```
R version 4.4.0 (2024-04-24) -- "Puppy Cup"
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Platform: aarch64-apple-darwin20

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[R.app GUI 1.80 (8376) aarch64-apple-darwin20]

[History restored from /Users/alperkaragol/.Rapp.history]

> rm(list = ls())
> A <-c(0, 0, 0, 0, 28.889, 0, 0, 3.333, 15.152, 10.000, 3.896, 7.500, 2.439, 0, 10.976, 0, 3.571, 11.905, 2.198,
17.143, 3.448, 1.695, 4.651, 0, 0.725, 2.174, 1.439, 15.714, 0, 3.546, 77.622, 6.897, 0, 21.918, 1.370, 0, 0, 0, 0.685,
0.680, 0, 0, 19.048, 0, 0.680, 0.680, 0, 0, 3.401, 2.041, 0, 0, 0, 0.680, 0, 0, 1.351, 0, 5.405, 0.676, 0, 0, 32.653,
8.108, 0.676, 0, 0, 1.351, 0, 1.351, 2.703, 0, 0, 0.676, 0, 0, 0, 0, 6.757, 0, 0, 1.351, 2.027, 0.676, 1.351, 0, 0.671,
0.671, 3.356, 77.852, 0, 0.671, 0.671, 0, 2.013, 0, 0, 2.685, 0.671, 0, 0.671, 0, 8.725, 0, 2.013, 2.013, 0.671, 0, 0,
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0.671, 12.752, 0, 0, 8.054, 0, 0.671, 0, 0, 0.671, 0.671, 0, 2.013, 0, 0, 4.730, 2.027, 0, 0, 0, 2.027, 3.378, 0, 0, 0,
3.378, 0, 0, 0, 0, 20.805, 3.356, 0.671, 0, 10.135, 0, 0, 0, 13.423, 0, 2.013, 2.685, 0, 0, 0, 0.671, 0.671, 0, 0.671,
2.013, 4.698, 0.671, 1.342, 0, 2.013, 0.671, 0, 0, 8.054, 5.369, 0, 0, 0, 2.667, 2.000, 0, 2.667, 0.680, 0, 0, 0,
17.333, 6.667, 1.333, 1.361, 0, 1.342, 8.966, 2.564, 1.266, 1.361, 3.448, 14.765, 0.667, 24.667, 3.333, 0, 0, 0, 0, 0,
0, 0.667, 0, 14.667, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0.667, 0, 1.333, 8.667, 5.333, 1.333, 22.667, 0.667, 1.333, 0, 0,
2.667, 90.000, 0, 1.333, 0.667, 0, 0.667, 0, 14.667, 4.667, 0, 0, 0, 1.000, 0, 0.676, 0, 0, 6.081, 0.676, 0, 2.027, 0,
3.333, 0, 0, 2.000, 0, 0, 0, 0.667, 0.667, 0, 0, 39.333, 2.667, 0, 40.000, 2.000, 0, 6.667, 0, 2.000, 5.333, 0, 0,
0.667, 0.667, 0, 5.333, 0, 0, 0, 40.268, 0, 1.333, 0, 16.667, 0, 0, 0.667, 7.383, 0, 1.342, 2.000, 18.792, 5.369,
3.356, 0, 0, 0, 28.188, 0.671, 0, 1.342, 0, 0)
> C <-c(0, 0, 0, 0, 2.222, 0, 0, 0, 0, 8.571, 0, 30.000, 0, 8.537, 0, 0, 0, 0, 3.297, 53.333, 0, 0, 0, 100.000, 0,
1.449, 0, 0, 0, 0, 0, 0, 53.793, 0.685, 0, 45.205, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.680, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0, 0, 0, 0, 0, 0, 0.676, 0, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.676, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0, 0, 0, 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, 0, 0, 0, 0, 0, 0, 0, 0, 65.101,
0.671, 0, 0, 0, 0, 0, 0, 0, 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, 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, 99.329, 0, 0, 0, 0, 0, 1.342, 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, 99.333, 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, 19.333, 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, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 5.333, 1.333, 0, 0, 1.342, 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)
> D <-c(4.762, 0, 0, 0, 2.222, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.586, 0, 0, 0, 0.725, 0, 15.108, 7.857,
4.286, 0, 0, 6.207, 0, 3.425, 3.425, 0, 0, 0, 3.425, 14.966, 0, 0, 2.041, 0, 0, 0, 29.252, 0, 0, 1.361, 0, 14.966, 0,
8.163, 1.361, 0, 0.676, 0, 0, 0, 0, 2.721, 0.680, 1.351, 0, 0, 0.676, 9.459, 0, 9.459, 4.054, 0, 0, 0.676, 0, 39.865,
0, 1.351, 0, 0, 1.351, 0, 0.676, 0, 0, 0, 8.054, 2.685, 9.396, 0, 0, 0, 0, 0, 0, 1.342, 0, 0, 0, 0, 54.362, 0, 8.725,
0, 0, 5.369, 8.054, 0, 0, 37.584, 0, 47.651, 0, 0, 0.671, 0.671, 0, 0.671, 1.342, 0, 0, 2.013, 0, 4.698, 0, 26.174,
0.671, 0, 6.711, 0, 10.067, 55.705, 0, 0, 0, 0, 26.846, 22.819, 0, 0, 0, 26.174, 0, 0.671, 0, 0, 0, 0.676, 0, 72.297,
0, 1.351, 1.351, 0, 2.027, 0, 0.676, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 3.356, 0, 1.342, 6.040, 0, 2.013, 4.027, 0, 40.268,
0, 0, 0, 0, 2.013, 0, 14.765, 0, 0, 0, 1.342, 8.054, 64.430, 0, 2.685, 0, 0, 0, 1.333, 0, 2.000, 0, 0, 0, 0, 6.667, 0,
9.333, 7.333, 0, 0.680, 0, 0, 11.034, 2.564, 6.329, 16.327, 18.621, 56.376, 0, 6.667, 1.333, 0, 0, 0, 0, 0, 0, 8.000,
0, 0, 0, 10.000, 0.667, 0, 94.667, 0, 0.667, 6.667, 0.667, 0, 0, 4.000, 0.667, 36.000, 0, 0, 0, 2.000, 0, 0, 4.667, 0,
0, 2.000, 0, 0, 0, 0, 2.667, 0.667, 0, 0, 0, 2.000, 0, 0, 0, 0, 0, 5.405, 0, 0, 0, 18.000, 0, 0, 0.667, 73.333, 0,
91.333, 0.667, 23.333, 0, 0, 1.333, 6.000, 0, 0, 8.667, 0, 11.333, 0, 1.333, 0, 0, 93.333, 0, 0, 2.667, 0, 0, 0, 0, 0,
0, 0.667, 1.333, 1.333, 0, 0, 0, 0, 0, 0.671, 37.333, 0, 0.671, 3.356, 0, 35.135, 0, 0, 0.671, 0, 0, 0, 0.671)
> E <-c(0, 0, 0, 0, 0, 0, 0, 1.667, 0, 0, 0, 0, 1.220, 0, 0, 3.614, 1.190, 2.381, 8.791, 0, 0.862, 0, 1.550, 0, 0.725,
0, 23.022, 2.143, 2.143, 0.709, 0, 0, 0, 0, 0, 0, 0.685, 0, 0.685, 14.286, 0, 0, 4.762, 0, 0, 6.122, 0, 0, 10.884,
2.721, 0, 0, 0, 21.769, 0.680, 0, 0, 0, 0.676, 57.432, 0, 0.680, 19.048, 1.351, 0, 0, 0.676, 0, 0, 77.703, 14.189, 0,
6.757, 22.973, 0, 39.865, 0, 2.703, 0, 0, 3.378, 0.676, 0.676, 0.676, 0, 0, 0, 2.685, 2.013, 21.477, 0, 0, 1.342, 1.342, 0,
0.671, 0.671, 0, 1.342, 3.356, 0, 1.342, 0, 0, 0, 3.356, 1.342, 1.342, 1.342, 0.671, 0, 42.953, 0, 5.369, 0, 0, 1.342, 1.342, 1.342,
0, 0, 0, 0, 3.356, 20.134, 0, 0.671, 0, 0.671, 6.711, 0, 0.671, 0, 2.013, 28.188, 0, 0, 0, 36.242, 44.966, 2.685, 0, 0,
20.134, 1.342, 0, 3.356, 0, 0, 72.297, 19.595, 0, 2.027, 0, 0, 3.378, 0, 12.838, 0, 8.108, 0.676, 0, 2.013, 0, 0, 0, 0,
0, 0.676, 14.094, 0, 1.342, 0, 0, 4.027, 10.067, 0, 0.671, 0, 4.027, 0.671, 0, 4.027, 0, 17.450, 2.013, 0, 0, 84.564,
24.161, 12.081, 0, 5.369, 0, 0, 0.667, 0, 0, 2.000, 0, 4.667, 0, 0, 0.667, 0, 2.667, 0, 0, 0, 0, 0.671, 4.138, 2.564,
18.987, 19.048, 13.103, 0, 0.667, 27.333, 4.667, 0, 0, 0, 0, 0, 0, 2.667, 0, 0.667, 0, 24.667, 0, 0, 0, 0, 0, 9.333, 0,
0.667, 0, 1.333, 2.667, 22.667, 2.000, 0, 2.667, 2.000, 0, 0, 0.667, 0.667, 0, 22.667, 0, 0, 0.667, 0, 0.667, 0, 0, 0,
0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3.333, 0, 0, 0.667, 4.667, 0, 0.667, 11.333, 2.667, 0, 0, 28.000, 0, 0, 6.667, 9.333,
0, 0.667, 0, 5.333, 0.667, 0, 0.667, 0, 0, 2.667, 0, 0, 0, 0, 0, 0, 2.667, 4.000, 0.667, 0, 0, 13.333, 0.671, 0, 0,
26.667, 0, 37.584, 7.383, 0, 0, 0, 0, 6.040, 0, 2.685, 0, 0)
> F <-c(0, 0, 0, 4.545, 0, 8.511, 0, 5.000, 0, 25.714, 7.792, 3.750, 9.756, 19.512, 4.878, 0, 0, 1.190, 6.593, 0,
27.586, 0, 0, 0, 5.072, 3.623, 0.719, 0, 0, 2.837, 0, 8.276, 4.828, 3.425, 41.096, 0, 0.685, 2.055, 0, 0, 0, 0, 0.680,
```

