.882, 34.167, 13.492, 2.326, 34.615, 48.905, 17.037, 0, 6.383, 0.709, 0.709, 0, 0, 7.092, 5.594, 0, 2.759, 0, 22.759, 0, 42.759, 60, 6.164, 19.178, 51.429, 33.108, 0.676, 0, 0, 0.676, 0, 2.027, 0, 0.68, 4.73, 6.757, 58.784, 0.694, 33.784, 0.676, 0, 0, 0, 2.027, 8.108, 1.351, 0.676, 0.676, 6.04, 28, 0, 8, 9.333, 0, 0, 4, 0, 35.333, 6, 32.667, 13.333, 0, 4, 0, 27.333, 34, 0, 0.667, 2, 0.667, 0, 20.667, 0, 0.671, 0, 6, 0, 1.333, 0, 58.667, 19.835, 12.088, 7.595, 27.517, 6.711, 2.667, 3.333, 2, 22, 12, 0.667, 2, 0, 1.333, 0, 0, 0, 0.667, 0.667, 73.333, 0, 0, 1.333, 10, 8.667, 0, 0, 59.06, 88.591, 0.667, 0.667, 6.667, 2.667, 34.667, 7.333, 0, 0, 0, 24, 0, 33.333, 0, 15.333, 1.333, 4, 90, 0, 4, 37.333, 2.667, 0, 6, 0, 0, 0, 0.667, 4, 2.667, 0.667, 0, 0, 6.667, 1.333, 2, 33.333, 26, 32.667, 14, 4, 0.667, 16.667, 0.667, 52.667, 54.667, 0, 20, 0, 0, 16, 6.667, 17.333, 0, 0, 0, 0, 0, 3.333, 22, 0, 42.667, 4.667, 18.667, 0, 31.333, 0, 10, 0, 20.667, 0, 0, 4.667, 38, 0, 10.667, 0, 0, 18, 12.5, 1.333, 7.383, 10, 2, 0, 0.667, 0, 0.667, 0.667, 19.595, 0, 0, 0, 0, 6.897, 0, 0, 0, 0.69, 0.69, 0, 0.69, 0, 2.069, 0.69, 0, 0, 0, 2.069, 1.379, 0, 0, 0, 2.069, 0, 0, 0, 0, 2.759, 33.103, 0, 0, 0, 0.694, 15, 9.375, 1.802, 35.593, 11.712, 50.526, 13.514, 25.664, 21.488, 8.182, 3.361, 0.885, 49.55, 3.636, 1.802, 61.818, 5.31, 0, 49.153, 0.855, 2.586, 0, 0, 0, 0, 0, 87.826, 100, 0, 0, 0)

Ta <-c(94.444, 5.263, 0, 13.636, 4, 0, 10.345, 0, 23.611, 0, 1.205, 0, 4.444, 0, 4.167, 2.041, 1.869, 5.042, 3.333, 0.794, 0.775, 31.538, 17.518, 16.296, 0.714, 4.255, 0.709, 0, 0, 0, 0, 5.594, 9.722, 10.345, 0, 22.069, 0, 20.69, 11.034, 0, 0.685, 6.429, 10.135, 2.027, 0, 1.351, 0, 0, 0, 0, 4.082, 3.378, 3.378, 14.865, 29.167, 22.297, 0, 0, 0, 0.676, 0.676, 0.676, 2.027, 1.351, 92.568, 10.067, 4, 0, 4, 1.333, 0, 0, 53.333, 0.667, 4, 3.333, 26, 1.333, 0, 15.333, 0, 8, 11.333, 4.667, 93.333, 0.667, 2, 0, 43.333, 0, 17.45, 0, 31.333, 0, 0.667, 0, 12.667, 4.959, 2.198, 1.266, 5.369, 10.067, 3.333, 2, 0.667, 7.333, 25.333, 1.333, 12.667, 0, 50, 0, 0, 0, 0, 0, 3.333, 8, 0, 26, 0, 0, 0, 0, 28.859, 6.04, 0, 84.667, 48.667, 0, 14.667, 8, 2.667, 6.667, 0, 42, 0, 8.667, 0, 20, 1.333, 0, 0, 0, 0, 0, 51.333, 0, 9.333, 0, 0, 0, 0, 2, 30, 0, 0, 0.667, 17.333, 1.333, 3.333, 5.333, 18, 3.333, 3.333, 14, 0, 2, 0, 2.667, 45.333, 0, 36.667, 0, 0, 11.333, 5.333, 48, 0, 10.667, 0, 11.333, 0, 1.333, 6.667, 5.333, 24.667, 1.333, 7.333, 0, 49.333, 0, 1.333, 0, 8.667, 0, 3.333, 0, 5.333, 0, 1.333, 0, 0, 20, 0.694, 2, 4.698, 2, 6.667, 2.667, 3.333, 0, 0.667, 6, 2.027, 0, 3.425, 0, 31.034, 0.69, 0, 0, 0, 0.69, 0, 0, 0, 1.379, 20.69, 1.379, 0, 0, 0, 0.69, 0, 0, 0, 0, 0, 1.379, 0, 0, 1.379, 0.69, 2.759, 0, 0, 0.69, 0, 5, 2.344, 9.009, 13.559, 1.802, 6.316, 28.829, 4.425, 3.306, 5.455, 0, 7.08, 9.009, 2.727, 11.712, 10, 7.965, 4.386, 0, 1.709, 0, 0, 0, 1.739, 0, 54.783, 0, 0, 0, 0, 0)

Va <-c(0, 10.526, 0, 18.182, 0, 3.704, 3.448, 0, 18.056, 0, 7.229, 17.241, 6.667, 6.452, 2.083, 7.143, 6.542, 32.773, 0.833, 0.794, 10.853, 0.769, 0.73, 0.741, 71.429, 0, 86.525, 0, 1.418, 0, 0.709, 0.699, 37.5, 0.69, 0.69, 0.69, 0, 0, 0.69, 0.685, 0, 0.714, 0, 3.378, 0, 56.757, 0.676, 0, 0, 0.676, 9.524, 5.405, 0, 1.351, 8.333, 20.27, 0, 72.973, 13.514, 0, 0, 0, 0.676, 2.027, 2.703, 0.671, 0, 0, 1.333, 0, 0, 66.667, 6, 7.333, 2, 0.667, 0, 1.333, 1.333, 3.333, 0, 0.667, 0, 88, 0, 0, 1.333, 0, 0, 0, 16.107, 0, 3.333, 0, 0, 93.333, 14.667, 0, 3.297, 0, 0.671, 1.342, 3.333, 0.667, 0, 36.667, 2.667, 64.667, 2, 3.333, 12.667, 99.333, 0, 100, 0, 0.667, 0, 20, 0, 31.333, 18, 0.667, 54, 0, 0.671, 4.698, 54, 0.667, 4.667, 0, 0, 8, 35.333, 45.333, 0, 1.333, 0, 3.333, 0, 0.667, 9.333, 0.667, 0, 0, 0, 0, 2, 0, 0.667, 0, 0, 0, 0, 0, 36, 4.667, 4, 0.667, 2.667, 1.333, 0, 0, 0, 2.667, 2, 1.333, 0, 1.333, 0, 2.667, 0, 0, 5.333, 5.333, 0, 7.333, 3.333, 0, 0, 10.667, 0, 26, 0, 0, 1.333, 61.333, 0.667, 1.333, 3.333, 0, 0, 0, 0.667, 0, 2.667, 0, 4, 6, 6, 0, 0, 34, 0, 1.333, 2.083, 6.667, 0.671, 1.333, 20.667, 49.333, 0.667, 0, 0, 48.667, 12.162, 0, 30.137, 0, 64.828, 0, 0.69, 0.69, 91.034, 0.69, 0, 99.31, 30.345, 71.034, 13.793, 0, 0.69, 24.138, 18.621, 6.897, 11.724, 10.345, 14.483, 5.517, 0.69, 28.966, 0.69, 0, 0, 0, 0, 0, 0, 0.69, 0.694, 0, 0, 1.802, 1.695, 1.802, 0, 0, 0, 0.826, 0.909, 34.454, 0, 0, 0.909, 0, 0.909, 0, 0, 0.847, 0, 0.862, 0, 0, 0, 0, 0, 0, 0, 0, 53.043, 88.596)

Wa <-c(0, 0, 0, 0, 4, 0, 0, 0, 0, 0, 1.205, 0, 0, 3.226, 0, 0, 0, 0.84, 1.667, 1.587, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.351, 0, 99.324, 0, 0, 0, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 100, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 5.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 0, 0, 0, 0, 88.966, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.877, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Ya <-c(0, 0, 0, 0, 0, 0, 0, 0, 4.167, 0, 0, 1.149, 0, 2.151, 1.042, 5.102, 0, 0, 3.333, 0.794, 6.977, 0, 0.73, 2.963, 0, 0, 0, 0, 0, 1.418, 0, 0, 0, 0, 0, 3.448, 0, 2.069, 8.966, 0, 0.685, 0.714, 0, 0, 0, 0, 0, 0, 0, 2.027, 0, 0, 0, 0.676, 0, 0, 26.351, 0, 43.919, 55.405, 0, 0, 0, 0, 0, 0, 0, 90.667, 0, 0, 0, 0, 0, 2, 39.333, 0, 2.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 98.658, 1.333, 0, 0, 0, 2, 0, 0, 0, 0, 2.685, 36.667, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 1.333, 0, 3.333, 0, 0, 0, 0, 2, 0, 0, 0, 0, 72.667, 8, 0, 70.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.667, 0, 0, 5.333, 0, 98.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 2, 0, 0, 0, 0, 98.667, 36.667, 0, 0, 0, 2, 0, 0, 11.333, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 6.081, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 0, 0, 0, 0, 2.069, 41.379, 0, 49.655, 0, 0, 0, 88.276, 0, 0.714, 0, 0, 0.847, 0, 0, 0, 0, 0.826, 0, 1.681, 89.381, 0, 0, 0, 0, 0, 0.877, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

CSa <-c(7, 3, 4, 3, 2, 4, 1, 2, 3, 6, 4, 3, 1, 3, 2, 4, 4, 4, 4, 4, 5, 3, 4, 4, 5, 3, 8, 4, 9, 8, 4, 4, 5, 6, 8, 4, 9, 3, 6, 4, 7, 4, 4, 4, 9, 5, 9, 9, 9, 7, 5, 1, 4, 6, 6, 4, 6, 7, 5, 5, 4, 4, 4, 4, 8, 3, 3, 8, 4, 2, 9, 7, 4, 4, 5, 1, 4, 6, 8, 5, 7, 3, 6, 8, 8, 8, 4, 9, 6, 9, 3, 9, 5, 9, 8, 9, 7, 5, 2, 4, 4, 3, 5, 3, 7, 4, 3, 7, 3, 8, 4, 9, 7, 9, 7, 9, 7, 4, 9, 4, 7, 4, 6, 9, 5, 8, 8, 8, 8, 7, 4, 3, 5, 4, 9, 5, 9, 4, 9, 2, 4, 6, 9, 9, 6, 6, 6, 8, 3, 9, 4, 7, 5, 3, 4, 3, 7, 7, 2, 5, 8, 7, 4, 5, 4, 3, 7, 5, 9, 6, 9, 9, 4, 5, 7, 1, 3, 5, 9, 5, 9, 4, 9, 5, 4, 5, 4, 6, 2, 9, 5, 8, 5, 9, 3, 9, 7, 8, 3, 9, 4, 6, 9, 2, 4, 6, 4, 3, 4, 3, 3, 9, 6, 8, 5, 8, 3, 9, 8, 8, 7, 9, 9, 9, 8, 9, 8, 5, 6, 8, 7, 6, 6, 4, 5, 6, 3, 5, 6, 4, 7, 7, 9, 4, 7, 8, 9, 7, 6, 4, 4, 4, 4, 5, 6, 5, 3, 4, 5, 6, 7, 8, 7, 5, 5, 5, 5, 6, 6, 6, 7, 9, 7, 9, 9, 9, 9, 9, 8, 9)

Ab <-c(0, 88.889, 0, 0, 10, 0, 0, 12.5, 0, 0, 0, 4.167, 3.846, 3.846, 0, 3.226, 8.571, 2.778, 7.692, 30.233, 0, 0, 2.667, 1.235, 0, 0, 24.107, 2.459, 0, 0, 3.846, 2.256, 49.624, 0, 0, 8.696, 0, 2.899, 0, 0.775, 0.73, 6.618, 3.472, 9.028, 0, 0, 0, 0, 0, 0, 2.113, 2.098, 0.704, 3.546, 1.399, 4.167, 0, 0, 0, 0, 0, 0.699, 6.993, 0, 9.524, 12.162, 4, 0, 26, 1.333, 0, 72, 0, 0, 0, 1.333, 44, 0.667, 0, 0, 0, 0, 1.333, 14, 0, 0, 9.333, 0, 24.667, 24.667, 0.667, 0, 0.667, 0, 0.667, 0, 10.667, 70.27, 0, 1.681, 0, 0, 2, 12.667, 0, 15.333, 2, 0, 0, 0, 6, 0, 0, 0, 15.333, 0.667, 10.667, 6, 0, 1.333, 8.667, 0.667, 0.667, 0, 1.333, 16.667, 40, 0, 1.333, 0.667, 2, 7.333, 40.667, 2, 0, 0, 0, 0.667, 0, 4, 0.667, 5.333, 0, 0, 20, 26.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 16.667, 0, 2.74, 5.505, 0.917, 1.852, 3.67, 8.257, 0.735, 11.029, 16.667, 4.698, 19.463, 0, 24.667, 0.667, 0, 0.667, 0.667, 0, 9.396, 4.698, 2.685, 0, 0.671, 0, 4.027, 0, 2.667, 18.667, 10.067, 9.396, 8.054, 12, 0, 26, 4.667, 0.667, 0, 0, 0, 0, 90, 1.333, 0, 2.667, 36, 0, 13.333, 0.667, 0, 0, 7.333, 35.333, 0.667, 0, 0, 3.333, 10.667, 3.333, 0, 0, 0, 0.676, 14.189, 13.423, 0, 3.356, 62.416, 37.162, 10.738, 6.04, 3.356, 18.121, 18.919, 6.803, 9.524, 0.68, 28.767, 1.379, 1.37, 9.589, 6.164, 6.849, 3.425, 0, 1.37, 76.027, 0, 0, 0, 1.37, 0, 0.694, 6.294, 0.73, 3.788, 3.226, 1.802, 6.542, 1.869, 1.075, 1.695, 1.852, 9.259, 22.807, 0, 1.111, 9.091, 11.494, 2.247, 2.41, 3.261, 1.087, 1.087, 1.087, 0, 0, 0, 0, 0, 0, 0, 1.111, 0)