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0, 0.680, 0, 0, 0, 0, 1.361, 3.401, 20.408, 0, 0, 39.456, 0, 6.757, 0, 0, 0, 0.676, 0, 0, 0, 0.676, 64.189, 0, 10.811,
2.703, 0, 0, 0, 4.054, 1.351, 0, 1.351, 1.351, 0, 0, 0, 18.919, 0, 6.757, 2.027, 1.351, 0, 0, 0, 0, 0, 100.000, 0, 0,
0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 0, 0.671, 2.013, 0, 12.752, 0, 0, 0, 0, 0, 97.315, 0, 0, 0, 16.107, 0, 0, 7.383,
0.671, 0.671, 14.765, 0, 38.926, 2.685, 0, 0.671, 4.027, 0, 0, 0, 0.671, 0, 0, 0, 0, 8.054, 40.940, 0, 0, 1.342, 2.013,
0.676, 0, 0, 2.027, 0, 0, 0, 28.378, 4.730, 0, 0, 0, 0, 0, 0.671, 0, 2.685, 0, 0, 48.322, 99.329, 0.676, 0, 0, 0.671,
2.013, 27.517, 0, 2.013, 0, 0, 13.423, 0.671, 16.779, 0, 0.671, 0, 2.013, 0, 13.423, 0, 0, 0, 0, 0.671, 4.698, 0,
81.879, 0, 0, 0, 1.333, 83.333, 0, 31.293, 38.667, 0, 2.000, 0, 0.667, 0, 1.361, 7.483, 7.383, 2.069, 14.103, 0, 0.680,
0.690, 0, 0.667, 0.667, 0, 0, 0, 0, 0, 93.333, 0, 0, 0.667, 1.333, 60.667, 0, 0.667, 0, 0, 0.667, 0, 0.667, 0, 0,
39.333, 0, 0, 0, 0, 1.333, 0, 1.333, 88.000, 55.333, 0, 0, 0, 0, 0, 0.667, 0, 0.667, 6.000, 4.000, 0, 0.667, 26.000,
4.000, 0, 0, 0, 0, 0, 0, 87.838, 0.676, 70.548, 0.667, 0, 10.667, 0, 0, 0, 0, 0, 4.667, 0.667, 96.667, 0, 0, 0, 0.667,
0, 0, 1.333, 0, 0.667, 7.333, 18.667, 0, 0.667, 0, 0, 0, 27.333, 0, 96.667, 0.671, 0, 0, 6.000, 2.667, 6.000, 94.000,
0, 0, 4.000, 0, 0.667, 0, 0.671, 4.027, 0, 0, 0, 14.765, 2.685, 0, 0.671, 0, 0)
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0, 0, 0, 0, 0.719, 60.714, 0.714, 0, 1.399, 0, 0, 6.164, 7.534, 1.370, 7.534, 0, 0, 2.041, 0, 0, 0, 0, 0, 0.680, 0, 0,
0.680, 0.680, 0, 0, 0, 4.082, 3.401, 0, 0, 0, 7.432, 0, 0, 0, 0, 0, 0, 0, 25.676, 0, 2.027, 8.108, 0, 1.351, 1.351,
0, 0, 0, 83.784, 6.757, 0, 1.351, 2.703, 6.757, 0, 0, 0, 30.872, 0.671, 17.450, 1.342, 0, 0, 8.725, 0, 0.671, 0, 0, 0,
0, 0, 0, 0, 78.523, 0, 2.013, 24.161, 1.342, 0, 0, 0, 0, 12.752, 0, 0, 0, 97.315, 0, 0, 6.040, 0, 0, 0, 0, 0, 0, 2.013,
6.711, 0, 22.819, 0, 22.148, 6.711, 0, 0, 0, 0, 19.463, 17.450, 0, 0, 0, 2.013, 0, 0.671, 0, 0, 0, 1.351, 0, 0, 0, 0,
59.459, 0, 0.676, 0, 1.351, 0.676, 0, 0, 0, 18.121, 0, 0, 0, 2.703, 0.671, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.671, 1.342, 0,
1.342, 0, 2.013, 1.342, 0, 0, 0.671, 12.081, 1.342, 0, 1.342, 32.215, 0, 0.667, 94.000, 0.667, 0.667, 0, 0.667, 0, 0,
4.000, 0, 6.000, 2.000, 0, 2.721, 0, 2.013, 4.828, 0, 2.532, 6.122, 11.034, 10.738, 0.667, 8.000, 2.000, 0, 64.667, 0,
0, 0, 0, 28.667, 0, 2.000, 0, 6.000, 0.667, 0, 0, 0, 7.333, 22.000, 0, 89.333, 0, 9.333, 0, 6.667, 1.333, 0, 6.667, 0,
0, 2.000, 2.667, 0, 0, 1.333, 98.667, 0, 0, 0, 5.333, 0.667, 0, 0, 0, 0, 33.333, 2.027, 0, 99.324, 0.676, 75.676, 0,
60.135, 0, 1.333, 0, 0, 0, 0, 0, 0, 2.667, 0.667, 0, 0, 0, 86.667, 0, 10.000, 2.667, 0, 18.000, 0, 0.667, 0.667, 0,
0.667, 0, 0, 4.000, 48.667, 0.667, 0, 0, 0.671, 0, 1.333, 0, 14.667, 0, 0, 6.000, 0.671, 0, 19.463, 2.000, 0, 0.671, 0,
0, 0, 0, 0, 2.013, 0, 0, 0, 0)
> H <-c(0, 0, 0, 0, 0, 2.128, 7.273, 0, 0, 0, 0, 1.250, 0, 4.878, 0, 0, 0, 0, 0, 0, 1.724, 0, 0, 0, 2.174, 0, 1.439,
2.143, 2.143, 0, 0, 0.690, 0, 6.849, 0.685, 0, 4.110, 11.644, 8.904, 2.721, 0, 0, 2.721, 0, 0, 0.680, 14.966, 0, 0.680,
31.293, 0, 0.680, 0, 0, 0.680, 0, 6.081, 0, 2.027, 0, 0, 6.803, 0.680, 0, 0, 0, 0, 2.027, 0, 0, 16.216, 0, 0.676,
0.676, 0, 0.676, 0, 0.676, 2.703, 0, 5.405, 0, 3.378, 0, 0.676, 0, 1.342, 0, 1.342, 0, 0, 0, 0.671, 0, 0, 4.027, 0.671,
0.671, 0.671, 0, 2.685, 0, 0, 1.342, 4.698, 3.356, 0, 6.711, 0, 17.450, 0, 0.671, 0, 0, 1.342, 0, 0, 2.013, 14.765, 0,
1.342, 7.383, 0, 8.054, 0, 0, 17.450, 0, 0, 0, 1.342, 0, 0, 0, 0, 0, 0.671, 2.685, 1.342, 0, 0, 1.342, 0, 0, 0, 0,
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4.027, 0, 12.081, 2.013, 0, 0.671, 0, 0, 7.383, 0, 2.013, 0, 2.013, 0, 0, 0, 0, 4.027, 0.671, 0, 2.685, 6.040, 0,
2.667, 0, 0, 46.000, 0, 2.000, 2.041, 0, 0, 0, 6.667, 0, 0, 20.408, 0, 0, 2.759, 2.564, 0, 2.041, 2.759, 0, 0, 2.000,
0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0.667, 0, 0.667, 0, 0, 5.333, 0, 0, 0, 0, 0, 1.333, 1.333, 0, 2.000, 3.333,
0, 0, 1.333, 0, 0, 0.667, 0, 0, 2.000, 0, 10.667, 36.000, 0, 0.667, 0.667, 27.000, 44.000, 20.946, 0, 0, 0, 0.676, 0,
0, 14.384, 8.667, 0, 0, 0, 0, 0, 0, 3.333, 4.000, 0, 0, 0, 0, 0, 1.333, 1.333, 0, 0.667, 0, 8.667, 7.333, 0, 0, 0, 0,
22.000, 0, 1.333, 0, 0, 0.671, 0, 2.000, 0, 3.333, 0, 0, 0.667, 6.711, 0, 2.685, 1.333, 0, 0, 0, 0, 1.351, 0, 1.342,
11.409, 0, 0.671, 0, 0)
> I <-c(0, 0, 2.273, 0, 4.444, 4.255, 1.818, 1.667, 12.121, 7.143, 35.065, 1.250, 18.293, 4.878, 6.098, 0, 5.952,
3.571, 0, 0, 16.379, 0, 0.775, 0, 6.522, 30.435, 2.158, 0, 0.714, 24.823, 0, 9.655, 0, 5.479, 0, 0, 0, 0, 0, 0, 24.490,
0, 2.041, 1.361, 0, 0.680, 0, 49.660, 5.442, 4.082, 0, 2.041, 0, 0.680, 0.680, 0, 0, 100.000, 0, 0, 42.568, 0, 0, 0, 0,
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4.698, 0, 0, 0, 0, 0.671, 9.396, 24.832, 0, 2.685, 2.685, 0, 0, 10.738, 34.899, 2.013, 3.356, 6.711, 0, 0, 0, 0, 0,
1.342, 0, 0, 2.685, 0, 0.671, 3.356, 15.436, 0, 4.027, 0.671, 0, 0, 0, 0, 0.671, 0, 0, 1.342, 81.208, 0, 0, 0, 0, 0,
0.671, 0, 0, 0, 0, 8.054, 0, 0, 0, 1.351, 0.676, 1.351, 0.676, 0, 3.378, 0, 0, 91.892, 0, 0.676, 14.094, 0, 0, 0,
0.671, 1.342, 0, 3.378, 0, 2.013, 0.671, 0.671, 0, 0, 14.094, 16.107, 2.013, 2.013, 0, 1.342, 0, 0.671, 80.537, 0,
5.369, 35.570, 0, 0, 0.671, 0, 0, 2.013, 0, 0, 0, 0.667, 0, 0, 2.000, 0.667, 5.442, 1.333, 4.667, 2.667, 0, 0, 10.000,
0, 0.680, 0.671, 4.828, 0, 0, 3.401, 1.379, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 41.333, 0.667, 10.667, 1.333, 9.333,
0, 2.000, 8.000, 0, 0.667, 2.000, 0.667, 0, 0, 4.667, 0.667, 14.000, 6.000, 0, 0, 0, 0, 0, 1.333, 87.333, 0, 0, 0, 0,
89.333, 2.667, 2.000, 4.000, 44.667, 4.000, 0, 0, 27.027, 14.189, 0, 0.676, 0, 0.676, 0, 0, 0, 0.667, 14.667, 0.667, 0,
0, 0, 2.000, 0, 0.667, 0, 0.667, 0, 0, 0.667, 0.667, 0, 0, 16.667, 11.333, 26.000, 0.667, 0, 26.000, 0, 0.667, 0,
0.667, 97.333, 0.667, 0, 0, 0, 0.667, 0, 11.333, 0, 0, 0, 0, 0, 0.667, 1.342, 8.725, 26.174, 47.297, 3.378, 17.450,
0.671, 0.671, 0, 0, 77.852, 0)
> K <-c(0, 0, 2.273, 0, 0, 0, 1.818, 0, 0, 2.857, 0, 0, 0, 0, 1.220, 1.205, 0, 0, 10.989, 0, 0, 1.695, 5.426, 0, 2.174,
0, 5.755, 1.429, 2.143, 8.511, 0, 0, 0, 0, 0, 10.274, 4.110, 0, 2.055, 2.041, 0, 0, 2.041, 0, 0.680, 18.367, 0.680, 0,
4.762, 21.769, 0, 0, 0, 0, 1.361, 0, 2.703, 0, 4.054, 0.676, 0, 0, 0.680, 4.054, 0, 0, 0.676, 0, 0, 3.378, 8.784, 0,
4.730, 0.676, 0, 4.054, 0, 0, 8.108, 0, 15.541, 0, 4.730, 0, 0, 0, 3.356, 37.584, 0.671, 0, 0, 4.698, 1.342, 0, 3.356,
19.463, 0, 6.040, 14.094, 0, 2.013, 0, 0, 0, 20.134, 0.671, 0, 4.698, 0, 0, 1.342, 2.013, 0, 0, 0, 0, 0, 0, 4.027, 0,
8.054, 4.027, 0, 0, 0, 0, 0, 0.671, 0, 6.040, 0, 4.027, 0, 0, 0, 0, 17.450, 0.671, 2.685, 0, 0, 9.396, 0, 0, 2.685, 0, 0,
2.027, 9.459, 0, 0, 0, 0, 1.351, 9.459, 0, 21.622, 0, 20.270, 24.324, 0, 6.040, 0, 0, 1.342, 0.671, 0, 0, 10.067, 0,
8.725, 19.463, 0, 42.953, 1.342, 0, 2.013, 0, 56.376, 0, 0, 24.832, 0, 8.054, 10.738, 0, 0, 0, 0.671, 0, 0, 6.040, 0,
0, 2.667, 0.667, 94.667, 1.333, 0, 10.000, 0.680, 0, 12.000, 0, 4.000, 1.333, 0, 17.687, 0, 4.698, 23.448, 2.564,
5.063, 6.803, 1.379, 0, 0, 9.333, 52.000, 0, 0, 0.667, 0, 0, 34.667, 1.333, 0, 0, 0, 4.667, 1.333, 0, 0.667, 0, 0,
2.000, 0, 0, 0, 0.667, 0.667, 2.667, 27.333, 0, 22.667, 2.667, 0, 0, 27.333, 0.667, 0, 16.000, 0, 0, 32.667, 0, 1.333,
2.000, 0, 27.333, 0, 2.000, 0, 0, 0, 0, 34.459, 0, 0, 0, 0, 6.000, 0.667, 0, 53.333, 0, 0, 0, 17.333, 2.000, 0, 0,
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0, 4.000, 1.342, 0, 40.268, 2.000, 0, 22.148, 0.671, 0, 0, 0, 0, 22.819, 0, 75.839, 0, 0)
> L <-c(0, 0, 11.364, 81.818, 2.222, 80.851, 20.000, 60.000, 16.667, 2.857, 20.779, 1.250, 32.927, 9.756, 63.415,
12.048, 5.952, 1.190, 5.495, 0, 0.862, 1.695, 0.775, 0, 13.768, 18.116, 0.719, 0, 12.857, 4.965, 0.699, 19.310, 0,
4.795, 7.534, 1.370, 0, 82.192, 0, 0, 0, 0, 11.565, 52.381, 6.803, 0, 0, 0, 2.041, 0.680, 87.075, 29.252, 97.959,
0.680, 12.245, 0, 0.676, 0, 0.676, 0.676, 10.811, 0, 0, 0.676, 0, 35.135, 1.351, 30.405, 81.081, 0, 0, 100.000, 20.270,
33.784, 99.324, 2.703, 65.541, 0, 2.027, 0, 6.757, 1.351, 2.027, 75.676, 1.351, 7.432, 0, 0, 0, 0, 0, 17.450, 0,
65.101, 0, 0, 97.987, 4.698, 5.369, 100.000, 0.671, 96.644, 0, 0.671, 2.013, 3.356, 78.523, 4.027, 82.550, 0, 22.148,
4.698, 0, 2.685, 4.698, 0, 98.658, 2.013, 0.671, 92.617, 3.356, 0.671, 99.329, 4.027, 97.315, 4.027, 0, 0, 0.671,
94.631, 0, 0, 0.671, 1.342, 99.329, 0, 0, 0.671, 0, 58.389, 0, 0, 96.644, 12.752, 0.676, 100.000, 0, 2.027, 95.270, 0,
99.324, 1.351, 0, 0, 0.676, 2.703, 0, 0, 79.195, 0, 14.094, 0, 19.463, 28.188, 0, 6.081, 0, 63.087, 0.671, 0.671,
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71.141, 0, 1.342, 50.336, 0, 77.181, 0, 57.047, 0, 0.671, 3.356, 0.671, 2.013, 34.899, 0, 0, 0, 0, 97.987, 9.396,
0.671, 17.450, 0.667, 0, 0.667, 0.667, 13.333, 16.000, 34.694, 56.000, 0, 93.333, 0, 1.333, 2.000, 0.680, 84.354,
3.356, 2.759, 5.128, 2.532, 1.361, 0.690, 0, 0, 0.667, 0, 0, 1.333, 0, 1.333, 6.667, 0.667, 0, 0.667, 0.667, 18.000, 0,
2.000, 100.000, 0, 70.667, 0, 7.333, 0, 0, 15.333, 0, 8.000, 0, 3.333, 10.667, 0.667, 14.000, 10.667, 5.333, 1.333,
0.667, 2.667, 0.667, 0, 0, 0.667, 3.333, 3.333, 0, 95.333, 2.667, 58.000, 1.000, 0.667, 1.351, 9.459, 0, 0, 0, 2.027,
0, 0, 0, 0, 60.667, 1.333, 0, 0.667, 0, 2.000, 1.333, 0.667, 2.000, 0.667, 0, 100.000, 0, 0, 0, 1.333, 33.333, 10.000,
15.333, 76.667, 0, 66.000, 0, 0, 0, 0, 2.000, 0, 0, 99.329, 0, 0, 19.333, 18.667, 6.000, 0.667, 1.342, 88.667, 0, 0,
59.732, 1.342, 16.779, 51.351, 0.676, 67.114, 0, 2.013, 0, 2.685, 1.342, 0)
> M <-c(95.238, 0, 9.091, 2.273, 0, 0, 0, 6.667, 0, 0, 0, 0, 0, 4.878, 1.220, 0, 5.952, 1.190, 3.297, 0, 1.724, 0, 0,
0, 0, 2.174, 3.597, 0, 0, 4.255, 0, 4.138, 0, 0.685, 1.370, 1.370, 0, 0, 0, 0, 1.361, 0, 0, 0, 0, 0, 0.680, 0, 0.680,
0.680, 0.680, 0, 0.680, 2.041, 0, 16.327, 0, 0, 0, 1.351, 0.676, 0.676, 0, 0, 0.676, 0, 0, 0, 0, 0.676, 0, 1.351, 0, 0,
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0, 0, 0, 2.013, 5.369, 2.685, 0, 4.027, 0, 0, 0, 0, 0, 1.342, 0, 1.342, 0.671, 0, 0, 0, 0, 0, 0, 2.013, 0, 0, 0, 0, 0,
0.671, 0, 0, 0, 0, 1.342, 0, 0, 0, 0.671, 0, 0, 2.013, 1.342, 0, 0, 1.351, 6.081, 0, 0, 0, 1.351, 1.351, 0, 0, 2.027,
0.676, 0, 0, 0, 0, 0, 8.725, 0, 0, 0, 0, 34.228, 0, 0, 0, 0, 0, 1.342, 2.013, 0.671, 2.013, 2.013, 0.671, 0, 0, 3.356, 0,
0.671, 2.685, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0.667, 0, 1.333, 0, 0.667, 0, 2.667, 0, 0.667, 0, 0, 1.333, 0, 6.803, 0,
1.379, 0, 1.266, 0, 0, 0, 0, 1.333, 0, 0, 8.667, 0, 0, 0, 0, 1.333, 50.667, 0.667, 7.333, 0, 3.333, 0, 0, 0.667, 0, 0,
0, 0.667, 2.667, 0, 1.333, 0.667, 8.667, 4.000, 0, 1.333, 0.667, 0, 0.667, 0, 1.333, 0.667, 0, 0.667, 0, 0.667, 0, 0,
0, 2.000, 2.667, 0, 0, 0.676, 72.973, 0, 0.676, 0, 0, 0, 0, 0, 0, 4.667, 0, 0, 0.667, 0, 0.667, 0, 2.000, 0, 3.333, 0,
0, 5.333, 2.000, 0, 0, 0, 0.667, 0.667, 2.667, 0, 3.333, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0.671,
7.333, 0, 0, 0.671, 2.013, 2.685, 0.676, 0, 0.671, 0, 1.342, 0, 0, 0, 0)