Cb <-c(0, 11.111, 0, 0, 0, 0, 0, 0, 6.25, 5.556, 0, 0, 7.692, 0, 0, 0, 2.857, 0, 2.564, 4.651, 0, 15.556, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 100, 0, 0, 0, 0, 0, 0, 0, 0.694, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 5.556, 0, 0.699, 0, 0, 0, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 100, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 80, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 100, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 100, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 79.333, 0, 0, 0, 0, 0, 0, 0.667, 0, 0.671, 0, 0, 0, 0, 0, 0, 0, 1.342, 0.676, 0.671, 0, 0.671, 0.671, 8.784, 0, 0, 0, 0.685, 9.655, 41.781, 10.959, 6.849, 8.904, 0.685, 47.586, 19.863, 11.644, 4.795, 0, 0, 0, 13.793, 13.194, 0, 0.73, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Db <-c(0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.564, 0, 0, 2.222, 28, 13.58, 0, 0.943, 0, 1.639, 0, 0.775, 7.692, 23.308, 0, 15.789, 0, 0, 0, 2.899, 16.279, 0, 24.818, 0.735, 11.806, 0, 0, 0, 0, 0, 0, 0, 2.113, 13.986, 10.563, 19.858, 0, 2.083, 0, 0, 0, 0, 36.364, 2.797, 3.497, 0, 0, 8.108, 40.667, 0, 0.667, 23.333, 0, 0, 2, 0, 8, 12.667, 0, 0.667, 0, 0, 0, 0.667, 0.667, 0, 0, 0, 1.333, 100, 0.667, 0, 8, 0, 6, 0, 0, 0, 0, 3.378, 64.122, 3.361, 0, 7.333, 0, 22.667, 2.667, 6.667, 0.667, 0, 8.667, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 6, 0, 0, 0.667, 0, 0, 0, 0, 0.667, 0, 1.333, 0, 2.667, 0, 0, 0, 0.667, 47.333, 2.667, 21.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 56.667, 5.333, 3.333, 0, 0, 1.37, 11.927, 57.798, 0, 0, 0.917, 4.412, 0, 0.667, 0, 0.671, 9.333, 0, 0, 0, 0, 0, 34.899, 0, 10.067, 0.671, 0, 0.671, 0, 0, 0, 3.333, 0, 0, 0, 0, 2.667, 98, 0, 0, 8.667, 0, 0, 0, 0, 0, 2, 0, 19.333, 0, 0, 0, 0, 0, 0, 9.333, 0, 0, 1.333, 0, 4.667, 0, 21.333, 73.154, 0, 11.486, 0, 0, 1.342, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.685, 0, 0, 0, 0, 0, 0, 0, 0.685, 0, 0, 6.294, 0, 3.03, 1.613, 8.108, 2.804, 1.869, 3.226, 0, 0, 1.852, 0, 1.087, 0, 1.136, 0, 0, 20.482, 38.043, 13.043, 1.087, 60.87, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Eb <-c(0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 4.444, 2.667, 8.642, 0, 28.302, 0.893, 9.016, 96.875, 0, 24.615, 21.053, 0, 34.586, 0, 0, 0, 18.841, 34.109, 0.775, 9.489, 1.471, 2.778, 0, 0, 0, 99.301, 0, 0, 0, 1.408, 2.098, 5.634, 9.22, 0, 0.694, 0, 0, 0, 0.694, 11.189, 0.699, 10.49, 0, 0, 4.73, 1.333, 0, 28, 2.667, 0, 0, 28, 0, 14.667, 0.667, 0.667, 2.667, 0, 0.667, 0, 2, 0.667, 0, 0.667, 0, 13.333, 0, 0, 0, 26.667, 0, 0.667, 0, 92, 0, 0, 3.378, 14.504, 7.563, 0, 6, 0, 8, 89.333, 0.667, 5.333, 0, 6.667, 0, 8, 0, 0.667, 0, 0, 0, 0, 0.667, 0, 0, 0, 34, 0, 0, 8, 0, 0, 0, 0, 0, 0, 0.667, 0, 46.667, 0, 0, 0, 2.667, 52.667, 4.667, 42, 0, 0, 0, 0.667, 0, 18.667, 0, 0, 0, 0, 0, 0.667, 0, 19.333, 16, 0, 0.685, 22.018, 8.257, 0, 0.917, 0.917, 0, 1.471, 0, 0, 0.671, 0.667, 0, 0, 0, 0.667, 0, 0, 5.369, 12.752, 0, 0, 9.396, 0, 18.121, 0, 8, 1.333, 0, 0, 0, 24.667, 0, 2.667, 0, 42.667, 0, 0, 0, 52.667, 0, 3.333, 0, 7.333, 3.333, 0, 1.333, 7.333, 0, 0, 25.333, 10, 0, 7.333, 0, 49.333, 0, 8.667, 21.477, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.013, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.685, 0, 0, 0, 0, 0.69, 0, 0, 0, 0, 0, 0, 0, 0, 1.399, 0, 13.636, 0, 13.514, 2.804, 9.346, 8.602, 5.085, 1.852, 0, 0, 2.174, 0, 0, 0, 0, 20.482, 17.391, 68.478, 2.174, 20.652, 0, 0, 0, 0, 1.099, 0, 0, 0, 0)

Fb <-c(0, 0, 0, 0, 0, 0, 0, 0, 6.25, 0, 0, 0, 3.846, 11.538, 7.692, 16.129, 0, 5.556, 2.564, 2.326, 2.273, 0, 0, 0, 0, 0, 0, 0, 0, 40.31, 0, 0.752, 0, 0.752, 0.735, 0, 0, 0, 0, 15.504, 5.109, 0, 0, 0.694, 0, 0, 0, 0, 0, 26.573, 0, 0, 0, 0, 0, 0, 45.833, 3.472, 12.5, 60.417, 0, 0, 0, 32.639, 0, 0, 1.333, 30, 0, 0, 0, 1.333, 0.667, 11.333, 2.667, 0, 8, 0, 0, 3.333, 24.667, 6.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 27.333, 0.667, 0, 0, 0.667, 2, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0.667, 0, 0, 0, 0, 0, 8, 4, 0, 2, 0, 0, 0, 0.667, 1.333, 0, 4.667, 0, 0, 0, 0, 16.667, 0, 0, 0, 0, 10, 0.667, 0, 48, 0.667, 0, 0, 0, 0.667, 0, 2.74, 0, 0, 0, 0, 0.917, 5.882, 0, 0, 54.362, 6.04, 0, 0.667, 0, 10.667, 0, 2.667, 0.671, 0, 4.698, 0, 0, 0, 0, 0, 94.667, 0, 0.667, 0, 0, 0, 5.333, 0, 0, 0, 0, 0.667, 14.667, 0, 0, 0, 3.333, 0, 0, 0.667, 0, 2.667, 0, 0, 0, 0, 0, 2, 2, 0, 0, 0, 0, 0, 1.342, 0, 0, 0, 0, 1.342, 3.356, 0, 0, 0, 2.685, 2.013, 6.711, 4.73, 1.361, 0.68, 4.082, 3.425, 8.276, 0, 0, 28.767, 0.685, 0.685, 7.586, 20.548, 0, 2.055, 0, 0, 0, 13.103, 63.889, 0.699, 0, 0, 0.806, 0.901, 8.411, 0.935, 0, 0, 0, 1.852, 0, 0, 4.444, 0, 0, 0, 0, 0, 0, 0, 0, 93.478, 0, 0, 0, 0, 0, 100, 1.111, 0)

Gb <-c(0, 0, 0, 0, 10, 12.5, 7.143, 0, 6.25, 0, 0, 0, 0, 0, 0, 9.677, 0, 0, 7.692, 0, 4.545, 28.889, 5.333, 0, 0, 0, 0, 0, 0, 3.876, 3.846, 10.526, 0, 0, 0, 0, 0, 0, 0.775, 0, 18.248, 2.206, 0, 0, 0, 0, 0, 0, 0, 0, 0, 37.762, 35.211, 17.021, 0, 0.694, 0, 0, 0, 0, 9.091, 39.86, 0, 0, 0, 65.541, 1.333, 0, 0, 38, 0, 0.667, 0, 0, 0, 38, 7.333, 20, 0, 0, 0, 0, 2.667, 0, 0, 0, 0, 0, 0, 75.333, 0, 0, 0, 0, 0.667, 0, 0, 13.514, 12.214, 0.84, 0.909, 6.667, 0.667, 46, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 7.333, 0.667, 0, 0, 0, 1.333, 0, 0, 1.333, 0, 0, 0, 0, 98.667, 1.333, 6.667, 0, 0, 0, 0, 0, 0, 0, 4, 0, 69.333, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 36, 0, 0.667, 0, 2.055, 7.339, 0.917, 0, 7.339, 0.917, 10.294, 0.735, 6, 0, 2.013, 0.667, 0, 0, 0, 0, 0, 0, 1.342, 1.342, 0, 99.329, 4.027, 0, 0, 0, 1.333, 2, 0, 2.685, 2.013, 6, 0, 0.667, 95.333, 0, 0, 0, 0, 0, 0, 0, 0, 30.667, 0, 100, 0, 0, 0.917, 2.667, 4, 22.667, 0, 0, 0, 0, 0.667, 2.667, 0, 0, 1.351, 0, 36.486, 68.456, 0, 0, 11.409, 48.649, 2.685, 0.671, 14.765, 2.685, 0, 2.041, 0, 0, 13.699, 0.69, 0, 28.767, 2.74, 78.082, 6.849, 0, 0, 0, 0, 0.685, 0.685, 93.836, 0.69, 0, 4.196, 1.46, 6.061, 6.452, 4.505, 7.477, 25.234, 2.151, 10.169, 1.852, 1.852, 0, 4.348, 0, 1.136, 2.299, 0, 1.205, 2.174, 1.087, 63.043, 1.087, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Hb <-c(0, 0, 0, 0, 0, 0, 50, 0, 0, 0, 0, 4.167, 0, 0, 3.846, 0, 2.857, 0, 0, 0, 2.273, 13.333, 1.333, 8.642, 0, 0, 0, 15.574, 0, 12.403, 1.538, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.083, 0.694, 0, 0, 0, 0, 0, 0, 0, 0, 1.408, 1.418, 0, 0.694, 0, 0, 0, 1.389, 0.699, 3.497, 9.79, 0, 0, 0, 0, 0, 1.333, 2.667, 0, 0, 0.667, 0, 1.333, 1.333, 0, 0, 0, 4.667, 0, 16, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.667, 0, 0, 0, 0, 0, 0, 12.605, 0, 1.333, 0, 0, 1.333, 0, 0, 0, 2, 0, 0, 0, 0.667, 0, 0, 0, 20.667, 0, 0, 0, 0, 5.333, 0, 0, 0.667, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 14, 0, 5.333, 0, 0.667, 6, 0, 0.667, 0, 0, 0, 4, 0, 1.333, 0, 0, 4.667, 0, 0, 0.667, 0, 0, 0.685, 0, 0, 0, 0, 0, 1.471, 1.471, 2, 7.383, 2.013, 0, 0, 1.333, 0, 1.333, 0, 0, 2.013, 6.711, 0, 0, 0, 0, 2.013, 0, 2.667, 0, 0, 6.04, 0, 0, 0, 0, 0, 1.333, 0, 10.667, 0, 0, 0, 1.333, 0, 0, 0, 0, 8, 0, 0, 0, 0.667, 0, 3.333, 19.333, 0, 2, 0, 2, 0, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 5.479, 0, 17.123, 0.685, 4.795, 0, 1.379, 0, 3.497, 0.73, 8.333, 3.226, 5.405, 0, 0.935, 2.151, 0, 0, 0, 1.754, 1.087, 1.111, 2.273, 0, 0, 0, 0, 0, 0, 9.783, 0, 0, 69.231, 0, 0, 0, 0, 0, 0)

Ib <-c(0, 0, 0, 0, 0, 0, 7.143, 0, 0, 5.556, 0, 4.167, 0, 0, 0, 0, 2.857, 16.667, 7.692, 6.977, 0, 0, 0, 0, 4.95, 0, 2.679, 8.197, 0, 0, 0, 0, 12.782, 14.286, 2.941, 0, 0, 13.768, 17.829, 0, 0, 4.412, 0, 0.694, 0, 60.14, 0, 0, 0, 0, 35.211, 0, 0, 4.965, 6.993, 0.694, 0.694, 5.556, 3.472, 0, 0, 0, 0.699, 28.472, 3.401, 0, 0, 0, 0, 0, 0, 4, 2, 36, 6.667, 0, 2, 0, 38, 1.333, 50.667, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0.667, 0, 4, 0, 0, 13.333, 0.667, 0, 0.763, 0, 7.273, 2.667, 10.667, 0, 0, 28.667, 0.667, 47.333, 0, 0.667, 14, 4, 1.333, 0, 0, 0, 0.667, 7.333, 0, 4, 2, 1.333, 27.333, 0, 0.667, 0.667, 0.667, 0, 12.667, 0, 0, 0, 0.667, 0, 0, 0.667, 0, 2, 0, 0, 1.333, 0, 13.333, 0, 0, 0, 2, 0, 0.667, 0, 0.667, 0, 0, 0, 17.333, 0, 14, 0.685, 1.835, 0, 0.926, 0, 2.752, 3.676, 3.676, 0, 2.685, 3.356, 0, 6, 0, 0, 3.333, 26.667, 0, 2.685, 0, 0.671, 0, 8.725, 0, 4.698, 2, 4, 0, 5.369, 0, 1.342, 2, 0, 3.333, 0, 0, 0, 0, 0, 10.667, 0, 0.667, 0, 2, 8.667, 0, 0.667, 0, 0, 0, 1.333, 2, 4.667, 2, 0.667, 0.667, 20, 4.667, 0, 9.396, 0, 27.027, 0, 6.04, 77.181, 42.282, 2.013, 1.351, 5.369, 15.436, 12.081, 2.013, 2.703, 14.966, 10.204, 18.367, 4.11, 8.966, 22.603, 13.699, 6.849, 0, 40.411, 0.69, 1.37, 0.685, 0, 0, 0, 0, 2.069, 0.694, 5.594, 1.46, 0, 0.806, 0, 0, 0.935, 0, 0, 1.852, 0, 0, 17.391, 0, 0, 0, 0, 0, 0, 1.087, 0, 0, 0, 0, 0, 0, 0, 0, 0, 17.778, 75.325)

Kb <-c(0, 0, 11.111, 0, 0, 0, 0, 0, 0, 0, 15, 0, 0, 0, 3.846, 0, 0, 0, 0, 0, 0, 2.222, 4, 11.111, 1.98, 9.434, 0, 11.475, 0, 0, 9.231, 3.759, 0, 5.263, 0, 5.072, 0, 17.391, 6.202, 37.984, 0, 0.735, 0.694, 0.694, 0, 0, 0, 0, 100, 70.629, 28.169, 13.287, 25.352, 1.418, 1.399, 1.389, 0, 0, 0, 0, 1.399, 7.692, 41.259, 0, 2.721, 1.351, 3.333, 0, 24.667, 3.333, 0, 0, 12.667, 0.667, 4, 5.333, 1.333, 0, 0, 4, 0, 19.333, 18, 0, 0, 0.667, 41.333, 0, 0, 0, 22, 0, 0.667, 0, 0, 0, 0, 0, 0.763, 5.882, 28.182, 7.333, 0, 0.667, 4, 4, 6.667, 0, 9.333, 0, 8.667, 0, 0.667, 0, 25.333, 0, 0.667, 16, 0, 8.667, 0, 4, 0, 0, 17.333, 0, 0, 0, 0, 0, 24.667, 7.333, 0, 1.333, 0, 4.667, 0, 16, 0, 31.333, 0, 0, 0, 0, 10, 0, 6.667, 0, 12.667, 0, 0, 69.333, 0, 7.333, 14.667, 0.667, 0, 0, 0.917, 6.422, 0, 55.046, 14.679, 0.735, 0.735, 22, 2.013, 9.396, 0, 0, 0, 0, 10.667, 0, 0, 5.369, 32.215, 8.725, 0, 2.013, 0, 23.49, 0, 18.667, 1.333, 0, 4.027, 75.839, 0, 0, 0, 0, 0.667, 0, 0, 0, 2, 0, 13.333, 0, 5.333, 0, 0, 2, 33.333, 22.936, 0, 4.667, 0.667, 26, 9.333, 0, 10.667, 0, 1.333, 0.671, 0, 0.676, 0, 0.676, 0, 0.671, 0, 0, 5.405, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.685, 0, 2.055, 26.027, 34.932, 0, 0, 0, 4.895, 40.876, 22.727, 37.097, 12.613, 4.673, 19.626, 21.505, 23.729, 42.593, 25.926, 3.509, 3.261, 12.222, 35.227, 0, 0, 0, 2.174, 0, 8.696, 0, 0, 52.747, 0, 50.549, 21.978, 0, 0, 0, 0)

Lb <-c(0, 0, 0, 0, 0, 0, 0, 6.25, 56.25, 61.111, 70, 58.333, 69.231, 76.923, 26.923, 29.032, 51.429, 41.667, 20.513, 23.256, 72.727, 4.444, 0, 0, 1.98, 0, 0.893, 1.639, 0, 0, 0, 0, 0.752, 0, 94.853, 0.725, 0, 13.043, 0, 0, 0, 0, 0.694, 3.472, 0, 13.287, 0, 0, 0, 0.699, 8.451, 0.699, 0, 0, 3.497, 0, 17.361, 0.694, 0, 0.694, 0, 0, 0.699, 20.139, 0, 0, 0.667, 29.333, 0.667, 0, 0, 0, 0, 19.333, 15.333, 0, 0, 0, 46, 7.333, 24, 3.333, 0, 1.333, 0, 2, 0.667, 0, 0, 0, 8.667, 0, 0, 0, 0, 0, 3.333, 0, 0, 0.84, 0.909, 1.333, 42.667, 0, 0.667, 1.333, 10.667, 1.333, 0.667, 96.667, 2, 0, 60.667, 0, 0, 0.667, 0, 0.667, 0, 7.333, 0, 0, 0, 0, 0.667, 0, 0, 16, 0, 0, 0, 2, 8, 6.667, 96.667, 6.667, 0, 7.333, 0, 1.333, 10, 0, 0, 0, 1.333, 0, 0.667, 0, 1.333, 0, 0.667, 0, 0, 0, 2.667, 16.667, 68.667, 10.959, 2.752, 0, 0, 0, 11.009, 2.206, 7.353, 4.667, 2.013, 3.356, 0, 3.333, 0, 0, 12.667, 35.333, 0, 2.013, 0.671, 0, 0, 3.356, 98.658, 6.04, 2.667, 1.333, 0, 4.698, 0.671, 0, 12, 0, 0, 0, 4.667, 0, 0, 0, 7.333, 0, 0.667, 0, 0, 0, 0, 5.333, 0, 0, 0, 2, 1.333, 1.333, 2.667, 15.333, 1.333, 0, 0, 0, 53.691, 0, 4.73, 4.73, 1.342, 8.054, 0.671, 13.423, 0.676, 0.671, 27.517, 7.383, 15.436, 41.216, 59.184, 29.252, 49.66, 19.863, 50.345, 21.918, 3.425, 29.452, 0, 13.699, 4.138, 9.589, 6.849, 2.74, 0, 0.685, 0, 1.379, 18.056, 0, 0, 1.515, 0.806, 1.802, 1.869, 0, 0, 0, 0, 0, 0, 0, 0, 1.136, 0, 0, 1.205, 0, 2.174, 0, 0, 0, 0, 0, 0, 0, 0, 0, 17.778, 1.299)

Mb <-c(88.889, 0, 0, 10, 0, 0, 0, 0, 0, 5.556, 0, 4.167, 0, 0, 0, 0, 0, 5.556, 0, 0, 4.545, 2.222, 0, 0, 0.99, 0.943, 0, 0.82, 0, 0, 0, 0, 0, 1.504, 1.471, 0, 0, 3.623, 0, 0.775, 0, 4.412, 0, 0, 0, 0, 0, 0, 0, 0, 0.704, 0, 0.704, 0, 0, 1.389, 0, 0, 0, 0, 0, 0, 0, 2.778, 0, 0.676, 0, 0, 1.333, 0, 0, 0, 0.667, 22, 2.667, 0, 0, 1.333, 1.333, 1.333, 0, 0, 0, 0.667, 0, 0.667, 1.333, 0, 0, 0, 2.667, 0, 0.667, 0, 6, 0, 0.667, 0, 0, 0, 0, 2, 0, 0, 0, 0.667, 1.333, 0, 0.667, 0.667, 0.667, 0, 0, 0, 0, 0, 0.667, 2, 0, 2, 0, 0, 0, 0, 0, 0, 0, 10.667, 0, 0, 0, 2, 0, 1.333, 2.667, 0.667, 0, 1.333, 0, 0.667, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2, 1.333, 12.667, 2.74, 0, 0, 0, 0, 0, 0.735, 0.735, 0, 0.671, 0.671, 0, 1.333, 0, 0, 2, 18.667, 0, 0, 0, 0, 0, 0, 0.671, 0.671, 0, 0, 2, 0, 1.342, 0, 6.667, 0, 2, 0, 8, 0, 0.667, 0, 0.667, 0, 0, 0, 0, 0.667, 0, 0.667, 5.333, 9.174, 0, 0.667, 1.333, 1.333, 4.667, 83.333, 0, 0, 0.667, 0, 0.671, 0, 7.432, 1.351, 1.342, 0, 0, 0.671, 0, 0.671, 0, 0, 0, 1.351, 1.361, 0, 7.483, 1.37, 1.379, 1.37, 0.685, 1.37, 0, 1.37, 0.69, 0, 0, 0, 0, 0, 0, 0, 0.694, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.754, 0, 0, 1.136, 0, 0, 9.639, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 5.556, 0)

Nb <-c(0, 0, 0, 0, 0, 0, 7.143, 0, 0, 0, 5, 0, 0, 0, 0, 3.226, 0, 0, 0, 0, 0, 0, 8, 30.864, 0, 0.943, 0, 14.754, 0.781, 25.581, 0.769, 5.263, 0, 0, 0, 0, 0, 0.725, 1.55, 3.101, 0, 15.441, 48.611, 0, 0, 0, 0, 0, 0, 0, 0, 20.28, 0.704, 1.418, 0, 0.694, 0.694, 0, 0, 0, 23.776, 29.371, 2.797, 0, 0, 0.676, 3.333, 0, 0.667, 19.333, 0, 0, 0.667, 0, 1.333, 7.333, 3.333, 16, 0, 0, 0, 4, 42, 0, 0.667, 0, 6, 0, 12, 0, 1.333, 0, 0, 0, 0, 0, 0, 0.676, 1.527, 6.723, 1.818, 19.333, 0, 0.667, 0, 1.333, 20.667, 0, 8.667, 0, 10.667, 0, 0, 0, 0, 0, 1.333, 0.667, 0, 0, 0, 3.333, 0, 0, 5.333, 0, 0, 0, 1.333, 0, 5.333, 5.333, 0, 0, 0, 0, 0, 0.667, 0, 15.333, 0, 0, 10, 0, 1.333, 0, 1.333, 0, 2, 0, 0, 0, 41.333, 38.667, 1.333, 0, 0, 1.37, 2.752, 17.431, 0, 0.917, 5.505, 18.382, 0, 4.667, 0, 2.013, 87.333, 0, 2, 0, 2, 0, 63.087, 0.671, 8.054, 5.369, 0, 8.054, 0, 0, 0, 19.333, 0.667, 0, 3.356, 0, 5.333, 2, 0, 0, 0.667, 0, 0, 0, 0, 0, 2.667, 100, 10.667, 0, 0, 0.667, 0, 0, 0, 3.333, 0, 2, 1.333, 0, 2.667, 0, 1.333, 1.342, 0, 82.432, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 4.795, 0.685, 6.849, 0, 0, 0, 2.098, 8.029, 7.576, 4.032, 2.703, 13.084, 0, 21.505, 10.169, 7.407, 16.667, 3.509, 21.739, 1.111, 5.682, 9.195, 0, 3.614, 4.348, 1.087, 10.87, 3.261, 0, 0, 0, 0, 0, 1.099, 0, 0, 0)

Pb <-c(0, 0, 0, 0, 10, 0, 7.143, 6.25, 0, 0, 0, 0, 0, 0, 7.692, 0, 0, 0, 0, 4.651, 0, 2.222, 4, 1.235, 11.881, 0, 0.893, 11.475, 0.781, 0, 0, 12.03, 0.752, 0, 0, 5.072, 0, 0, 0.775, 0.775, 0, 10.294, 2.778, 74.306, 0, 0, 0, 0, 0, 0, 0, 0.699, 0.704, 0, 17.483, 0, 0, 0, 0, 0, 0, 0, 0, 9.722, 0.68, 0.676, 18.667, 0, 0, 0, 0, 0, 0, 0.667, 0, 26.667, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.681, 0.909, 1.333, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 58, 97.333, 0, 6, 100, 0, 0, 0, 0, 100, 0.667, 1.333, 0, 20.667, 0, 0, 0, 4.667, 0, 0, 0, 0, 0, 0, 0, 4, 0.667, 0, 0, 100, 52.667, 39.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 35.333, 0, 54.795, 4.587, 0.917, 69.444, 0, 0.917, 9.559, 36.029, 1.333, 0.671, 5.369, 0, 0, 6.667, 0, 0, 0, 0, 26.174, 0, 0, 0.671, 0, 0, 0, 0, 8.667, 18.667, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 18.667, 0, 0, 0, 13.333, 12, 0, 0, 0, 0, 0.667, 0.667, 0, 0.671, 0, 0, 4.054, 0, 0, 0, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.685, 0, 0.685, 0.685, 0, 0, 0, 14.685, 0.73, 0, 0, 6.306, 1.869, 1.869, 9.677, 0, 12.963, 5.556, 0, 0, 1.111, 1.136, 16.092, 74.157, 2.41, 0, 5.435, 0, 0, 0, 0, 2.198, 0, 0, 0, 0, 0, 0)