> N <-c(0, 0, 0, 0, 0, 0, 0, 0, 0, 2.857, 0, 0, 0, 8.537, 0, 0, 0, 0, 3.297, 0, 1.724, 0, 2.326, 0, 0.725, 0, 7.914,
6.429, 0.714, 0.709, 0, 15.172, 0, 6.164, 2.740, 0.685, 64.384, 0, 0.685, 0, 0, 0, 0, 0, 0, 13.605, 23.810, 0, 2.041,
6.803, 0, 0.680, 0, 7.483, 7.483, 99.324, 6.081, 0, 2.027, 1.351, 0, 54.422, 0.680, 4.054, 0, 0, 2.027, 2.703, 0,
1.351, 2.703, 0, 0, 0.676, 0, 2.027, 0, 0, 6.081, 0, 5.405, 1.351, 5.405, 0, 1.351, 0, 0.671, 42.282, 44.966, 0, 0,
1.342, 46.980, 0, 0, 61.074, 0, 0, 0.671, 0, 1.342, 0, 0.671, 85.235, 6.711, 6.711, 1.342, 0, 0, 1.342, 0, 0.671, 0, 0,
10.067, 0, 0, 0, 34.899, 0, 2.013, 12.752, 0, 4.698, 0, 1.342, 4.698, 32.215, 17.450, 0, 14.765, 5.369, 0.671, 0, 0, 0,
2.685, 16.779, 0, 0, 0.671, 17.450, 0, 3.356, 0.676, 0, 0.676, 0.676, 0, 12.838, 0, 0.676, 0, 100.000, 16.216, 0,
2.027, 1.351, 0, 2.685, 0, 1.342, 0.671, 0, 0, 0, 61.074, 0, 14.094, 13.423, 0, 3.356, 6.711, 0, 52.349, 0, 1.342,
1.342, 97.987, 4.698, 0, 8.054, 20.134, 0, 0, 0, 0.671, 21.477, 0, 3.356, 4.027, 0, 0, 0, 0, 5.333, 0, 1.333, 0, 0,
43.333, 0, 14.000, 2.667, 61.333, 14.286, 0, 4.027, 8.966, 23.077, 5.063, 4.762, 4.138, 8.725, 0, 4.000, 2.667, 0, 0,
98.000, 0, 0, 0, 54.000, 0, 0.667, 0, 20.000, 0, 0, 1.333, 0, 0, 7.333, 88.000, 0, 0, 25.333, 0, 12.000, 3.333, 0, 0,
18.000, 0, 1.333, 14.667, 0.667, 0, 14.000, 0, 0, 2.667, 0, 6.667, 6.667, 0, 2.667, 0, 6.000, 3.333, 3.378, 0, 0, 0, 0,
0, 0, 0, 40.667, 97.333, 0, 0.667, 22.000, 0, 4.667, 14.000, 13.333, 0, 0, 1.333, 0, 0, 7.333, 32.000, 0.667, 10.000,
0, 7.333, 2.000, 0, 4.000, 0, 0, 10.667, 29.333, 1.333, 0, 1.333, 0, 0, 38.000, 5.333, 0, 0, 0, 2.667, 4.027, 0, 2.013,
20.000, 0, 0, 2.685, 0, 40.541, 0, 5.369, 8.054, 99.329, 1.342, 0, 97.987)
> P <-c(0, 0, 0, 6.818, 4.444, 2.128, 3.636, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 10.714, 27.381, 0, 0, 0.862, 48.305, 8.527, 0,
1.449, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.370, 0, 0, 0, 0, 0, 0, 0, 0, 100.000, 25.850, 0, 87.755, 38.776, 0.680, 0, 0, 0, 0, 0, 0,
0.680, 0, 0, 0, 0, 1.351, 0, 0, 0, 0.680, 0, 0, 0, 47.297, 1.351, 0, 0.676, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 5.405,
27.027, 0, 0, 0, 0, 1.342, 0, 0, 0, 0, 0, 0, 0, 48.322, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 5.369, 0.671, 0, 0, 0, 0, 61.074,
0, 0, 0, 0, 0, 0, 21.477, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 0, 48.993, 0, 1.342, 0,
0, 0, 0, 0, 0, 0, 4.054, 0, 0, 0, 0, 0.676, 0, 0, 0, 83.221, 0.671, 41.611, 0, 0, 1.351, 0, 0, 1.342, 0, 0, 0, 0, 0, 0,
0, 0, 0, 0, 0, 5.369, 0, 7.383, 0, 0, 0, 0, 4.027, 0, 0, 0, 16.107, 0, 0.667, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0,
2.041, 0.680, 0.671, 0, 2.564, 12.658, 2.041, 2.069, 0, 0, 0, 0, 0, 15.333, 0, 98.667, 0, 0, 0, 0, 0, 0, 0.667, 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, 18.667, 0, 0, 0, 0, 0, 0, 0, 5.000, 0.667, 6.081, 0,
0, 7.432, 0, 0, 0, 0, 0, 0, 0, 0, 30.000, 0, 98.667, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0,
0, 0, 0, 0, 0.671, 0, 0.667, 16.000, 0, 0, 0, 0, 27.517, 0, 7.383, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)
> Q <-c(0, 0, 0, 0, 0, 0, 60.000, 0, 0, 0, 0, 0, 0, 0, 0, 0, 65.060, 1.190, 0, 0, 0.952, 1.724, 5.085, 0.775, 0, 2.174, 0,
3.597, 1.429, 32.143, 0, 0, 2.069, 0, 1.370, 1.370, 19.863, 2.055, 0.685, 1.370, 24.490, 0, 0, 12.925, 0, 0.680, 0.680,
0, 0, 0.680, 1.361, 0, 0, 0, 0.680, 0.680, 0, 1.351, 0, 6.757, 17.568, 0, 0, 0, 0, 0, 0, 2.027, 2.027, 0, 1.351,
33.108, 0, 50.000, 7.432, 0, 0.676, 0, 6.757, 14.189, 99.324, 4.730, 0, 8.108, 0, 0, 0, 2.013, 1.342, 0, 0, 0, 4.027,
2.013, 34.228, 0.671, 0, 0, 6.040, 4.027, 0, 2.685, 0, 0, 0, 11.409, 0.671, 1.342, 46.980, 0, 0, 2.013, 5.369, 0, 0,
17.450, 0, 0, 2.685, 0, 0, 36.242, 1.342, 0, 3.356, 0, 0, 11.409, 0, 4.027, 0, 4.027, 0.671, 0, 0, 0, 5.369, 1.342,
0.671, 0, 0, 37.584, 0, 0, 0.671, 0, 0, 6.757, 6.081, 0, 0, 0, 1.351, 0, 0, 27.703, 0, 6.081, 2.027, 0, 30.872, 0, 0,
3.356, 0, 0, 10.811, 0.671, 0, 0.671, 0.671, 0, 5.369, 9.396, 0, 0, 0, 0.671, 0, 0, 29.530, 0, 2.013, 5.369, 0, 0,
10.738, 2.685, 0, 0, 2.685, 0, 0, 63.333, 0.667, 0.667, 2.667, 0, 2.667, 0, 0, 0.667, 0, 6.667, 0, 0, 3.401, 0, 6.040,
2.759, 0, 6.329, 0, 0, 0, 0, 10.667, 3.333, 0, 0.667, 0, 0, 0, 2.667, 0, 0, 2.000, 0, 10.667, 0.667, 0, 0, 0, 0.667,
6.000, 0.667, 0, 0, 0, 0, 1.333, 3.333, 0, 25.333, 26.000, 0, 0, 0.667, 0, 0, 13.333, 0, 0, 34.000, 0, 6.000, 3.333, 0,
0.667, 0, 1.000, 2.000, 0, 0.676, 0, 2.703, 0, 0, 0, 0, 6.000, 0, 0.667, 0, 0, 0, 0, 11.333, 4.000, 0, 0, 4.667, 0, 0,
1.333, 0, 0, 0, 0, 4.667, 2.667, 0, 0.667, 0, 0, 8.000, 0, 0.667, 0, 0, 0, 0, 28.000, 11.333, 5.333, 0, 0, 23.333,
2.013, 0, 4.698, 0.667, 0, 1.342, 4.698, 0, 0, 0, 0, 22.819, 0, 2.013, 0, 0)
> R <-c(0, 7.317, 2.273, 2.273, 2.222, 0, 3.636, 0, 0, 1.429, 0, 0, 0, 0, 0, 6.024, 1.190, 0, 1.099, 1.905, 0, 14.407,
3.876, 0, 3.623, 0.725, 5.755, 1.429, 12.143, 2.837, 0, 2.759, 0, 13.014, 0.685, 17.808, 5.479, 0.685, 9.589, 4.762, 0,
0, 2.041, 0, 0, 0, 0, 0, 0.680, 8.163, 0, 0, 0, 2.041, 3.401, 0, 10.811, 0, 37.162, 6.081, 0, 0, 2.041, 0, 0, 0,
15.541, 6.081, 2.027, 0.676, 4.730, 0, 4.054, 2.027, 0, 1.351, 0, 0, 2.027, 0.676, 10.811, 5.405, 10.811, 0, 1.351, 0,
50.336, 6.711, 0.671, 0, 0, 49.664, 34.899, 0, 23.490, 12.081, 0, 42.282, 20.134, 0, 0.671, 0, 0, 0, 10.067, 2.013,
0.671, 10.067, 0, 0, 1.342, 20.805, 0, 0, 0, 0, 0, 2.685, 12.752, 0, 11.409, 0, 0, 38.926, 0, 0, 2.685, 0, 4.698,
0.671, 0, 1.342, 0, 0, 0, 4.698, 2.013, 16.779, 0, 0, 31.544, 0, 0, 10.067, 0, 0, 0, 11.486, 0, 0, 0, 5.405, 2.703, 0,
10.135, 0, 8.784, 45.946, 0, 30.201, 0, 0, 3.356, 0, 0, 7.432, 5.369, 0, 8.725, 8.054, 0, 0.671, 0.671, 0, 0.671, 0,
1.342, 4.027, 0, 9.396, 0, 3.356, 14.094, 0, 0.671, 0, 4.027, 0, 0, 4.698, 1.342, 0, 26.667, 2.000, 0.667, 4.667, 0,
6.667, 2.721, 0, 1.333, 0, 7.333, 0, 0, 9.524, 0, 5.369, 6.207, 0, 7.595, 2.721, 2.069, 0, 1.333, 0, 16.000, 0, 3.333,
0, 0, 0, 57.333, 0.667, 0, 2.000, 0, 2.000, 0.667, 0, 0, 0, 0.667, 2.667, 0, 1.333, 0, 0, 0, 1.333, 9.333, 0, 30.667,
10.667, 0, 0, 18.667, 0, 0, 14.667, 0, 0, 4.667, 0, 0, 0, 0, 2.000, 0, 0, 0, 0.676, 0, 0, 10.135, 0, 0, 0, 0, 2.667,
0.667, 0, 10.000, 0, 0, 0, 23.333, 2.667, 0, 0, 1.333, 0.667, 0, 7.333, 32.000, 0, 0, 0, 20.667, 4.667, 0, 0, 0, 0,
9.333, 0, 16.000, 0, 0, 0, 0, 4.000, 11.333, 12.667, 0, 0, 4.000, 0.671, 0, 5.369, 0, 0, 2.685, 0.671, 0, 0, 0, 0,
7.383, 0, 8.725, 0, 0)
> S <-c(0, 0, 2.273, 0, 8.889, 0, 0, 0, 1.515, 1.429, 0, 1.250, 1.220, 4.878, 0, 9.639, 1.190, 8.333, 6.593, 8.571,
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0, 4.110, 9.524, 0, 0, 2.041, 0, 0.680, 11.565, 6.122, 0, 0, 5.442, 0, 3.401, 0, 34.694, 1.361, 0.676, 5.405, 0,
27.703, 0.676, 0, 4.082, 29.932, 17.568, 97.297, 0, 24.324, 4.730, 0, 0, 0.676, 0, 0, 0.676, 0, 0.676, 0, 2.703,
12.838, 0, 0.676, 2.703, 6.757, 0, 4.730, 0, 0, 2.013, 0, 8.725, 0, 12.752, 2.685, 0, 16.779, 1.342, 0, 0, 2.685, 0,
0.671, 0, 3.356, 12.081, 1.342, 1.342, 1.342, 1.342, 0, 0, 0.671, 0, 2.013, 0, 0.671, 0, 0, 40.940, 22.819, 0, 3.356,
4.698, 0, 4.698, 0, 2.685, 10.067, 2.685, 26.174, 0, 21.477, 1.342, 76.510, 0, 0, 21.477, 1.342, 14.094, 0, 0, 0,
2.013, 0, 23.490, 97.973, 0, 2.703, 1.351, 0, 7.432, 0, 48.649, 4.054, 0, 0, 0, 1.351, 17.568, 0, 6.040, 0, 12.081,
14.765, 18.792, 0, 17.568, 2.013, 0, 8.054, 22.819, 0, 3.356, 24.161, 0, 0, 0, 28.188, 4.027, 0, 3.356, 0, 22.148,
23.490, 0, 0, 0, 28.859, 0, 0, 0.671, 32.215, 0, 0, 0, 0, 2.667, 1.333, 23.333, 3.401, 0, 26.000, 0, 22.667, 75.333, 0,
8.163, 0, 3.356, 9.655, 19.231, 24.051, 6.122, 22.759, 2.685, 1.333, 1.333, 6.000, 0.667, 2.667, 1.333, 0, 0, 2.000,
2.000, 0, 38.667, 0, 6.000, 19.333, 0, 0, 0, 90.000, 22.667, 6.667, 4.000, 0, 44.667, 0.667, 3.333, 2.667, 10.667,
1.333, 0.667, 0, 15.333, 4.000, 1.333, 0, 8.667, 0.667, 14.667, 3.333, 0, 32.667, 36.000, 0, 0.667, 0.667, 29.000,
14.000, 10.811, 0, 0.676, 37.162, 17.568, 2.027, 32.432, 0, 8.000, 0, 2.667, 0, 0, 0, 0.667, 6.667, 36.667, 0, 0,
4.000, 3.333, 0, 2.667, 4.000, 98.667, 44.667, 0, 2.667, 10.000, 0, 0.667, 0, 96.667, 0.667, 11.333, 14.000, 0, 0,
44.966, 0, 4.667, 28.000, 16.000, 1.333, 0, 40.667, 23.490, 0, 10.738, 2.667, 0, 0.671, 11.409, 0, 8.108, 0, 46.980,
4.698, 0.671, 2.685, 0, 0.671)
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1.695, 4.651, 0, 11.594, 2.899, 2.878, 0, 2.857, 4.255, 0, 0.690, 0, 4.110, 0.685, 0, 0.685, 0, 50.000, 1.361, 0, 0,
0.680, 0, 1.361, 6.803, 14.286, 40.816, 45.578, 2.041, 0, 0, 0, 18.367, 0, 0, 0, 0, 2.703, 10.811, 0, 30.612, 8.844,
62.162, 0.676, 0, 1.351, 0, 0, 0, 2.703, 0, 0.676, 1.351, 0, 0, 0, 0, 27.027, 0, 6.757, 20.270, 2.027, 0, 41.216, 0, 0,
2.685, 0, 11.409, 0, 0, 0.671, 0.671, 3.356, 0, 0, 24.161, 4.698, 0, 0, 0, 0, 0.671, 6.040, 0, 0.671, 2.013, 0, 0,
8.054, 0, 0, 0, 1.342, 0, 0, 1.342, 0, 0, 18.121, 6.040, 0, 4.027, 0, 10.067, 1.342, 0, 0, 0, 15.436, 0, 2.685, 0, 0,
4.698, 0, 0.671, 0, 0, 0, 0, 0, 3.356, 0, 0, 7.432, 25.000, 0, 0, 0, 0, 0, 0, 0.676, 0, 27.027, 4.054, 0, 1.342, 0,
0.671, 0, 0.671, 0, 2.703, 0.671, 0, 51.678, 0.671, 0, 22.819, 11.409, 0, 0.671, 0, 3.356, 0, 2.013, 1.342, 0, 2.685,
11.409, 0, 0, 0, 8.054, 0, 0, 18.792, 0, 0, 0.667, 0, 0, 12.000, 0, 26.000, 0.680, 0, 0.667, 0, 2.000, 0.667, 6.667,
5.442, 0, 2.685, 2.759, 10.256, 6.329, 2.041, 2.069, 2.685, 0, 2.000, 7.333, 0, 3.333, 0, 0, 0, 1.333, 0, 1.333,
23.333, 0, 12.000, 50.667, 0, 0, 0, 0.667, 4.667, 1.333, 0, 0, 12.667, 23.333, 4.667, 17.333, 22.667, 2.000, 0.667, 0,
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0, 0, 0, 0.685, 1.333, 0.667, 2.667, 0.667, 0, 0, 1.333, 0.667, 2.667, 96.000, 0, 4.000, 0, 0, 0.667, 0.667, 0.667,
2.000, 0, 4.000, 11.333, 0, 0, 0, 2.000, 0, 0, 0, 0, 0, 6.711, 0, 0.667, 2.000, 0, 3.333, 0, 2.667, 13.423, 0, 5.369,
0.667, 1.342, 5.369, 0.671, 0, 10.811, 0, 0, 0, 0, 0, 0, 0.671)
> V <-c(0, 0, 0, 2.273, 8.889, 0, 0, 20.000, 54.545, 24.286, 19.481, 12.500, 31.707, 6.098, 3.659, 0, 58.333, 26.190,
2.198, 0.952, 4.310, 0.847, 4.651, 0, 0, 10.870, 7.914, 0, 2.143, 41.135, 2.098, 7.586, 0, 1.370, 0, 0, 0, 0, 3.425,
0.680, 74.150, 0, 9.524, 46.259, 0.680, 0, 0, 8.844, 22.449, 1.361, 9.524, 0, 0, 0, 2.041, 0, 0, 0, 0, 3.378, 45.270,
0.680, 4.082, 0, 0, 0.676, 0.676, 2.027, 0, 2.027, 0, 0, 2.027, 13.514, 0.676, 1.351, 0.676, 0.676, 0, 0, 0.676,
56.757, 1.351, 21.622, 37.162, 5.405, 0, 0, 0, 0.671, 0, 2.013, 0, 0, 0, 0, 0, 0.671, 15.436, 0, 27.517, 0.671, 0, 0,
10.067, 4.027, 0, 6.040, 6.040, 0, 1.342, 0, 0, 0, 36.242, 0, 0, 4.027, 0, 6.711, 0, 20.134, 0, 2.013, 0, 0, 0.671, 0,
0, 0, 0, 0, 4.027, 16.779, 0.671, 0.671, 0, 0, 2.685, 0, 0, 0, 0, 20.134, 0, 0, 0.676, 1.351, 4.054, 4.054, 0, 0, 0, 0,
2.027, 3.378, 10.135, 0.676, 6.040, 0, 0, 0, 2.013, 0.671, 0, 8.108, 0, 0, 0, 6.711, 0.671, 0.671, 7.383, 31.544, 0,
5.369, 0, 0.671, 0, 1.342, 10.738, 0.671, 2.013, 12.081, 0, 0, 0.671, 0, 1.342, 24.832, 0.671, 0.671, 0, 0, 0, 0, 0,
1.333, 9.524, 1.333, 0, 1.333, 0.667, 0.667, 17.333, 0.680, 0, 0, 0.690, 0, 0, 12.925, 1.379, 4.027, 0, 1.333, 0, 0, 0,
0, 0, 0, 0, 0, 5.333, 12.000, 2.667, 0.667, 8.667, 0, 0, 20.000, 0, 0, 0, 0.667, 0.667, 0, 48.667, 0.667, 4.000,
20.667, 5.333, 0, 0.667, 0, 0, 2.000, 6.667, 0, 0, 0.667, 0, 3.333, 2.000, 0, 0.667, 10.667, 2.000, 2.000, 0, 6.081,
0.676, 0, 0, 0, 6.081, 0, 0, 0, 0, 2.667, 0, 0, 0, 0.667, 0.667, 0, 0, 0, 3.333, 0, 0, 2.667, 0.667, 0, 0.667, 50.000,
2.000, 2.667, 1.333, 0, 3.333, 0, 1.333, 0, 0.667, 0.667, 0, 4.027, 0.671, 0, 1.333, 0, 59.333, 0, 0.667, 1.342, 0, 0,
1.333, 18.121, 10.738, 13.423, 0.676, 0, 14.765, 1.342, 0, 0, 1.342, 20.805, 0)
> W <-c(0, 90.244, 0, 0, 2.222, 0, 0, 1.667, 0, 0, 0, 2.500, 0, 0, 0, 0, 0, 0, 1.099, 0, 0, 0, 0, 0, 0.725, 0, 0, 0, 0,
0.709, 0, 0.690, 0, 0, 1.370, 0, 0.685, 0, 0, 22.449, 0, 0, 2.041, 0, 0, 0, 0, 0, 0, 0, 0, 2.041, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 4.730, 0, 0, 0, 0, 0, 3.378, 0, 2.027, 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, 0.671, 0.671, 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, 0, 0, 0, 0, 0, 0, 3.356, 0, 0, 0, 0, 0, 0, 0, 0, 0.676, 0, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 0,
2.027, 0, 0, 0, 0, 0.671, 0, 0.671, 0, 0, 0, 0, 0, 6.711, 0, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0,
0, 0.680, 0, 0, 0, 0, 0, 0, 0, 0.680, 0, 0, 0, 0, 0, 0, 11.724, 0, 93.333, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0.667, 0, 0,
0.667, 0, 0, 0, 0, 0, 0, 0, 0.667, 42.000, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.000, 0, 0,
0.676, 0, 0, 0, 0, 0, 4.730, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0,
4.000, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 0, 2.013, 0, 0, 0, 0, 0, 0, 0, 0, 0)
> Y <-c(0, 0, 0, 0, 0, 2.128, 0, 0, 0, 0, 0, 1.250, 0, 26.829, 0, 0, 0, 0, 0, 0, 17.241, 0, 0, 0, 16.667, 0.725,
13.669, 0, 4.286, 0, 0, 14.483, 41.379, 9.589, 4.795, 0.685, 0, 2.740, 15.068, 0, 0, 0, 0, 0, 0, 0, 10.204, 0, 0,
8.163, 0, 25.850, 0, 0, 8.844, 0, 58.108, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3.378, 0, 13.514, 0, 0.676, 0, 0, 1.351, 0, 2.703,
0, 0, 0, 0, 14.865, 0.676, 10.811, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 2.685, 0, 2.685, 0, 0, 0,
1.342, 2.013, 0, 0.671, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.342, 0.671, 0, 0, 3.356, 0, 4.027, 0, 13.423, 32.886, 0, 7.383, 0,
2.013, 0, 0.671, 0, 0, 0, 0, 0, 0.671, 87.248, 0, 0, 0, 0, 0, 0.671, 0, 0, 0.676, 6.757, 0, 0, 0, 3.378, 6.081, 0, 0, 0, 0,
2.027, 0, 4.027, 0, 0, 0, 0, 0, 0.671, 24.324, 0, 0.671, 1.342, 1.342, 0, 0.671, 0.671, 0, 0, 0, 0.671, 4.027, 0, 1.342,
0, 2.013, 0.671, 0, 0, 0, 0, 0, 0, 2.013, 0, 0, 0, 0, 0, 0, 14.000, 0, 1.333, 8.163, 0, 0, 0, 0.667, 1.333, 0, 10.204, 0,
57.718, 2.759, 12.821, 0, 12.245, 0.690, 0, 0.667, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0.667, 0, 0,
2.667, 0.667, 1.333, 0, 0.667, 0, 0.667, 0, 1.333, 0, 16.000, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 2.000, 0, 0, 4.667,
14.000, 0.667, 1.351, 0.676, 0, 0, 0, 1.351, 0, 14.384, 0, 0, 0.667, 0, 0, 0, 0, 0.667, 1.333, 1.333, 0, 1.333, 0, 0, 0,
0, 1.333, 0, 0.667, 0, 1.333, 0.667, 0, 0, 0, 0, 0.667, 0, 26.667, 0, 1.333, 0, 0, 0, 5.333, 5.333, 0, 0, 0.667, 8.054,
0, 0, 1.333, 0, 0, 0, 0, 0, 0, 1.342, 6.711, 0, 0, 0, 0)
> CS <-c(9, 5, 5, 5, 4, 5, 5, 4, 4, 3, 4, 4, 5, 2, 5, 7, 5, 4, 4, 7, 4, 5, 5, 9, 4, 5, 3, 5, 5, 4, 9, 1, 9, 3, 2, 5, 5,
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4, 5, 8, 4, 3, 9, 4, 9, 5, 2, 9, 3, 8, 4, 4, 8, 8, 9, 5, 4, 4, 6, 8, 6, 7, 8, 4, 9, 9, 6, 4, 8, 6, 9, 5, 3, 9, 3, 9, 4,
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4, 9, 8, 5, 8, 9, 4, 5, 9, 5, 6, 2, 3, 5, 8, 6, 9, 3, 7, 1, 9, 9, 7, 9, 5, 4, 5, 6, 9, 5, 4, 8, 4, 5, 7, 4, 3, 8, 7, 6,
7, 3, 9, 6, 8, 9)
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16.981, 3.704, 2.564, 5.785, 0, 0.800, 0, 4.800, 8.800, 0, 4.000, 82.677, 6.154, 0, 20.155, 6.977, 0, 0, 0, 0, 1.408,
0, 0, 18.750, 0, 0.694, 3.472, 0.690, 0.690, 1.379, 2.055, 1.370, 0, 0, 2.041, 0, 0, 0.671, 0, 6.711, 1.342, 0.671,
0.676, 33.108, 6.040, 1.342, 0, 1.342, 1.342, 0, 2.013, 4.027, 0, 0, 2.013, 0, 0, 0.671, 1.342, 4.027, 0, 0, 4.667,
2.000, 0, 1.333, 0, 0, 1.333, 0, 76.000, 0, 0.671, 0, 0, 2.667, 0, 0, 1.333, 1.333, 0, 0.667, 0, 6.667, 0, 2.667,
2.013, 1.333, 0.667, 0, 0, 0.667, 0, 95.333, 0, 26.667, 0, 0, 1.333, 0.667, 0, 0.671, 0, 0, 0, 0, 0, 4.667, 0, 0, 0,
2.000, 2.000, 18.667, 0, 0, 10.000, 0, 1.333, 0, 0, 1.333, 0, 0, 2.000, 3.333, 0, 6.040, 1.333, 0, 0, 0, 2.000, 7.333,
0, 0.667, 0, 2.000, 0, 0, 0, 0, 21.333, 2.667, 0.667, 0, 10.067, 0, 0, 0.667, 12.667, 0, 3.333, 2.000, 0, 0.667, 0, 0,
1.333, 0, 0, 0, 6.667, 0, 0, 0, 1.342, 0, 0, 0, 8.000, 4.667, 0, 0, 0, 2.667, 1.333, 0, 1.333, 0.667, 0, 0, 0, 12.081,
2.685, 0.671, 0.671, 0, 0, 2.778, 3.731, 1.429, 2.837, 3.521, 8.725, 1.333, 18.667, 4.698, 0, 0, 0, 0, 0, 0, 0, 0,
12.667, 0, 1.333, 0, 0, 1.333, 1.333, 0.667, 0, 0, 0.667, 0, 1.342, 8.725, 8.725, 4.667, 23.333, 1.333, 2.667, 0, 0,
2.667, 88.000, 0, 1.333, 0.667, 2.667, 0, 0.667, 9.333, 3.333, 0, 0, 0, 5.333, 0, 3.356, 0, 0, 7.383, 0, 0, 0.667, 0,
0, 0, 0, 1.333, 0, 0, 0, 2.000, 0, 0, 0, 36.667, 0, 0, 34.667, 6.000, 0, 6.000, 0, 4.667, 5.333, 0, 0, 0.667, 1.333, 0,
2.667, 0, 0, 0, 40.667, 0, 1.333, 2.667, 17.333, 0, 0, 2.000, 5.333, 0, 0.667, 1.333, 16.107, 4.027, 4.027, 0, 0, 0,
33.557, 1.342, 0, 0.671, 0, 0)
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0, 0, 0, 1.342, 0, 0.671, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.013, 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, 0.671, 0, 0, 0, 0,
0, 0, 67.333, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 0,
0.667, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 99.329, 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, 100.000, 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, 18.000, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0.667, 0.667, 1.342, 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, 0, 0, 0, 0, 0, 0, 0, 0, 2.667, 0, 0,
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> Dm <-c(0, 0, 0, 0, 2.222, 0, 0, 0, 0, 0, 0, 0, 0, 1.163, 0, 2.105, 0, 0, 0.943, 1.852, 0, 0.826, 0, 0, 0, 16.000,
7.200, 3.200, 0, 0, 6.923, 0, 5.426, 5.426, 0, 0, 0, 0.725, 14.085, 0, 0, 2.778, 0, 2.083, 0.694, 22.759, 0, 0, 1.370,
0, 19.863, 0, 8.844, 1.342, 0, 1.342, 0, 0, 2.013, 0, 0.676, 0.676, 2.685, 0, 0, 0, 8.054, 0, 10.738, 2.013, 0, 0,
1.342, 0, 37.584, 0, 3.356, 0, 0, 2.667, 0, 0.667, 0, 0.667, 0, 6.667, 2.667, 12.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
51.333, 0, 10.667, 0, 0, 6.711, 4.000, 0, 0, 34.667, 0, 44.000, 0, 0, 1.333, 0, 0, 0.667, 0.667, 0, 0, 2.013, 0, 3.333,
0, 32.000, 2.000, 0, 7.333, 0, 16.000, 56.667, 1.333, 0, 0, 0, 26.000, 24.667, 0, 0, 0.667, 26.000, 0, 1.333, 0, 0, 0,
0, 0, 70.000, 0, 2.667, 3.333, 0, 2.667, 0, 1.333, 0, 0, 0, 0, 4.000, 0.667, 0, 0, 0, 0.667, 0, 0.667, 2.667, 0, 2.000,
8.000, 0, 40.000, 0, 0.667, 1.333, 0, 0.667, 0, 12.667, 0, 0, 0, 0, 10.738, 67.333, 0, 1.333, 0, 0, 0, 0, 0, 2.667, 0,
0, 0.667, 0, 11.333, 0, 10.738, 6.040, 0, 0.671, 0, 0, 6.944, 4.478, 16.429, 17.021, 2.113, 53.691, 0.667, 8.667,
1.342, 0, 0, 0, 0, 0, 0, 2.667, 0, 0, 0, 14.000, 0, 0, 92.000, 0, 0, 6.667, 0.667, 0.667, 0, 4.027, 0.671, 24.832, 0,
0, 0, 0.667, 0, 0, 6.667, 0, 0, 2.000, 0.667, 0, 0, 0, 3.333, 0.667, 0, 0, 0, 2.667, 0, 0, 0, 0, 0, 2.685, 0, 0.667, 0,
19.333, 0, 0, 0.667, 76.667, 0, 88.667, 2.000, 12.667, 0, 0, 1.333, 4.667, 0, 0, 8.667, 0, 12.000, 0, 1.333, 1.333, 0,
92.000, 0, 0, 1.333, 0, 0.667, 0, 0, 0, 0, 0, 2.000, 0, 0, 0, 0, 0, 0, 0, 42.000, 0, 0.671, 0, 0, 36.242, 0, 0, 1.342,
0, 0, 0, 0)
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3.200, 0.800, 3.200, 0, 0, 0, 0.775, 0, 0, 1.504, 0, 1.449, 9.859, 0, 0, 9.722, 0, 0, 4.861, 0, 0, 13.793, 1.370, 0, 0,
0, 19.728, 0, 0, 0, 0, 0, 57.047, 0, 2.027, 16.892, 0, 0, 0, 1.342, 0, 0, 71.141, 16.779, 0, 4.027, 19.463, 0, 34.228,
0, 5.369, 0.671, 0, 6.667, 1.333, 2.667, 0, 0, 0, 0.667, 4.667, 22.000, 0, 0, 2.013, 0.667, 0, 0.667, 0.667, 0, 0.667,
6.000, 0, 0.667, 0, 0, 0, 0.667, 2.685, 4.000, 2.000, 0, 44.667, 0, 8.000, 0, 0, 2.000, 1.333, 0, 1.333, 0, 0, 8.054,
22.148, 0, 0, 0, 0.667, 4.667, 0, 0.667, 0, 1.333, 23.333, 0, 0, 0, 33.333, 38.000, 1.333, 0, 0, 19.333, 2.000, 0,
4.667, 0, 0, 64.430, 18.000, 0, 1.333, 0, 2.667, 4.667, 0, 6.667, 0, 7.333, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 14.000, 0,
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0, 0, 3.333, 0, 0, 0, 0, 4.667, 0, 0, 1.333, 0, 0.671, 0, 0, 0, 0, 1.370, 1.389, 9.701, 20.714, 9.929, 0, 3.356, 1.333,
24.667, 1.342, 0, 0, 0, 0, 0, 0, 2.667, 0, 2.000, 0, 28.000, 0.667, 0, 0, 0, 0, 8.000, 0, 0, 0, 2.013, 2.685, 19.463,
4.000, 0, 6.667, 0.667, 0, 0, 0.667, 0, 0, 22.000, 0, 0, 1.333, 0, 0, 1.333, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 0,
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0.667, 0, 0.667, 0, 0, 0.667, 0, 0.667, 0, 0, 0.667, 0, 2.667, 2.667, 0.667, 0, 0, 13.333, 0.667, 0, 0.667, 25.333, 0,
28.859, 6.040, 0, 0.671, 0, 0, 6.711, 0, 3.356, 0, 0)
> Fm <-c(0, 0, 0, 8.889, 8.889, 4.167, 1.961, 1.852, 13.559, 27.692, 4.839, 5.195, 13.750, 20.482, 2.326, 0, 0, 1.031,
0.971, 0, 21.296, 0, 0, 0, 6.400, 6.400, 0.800, 0, 1.600, 0, 0, 10.769, 8.462, 5.426, 29.457, 0, 0, 5.263, 0.725, 0, 0,
0, 0.694, 0, 0, 0, 0.690, 0, 0, 2.055, 1.370, 17.123, 0, 0, 40.268, 0, 4.027, 2.685, 0, 0, 0.671, 0, 0, 0, 1.342,
64.430, 0, 14.094, 4.698, 0, 0.671, 0, 2.013, 2.013, 0.671, 1.342, 0.671, 0, 0, 0, 15.333, 0, 3.333, 3.333, 0, 0, 0, 0,
0, 0, 99.333, 0.671, 0, 0, 0.667, 0, 0, 0, 4.667, 0, 0.667, 0, 0, 0, 1.333, 4.027, 0, 10.667, 0, 0, 0, 0, 0, 97.333, 0,
0, 0, 19.333, 0, 0, 9.396, 1.342, 0.667, 16.000, 0, 32.667, 2.667, 0, 0, 0.667, 0, 0, 0, 2.000, 0.667, 0, 0, 0, 8.667,
43.333, 0, 0, 0, 2.667, 1.333, 0, 0, 2.000, 0, 0, 0, 25.333, 5.333, 0, 0, 0.667, 0, 0, 1.333, 0, 0.667, 0, 0, 52.000,
99.333, 0.671, 0, 1.333, 0, 0.667, 27.333, 0, 1.333, 2.000, 0, 18.000, 0.667, 18.667, 0, 0, 0.667, 4.000, 0, 10.000, 0,
0, 0, 0, 0.667, 4.000, 0, 78.000, 0, 0, 0, 0.667, 78.667, 1.333, 26.667, 40.000, 0, 1.342, 0.671, 0.671, 0, 1.342,
7.383, 0, 9.722, 0, 2.857, 0.709, 34.507, 0, 0, 0.667, 0, 0, 0, 0, 0, 91.333, 0, 0, 0, 0.667, 56.667, 0, 0.667, 0, 0,
0, 0.667, 0.667, 0, 0, 39.333, 0, 0.671, 0.671, 0, 0.667, 0, 2.000, 87.333, 55.333, 0, 0, 1.333, 0, 0, 0.667, 0, 0.667,
5.333, 2.000, 0.667, 0.667, 24.000, 0, 0, 1.342, 0, 0, 0, 0, 88.667, 0.667, 68.493, 0.667, 0.667, 14.000, 0, 0, 0.667,
0, 0, 9.333, 1.333, 97.333, 0.667, 0, 0, 0.667, 1.333, 0, 0.667, 0, 1.333, 9.333, 20.667, 0, 0, 0, 0, 0, 27.333, 0,
95.333, 0.667, 0, 0, 6.667, 4.667, 4.667, 94.667, 0, 0, 8.667, 0, 0.667, 0, 0, 2.013, 0, 0, 0.671, 14.094, 4.027, 0, 0,
0, 0)
> Gm <-c(0, 0, 2.326, 0, 20.000, 0, 0, 0, 3.390, 24.615, 0, 37.662, 5.000, 1.205, 1.163, 4.301, 13.684, 0, 22.330,
15.094, 0.926, 0, 0, 0, 0, 0, 0.800, 64.000, 1.600, 0.800, 0, 0, 0, 10.078, 7.752, 0.752, 14.286, 0, 0, 1.408, 0, 0, 0,
0, 0, 0.694, 2.759, 0, 0.690, 0.685, 0, 0, 0, 4.082, 2.685, 0, 0, 0, 9.396, 0, 0, 0, 0, 0.671, 0, 0, 0, 24.161, 0,
3.356, 8.054, 0, 1.342, 0.671, 0, 0, 0, 78.523, 6.711, 0, 0, 3.333, 9.333, 0, 0, 0, 31.333, 0.667, 13.333, 1.333, 0,
1.342, 10.000, 0, 2.000, 0.667, 0, 0, 0, 0, 0, 0, 76.000, 0, 3.333, 25.503, 2.000, 0, 0, 0, 0, 10.667, 0.667, 0, 0,
97.333, 0, 1.333, 6.667, 0, 0, 0, 0, 0, 0, 0.667, 2.000, 0, 28.667, 0, 17.333, 6.667, 0, 0, 0, 0.667, 26.000, 19.333,
0, 0, 0, 0.667, 0, 0.667, 0, 0, 0, 1.333, 0, 0.667, 0, 0, 54.667, 0, 2.667, 0, 2.667, 0, 0, 0, 0, 19.333, 0, 0, 0,
2.013, 3.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 2.000, 0, 2.000, 0, 2.000, 1.333, 0, 0, 3.356, 16.779, 0.667, 0, 0,
35.333, 0, 2.000, 92.667, 0.667, 0, 0.667, 0, 0, 0, 4.667, 0, 5.369, 2.013, 0, 1.342, 0, 2.740, 0, 2.239, 5.714,
```