Qb <-c(0, 0, 0, 0, 0, 12.5, 0, 0, 6.25, 0, 0, 8.333, 0, 0, 3.846, 0, 0, 0, 0, 0, 4.545, 6.667, 1.333, 4.938, 0.99, 9.434, 0, 12.295, 1.562, 0, 21.538, 0, 0, 0, 0, 0.725, 0, 2.899, 0, 6.977, 0, 18.382, 1.389, 0, 0, 0.699, 0, 0, 0, 0, 5.634, 0.699, 6.338, 4.965, 11.189, 1.389, 0, 0, 0, 0, 13.986, 9.091, 9.091, 0, 16.327, 0.676, 3.333, 0, 4, 0.667, 0, 0, 12, 2, 3.333, 0, 1.333, 0, 0, 0.667, 0, 7.333, 2.667, 0, 0, 24, 0, 0, 0, 0, 5.333, 0, 0.667, 0, 0, 0, 0, 0, 0, 30.252, 17.273, 10.667, 0, 3.333, 0.667, 0, 2, 0, 7.333, 0, 1.333, 0, 19.333, 0, 0, 0, 4.667, 1.333, 0, 3.333, 0, 3.333, 0, 0, 1.333, 0, 0, 0, 0, 0, 0.667, 2.667, 0, 7.333, 0, 2.667, 0, 16, 0, 11.333, 12.667, 0, 0.667, 0, 0, 0, 11.333, 0, 15.333, 0, 0, 2, 0, 1.333, 2.667, 2.667, 0, 1.37, 11.927, 0.917, 2.778, 4.587, 4.587, 2.941, 0.735, 9.333, 4.027, 7.383, 0, 0, 0, 0, 0, 2, 0, 2.013, 1.342, 0, 0, 0, 0.671, 9.396, 0, 6, 0, 0, 0.671, 0.671, 0, 0, 0, 0, 19.333, 0, 0.667, 0, 13.333, 0, 8, 0, 1.333, 1.333, 0, 4, 35.333, 1.835, 0, 2.667, 0, 33.333, 10, 0, 19.333, 0, 0.667, 0.671, 0.671, 0, 0, 1.351, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.68, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 15.753, 2.055, 4.11, 0, 0, 0, 1.399, 2.92, 8.333, 4.032, 18.018, 0.935, 13.084, 6.452, 0, 0, 1.852, 0, 4.348, 0, 10.227, 19.54, 1.124, 7.229, 0, 4.348, 4.348, 0, 0, 1.099, 28.571, 0, 8.791, 0, 0, 0, 0)

Rb <-c(11.111, 0, 88.889, 80, 0, 75, 21.429, 68.75, 6.25, 16.667, 5, 8.333, 7.692, 3.846, 34.615, 0, 0, 0, 2.564, 2.326, 0, 2.222, 4, 3.704, 0, 9.434, 0, 7.377, 0, 0, 0.769, 3.008, 0, 3.008, 0, 1.449, 0, 0.725, 3.101, 7.752, 0, 2.206, 0, 1.389, 99.306, 0, 0, 0, 0, 2.098, 6.338, 0.699, 4.93, 0, 0, 0, 0, 0, 0, 0, 0.699, 2.797, 6.294, 0, 8.844, 1.351, 0, 0, 5.333, 0.667, 99.333, 0, 4.667, 0.667, 12.667, 4, 0, 0, 0, 36, 0, 12, 9.333, 0, 0, 70.667, 0.667, 0, 0.667, 0, 0.667, 0, 67.333, 0, 0, 0, 0, 0, 0, 6.723, 10, 7.333, 0, 2, 0, 0, 2.667, 0, 2.667, 0, 2, 0, 14.667, 0, 1.333, 0, 0, 0, 0, 11.333, 0, 20, 0, 0, 2, 0.667, 0, 1.333, 3.333, 0, 3.333, 9.333, 0, 2, 0, 34, 0, 16.667, 0, 1.333, 0, 0, 0, 0, 8.667, 0, 1.333, 0, 22.667, 0, 0, 22.667, 0, 4.667, 4.667, 6, 0, 2.055, 1.835, 0, 0, 11.009, 0.917, 0, 8.088, 24.667, 0, 13.423, 1.333, 0, 0, 0, 2.667, 0, 0.671, 4.698, 2.685, 0, 0, 0, 0, 2.685, 0.667, 9.333, 7.333, 0, 14.094, 6.711, 1.333, 0, 0, 0, 7.333, 0, 12.667, 0, 6.667, 0, 16, 0, 1.333, 0, 0, 1.333, 12.667, 31.193, 0, 3.333, 0, 3.333, 34.667, 0, 0.667, 0, 9.333, 0.671, 2.685, 0, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 0, 10.274, 58.219, 45.205, 0.685, 0, 0, 4.196, 23.358, 9.091, 16.935, 0, 4.673, 4.673, 1.075, 3.39, 1.852, 0, 0, 2.174, 0, 2.273, 0, 0, 21.687, 0, 0, 3.261, 2.174, 1.087, 46.154, 0, 0, 0, 0, 0, 0, 0)

Sb <-c(0, 0, 0, 10, 70, 0, 0, 0, 6.25, 0, 0, 0, 0, 0, 3.846, 0, 5.714, 2.778, 7.692, 6.977, 0, 6.667, 21.333, 8.642, 0, 4.717, 0.893, 0, 0, 3.101, 13.077, 16.541, 0, 0, 0, 59.42, 0, 13.043, 11.628, 20.155, 3.65, 17.647, 22.222, 7.639, 0, 0, 0, 0, 0, 0, 0.704, 6.294, 7.042, 26.241, 0, 62.5, 0, 0, 0, 0, 1.399, 3.497, 4.196, 0, 12.245, 0.676, 20, 0, 3.333, 6, 0.667, 0, 6, 0.667, 8.667, 0.667, 16, 24.667, 0, 0, 0, 12.667, 22.667, 0, 4.667, 0, 16.667, 0, 29.333, 0, 1.333, 0, 2, 0, 0, 0, 48, 6.081, 5.344, 11.765, 1.818, 12.667, 0, 2.667, 0.667, 8, 10, 0, 10.667, 0.667, 3.333, 0.667, 0, 0, 0, 1.333, 25.333, 0, 0, 27.333, 4, 15.333, 0, 0, 46, 73.333, 0, 0, 13.333, 0, 36, 22, 0, 1.333, 0, 14, 0, 13.333, 0, 8.667, 0, 24.667, 32.667, 0, 4, 32.667, 2.667, 0, 17.333, 0, 0, 0, 1.333, 6.667, 2, 1.333, 0, 8.904, 8.257, 3.67, 18.519, 12.844, 26.606, 27.941, 22.059, 2.667, 10.738, 6.711, 0, 54, 56.667, 0, 16.667, 0, 0.671, 12.081, 7.383, 23.49, 0, 4.027, 0, 2.685, 0, 11.333, 26, 0, 40.94, 2.013, 11.333, 0, 28.667, 0, 4.667, 0, 21.333, 0, 0, 8, 38, 0, 17.333, 0, 0, 20, 2, 27.523, 18, 10, 2.667, 0, 0.667, 0, 0, 0, 6, 0.671, 0.671, 2.703, 0.676, 14.865, 0.671, 0, 0.671, 2.685, 1.351, 2.013, 1.342, 0.671, 0.671, 1.351, 0, 0, 0, 10.274, 4.828, 0.685, 4.11, 0, 2.74, 0, 0, 0, 2.74, 0.685, 9.589, 2.055, 2.74, 0.69, 2.083, 33.566, 16.058, 10.606, 9.677, 18.919, 29.907, 4.673, 22.581, 38.983, 22.222, 25.926, 17.544, 30.435, 3.333, 23.864, 5.747, 10.112, 3.614, 31.522, 1.087, 4.348, 0, 0, 0, 0, 3.297, 68.132, 98.901, 0, 0, 0)

Tb <-c(0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3.846, 0, 2.857, 2.778, 2.564, 4.651, 0, 2.222, 17.333, 7.407, 0, 16.038, 1.786, 1.639, 0, 0, 13.077, 1.504, 5.263, 3.008, 0, 18.116, 0, 5.072, 7.752, 1.55, 35.766, 13.235, 3.472, 0.694, 0, 0, 0, 0, 0, 0, 3.521, 1.399, 0.704, 5.674, 20.979, 20.139, 0, 0, 0, 0, 0, 0, 2.797, 0, 39.456, 2.703, 2, 0, 0.667, 2, 0, 0.667, 25.333, 0.667, 2, 1.333, 14.667, 34, 0, 28, 0, 10, 0, 8, 94, 0, 8.667, 0, 32.667, 0, 12.667, 0, 12.667, 0, 0.667, 0, 26, 2.027, 0.763, 10.084, 0.909, 13.333, 0, 0.667, 0.667, 16.667, 28, 0.667, 41.333, 0, 32.667, 0, 1.333, 0, 0, 0, 2.667, 25.333, 0, 14.667, 0, 2, 0, 0, 14, 4.667, 0, 34, 34, 0, 24, 6, 9.333, 8, 0, 18.667, 0, 3.333, 0, 10, 0, 0.667, 0.667, 0, 0.667, 0, 42, 0, 22.667, 0, 0, 0, 0, 0, 10, 0, 0, 5.479, 14.679, 1.835, 6.481, 2.752, 21.101, 6.618, 5.147, 5.333, 7.383, 10.067, 0, 3.333, 32, 0, 43.333, 0.667, 0, 22.148, 5.369, 58.389, 0, 44.966, 0, 11.409, 0, 2.667, 18.667, 0.671, 14.094, 2.685, 5.333, 0, 36, 0, 0.667, 0, 2, 0, 1.333, 0, 4.667, 0, 0.667, 0, 0, 8.667, 2, 4.587, 0, 0.667, 4, 3.333, 1.333, 0, 5.333, 2.667, 4.667, 0, 0.671, 0, 11.486, 13.514, 2.685, 0.671, 0.671, 3.356, 2.027, 2.013, 1.342, 0.671, 6.711, 1.351, 5.442, 1.361, 0.68, 1.37, 0, 0, 21.233, 0, 0, 0.685, 0, 0, 0, 1.37, 1.37, 0, 0, 0, 0, 7.692, 2.92, 3.788, 11.29, 3.604, 14.019, 14.953, 0, 6.78, 1.852, 7.407, 3.509, 1.087, 2.222, 1.136, 19.54, 12.36, 4.819, 0, 1.087, 1.087, 1.087, 0, 0, 0, 46.154, 0, 0, 0, 0, 0)

Vb <-c(0, 0, 0, 0, 0, 0, 0, 6.25, 0, 5.556, 5, 4.167, 7.692, 3.846, 3.846, 3.226, 8.571, 22.222, 35.897, 13.953, 9.091, 4.444, 0, 0, 77.228, 7.547, 67.857, 0.82, 0, 0, 0, 0, 30.827, 21.805, 0, 0, 0, 5.072, 0, 1.55, 0, 2.206, 0, 0.694, 0, 25.874, 0.699, 0, 0, 0, 5.634, 0, 0, 4.255, 37.063, 3.472, 0, 90.278, 2.778, 0, 0, 0, 1.399, 6.25, 6.803, 0, 0, 0, 3.333, 0, 0, 21.333, 3.333, 4.667, 0, 0, 0, 0, 14.667, 12, 0.667, 0, 0, 75.333, 0, 0.667, 0.667, 0, 0, 0, 9.333, 0, 0.667, 0, 0, 86.667, 10, 0.676, 0, 0, 30, 0, 1.333, 0, 0, 16.667, 7.333, 48.667, 0.667, 1.333, 10, 95.333, 0, 100, 0, 0, 25.333, 33.333, 0, 19.333, 5.333, 2.667, 72, 0, 0, 2.667, 59.333, 9.333, 30, 0, 0, 22.667, 41.333, 20.667, 0, 2, 0, 6.667, 0, 0, 4, 0, 13.333, 0, 0, 0.667, 8, 0, 0, 0, 0, 0, 0, 0, 19.333, 2, 4.667, 1.37, 2.752, 0.917, 0, 0, 0, 3.676, 0.735, 0, 0.671, 6.711, 0, 4.667, 0, 0.667, 4, 13.333, 0, 4.027, 2.013, 0, 0, 14.094, 0, 14.094, 0, 0.667, 2.667, 79.195, 2.685, 0, 2.667, 0, 0.667, 0, 0.667, 0, 0, 0, 5.333, 2, 4, 0, 0, 45.333, 0, 3.333, 1.333, 0.917, 0, 11.333, 8, 18.667, 1.333, 0.667, 0, 64.667, 6, 0.671, 28.188, 0.676, 47.973, 8.108, 4.698, 12.081, 48.993, 2.685, 2.027, 72.483, 44.966, 58.389, 46.98, 19.595, 8.844, 48.98, 18.367, 16.438, 14.483, 9.589, 7.534, 17.808, 2.055, 32.192, 0.69, 6.164, 0.685, 0.685, 0, 0, 0.685, 0, 0.694, 3.497, 0, 1.515, 0, 0, 0, 0, 0, 0, 3.704, 0, 40.351, 10.87, 1.111, 1.136, 8.046, 0, 1.205, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 56.667, 23.377)

Wb <-c(0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 4.167, 0, 0, 0, 6.452, 0, 0, 0, 0, 0, 0, 0, 0, 0, 12.264, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.46, 0, 0, 0, 0, 0, 0, 100, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0.667, 0, 0.667, 0, 0, 0.667, 0, 4.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 100, 0, 0.667, 0, 0, 0, 0, 0, 0, 0.917, 0, 0, 0.917, 0, 0.735, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.917, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 1.342, 0, 0, 0, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 31.724, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 8.046, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Yb <-c(0, 0, 0, 0, 0, 0, 0, 0, 6.25, 0, 0, 0, 0, 0, 0, 29.032, 14.286, 0, 0, 0, 0, 2.222, 0, 0, 0, 0, 0, 0.82, 0, 13.953, 0, 0, 0, 0, 0, 0.725, 0, 0, 0, 2.326, 0.73, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 35.417, 0, 75.694, 36.806, 0.699, 0, 0, 0, 0, 0, 0, 40, 0, 0, 0, 0, 1.333, 1.333, 16, 0.667, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 99.333, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 14.667, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 1.333, 0, 0, 1.333, 0, 11.333, 0, 0, 0, 1.333, 90, 3.333, 0, 50.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.013, 0.671, 0, 2, 0, 88.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 99.333, 37.333, 0, 0, 0, 0.667, 0, 0, 4, 0, 9.333, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 26.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 5.517, 34.932, 0.685, 37.671, 0, 0, 0, 66.897, 0, 0, 0, 0, 0, 1.802, 0.935, 0, 0, 0, 0, 1.852, 5.263, 0, 72.222, 3.409, 0, 0, 0, 1.087, 0, 0, 0, 5.435, 0, 0, 0, 0, 0, 0, 0, 0)