```
10.638, 0.704, 12.081, 0.667, 12.667, 1.342, 0, 66.667, 0, 0, 0, 0, 36.000, 0, 3.333, 0, 6.000, 0.667, 0, 0, 0, 8.000,
24.667, 0, 86.667, 0, 7.383, 0.671, 5.369, 2.667, 0, 9.333, 0, 0, 0, 1.333, 0, 0, 1.333, 96.667, 0, 0, 0, 5.333, 2.667,
0, 0, 0, 3.333, 39.597, 4.027, 0, 100.000, 0, 76.510, 0, 58.000, 0, 0.667, 0.667, 0, 0, 1.333, 0, 0.667, 1.333, 1.333,
0, 0, 0.667, 88.667, 0, 9.333, 2.667, 0, 19.333, 0, 0, 0, 0, 0, 0, 0, 6.667, 47.333, 0.667, 0, 0, 0, 0, 1.333, 0,
14.667, 0, 0, 7.333, 2.667, 0, 16.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.685, 0, 0, 0, 0, 0)
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0.800, 0, 2.400, 0.800, 0.800, 0, 0, 3.846, 0, 3.101, 0, 0, 4.511, 14.286, 10.870, 3.521, 0, 0.694, 1.389, 0, 0, 1.389,
13.103, 0, 0, 35.616, 0, 0.685, 0, 0, 1.342, 0, 8.725, 0, 2.685, 0, 0, 4.730, 0, 0, 0, 0, 0, 4.698, 0, 0, 14.094, 0,
2.013, 2.013, 0, 0, 0, 0.671, 4.027, 0, 4.667, 0, 2.000, 0, 0, 0, 4.000, 0, 0.667, 0, 0, 1.342, 0.667, 0, 0, 4.667, 0,
1.333, 0, 0, 3.333, 0, 0, 0, 5.333, 0.671, 2.000, 4.000, 0, 14.667, 0, 0, 0, 0, 0, 0, 0, 2.667, 16.667, 0, 1.342,
5.369, 0, 8.667, 0, 0, 18.667, 0, 1.333, 0, 0.667, 0, 0, 0, 0, 0, 0, 0.667, 2.000, 0, 0, 2.667, 0, 0.667, 0, 0, 2.013,
4.000, 0, 0, 0, 0, 0, 0, 4.667, 0, 10.667, 2.000, 0, 17.333, 0, 40.000, 0, 0, 0, 0, 1.333, 0, 2.667, 3.333, 0, 11.333,
2.667, 0, 1.333, 0, 0, 6.000, 0, 2.667, 0, 0, 0, 0, 0, 0, 4.698, 0, 0, 6.000, 6.000, 0, 1.333, 0.667, 0.667, 44.667, 0,
0, 3.333, 0, 0, 0, 6.040, 0.671, 0, 25.503, 0, 0, 1.389, 0, 1.429, 0, 0, 0, 0, 3.333, 0.671, 0, 0, 0, 0, 0, 0.667, 0,
0, 1.333, 0, 2.000, 0.667, 0, 0.667, 0, 0, 4.000, 0, 0, 0, 0, 0, 2.013, 0, 0, 1.333, 0.667, 0, 0, 0.667, 0, 0, 1.333,
0, 0, 1.333, 0, 9.333, 35.333, 0, 1.333, 0, 1.333, 41.611, 17.450, 0, 0, 0, 0, 0, 0, 17.123, 11.333, 0.667, 0, 0, 0, 0,
0, 3.333, 4.000, 0, 0, 0, 0, 0, 0.667, 0.667, 0, 0, 0, 8.000, 4.667, 0, 0, 0, 0.667, 18.000, 0, 4.000, 0, 0, 0, 0,
4.000, 0.667, 1.333, 0, 0, 0.667, 10.667, 0, 3.333, 0.667, 0, 0, 0.671, 0, 0, 0, 0.671, 12.081, 0, 1.342, 0, 1.342)
> Im <-c(0, 0, 4.651, 2.222, 4.444, 8.333, 5.882, 1.852, 8.475, 9.231, 40.323, 7.792, 7.500, 0, 3.488, 0, 5.263, 7.216,
0, 0, 11.111, 0, 0.826, 0, 8.000, 30.400, 4.800, 0, 1.600, 23.200, 0, 6.923, 0, 6.977, 0.775, 0, 0, 0, 0, 0, 25.000, 0,
1.389, 3.472, 0, 0.694, 0, 48.966, 2.069, 4.110, 0, 2.740, 0, 0.680, 0.671, 0, 0, 95.302, 0.671, 0, 42.953, 0, 0, 0, 0,
0, 1.342, 0.671, 0, 0, 0, 0.671, 0.671, 7.383, 0, 4.698, 21.477, 0, 0, 0, 0, 0.667, 0, 0.667, 8.000, 86.000, 0, 0, 0,
0, 0, 6.711, 0, 0, 0, 0, 0, 1.333, 9.333, 24.667, 0, 4.667, 1.333, 0.667, 0, 10.000, 27.517, 3.333, 3.333, 7.333, 0, 0, 0,
0, 0, 0, 0, 0, 0.667, 0, 0.671, 0.671, 8.725, 0, 1.333, 0.667, 1.333, 0, 0, 0, 0.667, 0, 0, 0, 71.333, 0, 0, 0, 0,
0.667, 0.667, 0, 0, 0, 4.667, 0, 0, 1.342, 0, 1.333, 1.333, 0.667, 0, 0, 0, 0, 92.667, 0, 0, 18.000, 0, 0, 0, 0, 1.333,
0, 2.685, 0, 0.667, 0, 0, 0, 0.667, 12.000, 16.000, 1.333, 1.333, 0, 1.333, 0, 0, 81.333, 0, 2.000, 42.667, 0, 0, 0, 0,
0, 2.000, 0, 0, 0, 0.667, 0, 0.667, 1.333, 1.333, 2.667, 1.333, 4.000, 3.356, 0, 0, 6.711, 0, 2.685, 2.740, 0, 0,
2.857, 2.128, 2.113, 0, 0, 0, 1.342, 0, 0, 0, 0, 0.667, 2.000, 0, 40.667, 0, 13.333, 2.667, 5.333, 1.333, 0, 9.333, 0,
1.333, 1.333, 0.667, 0, 0, 9.396, 2.013, 18.000, 4.667, 0, 0, 0, 0.667, 0.667, 2.000, 86.000, 0, 0, 0, 1.333, 84.667,
3.333, 2.000, 2.667, 47.333, 4.667, 0, 0, 28.859, 19.463, 0, 0, 0, 0, 0, 0, 0, 18.000, 0, 0, 0, 0, 2.000, 0, 0.667,
0, 0.667, 0, 0, 0, 0, 0, 0, 17.333, 8.000, 22.667, 1.333, 0, 23.333, 0, 0, 0, 0, 95.333, 0, 0.667, 0.667, 0, 0, 0,
10.667, 0, 0, 0, 0, 0, 0, 0, 1.342, 8.725, 25.503, 48.322, 1.342, 20.805, 0, 0, 0, 0.671, 79.866, 0)
> Km <-c(0, 0, 9.302, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.205, 1.163, 3.226, 0, 1.031, 10.680, 0, 0, 2.564, 4.959, 0,
2.400, 0.800, 5.600, 1.600, 0, 12.000, 0, 1.538, 0, 0, 0.775, 15.038, 6.767, 0, 2.174, 1.408, 0, 0, 0.694, 0, 0.694,
14.583, 0, 0, 4.828, 16.438, 0, 0, 0, 0, 2.013, 0, 2.013, 0, 3.356, 1.342, 0, 0, 0.676, 4.698, 0, 0, 0.671, 0, 0,
4.027, 4.698, 0, 5.369, 2.013, 0, 4.698, 0, 1.342, 5.369, 0, 13.333, 0.667, 5.333, 0, 0, 0, 5.333, 36.000, 2.667, 0, 0,
4.698, 3.333, 0, 7.333, 14.667, 0, 7.333, 15.333, 0, 4.667, 0, 0, 0, 17.333, 2.013, 1.333, 6.000, 0, 0, 0.667, 4.667,
0, 0, 0.667, 0, 0, 0, 7.333, 0, 11.409, 4.698, 0, 0.667, 0, 0, 1.333, 0, 6.000, 0, 1.333, 0, 0, 0, 0, 12.667, 1.333,
3.333, 0, 0, 16.667, 0, 0, 0.667, 0, 0, 4.698, 8.000, 0, 0.667, 0, 3.333, 8.667, 0, 19.333, 0, 18.667, 24.000, 0,
7.333, 0, 0, 2.000, 1.333, 0, 0, 8.000, 0, 7.333, 17.333, 0, 44.000, 2.000, 0, 1.333, 0, 52.667, 0.667, 0, 30.000, 0,
14.667, 14.000, 0, 0, 0.671, 0.671, 0, 0, 10.667, 0, 0, 6.000, 0, 92.000, 2.000, 0, 12.667, 0, 0, 12.000, 0, 8.054, 0,
0, 15.436, 0, 0, 0, 5.224, 8.571, 1.418, 0, 0.671, 0.667, 4.667, 51.007, 0, 0.667, 1.333, 0, 0, 35.333, 2.000, 0, 0, 0,
2.667, 0.667, 0, 0.667, 0, 0, 1.333, 0, 0, 0, 1.342, 1.342, 4.027, 24.667, 0, 24.667, 4.667, 0, 0, 30.667, 0, 0,
16.667, 0.667, 0, 32.000, 0, 3.333, 1.333, 0, 25.333, 0, 3.333, 0, 0, 0, 0, 32.215, 0, 0, 0, 0.685, 3.333, 0.667, 0,
46.667, 0, 0, 0, 14.667, 0.667, 0, 0, 12.000, 0, 0, 14.667, 4.000, 0, 1.333, 0, 18.667, 1.333, 0, 0.667, 0, 0, 36.000,
0, 4.000, 0, 0.667, 1.333, 0, 12.000, 5.333, 0, 0, 0, 1.333, 2.667, 0, 39.333, 3.333, 0, 25.503, 1.342, 0, 0, 0, 0,
22.148, 0, 69.128, 0, 0)
> Lm <-c(0, 2.439, 6.977, 73.333, 4.444, 75.000, 9.804, 53.704, 13.559, 3.077, 12.903, 10.390, 32.500, 15.663, 56.977,
4.301, 2.105, 1.031, 13.592, 0, 3.704, 1.709, 1.653, 0.800, 13.600, 19.200, 0, 0, 16.000, 3.200, 2.362, 23.846, 0.769,
1.550, 6.977, 0, 0, 75.188, 2.174, 0, 2.083, 0, 9.028, 53.472, 6.944, 0.694, 0, 0, 1.379, 4.110, 86.301, 28.082,
99.320, 0, 12.752, 0, 2.013, 2.013, 1.342, 2.013, 16.107, 0, 0.676, 0.671, 0, 34.899, 1.342, 25.503, 78.523, 1.342,
1.342, 97.987, 20.134, 30.872, 98.658, 2.685, 69.799, 0, 4.027, 0, 10.000, 2.000, 1.333, 76.667, 2.000, 6.000, 0, 0, 0,
0, 0.667, 17.450, 0, 61.333, 0, 0, 98.000, 3.333, 5.333, 100.000, 0.667, 96.667, 0, 0, 4.000, 8.725, 76.000, 2.000,
84.667, 0, 20.000, 6.667, 0, 2.667, 3.333, 0, 98.000, 2.000, 0.667, 95.302, 4.698, 0.671, 98.667, 8.000, 97.333, 2.000,
0, 0, 0.667, 98.000, 0, 0, 1.333, 0, 98.000, 0, 0, 0, 0.667, 55.333, 0, 0, 98.667, 15.333, 0.667, 100.000, 0, 3.333,
94.667, 0.667, 99.333, 1.333, 0.667, 0, 0, 4.667, 0.667, 0, 74.000, 0, 16.000, 0, 19.333, 20.667, 0.667, 6.711, 0,
63.333, 0, 1.333, 71.333, 0, 2.000, 55.333, 0, 77.333, 0.667, 54.000, 0, 0.667, 2.667, 2.000, 2.000, 31.333, 0, 0, 0,
0, 98.667, 7.333, 0.667, 20.000, 0, 1.333, 0, 0.667, 19.333, 11.333, 37.333, 54.667, 0, 94.631, 0, 0.671, 0.671, 2.685,
81.208, 1.370, 9.722, 1.493, 0.714, 2.128, 7.746, 0, 1.333, 0.667, 0, 0, 1.333, 0, 0, 7.333, 0.667, 0, 4.000, 0.667,
21.333, 0.667, 3.333, 98.667, 0, 74.000, 0, 10.000, 0, 0, 19.333, 0, 5.369, 0.671, 2.667, 14.667, 0.667, 11.333,
10.000, 7.333, 2.000, 0.667, 4.667, 1.333, 0, 0, 3.333, 4.000, 6.000, 0, 95.333, 2.000, 54.667, 0, 2.013, 2.013, 9.396,
0, 0, 0.671, 1.333, 0, 0, 0, 0, 56.000, 2.000, 0, 1.333, 0, 2.000, 1.333, 0, 2.667, 0.667, 0, 100.000, 0, 0, 0, 2.000,
28.000, 13.333, 12.000, 76.667, 0, 67.333, 0, 0, 0, 0, 3.333, 0.667, 0, 98.000, 0.667, 0, 17.333, 15.333, 5.333, 0.667,
0.667, 87.333, 0, 0, 63.087, 3.356, 20.134, 48.993, 1.342, 65.772, 0, 2.013, 0, 1.342, 3.356, 0)

> Mm <-c(97.436, 0, 6.977, 0, 0, 2.083, 0, 7.407, 1.695, 0, 4.839, 1.299, 0, 6.024, 0, 0, 6.316, 3.093, 2.913, 0,
0.926, 0, 0, 0, 0.800, 1.600, 3.200, 0, 0.800, 2.400, 0, 0.769, 0, 0, 3.101, 0.752, 0, 0, 0, 0, 2.083, 0, 0, 0, 0,
1.389, 0, 1.379, 1.379, 0.685, 2.740, 0, 0.680, 0, 18.121, 0, 0, 0, 0.671, 2.685, 0, 0, 0, 1.342, 0, 0.671, 0, 0, 0, 0,
0.671, 1.342, 0, 0.671, 0, 0.671, 4.698, 2.013, 10.067, 0, 0.667, 0, 0, 2.000, 0, 0, 0, 0, 0, 0, 0, 1.342, 0, 0, 0, 0,
0.667, 0.667, 0, 0, 1.333, 1.333, 0, 0, 1.333, 5.369, 3.333, 0, 4.000, 0, 0, 2.000, 0, 0, 0.667, 0, 2.000, 0, 0, 0, 0,
0, 0, 0, 2.000, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 1.333, 0, 0, 0, 0.667, 0, 0, 1.333, 0.667, 0, 0, 0, 10.000, 0, 0, 0,
0.667, 1.333, 0, 0, 0.667, 1.333, 0, 0, 0, 0, 0, 10.667, 0, 0, 0, 0, 34.667, 0, 0.667, 0, 0, 0.667, 1.333, 0, 0, 1.333,
0, 0, 1.333, 2.000, 0, 1.333, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0.667, 2.000, 4.000, 0, 0.671, 0,
0.671, 1.342, 0.671, 5.369, 75.342, 1.389, 0.746, 0, 0, 7.042, 0, 0, 0.667, 0.671, 0, 8.000, 0, 0, 0, 0, 0, 48.667,
1.333, 4.667, 0, 4.000, 0, 0.667, 0.667, 0, 0, 0, 0, 3.333, 0, 2.685, 0, 7.333, 4.667, 0.667, 2.667, 2.000, 0, 0, 0,
4.000, 0.667, 0, 0, 0, 1.333, 0.667, 0, 0, 1.333, 4.667, 0, 0, 0, 67.114, 0, 0, 0, 0, 0, 0, 0, 0, 4.667, 0, 0, 0.667,
0, 0, 0, 1.333, 0, 2.667, 0, 0, 4.667, 0, 0, 0, 0, 0, 2.667, 2.000, 0.667, 0, 5.333, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0, 0, 4.000, 0.667, 0, 0, 3.356, 2.013, 2.013, 0, 1.342, 0, 2.013, 0, 0, 0, 0)
```