CSb <-c(6, 6, 7, 5, 5, 4, 3, 4, 2, 4, 5, 3, 3, 5, 2, 2, 2, 4, 3, 3, 4, 1, 3, 4, 8, 4, 8, 4, 9, 5, 4, 5, 6, 6, 9, 7, 9, 4, 7, 5, 6, 3, 5, 6, 9, 8, 9, 9, 9, 9, 4, 5, 4, 4, 6, 6, 5, 8, 6, 5, 4, 4, 2, 5, 6, 4, 4, 7, 4, 4, 9, 8, 4, 5, 3, 5, 6, 7, 7, 5, 7, 2, 7, 8, 9, 9, 4, 9, 6, 8, 2, 9, 7, 9, 9, 9, 7, 7, 7, 4, 5, 3, 5, 5, 8, 6, 4, 7, 4, 8, 4, 9, 7, 9, 8, 9, 6, 4, 9, 5, 8, 4, 7, 9, 5, 8, 8, 8, 8, 9, 6, 4, 7, 5, 8, 4, 9, 3, 9, 3, 6, 8, 6, 9, 5, 7, 5, 9, 4, 9, 5, 7, 7, 5, 4, 3, 6, 4, 1, 5, 6, 5, 4, 3, 3, 3, 4, 3, 9, 6, 7, 8, 5, 3, 7, 1, 1, 6, 9, 5, 9, 4, 8, 4, 4, 7, 5, 7, 3, 9, 5, 8, 4, 9, 4, 9, 6, 9, 3, 9, 3, 7, 9, 2, 5, 6, 8, 1, 4, 5, 4, 8, 6, 8, 5, 7, 4, 8, 6, 4, 5, 8, 6, 7, 5, 7, 7, 5, 6, 4, 4, 5, 4, 3, 3, 7, 4, 3, 6, 5, 4, 4, 9, 4, 6, 6, 8, 5, 5, 4, 3, 1, 3, 3, 4, 2, 4, 5, 4, 4, 5, 5, 5, 5, 5, 6, 4, 5, 6, 6, 7, 8, 8, 9, 9, 9, 9, 9, 7, 9)

Ac <-c(0, 0, 0, 0, 0, 10, 0, 0, 6.522, 1.667, 2.985, 1.471, 0, 4.167, 12.5, 1.961, 9.412, 13.483, 0, 62, 0.909, 0, 11.364, 3.008, 0, 0.746, 31.159, 1.449, 0, 0, 2.113, 4.225, 32.394, 0, 0, 6.338, 0, 1.408, 0, 2.963, 2.239, 9.353, 4.196, 12.587, 0, 0, 0, 0, 0, 0, 2.069, 3.2, 3.448, 3.472, 1.695, 1.399, 0, 0, 0, 0, 1.37, 0, 8.219, 0.676, 8.725, 10.738, 4, 0, 23.333, 0, 0, 70, 0, 0, 0, 1.266, 34, 0.667, 0, 1.333, 0, 0, 0, 23.333, 0, 0.667, 10, 0, 16, 43.333, 1.333, 0, 1.333, 0, 2, 0, 20.667, 64.667, 0, 4.717, 0, 0, 1.333, 10.738, 0, 10, 3.333, 0, 0.667, 0, 12.667, 0, 0.667, 0, 14, 0, 13.333, 8.667, 0, 2, 6, 0.667, 0, 0.667, 2, 22, 28, 0, 2.667, 0, 1.333, 4, 54.667, 2, 0, 1.333, 0, 2.667, 0, 4, 0.671, 4.027, 0, 0, 22.148, 6.711, 0, 0, 0.671, 0, 0, 0, 0, 0, 0.671, 4.698, 0.667, 0, 8.276, 0, 2.759, 3.448, 12.752, 0, 12.245, 15.436, 2.013, 7.383, 0, 11.333, 0, 0.667, 0.667, 1.333, 0, 9.459, 6.081, 2.685, 0, 0, 0, 2.667, 0, 4.698, 26.174, 8.054, 4.698, 4.698, 8.054, 0, 34.228, 4.054, 0, 0, 0.676, 0, 0.676, 95.27, 2.027, 0, 2.027, 61.486, 0.676, 5.405, 35.811, 0, 0, 6.081, 22.973, 2.685, 0, 0, 3.356, 10.738, 1.342, 0, 0, 0, 0.676, 12.925, 6.803, 0, 2.055, 49.315, 31.25, 4.138, 2.069, 5.517, 17.241, 15.172, 10.345, 14.483, 0, 26.897, 0.69, 1.379, 13.103, 8.276, 3.448, 1.379, 0, 0, 87.671, 0, 0, 0, 0, 0, 0, 9.353, 0.758, 3.101, 3.077, 2.362, 5.785, 3.39, 0.847, 0, 0.87, 10.526, 1.176, 0, 1.37, 13.592, 5.405, 14.414, 0.99, 1.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Cc <-c(0, 0, 0, 0, 0, 0, 0, 0, 6.522, 1.667, 0, 0, 2.703, 5.556, 2.778, 0, 0, 1.124, 3.226, 0, 0, 0, 0, 0, 0, 0, 0.725, 0, 0, 0, 0, 0, 0.704, 0, 0, 0, 100, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 4.861, 0, 0, 0, 0, 0, 0, 1.342, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 100, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 88.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 100, 0, 0, 0, 0, 0, 0, 0, 0, 2.685, 0, 0.671, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 100, 0, 0, 0, 0, 0.676, 0, 0, 0, 0, 0, 88.514, 0, 0, 0.671, 0, 0, 0, 0, 2.685, 0, 0, 0, 0, 0, 0, 0, 0.685, 0, 0, 0.69, 1.379, 0, 0, 2.069, 0, 0, 0, 0, 19.31, 23.448, 1.379, 2.069, 0.69, 0, 55.245, 30.345, 0, 0, 0, 0, 0, 8.966, 7.586, 0, 6.061, 0, 0, 0, 0, 0, 0, 0.833, 0, 0, 0, 0, 1.37, 0.971, 0.901, 0, 0.99, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Dc <-c(0, 0, 0, 0, 10, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.389, 0, 0, 2.247, 0, 0, 0, 2.586, 3.03, 12.03, 0, 0.746, 0, 7.246, 0, 1.429, 11.268, 3.521, 0, 23.944, 0, 0.704, 0, 0.704, 20.423, 2.222, 3.731, 0.719, 23.776, 0, 0, 0, 0, 0, 0, 0, 1.379, 14.4, 15.172, 8.333, 0, 0, 0, 0, 0, 0, 42.466, 0.685, 0.685, 0, 0, 4.027, 56.667, 0, 1.333, 16, 0, 0, 2, 0, 2, 2.532, 2, 0.667, 0, 0, 0, 0.667, 0, 0, 0, 0, 1.333, 99.333, 0, 0, 5.333, 0, 8, 0, 0.667, 0, 0, 2.667, 71.93, 0.943, 0.667, 8.667, 0, 42.282, 1.333, 10.667, 0.667, 0, 11.333, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 2.667, 0, 0, 2.667, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0.667, 0, 0, 30.667, 4.667, 18.792, 0, 0, 0, 1.342, 0, 0, 0, 0, 0, 0, 0, 34.228, 13.423, 3.356, 0, 0, 0, 11.724, 64.138, 0, 0.69, 0, 3.401, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 0, 21.477, 0, 14.189, 0.671, 0, 4, 0, 2, 0, 4.027, 0.671, 0, 0, 0, 4.027, 97.987, 0.671, 0.676, 11.486, 0, 0, 0, 0, 0, 0.676, 0, 35.811, 0, 0, 0, 0, 1.351, 0, 10.135, 0.676, 0, 0.671, 0, 2.685, 0, 20.134, 84.564, 0, 22.297, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.158, 0.758, 0, 5.385, 4.724, 5.785, 2.542, 0.847, 2.5, 0, 1.053, 7.059, 43.529, 0, 2.913, 9.91, 9.91, 30.693, 47.5, 19.167, 0.862, 66.667, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Ec <-c(0, 0, 0, 0, 10, 0, 0, 9.091, 0, 0, 0, 0, 0, 0, 0, 0, 1.176, 0, 5.376, 0, 0, 12.069, 7.576, 4.511, 0, 12.687, 1.449, 6.522, 98.561, 0, 38.732, 16.901, 0.704, 47.183, 0, 0, 0, 3.521, 6.338, 0, 5.97, 0, 4.196, 0, 0, 0, 99.301, 0, 0, 0, 2.069, 0.8, 1.379, 15.972, 0.847, 0, 0, 0, 0, 0, 10.274, 0, 9.589, 0, 1.342, 6.711, 4, 0.667, 30.667, 1.333, 0, 0, 31.333, 0, 1.333, 54.43, 0, 0, 0.667, 0.667, 0, 0, 0.667, 0, 0, 0, 6.667, 0, 0, 0, 16.667, 0, 0.667, 0, 90, 0, 0.667, 2.667, 16.667, 3.774, 0, 9.333, 0, 10.067, 92, 0, 8.667, 0, 9.333, 0, 11.333, 0, 1.333, 0, 0, 0, 0.667, 0.667, 0, 0, 0, 15.333, 0, 0, 10, 0, 0, 0, 0, 0, 0, 0, 0, 48.667, 0, 0, 0, 0.667, 69.333, 10, 64.43, 0, 0, 0, 3.356, 0, 17.45, 0, 0.671, 0, 0, 0, 0, 0, 36.242, 28.188, 0, 0.699, 29.655, 9.655, 0.69, 0.69, 0, 0, 1.361, 0.671, 0.671, 2.013, 0, 0, 0, 0, 0, 0, 0, 1.351, 20.946, 0, 0, 8, 0, 10, 0, 4.027, 2.685, 0, 0.671, 0, 32.886, 0, 2.685, 0, 54.054, 0, 0, 0, 39.865, 0, 2.027, 0, 14.865, 0.676, 0, 1.351, 0, 8.784, 0, 22.973, 12.162, 0, 10.738, 0, 69.128, 0, 2.013, 8.725, 0.676, 0, 0, 0, 0.68, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.158, 0, 13.178, 1.538, 16.535, 0, 15.254, 11.017, 0, 1.739, 0, 2.353, 2.353, 0, 0, 0.901, 11.712, 33.663, 21.667, 76.667, 1.724, 19.298, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Fc <-c(0, 0, 0, 0, 0, 0, 0, 0, 36.957, 16.667, 5.97, 10.294, 16.216, 18.056, 1.389, 0, 1.176, 0, 8.602, 0, 22.727, 0, 0, 0.752, 0.746, 0, 0, 0, 0, 52.143, 0, 0, 0, 0.704, 0, 0, 0, 0, 4.225, 22.222, 0, 0, 0, 1.399, 0, 0, 0, 0, 0, 27.778, 0.69, 0, 0, 0, 0, 0.699, 24.828, 2.083, 15.278, 66.207, 0, 0, 0, 10.135, 0, 0, 0, 20.667, 0, 0, 0, 0.667, 0, 8, 5.333, 0, 10.667, 0, 0, 0.667, 26.667, 9.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0.667, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 44, 0.671, 0, 0, 0.667, 1.333, 1.333, 0, 0.667, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 6, 0, 0, 0, 0, 0, 0.667, 1.333, 0, 1.333, 0, 0, 0, 0, 30.667, 0, 0, 0, 0, 5.369, 0, 0.671, 45.638, 0, 0, 0, 0, 0.671, 0, 0.699, 0, 0, 0, 0.69, 3.356, 7.483, 2.041, 0, 73.154, 10.067, 0, 2.667, 0, 16, 0, 0.667, 0, 0.676, 1.351, 0, 0, 0, 0, 0.667, 96.667, 0, 0.671, 0, 0, 0, 4.698, 0, 0, 0, 0, 1.351, 14.189, 0, 0.676, 0, 2.703, 0, 0, 2.703, 0, 3.378, 0, 0, 0, 0, 0, 1.342, 3.356, 0, 0, 0, 1.342, 0, 1.351, 0, 0, 0, 0, 0, 10.274, 0.685, 0, 0, 4.828, 3.448, 2.069, 1.379, 2.759, 0, 10.345, 2.069, 6.207, 0, 0, 28.276, 0, 0, 4.196, 14.483, 0.685, 4.11, 0, 0, 0, 4.828, 66.897, 0, 0, 0, 0.769, 0, 9.091, 0, 0, 0, 1.739, 0, 0, 0, 1.37, 0, 0, 0, 0, 0.833, 0, 0, 0, 100, 0, 0, 0, 0, 0, 100, 0, 0)

Gc <-c(0, 0, 0, 0, 0, 10, 0, 0, 0, 0, 0, 1.471, 0, 0, 8.333, 45.098, 16.471, 2.247, 11.828, 20, 2.727, 3.448, 0.758, 0, 0, 0, 0, 0.725, 0, 0, 3.521, 21.127, 0, 0, 0, 0, 0, 0, 1.408, 0, 23.134, 2.158, 0.699, 0, 0, 0, 0, 0, 0, 0, 0.69, 2.4, 42.759, 12.5, 0, 2.098, 0, 0, 0, 0, 2.74, 30.822, 0.685, 0, 0, 68.456, 1.333, 0, 1.333, 26, 0, 0.667, 0, 0, 0, 21.519, 8, 13.333, 0, 0, 0, 0, 0.667, 0, 0, 0, 0.667, 0, 0, 56, 0, 0, 0, 0, 1.333, 0, 0, 18, 7.895, 0.943, 13.333, 3.333, 2, 24.832, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 4.667, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0.667, 0, 0, 98, 1.333, 0.667, 0, 0, 0, 0, 0, 0.667, 0, 3.333, 0, 92.617, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.013, 37.584, 0.671, 0, 0, 0, 5.517, 0.69, 0, 2.069, 0.671, 10.884, 1.361, 7.383, 0.671, 2.013, 0.667, 0, 0, 0, 0, 0, 0, 2.027, 2.027, 0, 99.329, 6.667, 0, 0, 0, 0, 2.013, 0.671, 1.342, 1.342, 9.396, 0, 0.671, 95.27, 0, 0, 0, 0, 0, 0, 0, 0, 14.865, 0, 99.324, 0, 0, 0, 1.351, 8.108, 16.892, 0, 0, 0, 0, 0, 0.671, 1.342, 0, 0, 0, 44.218, 89.116, 0, 0, 16.438, 52.778, 0, 0, 11.034, 11.034, 2.069, 1.379, 0, 0, 11.724, 0.69, 0, 31.724, 0.69, 86.897, 1.379, 0, 0, 0, 0, 0, 0, 97.931, 0, 0, 2.158, 0.758, 5.426, 9.231, 3.937, 2.479, 38.983, 3.39, 5, 0, 49.474, 0, 1.176, 10.959, 21.359, 15.315, 1.802, 0, 0.833, 0, 75.862, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Hc <-c(0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.778, 2.778, 21.569, 0, 0, 4.301, 0, 0, 0, 0.758, 1.504, 0, 0, 0, 3.623, 0, 2.143, 0.704, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.399, 0, 0, 0, 0, 0, 0.694, 0, 4, 0, 1.389, 0, 0.699, 0.69, 0, 0, 0.69, 0, 0.685, 1.37, 0, 0, 0, 0.667, 0, 0, 7.333, 0, 0, 0, 0, 0.667, 0, 0.667, 0, 0, 3.333, 0, 3.333, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 3.774, 0, 3.333, 0, 0.671, 0, 0, 0.667, 0, 0, 0, 0, 0, 2.667, 0, 0, 0, 2.667, 0, 0, 0, 0, 6, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 14, 0, 14, 0, 0.667, 0.671, 0, 3.333, 0, 0, 0, 9.396, 0, 1.342, 0, 1.342, 8.725, 0, 0.671, 0, 0.671, 0, 0, 0, 0.69, 0, 0.69, 0.671, 0, 2.721, 2.013, 1.342, 2.013, 0, 0, 0, 0, 4, 0, 0.671, 0.676, 0.676, 0, 0, 0, 0, 1.333, 0, 2.013, 0.671, 0, 9.396, 0.671, 0, 0, 0, 0, 0.676, 0, 10.811, 0, 0, 0, 2.703, 0, 0, 0, 0, 13.514, 0.676, 0.676, 0, 0.676, 0, 0.671, 8.725, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 6.207, 0.685, 15.068, 0.685, 2.74, 0, 0, 0, 6.475, 2.273, 3.876, 3.077, 14.173, 0.826, 0, 0, 0, 0.87, 1.053, 0, 2.353, 1.37, 0, 1.802, 0, 0, 0, 0, 0, 13.158, 0, 0, 69.912, 0, 0, 0, 0, 0, 0)

Ic <-c(0, 0, 9.091, 0, 0, 0, 10, 0, 0, 1.667, 7.463, 2.941, 2.703, 6.944, 4.167, 0, 1.176, 22.472, 1.075, 0, 4.545, 19.828, 0.758, 6.015, 4.478, 0, 0, 7.246, 0, 0, 0.704, 0, 23.944, 14.085, 4.225, 0, 0, 18.31, 27.465, 0.741, 0, 5.036, 0, 0.699, 0, 59.441, 0, 0, 0.699, 0, 47.586, 0.8, 0, 1.389, 2.542, 0.699, 0.69, 3.472, 9.028, 0.69, 0, 0, 0, 42.568, 2.013, 0.671, 0, 0, 0, 0, 0, 2, 2, 27.333, 9.333, 0, 0.667, 0, 38.667, 1.333, 65.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3.333, 0, 5.333, 0, 0, 8.667, 0, 0, 0, 0, 2.667, 1.333, 14, 0, 0, 43.333, 4.667, 63.333, 2, 0, 10, 2, 0, 0, 0, 0, 0.667, 3.333, 0, 2, 0.667, 1.333, 22, 0, 1.333, 0, 0.667, 0.667, 7.333, 0, 0, 0, 0.667, 2, 0, 0.667, 0, 3.333, 0, 0, 0, 0, 4, 0, 0, 0, 1.342, 0, 2.013, 0, 0, 0, 0, 0, 8.725, 2.013, 14.667, 0, 1.379, 0.69, 0, 0, 0.671, 6.803, 4.762, 0, 0.671, 4.027, 0, 4.667, 0, 0, 8, 17.333, 0, 4.054, 0, 0.671, 0, 5.333, 0, 4.667, 0.667, 4.698, 2.013, 6.04, 1.342, 1.342, 1.342, 0, 1.342, 0, 0, 0.676, 0, 0, 12.162, 0.676, 1.351, 0, 1.351, 8.108, 0, 0.676, 0, 0, 0, 1.351, 0.676, 4.698, 4.027, 0, 0.671, 8.054, 0, 0.671, 16.892, 0, 45.27, 1.361, 0, 96.575, 33.562, 4.11, 0, 7.586, 22.759, 15.172, 4.138, 3.448, 14.483, 4.828, 20, 8.276, 4.138, 33.103, 10.345, 2.069, 0, 55.862, 0, 0.69, 3.425, 0, 0, 0, 0, 1.379, 2.759, 6.475, 1.515, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.353, 0, 0, 15.534, 0, 0, 0, 0.833, 0, 0, 0.877, 0, 0, 0, 0, 0, 0, 0, 18.803, 71.304)

Kc <-c(0, 9.091, 0, 9.091, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.353, 0, 0, 2, 0, 0, 22.727, 6.015, 1.493, 6.716, 0, 15.942, 0, 0, 5.634, 4.93, 0, 2.817, 0, 7.042, 0, 14.789, 11.268, 24.444, 0, 0.719, 0.699, 0, 0, 0, 0, 0, 97.902, 67.361, 11.034, 31.2, 2.759, 3.472, 0, 1.399, 0, 0, 0, 0, 3.425, 14.384, 54.11, 0, 4.027, 0, 2, 0, 20.667, 4, 0, 0, 7.333, 2.667, 2.667, 0, 0, 0.667, 0, 6, 0.667, 15.333, 16.667, 0, 0.667, 0, 22.667, 0, 2, 0, 22, 0, 0, 0, 0, 0, 0, 0, 1.754, 2.83, 38, 6, 0, 2.685, 4.667, 2.667, 6.667, 0, 10, 0, 2, 0, 2, 0, 46.667, 0, 0, 10.667, 0, 13.333, 0, 2, 0, 0, 28, 0, 0, 1.333, 0, 0, 41.333, 5.333, 0, 1.333, 0, 2.667, 0, 8, 0, 22.667, 0, 0, 0, 0, 14.765, 0, 6.04, 0, 12.081, 0, 0, 51.678, 0, 12.752, 2.013, 0.671, 0, 0, 1.379, 2.759, 0, 57.241, 15.436, 0, 0.68, 36.242, 3.356, 14.765, 0.667, 0.667, 0, 0, 14, 0, 0, 4.73, 29.054, 2.013, 0, 1.333, 0, 27.333, 0, 0.671, 2.013, 0, 6.711, 81.208, 0.671, 0, 0, 0, 0, 0, 0, 0, 2.703, 0, 21.622, 0, 4.73, 0, 0, 0.676, 6.757, 20.27, 0, 9.459, 0, 20.134, 14.765, 0, 2.013, 0, 0, 0.671, 0, 0, 0.676, 0, 0, 0, 0, 0, 13.194, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.685, 45.205, 43.836, 0, 0, 0, 0.719, 40.152, 30.233, 42.308, 4.724, 1.653, 15.254, 20.339, 23.333, 5.217, 0, 1.176, 0, 0, 1.942, 0, 0, 0, 0.833, 0, 3.448, 0, 0, 45.133, 0, 71.681, 19.658, 0, 0, 0, 0)

Lc <-c(90.909, 0, 0, 0, 20, 20, 70, 0, 28.261, 60, 64.179, 76.471, 67.568, 30.556, 13.889, 5.882, 16.471, 5.618, 32.258, 4, 2.727, 0, 1.515, 0, 0, 0, 0.725, 2.174, 0, 0, 0.704, 0, 0, 2.113, 94.366, 0, 0, 24.648, 0, 0, 0, 3.597, 0, 2.797, 0, 13.986, 0, 0, 0, 0.694, 11.724, 0, 0, 0, 5.932, 0, 15.862, 0.694, 0, 0.69, 0, 0, 0, 17.568, 0, 0, 0.667, 46, 0, 0, 0, 1.333, 4, 28.667, 15.333, 0, 0, 0, 56.667, 19.333, 7.333, 14, 0, 2, 0.667, 1.333, 2.667, 0, 0.667, 0.667, 13.333, 0, 0, 0, 0, 0, 0.667, 0, 0, 0.943, 0, 2, 20.667, 0, 0, 2, 20, 0, 0, 99.333, 1.333, 0, 44, 0, 0.667, 0, 0, 1.333, 0, 8.667, 0, 0, 0, 0.667, 0, 0.667, 0, 14, 0.667, 0, 0, 0.667, 0, 8, 98.667, 2, 0, 12.667, 0, 0.667, 0, 0, 0.667, 0, 1.342, 0, 2.685, 0, 1.342, 0, 0, 0, 0, 0, 1.342, 14.765, 72.667, 15.385, 5.517, 0, 1.379, 0, 9.396, 1.361, 8.163, 0.671, 2.013, 7.383, 0, 2.667, 0.667, 0, 4.667, 48.667, 0, 0.676, 1.351, 2.013, 0.671, 1.333, 98.667, 4.667, 0, 0, 0.671, 2.685, 2.013, 1.342, 11.409, 0, 0, 0, 2.027, 0, 0.676, 0, 2.703, 0, 0, 0, 0, 0, 0, 0.676, 0, 0, 0, 1.351, 0.676, 1.342, 6.04, 6.04, 0, 0, 0, 0, 52.027, 0, 4.054, 8.163, 0, 0.685, 2.74, 24.658, 0, 0.69, 38.621, 2.069, 6.207, 43.448, 44.828, 21.379, 60, 17.241, 53.793, 33.103, 0.69, 31.034, 0, 14.483, 1.399, 0.69, 0.685, 3.425, 0, 1.37, 0.69, 0.69, 20.69, 1.439, 1.515, 0, 0, 0, 0.826, 0, 0, 0, 0, 0, 9.412, 2.353, 0, 6.796, 0, 0, 1.98, 0, 0, 0.862, 0, 0, 0, 0, 0, 0, 0, 0, 5.983, 0)

Mc <-c(0, 0, 0, 0, 0, 0, 0, 0, 2.174, 3.333, 1.493, 0, 1.351, 1.389, 2.778, 0, 0, 0, 0, 0, 0, 0.862, 0.758, 0.752, 0, 0.746, 0, 0.725, 0, 0, 0, 0, 0, 0.704, 1.408, 0, 0, 2.113, 0, 0, 0.746, 2.878, 0, 0, 0, 0, 0, 0, 0, 0.694, 2.069, 0, 0.69, 0.694, 0.847, 0.699, 0, 0.694, 1.389, 0, 0, 0, 0.685, 5.405, 0.671, 0, 0.667, 0, 0.667, 0, 0, 0, 0.667, 24, 1.333, 0, 0, 1.333, 0, 0.667, 0, 0, 0, 0.667, 0.667, 0, 2.667, 0, 1.333, 0, 2.667, 0, 0, 0, 4.667, 0, 0.667, 0, 0, 0, 0, 0.667, 0.667, 0, 0, 0, 4, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 1.333, 2, 0, 3.333, 0, 0.667, 0, 0, 0, 0, 0, 6, 0, 0, 0, 5.333, 0, 2, 0.667, 0, 0, 4, 0, 0.667, 0, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 0, 3.356, 0, 7.333, 0, 0.69, 0, 0, 0, 0, 1.361, 0.68, 0, 0.671, 0, 0, 2.667, 0, 0, 3.333, 15.333, 0, 0, 0, 1.342, 0, 3.333, 0, 0.667, 0.667, 0, 2.013, 0, 1.342, 0, 8.725, 0, 4.027, 0, 0.676, 0, 0.676, 0, 0, 0, 1.351, 0, 0, 0, 0, 0, 5.405, 2.027, 0, 0, 0.676, 1.342, 6.711, 93.289, 0.671, 0, 0, 0, 1.351, 0, 0, 1.361, 1.361, 1.37, 0, 1.37, 0, 0, 0, 0, 0, 0, 3.448, 0, 3.448, 0.69, 0.69, 0, 0, 1.379, 0, 2.069, 0, 0, 0, 0.685, 0, 0, 0.69, 0, 0.69, 0, 0, 2.326, 0, 0, 0.826, 1.695, 0, 0, 0, 0, 9.412, 0, 0, 0, 0.901, 0, 7.921, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.855, 0)