```
> Nm <-c(0, 0, 0, 0, 0, 0, 0, 0, 0, 1.538, 0, 0, 0, 2.410, 0, 0, 0, 0, 2.913, 0, 0.926, 0, 1.653, 0, 0, 0, 7.200,
7.200, 4.000, 0, 0, 13.846, 0, 1.550, 6.202, 0.752, 57.143, 0, 2.174, 0, 0, 0, 0.694, 0, 0.694, 15.972, 29.655, 0,
4.828, 6.164, 0, 2.055, 0, 10.204, 8.054, 100.000, 6.040, 0, 3.356, 3.356, 0, 57.432, 0.676, 2.685, 0, 0, 0.671, 3.356,
0, 0.671, 3.356, 0, 0, 2.013, 0, 3.356, 0, 0, 6.040, 0, 3.333, 0.667, 1.333, 0, 2.000, 0, 0, 42.000, 44.667, 0, 0,
1.342, 46.667, 0, 0, 58.667, 0, 0.667, 0.667, 0, 1.333, 0, 0.667, 87.333, 4.000, 6.711, 0, 0, 0, 0.667, 0, 0, 0, 0,
12.667, 0, 0, 0.667, 31.333, 0, 0.671, 12.081, 0, 4.667, 0, 2.000, 3.333, 30.667, 14.000, 0, 18.667, 4.000, 0, 0, 0,
0.667, 6.000, 18.667, 0.667, 0, 0.667, 16.000, 0, 5.333, 1.333, 0, 0, 0, 0, 10.667, 0, 1.333, 0.667, 100.000, 18.000,
0, 0.667, 2.000, 0, 2.667, 0, 3.333, 0.667, 0, 0, 0.671, 61.333, 0, 16.000, 17.333, 0, 5.333, 8.000, 0, 50.667, 0, 0,
1.333, 98.000, 4.000, 0, 7.333, 18.000, 0, 0, 0.671, 2.685, 16.667, 0, 3.333, 6.000, 0, 0, 0, 0, 2.000, 0, 1.333, 0, 0,
38.000, 0, 9.396, 3.356, 56.376, 12.752, 0, 0, 27.778, 6.716, 4.286, 6.383, 0.704, 8.725, 1.333, 4.667, 2.685, 0, 0,
97.333, 0, 0, 0, 53.333, 0, 2.667, 0, 16.667, 0.667, 0, 2.667, 0, 0, 6.667, 82.000, 0, 0, 25.503, 0, 15.436, 3.333, 0,
0, 18.667, 0, 0.667, 18.000, 0, 0, 8.667, 0, 0, 3.333, 0, 6.667, 6.000, 0, 2.000, 0, 2.667, 4.027, 5.369, 0, 0, 0, 0,
0, 0, 0, 40.000, 96.000, 0.667, 0.667, 19.333, 0, 6.000, 15.333, 20.000, 0, 0, 0, 0, 0, 6.000, 31.333, 0.667, 7.333, 0,
6.667, 2.000, 0, 4.667, 0, 0, 14.000, 33.333, 2.667, 0, 1.333, 0.667, 0, 33.333, 7.333, 0, 0, 0, 2.000, 4.000, 0,
0.667, 16.667, 0, 2.013, 2.013, 0, 40.268, 0, 4.698, 5.369, 97.987, 1.342, 0, 96.644)
> Pm <-c(0, 0, 0, 6.667, 2.222, 4.167, 1.961, 0, 0, 0, 0, 1.299, 0, 0, 0, 0, 11.579, 21.649, 0, 0, 0.926, 42.735,
11.570, 0, 0, 0.800, 0, 0, 4.000, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.725, 0, 0.694, 99.306, 25.000, 0, 86.806, 35.417, 0, 0,
0, 0, 0, 0, 0, 1.361, 0, 0, 0, 0, 1.342, 0, 0, 0, 0.676, 0, 0, 0, 44.966, 1.342, 0, 1.342, 0, 0, 0, 0, 0, 0, 0, 0, 0,
0, 0, 6.000, 28.667, 0, 0, 0, 0, 3.333, 0, 0, 0, 0, 0, 0, 44.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 4.667, 0.671, 0, 0, 0, 0,
60.667, 0, 0, 0, 0, 0, 0, 20.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 52.000,
0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0.667, 0, 0.667, 0, 83.333, 0, 38.000, 0, 0, 1.342, 0, 0, 0.667, 0, 0, 0,
0, 0, 0, 0, 0, 0, 0, 0, 4.000, 0, 3.333, 0.667, 0, 0, 0, 6.040, 0, 0, 0, 16.000, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
0, 0, 2.685, 0.671, 0, 2.778, 5.970, 1.429, 2.128, 0.704, 0, 0, 0.667, 0, 0, 12.000, 0, 99.333, 0, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0, 0, 0, 0, 2.667, 0, 0, 0.671, 2.685, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 19.333, 0, 0.667, 0, 0, 0, 0, 0, 0, 0,
4.698, 0, 0, 4.698, 0, 0, 0, 0, 0, 0, 0, 0, 36.000, 0, 96.667, 0, 0, 0, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0.667, 18.667, 0, 0, 0, 0, 28.000, 0, 11.333, 0, 0, 0, 0, 0, 0, 0, 0.671, 0, 0, 0.671, 0,
0)
> Qm <-c(0, 0, 0, 0, 0, 2.083, 62.745, 0, 0, 0, 0, 0, 0, 0, 1.163, 54.839, 1.053, 1.031, 0, 1.887, 0.926, 7.692, 0.826,
0, 1.600, 1.600, 2.400, 1.600, 21.600, 1.600, 0, 0.769, 0, 4.651, 1.550, 24.060, 1.504, 1.504, 7.246, 24.648, 0, 0,
10.417, 0, 0, 0, 0, 0.690, 0, 1.379, 0.685, 0, 0, 0, 2.041, 2.013, 0, 0, 0, 8.725, 13.423, 0, 0.676, 0.676, 0, 0, 0, 0,
1.342, 0, 2.013, 31.544, 0, 51.678, 6.040, 0, 0.671, 0, 4.698, 14.094, 100.000, 2.667, 0.667, 9.333, 0, 0, 0, 2.000,
4.000, 0.667, 0, 0, 2.013, 2.000, 36.000, 0.667, 0.667, 0, 4.000, 2.667, 0, 3.333, 0, 0, 0, 14.000, 1.342, 0, 46.667,
0, 2.000, 3.333, 6.000, 0, 0, 19.333, 0, 0, 1.333, 4.667, 0, 35.570, 4.027, 0, 3.333, 0, 0, 12.667, 0, 4.000, 0, 6.000,
0, 0, 0, 0, 3.333, 0.667, 0, 0, 0, 32.000, 0, 0, 0.667, 0, 0, 8.725, 3.333, 0, 0.667, 0, 0, 0, 0, 28.667, 0, 6.667,
2.667, 0, 31.333, 0, 0, 1.333, 0, 0, 13.423, 1.333, 0, 0.667, 0, 0, 2.667, 11.333, 0, 1.333, 0, 1.333, 0.667, 0,
27.333, 0, 4.000, 6.000, 0, 0, 10.067, 1.342, 0, 0, 4.667, 0, 0, 59.333, 2.000, 0.667, 1.333, 0, 3.333, 0, 0, 2.667, 0,
6.040, 0, 0, 4.027, 0, 1.370, 0, 2.985, 0, 0, 0.704, 0, 0, 12.000, 4.027, 0, 0.667, 0, 0, 0, 1.333, 0, 0, 2.000, 0,
9.333, 0, 0, 0, 0, 0, 4.000, 0.667, 0, 0, 0, 0, 4.027, 6.667, 0, 20.667, 27.333, 0, 0, 4.000, 0.667, 0, 12.667, 0, 0,
32.667, 0, 8.000, 7.333, 0, 2.000, 0, 5.333, 1.342, 0, 0.671, 0, 2.013, 0, 0, 0, 0, 9.333, 0, 0.667, 3.333, 0, 0, 0,
13.333, 3.333, 0, 0, 6.000, 0, 0, 3.333, 2.667, 0, 0, 0, 2.000, 4.667, 0, 0, 0, 0, 8.000, 0.667, 0.667, 0, 0, 0, 0,
30.667, 11.333, 4.000, 0, 0, 17.333, 2.000, 0, 3.333, 1.333, 0, 4.027, 8.054, 0, 0, 0, 0, 23.490, 0, 6.711, 0, 0.671)
> Rm <-c(2.564, 7.317, 4.651, 2.222, 0, 0, 3.922, 0, 0, 0, 0, 1.299, 0, 1.205, 0, 6.452, 0, 2.062, 3.883, 0, 1.852,
17.094, 1.653, 1.600, 4.800, 2.400, 3.200, 1.600, 8.800, 4.800, 0, 1.538, 0, 13.953, 0, 21.805, 5.263, 0, 9.420, 2.113,
0, 0, 2.083, 0, 0, 0.694, 0, 0, 1.379, 8.219, 0, 0, 0, 0, 2.013, 0, 8.054, 0, 28.859, 3.356, 0, 0, 4.054, 0, 0, 0,
16.107, 9.396, 2.685, 2.013, 8.725, 0, 7.383, 2.685, 0, 2.013, 0, 0, 5.369, 0, 11.333, 5.333, 10.667, 0, 2.667, 0,
49.333, 1.333, 1.333, 0, 0, 48.322, 35.333, 0, 19.333, 14.000, 0, 41.333, 17.333, 0, 0.667, 0, 0, 0, 15.333, 2.013, 0,
8.000, 0, 0, 0.667, 17.333, 0, 0, 0.667, 1.333, 0, 1.333, 8.667, 0, 6.711, 1.342, 0, 32.000, 0, 0, 1.333, 0, 3.333,
0.667, 0.667, 1.333, 1.333, 0, 0, 6.000, 1.333, 14.667, 0, 0, 29.333, 0, 0, 8.000, 0, 0, 0, 14.000, 0, 0, 0, 7.333,
1.333, 0, 14.000, 0, 6.000, 44.667, 0, 30.000, 0, 0, 2.000, 0, 0, 7.383, 9.333, 0, 9.333, 11.333, 0, 1.333, 1.333, 0,
0.667, 0, 4.000, 4.000, 0, 13.333, 0, 2.000, 12.000, 0, 0.671, 0, 0.671, 0, 0, 1.333, 0, 0, 26.667, 2.667, 3.333,
5.333, 0, 2.000, 0.667, 0, 2.000, 0, 8.054, 0, 0, 8.725, 0, 1.370, 2.778, 23.881, 2.143, 1.418, 0.704, 0, 0, 0.667,
11.409, 0, 5.333, 0, 0, 0, 56.000, 0.667, 0, 3.333, 0, 1.333, 0.667, 0, 0, 0, 0, 3.333, 0, 0.667, 0, 0.671, 0, 2.013,
5.333, 0, 25.333, 14.000, 0, 0, 14.667, 0, 0, 13.333, 0, 0, 3.333, 0, 0.667, 0, 0, 3.333, 0, 4.000, 1.342, 0, 0, 0,
16.107, 0, 0, 0, 0, 3.333, 0.667, 0, 7.333, 0, 0, 0, 18.667, 3.333, 0, 0, 0.667, 0, 0, 6.000, 27.333, 0.667, 1.333, 0,
20.000, 3.333, 0, 0, 0, 0, 9.333, 0, 18.000, 0, 0, 0, 0, 4.667, 11.333, 16.000, 0, 0, 5.333, 0.667, 0, 4.000, 0.667, 0,
4.027, 0.671, 0, 1.342, 0, 0, 5.369, 0, 10.067, 0, 0)
> Sm <-c(0, 0, 0, 0, 6.667, 0, 0, 1.852, 0, 1.538, 0, 3.896, 15.000, 8.434, 1.163, 13.978, 0, 8.247, 1.942, 7.547,
8.333, 22.222, 54.545, 0, 32.000, 18.400, 5.600, 2.400, 23.200, 0, 10.236, 6.154, 0, 13.953, 23.256, 0.752, 6.015, 0,
5.072, 10.563, 0, 0, 3.472, 0, 1.389, 12.500, 6.897, 0, 0.690, 2.740, 0, 4.110, 0, 37.415, 2.685, 0, 10.738, 0, 28.188,
0.671, 0, 7.432, 35.135, 17.450, 96.644, 0, 27.517, 3.356, 0, 0, 1.342, 0, 0, 0.671, 0, 3.356, 0, 0.671, 12.752, 0,
2.000, 5.333, 10.000, 0, 2.667, 0, 0, 3.333, 0.667, 10.000, 0, 10.067, 0.667, 0, 18.000, 4.000, 0, 0.667, 5.333, 0,
0.667, 0, 4.667, 11.333, 2.000, 0, 0.667, 2.000, 0, 3.333, 2.000, 0, 2.667, 0, 2.667, 0, 0, 38.000, 22.000, 0, 5.369,
7.383, 0, 2.667, 0, 2.000, 12.000, 2.000, 28.667, 0, 19.333, 6.000, 71.333, 0, 0, 25.333, 0.667, 12.667, 0, 0, 0,
0.667, 0, 23.333, 92.667, 0, 2.685, 1.333, 0, 4.667, 0, 45.333, 4.000, 0, 0, 0, 2.667, 16.667, 0, 4.667, 0, 12.000,
20.000, 20.000, 0, 23.490, 0.667, 0, 8.000, 22.667, 0, 4.000, 20.000, 0, 2.000, 0.667, 30.667, 5.333, 0, 1.333, 0,
20.000, 22.000, 0, 0, 0, 21.477, 0, 0, 2.667, 30.000, 0, 0, 0, 0, 3.333, 0, 25.333, 4.667, 0, 21.333, 0, 28.188,
79.195, 0.671, 9.396, 0, 2.740, 13.889, 13.433, 5.000, 24.823, 7.746, 3.356, 1.333, 2.667, 8.054, 0, 2.667, 1.333,
0.667, 0, 2.000, 1.333, 0, 38.000, 0, 4.667, 14.667, 0, 0.667, 0, 89.333, 18.667, 8.667, 6.667, 0, 39.597, 2.013,
2.685, 3.333, 6.667, 2.000, 1.333, 0, 18.000, 4.000, 2.000, 0, 8.000, 1.333, 19.333, 1.333, 0, 31.333, 32.667, 0, 0, 0,
64.000, 2.685, 14.765, 0, 0, 37.584, 20.134, 4.000, 36.000, 0.685, 6.667, 0.667, 4.667, 0, 0, 0, 2.667, 6.000, 37.333,
0, 0, 4.667, 5.333, 0, 4.667, 6.000, 98.667, 45.333, 0, 2.667, 13.333, 0, 0.667, 0, 96.000, 2.000, 12.667, 12.667, 0,
1.333, 48.667, 0, 6.000, 25.333, 17.333, 0.667, 0, 45.333, 16.667, 0, 10.667, 3.333, 0, 1.342, 10.738, 0, 6.711, 0,
44.966, 8.054, 2.013, 4.027, 0, 0.671)
> Tm <-c(0, 2.439, 60.465, 0, 2.222, 0, 0, 0, 1.695, 4.615, 14.516, 1.299, 0, 1.205, 4.651, 2.151, 2.105, 10.309,
19.417, 0, 10.185, 1.709, 4.959, 0, 16.800, 3.200, 4.800, 1.600, 3.200, 1.600, 0, 0, 0, 5.426, 0, 0, 1.504, 0, 39.855,
4.930, 0, 0, 1.389, 0, 0.694, 6.944, 13.793, 37.241, 44.138, 2.740, 0, 0, 0, 13.605, 0.671, 0, 0, 0, 3.356, 9.396, 0,
24.324, 3.378, 63.758, 0.671, 0, 1.342, 0, 0.671, 0, 2.013, 0, 0.671, 1.342, 0, 0.671, 0, 0.671, 22.819, 0, 9.333,
21.333, 4.000, 0, 44.000, 0, 0, 0.667, 0, 12.000, 0, 1.342, 0.667, 1.333, 2.667, 0.667, 0, 26.667, 5.333, 0, 0, 0, 0,
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1.333, 5.333, 0, 0.667, 2.667, 0, 0, 9.333, 0.667, 1.333, 0, 4.000, 0, 0, 2.000, 0, 0, 13.423, 9.396, 0, 8.000, 0,
12.667, 1.333, 0, 1.333, 0, 14.667, 0, 4.000, 0, 0, 6.667, 0, 0.667, 0, 0, 0, 0, 0, 4.000, 0, 0, 7.383, 26.000, 0,
0.667, 0, 1.333, 0.667, 0, 1.333, 0, 25.333, 4.000, 0, 2.000, 0, 0, 2.000, 2.667, 0, 3.356, 0, 0, 50.667, 0, 0, 22.000,
10.000, 0, 0, 0, 0, 0, 2.000, 0.667, 0, 4.000, 16.000, 0.667, 0, 0, 7.383, 0, 0, 15.333, 0, 0, 0, 0, 0, 14.667, 0,
34.000, 1.333, 0, 2.000, 0, 2.013, 2.013, 13.423, 7.383, 0, 9.589, 4.167, 17.164, 0, 2.128, 2.817, 3.356, 0, 4.000,
11.409, 0, 2.667, 0, 0, 0, 0.667, 0, 0.667, 22.000, 0, 10.000, 55.333, 0, 0, 0, 1.333, 3.333, 5.333, 0, 0, 16.107,
20.134, 4.698, 14.667, 29.333, 2.667, 0, 0, 0, 12.667, 4.000, 0.667, 8.667, 0, 74.667, 0, 1.333, 3.333, 3.333, 0,
4.667, 0.667, 4.000, 0, 14.094, 0.671, 0, 0, 0, 0, 0, 0.685, 1.333, 0, 1.333, 0, 0, 0, 1.333, 0, 4.000, 96.667, 0,
4.000, 0, 0, 2.000, 2.667, 0, 2.667, 0, 3.333, 9.333, 0, 0, 0, 1.333, 1.333, 0.667, 0, 0, 0, 3.333, 0, 1.333, 2.667, 0,
4.667, 0, 2.667, 16.000, 0, 8.000, 2.667, 1.342, 6.711, 4.698, 0, 12.081, 0, 0.671, 0.671, 0, 0, 0, 0.671)
> Vm <-c(0, 0, 2.326, 0, 11.111, 0, 0, 33.333, 45.763, 16.923, 17.742, 7.792, 25.000, 7.229, 1.163, 2.151, 48.421,
26.804, 1.942, 0.943, 5.556, 0, 9.917, 0, 2.400, 14.400, 4.800, 0, 4.000, 40.000, 4.724, 1.538, 0, 1.550, 0.775, 0, 0,
0, 3.623, 0, 70.139, 0, 7.639, 43.056, 0, 0, 0, 11.724, 22.069, 2.055, 8.219, 0, 0, 0, 2.013, 0, 0, 0, 0.671, 2.685,
39.597, 2.027, 3.378, 0, 0, 0, 1.342, 0.671, 0.671, 1.342, 0, 0, 2.685, 16.779, 0.671, 1.342, 2.685, 1.342, 0, 0,
0.667, 47.333, 1.333, 17.333, 36.000, 8.000, 0, 0, 0, 0.667, 0, 0.671, 0, 1.333, 0, 0, 0, 2.667, 8.667, 0, 25.333,
0.667, 0.667, 0, 7.333, 3.356, 0.667, 11.333, 4.000, 0, 2.667, 0, 0, 0, 26.000, 0, 0, 2.667, 0, 4.027, 0.671, 19.463,
0.667, 3.333, 0, 1.333, 0, 0, 0, 0, 0, 0, 2.000, 26.667, 1.333, 0, 0, 0, 5.333, 0, 0, 0, 0, 22.667, 0, 0, 2.013, 1.333,
4.000, 8.000, 0, 0, 0.667, 0, 1.333, 1.333, 12.667, 0, 6.000, 0, 0, 0, 0.667, 0.667, 0, 5.369, 0, 0, 0, 6.667, 0.667,
0.667, 10.000, 25.333, 0.667, 2.667, 1.333, 0, 0, 0.667, 13.333, 0.667, 2.667, 14.000, 0, 0, 0, 0, 0.667, 30.667, 0,
2.000, 0, 0, 0, 2.000, 0, 0.667, 10.667, 0, 0.667, 0, 1.342, 0, 20.134, 0, 2.685, 1.370, 0, 0.746, 14.286, 0.709,
27.465, 4.698, 0, 0.667, 0, 0, 0, 0, 0, 0, 0.667, 0, 6.000, 6.667, 4.000, 0, 12.000, 0, 0.667, 14.667, 0, 0, 0.667, 0,
0, 0, 44.966, 0, 2.000, 15.333, 4.667, 0, 0.667, 0, 0.667, 2.667, 3.333, 0, 0, 2.667, 0.667, 7.333, 0.667, 0, 1.333,
10.000, 2.667, 0, 1.342, 1.342, 2.013, 0, 0, 0, 4.000, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 1.333, 0, 0, 0, 2.000, 0, 0,
4.667, 1.333, 0, 0.667, 54.667, 2.000, 7.333, 0.667, 0.667, 3.333, 0, 0.667, 0, 0, 1.333, 0, 2.667, 1.333, 0, 0.667, 0,
64.000, 0, 1.333, 0.667, 0, 0, 1.333, 18.121, 7.383, 11.409, 0.671, 0, 11.409, 0, 0.671, 0, 0.671, 16.779, 0)
> Wm <-c(0, 87.805, 0, 0, 2.222, 0, 0, 0, 0, 1.538, 0, 0, 0, 0, 1.163, 0, 0, 0, 0, 0, 0, 0, 0.826, 0, 0, 0, 0, 0,
0.800, 1.600, 0, 0.769, 0, 0, 1.550, 0, 1.504, 0, 0, 26.056, 0, 0, 3.472, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0.671, 0, 0,
0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.342, 0, 0, 0, 0, 2.013, 0, 0, 0, 0, 0, 1.342, 0, 1.333, 0, 0, 0, 0, 0, 0.667, 0, 0, 0,
0, 0, 0, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0, 0, 0.667, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333,
0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.667, 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, 0.667, 0, 0.667, 0, 1.333, 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, 1.333, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 0, 1.493, 0.714, 14.894, 1.408, 0, 90.667, 0, 0, 0, 0, 0, 0, 0, 0,
0.667, 0, 3.333, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1.333, 38.000, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2.000, 0, 0, 0, 0,
1.333, 0, 0, 0, 0, 0, 0, 0, 0.671, 0, 0, 0, 0, 3.333, 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, 5.333, 0, 0, 0, 0, 0.667, 0.667, 1.333, 0, 0, 0, 0, 0, 0.667, 0, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0)
> Ym <-c(0, 0, 0, 0, 0, 2.083, 0, 0, 0, 0, 0, 2.597, 0, 19.277, 1.163, 0, 1.053, 0, 0.971, 0, 22.222, 0, 0, 0, 8.800,
0, 14.400, 0, 4.000, 1.600, 0, 14.615, 25.385, 5.426, 5.426, 0, 0, 3.759, 13.768, 0, 0, 0, 1.389, 0, 0, 0, 8.966, 0, 0,
8.904, 0, 25.342, 0, 0, 2.685, 0, 55.034, 0, 0, 0.671, 0, 0, 0, 0, 0, 0, 2.013, 0.671, 12.752, 0, 0.671, 0, 0, 2.013,
0, 2.685, 0, 0, 0.671, 0, 15.333, 0.667, 8.000, 0, 0.667, 0, 0, 0, 1.333, 0, 0, 0, 0, 0, 1.333, 1.333, 0, 0, 2.000, 0,
0.667, 0, 0, 0, 0.667, 0.671, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3.333, 0.667, 0, 0.671, 1.342, 0, 6.667, 0, 12.667,
32.667, 0, 3.333, 0, 0.667, 0, 0, 0, 0, 0, 0, 0.667, 82.000, 0, 0, 0, 0, 0, 0.667, 0, 0.671, 6.000, 0, 0.667, 0, 4.000,
6.000, 0, 0, 0, 0.667, 4.000, 0, 2.667, 0, 0, 0, 0.667, 0, 22.148, 0, 0, 2.667, 1.333, 0, 0, 2.000, 0, 0, 0, 0.667,
2.000, 0, 1.333, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 0, 2.000, 0, 0, 0, 0, 0, 0, 17.333, 0, 0, 8.000, 0, 0, 0, 1.342, 1.342, 0,
6.040, 0, 0, 15.278, 0, 11.429, 0.709, 0, 1.342, 0.667, 0, 0, 0, 0, 0, 0, 0.667, 0.667, 0.667, 0, 0, 0, 0.667, 0.667,
0, 0.667, 0, 0, 7.333, 0.667, 0, 0, 2.013, 0, 0.671, 0, 0.667, 0, 13.333, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0, 1.333,
1.333, 0, 0, 8.000, 2.000, 4.698, 2.685, 0, 0, 0, 0, 2.000, 0, 12.329, 0.667, 0, 0, 0, 0, 0, 0, 2.667, 0, 0, 0, 0, 0,
0, 0, 1.333, 0, 0, 0, 1.333, 0.667, 0, 0.667, 0, 0, 2.000, 0, 22.000, 0, 0.667, 0, 0, 0.667, 2.000, 5.333, 0, 0, 0.667,
9.333, 0, 0, 0.667, 0, 0, 0, 0, 0, 0, 0.671, 2.013, 0, 0, 0, 0)
> CSm <-c(9, 4, 4, 4, 4, 4, 5, 4, 4, 3, 4, 3, 4, 2, 5, 5, 4, 3, 4, 6, 3, 4, 5, 9, 4, 6, 2, 4, 4, 4, 8, 1, 8, 3, 1, 5,
5, 6, 4, 4, 8, 9, 3, 8, 7, 4, 5, 7, 6, 4, 7, 5, 9, 5, 3, 9, 4, 9, 4, 5, 7, 8, 6, 6, 9, 9, 7, 4, 7, 5, 3, 9, 4, 3, 9, 5,
6, 6, 2, 9, 1, 5, 2, 8, 5, 8, 7, 6, 6, 8, 9, 4, 7, 9, 5, 6, 9, 4, 3, 9, 6, 8, 7, 9, 1, 3, 5, 4, 7, 8, 6, 6, 9, 9, 6, 9,
9, 4, 4, 9, 4, 3, 9, 4, 9, 5, 2, 9, 4, 9, 5, 4, 8, 8, 9, 5, 4, 5, 6, 8, 6, 8, 9, 4, 9, 9, 6, 4, 8, 5, 9, 4, 3, 9, 3, 8,
4, 5, 7, 4, 9, 7, 4, 7, 9, 4, 6, 8, 6, 5, 7, 5, 3, 6, 7, 7, 6, 4, 9, 2, 8, 4, 5, 6, 9, 8, 4, 8, 9, 4, 7, 8, 6, 8, 9, 4,
8, 4, 3, 5, 5, 8, 4, 7, 7, 3, 6, 7, 3, 3, 1, 3, 4, 4, 5, 3, 3, 9, 7, 9, 9, 8, 5, 7, 6, 5, 6, 3, 5, 9, 8, 6, 9, 1, 7, 6,
5, 5, 4, 3, 2, 5, 4, 5, 7, 5, 4, 8, 8, 3, 8, 9, 5, 8, 3, 5, 8, 5, 4, 5, 7, 3, 5, 9, 5, 7, 7, 9, 5, 4, 9, 4, 5, 8, 9, 8,
3, 4, 9, 9, 5, 8, 9, 3, 4, 9, 5, 6, 1, 2, 6, 8, 6, 9, 3, 7, 1, 9, 8, 7, 9, 5, 3, 4, 6, 9, 5, 4, 8, 4, 4, 6, 3, 3, 8, 7,
5, 7, 2, 9, 5, 8, 9)
>
> library(generalCorr)
Loading required package: np
Nonparametric Kernel Methods for Mixed Datatypes (version 0.60-17)
[vignette("np_faq",package="np") provides answers to frequently asked questions]
[vignette("np",package="np") an overview]
[vignette("entropy_np",package="np") an overview of entropy-based methods]
Loading required package: xtable
Loading required package: meboot
Loading required package: dynlm
Loading required package: zoo

Attaching package: ‘zoo’

The following objects are masked from ‘package:base’:

    as.Date, as.Date.numeric

Loading required package: nlme
Loading required package: tdigest
```

```
Loading required package: hdrcde
This is hdrcde 3.4
Loading required package: psych
Loading required package: lattice
> # For dependence
> cor.test(A, Am,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  A and Am
t = 108.06, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9832604 0.9891682
sample estimates:
      cor
0.9865323

> gmcxy_np(A,Am)
$corxy
[1] 0.9768076

$coryx
[1] 0.9808673

>
> cor.test(C, Cm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  C and Cm
t = 172.08, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9933105 0.9956791
sample estimates:
      cor
0.9946233

> gmcxy_np(C,Cm)
$corxy
[1] 0.998571

$coryx
[1] 0.9987444

>
> cor.test(D, Dm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  D and Dm
t = 127.17, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9878403 0.9921381
sample estimates:
      cor
0.9902214

> gmcxy_np(D,Dm)
$corxy
[1] 0.9846439

$coryx
[1] 0.9815585

>
> cor.test(E, Em,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  E and Em
t = 102.21, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9813358 0.9879187
sample estimates:
```

```
     cor
0.984981

> gmcxy_np(E,Em)
$corxy
[1] 0.9733297

$coryx
[1] 0.9821826

>
> cor.test(F, Fm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  F and Fm
t = 120.22, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9864189 0.9912169
sample estimates:
      cor
0.9890769

> gmcxy_np(F,Fm)
$corxy
[1] 0.9794569

$coryx
[1] 0.9797753

>
> cor.test(G, Gm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  G and Gm
t = 153.66, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9916296 0.9945917
sample estimates:
      cor
0.9932712

> gmcxy_np(G,Gm)
$corxy
[1] 0.9900804

$coryx
[1] 0.9865401

>
> cor.test(H, Hm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  H and Hm
t = 56.134, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9413933 0.9617922
sample estimates:
      cor
0.9526531

> gmcxy_np(H,Hm)
$corxy
[1] 0.9114943

$coryx
[1] 0.9357865

>
> cor.test(I, Im,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation
```

```
data:  I and Im
t = 158.83, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9921597 0.9949347
sample estimates:
      cor
0.9936977

> gmcxy_np(I,Im)
$corxy
[1] 0.9902279

$coryx
[1] 0.9881657

>
> cor.test(K, Km,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  K and Km
t = 91.502, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9768516 0.9850041
sample estimates:
      cor
0.9813644

> gmcxy_np(K,Km)
$corxy
[1] 0.9646496

$coryx
[1] 0.9563033

>
> cor.test(L, Lm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  L and Lm
t = 236.83, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9964537 0.9977107
sample estimates:
      cor
0.9971506

> gmcxy_np(L,Lm)
$corxy
[1] 0.9951961

$coryx
[1] 0.9951056

>
> cor.test(M, Mm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  M and Mm
t = 30.792, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.8338616 0.8895592
sample estimates:
      cor
0.8643372

> gmcxy_np(M,Mm)
$corxy
[1] 0.9886185

$coryx
[1] 0.7476899
```

```
>
> cor.test(N, Nm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  N and Nm
t = 158.24, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9921019 0.9948973
sample estimates:
      cor
0.9936512

> gmcxy_np(N,Nm)
$corxy
[1] 0.9909176

$coryx
[1] 0.9976535

>
> cor.test(P, Pm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  P and Pm
t = 203.97, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9952267 0.9969179
sample estimates:
      cor
0.9961642

> gmcxy_np(P,Pm)
$corxy
[1] 0.9930575

$coryx
[1] 0.9948413

>
> cor.test(Q, Qm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  Q and Qm
t = 116.93, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9856581 0.9907236
sample estimates:
      cor
0.9884641

> gmcxy_np(Q,Qm)
$corxy
[1] 0.979058

$coryx
[1] 0.980135

>
> cor.test(R, Rm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  R and Rm
t = 69.371, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9605989 0.9744011
sample estimates:
      cor
0.9682292
```

```
> gmcxy_np(R,Rm)
$corxy
[1] 0.9510369

$coryx
[1] 0.9412085

>
> cor.test(S, Sm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  S and Sm
t = 83.768, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9725392 0.9821967
sample estimates:
      cor
0.9778833

> gmcxy_np(S,Sm)
$corxy
[1] 0.9670036

$coryx
[1] 0.9594972

>
> cor.test(T, Tm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  T and Tm
t = 102.13, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9813095 0.9879015
sample estimates:
      cor
0.9849598

> gmcxy_np(T,Tm)
$corxy
[1] 0.9843972

$coryx
[1] 0.9724789

>
> cor.test(V, Vm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  V and Vm
t = 65.037, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9554846 0.9710519
sample estimates:
      cor
0.9640872

> gmcxy_np(V,Vm)
$corxy
[1] 0.9660315

$coryx
[1] 0.9332861

>
> cor.test(W, Wm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  W and Wm
t = 116.38, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
```

```
95 percent confidence interval:
 0.9855253 0.9906375
sample estimates:
      cor
0.9883571

> gmcxy_np(W,Wm)
$corxy
[1] 0.9839986

$coryx
[1] 0.9845734

>
> cor.test(Y, Ym,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  Y and Ym
t = 34.086, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.8590223 0.9067139
sample estimates:
      cor
0.8851715

> gmcxy_np(Y,Ym)
$corxy
[1] 0.7874353

$coryx
[1] 0.8497681

>
>
>
>
>
> cor.test(CS, CSm,alternative = "two.sided", method = "pearson", exact=FALSE )

    Pearson's product-moment correlation

data:  CS and CSm
t = 54.539, df = 321, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9381897 0.9596805
sample estimates:
      cor
0.9500491

> gmcxy_np(CS,CSm)
$corxy
[1] 0.9036703

$coryx
[1] 0.9057327

>
>
```