Nc <-c(0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 4.706, 0, 2.151, 0, 0, 11.207, 5.303, 21.805, 0, 1.493, 0, 21.739, 0, 27.857, 2.817, 2.113, 0, 0, 0, 0, 0, 0.704, 0.704, 2.222, 0, 23.022, 37.762, 0, 0, 0, 0, 0, 0, 0, 1.379, 8, 24.828, 0.694, 0, 0, 0.69, 0, 0, 0, 14.384, 37.671, 2.74, 0, 0.671, 0, 2, 0, 0.667, 32.667, 0, 0, 0, 0, 0.667, 0, 0, 28.667, 0, 0, 0, 8.667, 64, 0, 0, 0, 7.333, 0.667, 18, 0, 0.667, 0, 0.667, 0, 0, 0, 0, 0.667, 0, 0.943, 8, 14.667, 0, 0, 0, 0.667, 10, 0, 14.667, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 4.667, 0, 0, 6.667, 0.667, 0, 0.667, 0.667, 1.333, 4.667, 2, 0, 0, 0, 1.333, 0, 2, 0, 24, 2.685, 0, 10, 0, 2.013, 0, 1.342, 0, 2.685, 0, 0, 0, 61.745, 17.45, 1.342, 0, 0, 0, 3.448, 14.483, 0, 3.448, 8.725, 18.367, 0.68, 4.027, 2.013, 0, 95.333, 0.667, 0, 0, 0, 0, 74.497, 0, 6.757, 8.054, 0, 8, 0, 1.333, 0, 23.49, 1.342, 0, 3.356, 0.671, 4.027, 1.342, 0, 0, 0, 0, 0, 0, 0, 0, 2.027, 99.324, 7.432, 0, 0, 1.351, 0, 0, 0, 0.676, 0, 0.671, 1.342, 0, 0, 0, 3.356, 2.013, 0, 77.027, 0, 0.68, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 7.534, 0, 5.479, 0, 0, 0, 1.439, 12.121, 10.078, 4.615, 0.787, 9.917, 2.542, 29.661, 33.333, 5.217, 1.053, 0, 29.412, 0, 0, 0.901, 0, 5.941, 1.667, 0.833, 12.931, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Pc <-c(0, 0, 0, 36.364, 40, 0, 0, 0, 0, 1.667, 0, 0, 4.054, 1.389, 1.389, 0, 2.353, 0, 0, 5, 0.909, 0, 15.152, 0, 37.313, 0, 0.725, 10.145, 0.719, 0, 0.704, 12.676, 0, 0, 0, 7.042, 0, 0.704, 1.408, 0, 0, 7.914, 2.098, 69.93, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 30.508, 0, 0, 0, 0, 0, 0, 0, 0, 16.216, 0, 0, 14, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.877, 1.887, 0.667, 6.667, 0.667, 0, 0, 0, 0.667, 0, 0, 0, 0, 0.667, 0, 0, 37.333, 100, 0, 8, 100, 0, 0, 0, 0, 98.667, 0.667, 0, 0, 34, 0, 0, 0, 7.333, 0.667, 0, 0, 0, 0, 0, 0, 2.667, 0, 0, 0, 100, 36.242, 49.664, 0, 0, 0, 0, 0, 0, 0, 0, 0, 32.215, 0, 79.72, 5.517, 0, 71.724, 0, 1.342, 2.721, 33.333, 0, 0.671, 2.013, 0, 0, 0.667, 0, 0, 0, 0, 29.054, 0, 0, 0, 0, 0, 0, 0, 12.752, 16.107, 0, 0, 0, 0, 0, 0, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 2.027, 0, 0, 28.378, 0, 0, 0, 19.595, 24.324, 0.671, 2.013, 0.671, 0, 0, 0, 0, 3.378, 0, 0, 1.361, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.69, 19.424, 0, 0.775, 0, 1.575, 0.826, 0.847, 14.407, 0, 9.565, 1.053, 0, 0, 0, 0, 3.604, 6.306, 1.98, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

Qc <-c(0, 0, 9.091, 0, 0, 0, 0, 9.091, 0, 0, 0, 0, 0, 0, 6.944, 7.843, 2.353, 1.124, 1.075, 0, 0, 0.862, 9.848, 1.504, 0, 5.224, 0, 12.319, 0, 0, 23.239, 0.704, 0, 0, 0, 0, 0, 1.408, 0, 10.37, 0, 4.317, 1.399, 0, 0, 0, 0, 0, 0, 0.694, 6.207, 13.6, 0.69, 22.222, 0, 0.699, 0, 0, 0, 0, 21.918, 9.589, 9.589, 0, 24.161, 0, 3.333, 0, 3.333, 1.333, 1.333, 0, 13.333, 2.667, 2.667, 1.266, 0.667, 0, 0, 0.667, 0, 4, 1.333, 0, 0, 2, 2.667, 0, 0, 0, 9.333, 0, 1.333, 0, 0, 0, 0, 0, 0.877, 52.83, 18, 14, 0, 2.685, 0.667, 0, 2.667, 0, 7.333, 0, 0, 0, 19.333, 0, 0, 0, 0, 0.667, 0, 4.667, 0, 0.667, 0, 0, 4.667, 0, 0, 0, 0, 0, 0.667, 2, 0, 2, 0, 3.333, 0, 24, 0, 4, 8.054, 0, 0, 0, 4.698, 0, 27.517, 0, 23.49, 0, 0, 0, 0, 0.671, 0, 2.013, 0, 0, 10.345, 0.69, 2.069, 4.138, 5.369, 0, 2.041, 8.725, 0, 8.054, 0, 0, 0, 0, 0, 0.667, 0, 4.054, 3.378, 0, 0, 0.667, 1.333, 10.667, 0, 0.671, 0, 0, 3.356, 1.342, 0.671, 0.671, 0, 0, 17.568, 0, 0.676, 0, 20.27, 0, 5.405, 0, 0.676, 1.351, 0, 2.703, 26.351, 16.216, 0, 1.351, 0, 44.966, 4.027, 0, 20.805, 0, 0.671, 0, 0.676, 0.676, 0, 1.361, 0, 0, 0, 0, 0.694, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3.448, 0, 22.603, 0, 5.479, 0, 0, 0, 0.719, 2.273, 13.178, 1.538, 28.346, 0.826, 14.407, 5.932, 3.333, 2.609, 0, 1.176, 0, 0, 0, 2.703, 0.901, 4.95, 0, 1.667, 0.862, 0, 0, 0, 30.088, 0, 0.855, 0, 0, 0, 0)

Rc <-c(0, 81.818, 81.818, 54.545, 20, 50, 0, 81.818, 2.174, 0, 0, 0, 1.351, 0, 13.889, 5.882, 12.941, 1.124, 1.075, 1, 0, 0, 10.606, 3.759, 0.746, 12.687, 0, 5.797, 0, 0, 0.704, 6.338, 0, 0.704, 0, 0.704, 0, 1.408, 1.408, 1.481, 0, 1.439, 0.699, 0, 100, 0, 0, 0, 0.699, 0.694, 4.138, 9.6, 1.379, 0.694, 0, 0, 0, 0, 0, 0, 1.37, 2.74, 1.37, 0, 3.356, 0, 0, 0, 4.667, 1.333, 98.667, 0, 4.667, 1.333, 28, 1.266, 0, 0, 0, 42.667, 0, 5.333, 4.667, 0, 0, 92.667, 5.333, 0, 0.667, 0, 3.333, 0, 70, 0, 0, 0, 0, 0.667, 0, 12.264, 8.667, 2.667, 0, 2.013, 0, 0.667, 5.333, 0, 1.333, 0, 0, 0, 28.667, 0, 1.333, 0, 0, 0, 0, 21.333, 0, 29.333, 0, 0, 1.333, 0, 0, 0.667, 0.667, 0, 3.333, 10, 0, 0.667, 0, 33.333, 0, 2.667, 0, 0.667, 0, 0, 0, 0, 10.067, 0, 0, 0, 21.477, 0, 0, 38.255, 0, 3.356, 0, 9.396, 0, 0, 0.69, 0.69, 0, 11.724, 0, 0.68, 4.762, 20.134, 0, 12.081, 1.333, 0.667, 0, 0, 3.333, 0, 0, 4.054, 2.027, 0, 0, 0, 0, 2.667, 0.667, 14.765, 10.738, 0, 24.832, 2.685, 0.671, 0, 0, 0, 7.432, 0, 0.676, 0, 14.189, 0, 20.27, 0.676, 0.676, 0, 0, 0.676, 9.459, 38.514, 0, 2.703, 0.676, 1.342, 28.859, 0, 0, 0, 15.436, 0.671, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.699, 0.69, 0, 0.685, 44.521, 39.041, 0, 0.69, 0, 0, 9.091, 6.202, 5.385, 0.787, 4.959, 0.847, 2.542, 4.167, 0, 7.368, 0, 0, 0, 1.942, 38.739, 0, 7.921, 0, 0, 0.862, 0, 0, 54.867, 0, 0, 3.419, 0, 0, 0, 0)

Sc <-c(9.091, 9.091, 0, 0, 0, 0, 0, 0, 4.348, 1.667, 1.493, 0, 1.351, 20.833, 9.722, 3.922, 12.941, 6.742, 15.054, 5, 0.909, 17.241, 1.515, 15.789, 0, 3.731, 0.725, 0.725, 0.719, 0, 7.042, 25.352, 0, 0, 0, 52.817, 0, 16.901, 14.789, 27.407, 2.239, 25.899, 21.678, 9.091, 0, 0, 0, 0, 0.699, 0, 0.69, 2.4, 6.207, 12.5, 2.542, 62.937, 0, 0, 0.694, 0.69, 0.685, 2.74, 4.11, 0.676, 16.779, 2.685, 8, 0, 4, 6, 0, 0.667, 6, 0, 8.667, 17.722, 20.667, 37.333, 0, 0, 0, 16.667, 9.333, 0.667, 12.667, 2, 28, 0, 22.667, 0, 1.333, 0.667, 0.667, 0, 0, 0, 42, 5.333, 0, 5.66, 6.667, 15.333, 1.333, 2.685, 0.667, 4, 4.667, 0.667, 20, 0, 2, 0, 0, 0, 0, 0, 27.333, 1.333, 0, 12.667, 2, 26.667, 0, 0, 26.667, 73.333, 0, 0.667, 14.667, 0, 18.667, 30.667, 0, 2, 0, 19.333, 0, 8, 0, 16.667, 0, 3.356, 34, 0, 4.027, 40.94, 2.013, 0, 18.121, 0, 0, 0.671, 1.342, 11.409, 2.013, 1.342, 0, 2.797, 3.448, 4.828, 17.241, 13.103, 19.463, 40.816, 16.327, 0.671, 8.054, 6.04, 0.667, 66.667, 71.333, 0, 10.667, 0, 2.685, 15.541, 3.378, 18.792, 0, 7.333, 0, 0, 0.667, 22.819, 14.765, 0, 27.517, 3.356, 5.369, 0, 29.53, 0, 4.054, 0, 14.189, 0, 0, 2.703, 27.027, 0, 13.514, 0, 0, 20.27, 12.838, 7.432, 10.135, 10.135, 6.757, 0, 1.342, 0, 0.671, 0, 2.685, 0, 0, 0, 0, 12.245, 0.68, 0, 0.685, 1.37, 0.694, 3.448, 0, 0, 0.69, 2.759, 0, 0, 0, 15.172, 4.138, 0, 2.759, 0, 6.207, 0.69, 0.699, 0.69, 6.164, 0, 8.219, 2.055, 0, 0, 0, 34.532, 19.697, 6.977, 9.231, 18.898, 32.231, 3.39, 6.78, 25.833, 17.391, 24.211, 4.706, 3.529, 1.37, 4.854, 5.405, 7.207, 1.98, 20, 0.833, 0.862, 0, 0, 0, 0, 0.885, 76.068, 100, 0, 0, 0)

Tc <-c(0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 13.433, 1.471, 1.351, 2.778, 15.278, 3.922, 11.765, 15.73, 4.301, 1, 0, 20.69, 6.818, 9.774, 0.746, 12.687, 10.145, 2.174, 0, 0, 0.704, 2.113, 4.93, 2.113, 0, 23.239, 0, 9.155, 9.155, 3.704, 59.701, 9.353, 2.797, 0.699, 0, 0, 0, 0, 0, 0, 4.828, 8.8, 0, 4.861, 28.814, 21.678, 0, 0, 0, 0, 0, 0.685, 5.479, 0.676, 33.557, 5.369, 1.333, 0, 2.667, 4, 0, 1.333, 18.667, 0.667, 2, 0, 22, 16, 0, 6.667, 0, 12, 2.667, 12, 85.333, 0, 7.333, 0, 38.667, 0, 11.333, 0, 8, 0, 0.667, 0, 19.333, 2.667, 0, 7.547, 1.333, 7.333, 2, 0.671, 0.667, 5.333, 16.667, 0, 18.667, 0, 43.333, 0, 0.667, 0, 0, 0, 2, 20.667, 0, 7.333, 0, 3.333, 0, 0, 15.333, 2.667, 0, 40.667, 26.667, 0, 26.667, 14, 13.333, 17.333, 0, 15.333, 0, 3.333, 0, 4.667, 1.342, 0, 0.667, 0, 0, 0, 27.517, 0, 15.436, 0, 0, 0, 0, 2.685, 14.094, 2.013, 0, 0, 9.655, 0.69, 4.138, 1.379, 22.148, 2.721, 4.082, 4.027, 2.013, 7.383, 0.667, 2, 27.333, 0, 47.333, 0.667, 0.671, 21.622, 7.432, 63.758, 0, 51.333, 0, 8.667, 0, 4.698, 14.765, 2.685, 12.752, 0.671, 2.685, 0, 26.174, 0, 0.676, 0, 1.351, 0, 1.351, 0, 5.405, 0, 0.676, 0.676, 0, 3.378, 2.703, 0.676, 0, 2.703, 4.73, 2.685, 4.027, 0, 0, 0.671, 1.342, 0.671, 0.676, 0, 16.216, 1.361, 0, 0, 0, 0.685, 1.389, 0, 0, 1.379, 4.828, 0, 4.828, 1.379, 0, 2.759, 0.69, 2.069, 34.483, 0, 0, 0, 0, 0, 0.685, 0, 1.37, 0, 0, 0, 0, 8.633, 3.03, 3.101, 13.077, 2.362, 23.967, 0, 4.237, 1.667, 2.609, 3.158, 0, 0, 0, 5.825, 11.712, 46.847, 0.99, 1.667, 0.833, 0.862, 0, 0, 0, 0, 27.434, 0, 0, 0, 0, 0.87)

Vc <-c(0, 0, 0, 0, 0, 10, 20, 0, 10.87, 11.667, 2.985, 2.941, 1.351, 2.778, 1.389, 1.961, 4.706, 28.09, 5.376, 0, 63.636, 11.207, 0.758, 12.782, 54.478, 16.418, 54.348, 1.449, 0, 0, 1.408, 0, 37.324, 4.93, 0, 0, 0, 4.225, 0.704, 2.222, 0.746, 3.597, 0, 1.399, 0, 26.573, 0.699, 0, 0, 1.389, 3.448, 0, 0.69, 11.806, 26.271, 6.993, 0, 93.056, 5.556, 0, 1.37, 0, 1.37, 6.081, 4.698, 0, 1.333, 0, 6.667, 0, 0, 23.333, 10, 2.667, 2.667, 0, 0, 0.667, 4, 16, 0, 0, 0, 60.667, 0, 1.333, 1.333, 0, 0, 0, 9.333, 0, 0, 0, 0, 91.333, 16, 2, 0, 0.943, 1.333, 1.333, 4, 0, 0, 19.333, 10, 34.667, 1.333, 0.667, 15.333, 97.333, 0, 100, 0, 0, 46.667, 42.667, 0, 24, 2.667, 2, 78, 0, 0.667, 0, 70.667, 1.333, 40.667, 0, 0, 18, 30.667, 14, 0, 1.333, 0, 8.667, 0, 0.667, 2.685, 0, 2, 0, 0, 0, 2.685, 0, 0, 0, 0, 0.671, 0.671, 0, 25.503, 1.342, 4.667, 0, 2.069, 0, 0, 0, 0, 2.721, 4.082, 0, 0, 8.054, 0.667, 2, 0, 0, 4, 14.667, 0, 2.027, 1.351, 0, 0, 2.667, 0, 22.667, 0, 0.671, 2.685, 79.866, 0.671, 0.671, 2.685, 0, 0.671, 0, 0.676, 0, 0, 0, 5.405, 1.351, 2.703, 0, 0.676, 23.649, 0, 1.351, 0, 2.703, 0, 2.703, 8.784, 16.779, 3.356, 0, 0, 80.537, 2.685, 0.671, 22.297, 0, 31.757, 14.966, 1.361, 1.37, 50, 1.37, 0, 83.448, 30.345, 61.379, 53.793, 29.655, 17.931, 57.931, 6.207, 15.172, 9.655, 6.897, 5.517, 26.207, 2.759, 24.138, 0.699, 0.69, 0, 0, 0, 0, 0.69, 0, 0.69, 3.597, 0, 1.55, 0.769, 0, 0, 0.847, 0, 0, 0, 0, 61.176, 1.176, 0, 23.301, 1.802, 0.901, 0, 1.667, 0, 0.862, 0, 0, 0, 0, 0, 0, 0, 0, 70.94, 27.826)

Wc <-c(0, 0, 0, 0, 0, 0, 0, 0, 2.174, 0, 0, 0, 0, 1.389, 0, 0, 0, 0, 1.075, 0, 0, 0, 0.758, 0, 0, 26.119, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.493, 0, 0, 0, 0, 0, 0, 100, 0, 0, 0, 0.8, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 0, 0, 0, 0, 0, 0, 2.667, 0, 0, 0, 0, 0, 0.667, 1.333, 0, 0, 0, 0, 0, 0, 7.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 99.329, 0.671, 0, 0, 0, 0, 0, 0, 0, 0.69, 0, 0, 0.69, 0, 0, 0, 0, 0.671, 0.671, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.013, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.027, 0, 1.351, 0, 0, 0, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 30.769, 0.69, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3.419, 0)

Yc <-c(0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.941, 0, 1.389, 1.389, 1.961, 0, 0, 3.226, 0, 0.909, 0, 0, 0, 0, 0, 0, 0, 0, 16.429, 0, 0, 0, 0.704, 0, 2.113, 0, 0, 0.704, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 57.241, 0, 63.194, 30.345, 0, 0, 0, 0, 0, 0, 0, 30, 0, 0, 0, 0, 0, 0.667, 16, 0, 0.667, 0.667, 0, 0.667, 0, 3.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 98.667, 2.667, 0, 0, 0, 0, 0, 0, 0, 0, 3.333, 9.333, 0, 0, 1.333, 0.667, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0.667, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 3.333, 0, 2.667, 0, 0, 0.671, 0, 14.667, 0, 0, 0, 1.342, 93.96, 0.671, 0, 52.349, 0, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 0, 0, 0.68, 0.68, 0, 1.342, 6.04, 0, 3.333, 0, 83.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 97.973, 56.081, 0, 0, 0, 2.703, 0, 0, 1.351, 0, 14.189, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 44.966, 0, 0, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 6.294, 40.69, 0, 45.205, 0, 0, 0, 83.448, 0, 0.719, 0, 0, 0, 0.787, 0, 0, 0, 0, 52.174, 1.053, 0, 14.118, 82.192, 0.971, 0, 0, 0, 0.833, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

CSc <-c(6, 5, 5, 3, 1, 2, 3, 5, 1, 3, 4, 5, 3, 2, 1, 3, 3, 4, 4, 6, 7, 5, 2, 3, 8, 4, 7, 4, 9, 7, 3, 5, 5, 6, 9, 7, 9, 5, 7, 6, 7, 3, 3, 6, 9, 8, 9, 9, 9, 8, 4, 4, 4, 4, 6, 6, 6, 9, 5, 5, 4, 5, 3, 5, 5, 5, 4, 7, 4, 3, 9, 8, 4, 4, 4, 6, 7, 7, 7, 5, 8, 3, 7, 7, 8, 8, 3, 9, 6, 8, 2, 9, 7, 9, 8, 9, 7, 7, 7, 3, 5, 3, 4, 4, 8, 5, 3, 7, 4, 9, 6, 9, 7, 9, 8, 9, 7, 4, 9, 4, 8, 4, 7, 9, 5, 8, 8, 8, 8, 9, 5, 3, 8, 5, 9, 4, 9, 3, 8, 3, 6, 8, 6, 9, 5, 6, 5, 9, 4, 9, 5, 7, 7, 3, 4, 3, 7, 7, 1, 5, 7, 4, 4, 5, 1, 5, 5, 2, 9, 6, 8, 9, 5, 4, 6, 1, 3, 6, 9, 5, 9, 3, 8, 5, 4, 7, 4, 6, 3, 9, 5, 8, 4, 9, 3, 9, 5, 9, 4, 9, 3, 7, 9, 3, 6, 4, 9, 2, 4, 5, 3, 9, 7, 8, 5, 8, 4, 9, 5, 4, 7, 9, 6, 7, 8, 8, 7, 6, 7, 5, 4, 7, 6, 3, 4, 8, 5, 4, 7, 6, 6, 5, 9, 5, 6, 6, 9, 7, 6, 5, 4, 3, 4, 5, 5, 4, 4, 5, 5, 5, 5, 5, 5, 5, 5, 5, 4, 5, 8, 6, 8, 9, 8, 9, 9, 9, 9, 9, 8, 9)

library(generalCorr)

# For dependence

gmcxy\_np(A,Am)

cor.test(Ab, Ac,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Aa, Ab,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Aa, Ac,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ca, Cb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Cb, Cc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ca, Cc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Da, Db,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Db, Dc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Da, Dc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ea, Eb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Eb, Ec,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ea, Ec,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Fa, Fb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Fb, Fc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Fa, Fc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ga, Gb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Gb, Gc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ga, Gc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ha, Hb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Hb, Hc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ha, Hc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ia, Ib,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ib, Ic,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ia, Ic,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ka, Kb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Kb, Kc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ka, Kc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(La, Lb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Lb, Lc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(La, Lc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ma, Mb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Mb, Mc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ma, Mc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Na, Nb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Nb, Nc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Na, Nc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Pa, Pb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Pb, Pc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Pa, Pc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Qa, Qb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Qb, Qc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Qa, Qc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ra, Rb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Rb, Rc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ra, Rb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Sa, Sb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Sb, Sc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Sa, Sc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ta, Tb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Tb, Tc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ta, Tc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Va, Vb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Vb, Vc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Va, Vc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Wa, Wb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Wb, Wc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Wa, Wc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ya, Yb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Yb, Yc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ya, Yc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(CSa, CSb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(CSb, CSc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(CSa, CSc,alternative = "two.sided", method = "pearson", exact=FALSE )

gmcxy\_np(CS,CSm)

library(ppcor)

pcor.test(Aa, Ab, Ac)

pcor.test(Ab, Ac, Aa)

pcor.test(Aa, Ac, Ab)

pcor.test(Ca, Cb, Cc)

pcor.test(Cb, Cc, Ca)

pcor.test(Ca, Cc, Cb)

pcor.test(Da, Db, Dc)

pcor.test(Db, Dc, Da)

pcor.test(Da, Dc, Db)

pcor.test(Ea, Eb, Ec)

pcor.test(Eb, Ec, Ea)

pcor.test(Ea, Ec, Eb)

pcor.test(Fa, Fb, Fc)

pcor.test(Fb, Fc, Fa)

pcor.test(Fa, Fc, Fb)

pcor.test(Ga, Gb, Gc)

pcor.test(Gb, Gc, Ga)

pcor.test(Ga, Gc, Gb)

pcor.test(Ha, Hb, Hc)

pcor.test(Hb, Hc, Ha)

pcor.test(Ha, Hc, Hb)

pcor.test(Ia, Ib, Ic)

pcor.test(Ib, Ic, Ia)

pcor.test(Ia, Ic, Ib)

pcor.test(Ka, Kb, Kc)

pcor.test(Kb, Kc, Ka)

pcor.test(Ka, Kc, Kb)

pcor.test(La, Lb, Lc)

pcor.test(Lb, Lc, La)

pcor.test(La, Lc, Lb)

pcor.test(Ma, Mb, Mc)

pcor.test(Mb, Mc, Ma)

pcor.test(Ma, Mc, Mb)

pcor.test(Na, Nb, Nc)

pcor.test(Nb, Nc, Na)

pcor.test(Na, Nc, Nb)

pcor.test(Pa, Pb, Pc)

pcor.test(Pb, Pc, Pa)

pcor.test(Pa, Pc, Pb)

pcor.test(Qa, Qb, Qc)

pcor.test(Qb, Qc, Qa)

pcor.test(Qa, Qc, Qb)

pcor.test(Ra, Rb, Rc)

pcor.test(Rb, Rc, Ra)

pcor.test(Ra, Rc, Rb)

pcor.test(Sa, Sb, Sc)

pcor.test(Sb, Sc, Sa)

pcor.test(Sa, Sc, Sb)

pcor.test(Ta, Tb, Tc)

pcor.test(Tb, Tc, Ta)

pcor.test(Ta, Tc, Tb)

pcor.test(Va, Vb, Vc)

pcor.test(Vb, Vc, Va)

pcor.test(Va, Vc, Vb)

pcor.test(Wa, Wb, Wc)

pcor.test(Wb, Wc, Wa)

pcor.test(Wa, Wc, Wb)

pcor.test(Ya, Yb, Yc)

pcor.test(Yb, Yc, Ya)

pcor.test(Ya, Yc, Yb)

pcor.test(CSa, CSb, CSc)

pcor.test(CSb, CSc, CSa)

pcor.test(CSa, CSc, CSb)

pcor.test(V, T, A)

pcor.test(F, Y, CS)

pcor.test(I, V, CS)

pcor.test(N, S, CS)

pcor.test(R, K, CS)

pcor.test(R, Q, CS)

pcor.test(G, S, CS)

pcor.test(D, G, CS)

pcor.test(S, N, CS)

cor.test(Ab, Kb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ca, Cb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Cb, Cc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ca, Cc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Da, Db,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Db, Dc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Da, Dc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ea, Eb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Eb, Ec,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ea, Ec,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Fa, Fb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Fb, Fc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Fa, Fc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ga, Gb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Gb, Gc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ga, Gc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ha, Hb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Hb, Hc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ha, Hc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ia, Ib,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ib, Ic,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ia, Ic,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ka, Kb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Kb, Kc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ka, Kc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(La, Lb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Lb, Lc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(La, Lc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ma, Mb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Mb, Mc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ma, Mc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Na, Nb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Nb, Nc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Na, Nc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Pa, Pb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Pb, Pc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Pa, Pc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Qa, Qb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Qb, Qc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Qa, Qc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ra, Rb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Rb, Rc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ra, Rb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Sa, Sb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Sb, Sc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Sa, Sc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ta, Tb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Tb, Tc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ta, Tc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Va, Vb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Vb, Vc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Va, Vc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Wa, Wb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Wb, Wc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Wa, Wc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ya, Yb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Yb, Yc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(Ya, Yc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(CSa, CSb,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(CSb, CSc,alternative = "two.sided", method = "pearson", exact=FALSE )

cor.test(CSa, CSc,alternative = "two.sided", method = "pearson", exact=FALSE )

library(tidyverse)

# Create dataframe with your data

df <- tibble(

AminoAcid = c("A","C","D","E","F","G","H","I","K","L","M",

"N","P","Q","R","S","T","V","W","Y"),

JAM1 = c(6.701111,1.982282,4.611532,5.083875,4.493732,7.809732,

0.8029643,3.528811,6.543164,7.575671,1.463554,4.123754,

5.861261,3.050975,4.618611,9.878421,7.370021,9.235204,

1.118132,4.113954),

JAM2 = c(6.326357,2.965971,4.580646,5.743893,4.03835,6.470732,

1.701296,4.613639,6.837171,8.175796,1.568396,4.347925,

4.760771,3.085718,6.035421,8.663514,6.09425,9.162943,

1.008157,3.816743),

JAM3 = c(6.101982,2.800354,4.8851,6.292693,4.39375,6.736382,

1.291721,5.087182,6.305629,7.985775,1.174964,4.56065,

4.787025,3.157486,6.058114,8.004843,5.923786,9.237518,

1.043461,4.169214)

) %>%

pivot\_longer(cols=c(JAM1,JAM2,JAM3),names\_to="Protein",values\_to="MeanConservation") %>%

mutate(pI=case\_when(

Protein=="JAM1"~8.09,

Protein=="JAM2"~9.23,

Protein=="JAM3"~7.53

))

# Check amino acids individually:

df %>%

group\_by(AminoAcid) %>%

summarize(correlation=cor(pI, MeanConservation)) %>%

arrange(desc(abs(correlation)))