semmcci: Internal Tests

Ivan Jacob Agaloos Pesigan

Tests

```
#> test-semmcci-mc-latent-med-defined-none
#> Test passed
#> Test passed
#> Test passed

#> test-semmcci-mc-latent-med-defined

#> Test passed
#> Test passed
#> Test passed

#> test-semmcci-mc-latent-med-std-defined-none

#> Test passed
#> Test passed
#> Test passed

#> test-semmcci-mc-latent-med-std-defined

#> Test passed
#> Test passed
#> Test passed

#> test-semmcci-mc-moment

#> Test passed

#> test-semmcci-mc-simple-med-defined-equality

#> Test passed
#> Test passed
#> Test passed

#> test-semmcci-mc-simple-med-defined-inequality

#> Test passed
#> Test passed
#> Test passed
```

```
#> test-semmcci-mc-simple-med-defined-meanstructure

#> Test passed
#> Test passed
#> Test passed

#> test-semmcci-mc-simple-med-defined-mi-amelia

#> Test passed

#> test-semmcci-mc-simple-med-defined-mi-list

#> Test passed

#> test-semmcci-mc-simple-med-defined-mi-mice

#> Test passed

#> test-semmcci-mc-simple-med-defined-none

#> Test passed
#> Test passed
#> Test passed

#> test-semmcci-mc-simple-med-defined

#> Test passed
#> Test passed
#> Test passed

#> test-semmcci-mc-simple-med-std-defined-meanstructure

#> Test passed
#> Test passed
#> Test passed

#> test-semmcci-mc-simple-med-std-defined-none-random-x

#> Test passed
#> Test passed
#> Test passed

#> test-semmcci-mc-simple-med-std-defined-none

#> Test passed
#> Test passed
#> Test passed

#> test-semmcci-mc-simple-med-std-defined

#> Test passed
#> Test passed
#> Test passed
```

```
#> test-semmcci-mc-methods

#> Monte Carlo Confidence Intervals
#>                      est     se   R  0.05%   0.5%   2.5%  97.5%  99.5% 99.95%
#> visual=~x1        1.0000 0.0000 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
#> visual=~x2        0.5535 0.0851 100 0.3738 0.3801 0.4111 0.7069 0.7566 0.7934
#> visual=~x3        0.7294 0.1129 100 0.4432 0.4670 0.5194 0.9412 1.0133 1.0448
#> textual=~x4       1.0000 0.0000 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
#> textual=~x5       1.1131 0.0740 100 0.9012 0.9036 0.9743 1.2389 1.2884 1.3164
#> textual=~x6       0.9261 0.0497 100 0.7862 0.8082 0.8447 1.0261 1.0351 1.0362
#> speed=~x7         1.0000 0.0000 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
#> speed=~x8         1.1800 0.1787 100 0.7132 0.7419 0.8338 1.5397 1.5780 1.5890
#> speed=~x9         1.0815 0.1491 100 0.6585 0.6751 0.8369 1.3378 1.3956 1.3985
#> x1~~x1            0.5491 0.1205 100 0.1912 0.2515 0.3346 0.7569 0.8962 0.9256
#> x2~~x2            1.1338 0.0971 100 0.8916 0.9177 0.9593 1.3115 1.3887 1.3958
#> x3~~x3            0.8443 0.0985 100 0.6372 0.6405 0.6749 1.0591 1.0736 1.0818
#> x4~~x4            0.3712 0.0516 100 0.2246 0.2435 0.2753 0.4696 0.4926 0.4984
#> x5~~x5            0.4463 0.0600 100 0.3032 0.3164 0.3454 0.5780 0.5981 0.6014
#> x6~~x6            0.3562 0.0438 100 0.2473 0.2496 0.2772 0.4357 0.4436 0.4468
#> x7~~x7            0.7994 0.0797 100 0.6213 0.6251 0.6442 0.9429 0.9651 0.9686
#> x8~~x8            0.4877 0.0748 100 0.3308 0.3334 0.3450 0.6169 0.6560 0.6808
#> x9~~x9            0.5661 0.0713 100 0.4014 0.4073 0.4276 0.6973 0.7165 0.7236
#> visual~~visual    0.8093 0.1465 100 0.3995 0.4071 0.5360 1.0577 1.0967 1.1043
#> textual~~textual  0.9795 0.1083 100 0.6714 0.7159 0.7782 1.1680 1.1925 1.1950
#> speed~~speed      0.3837 0.0884 100 0.1544 0.1708 0.2167 0.5415 0.5563 0.5589
#> visual~~textual   0.4082 0.0714 100 0.2542 0.2624 0.2772 0.5271 0.5826 0.6178
#> visual~~speed     0.2622 0.0564 100 0.1259 0.1298 0.1506 0.3469 0.3632 0.3733
#> textual~~speed    0.1735 0.0468 100 0.0625 0.0640 0.0757 0.2577 0.2708 0.2736
#> Monte Carlo Confidence Intervals (Multiple Imputation Estimates)
#>                      est     se   R  0.05%   0.5%   2.5%  97.5%  99.5% 99.95%
#> visual=~x1        1.0000 0.0000 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
#> visual=~x2        0.5535 0.0919 100 0.3218 0.3285 0.3544 0.6976 0.7170 0.7196
#> visual=~x3        0.7294 0.1264 100 0.3836 0.4125 0.4715 0.9794 1.0299 1.0548
#> textual=~x4       1.0000 0.0000 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
#> textual=~x5       1.1131 0.0735 100 0.9373 0.9463 0.9814 1.2514 1.3123 1.3390
#> textual=~x6       0.9261 0.0611 100 0.7444 0.7574 0.7980 1.0413 1.0609 1.0697
#> speed=~x7         1.0000 0.0000 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
#> speed=~x8         1.1800 0.1759 100 0.7800 0.7870 0.8411 1.5117 1.5670 1.5904
#> speed=~x9         1.0815 0.1521 100 0.6003 0.6364 0.7470 1.3062 1.3804 1.4377
#> x1~~x1            0.5491 0.1140 100 0.2490 0.2914 0.3816 0.7508 0.7770 0.7792
#> x2~~x2            1.1338 0.1037 100 0.9012 0.9254 0.9640 1.3184 1.3307 1.3343
#> x3~~x3            0.8443 0.0883 100 0.6317 0.6433 0.6882 1.0052 1.0318 1.0332
#> x4~~x4            0.3712 0.0417 100 0.2475 0.2625 0.3075 0.4541 0.4756 0.4808
#> x5~~x5            0.4463 0.0571 100 0.3016 0.3182 0.3439 0.5648 0.5787 0.5902
#> x6~~x6            0.3562 0.0419 100 0.2676 0.2728 0.2835 0.4421 0.4812 0.5106
#> x7~~x7            0.7994 0.0951 100 0.5936 0.5947 0.6044 0.9951 1.0335 1.0356
```

3

```
#> x8~~x8          0.4877 0.0724 100 0.2941 0.2968 0.3474 0.6136 0.6406 0.6557
#> x9~~x9          0.5661 0.0715 100 0.3783 0.3792 0.4040 0.7007 0.7566 0.7659
#> visual~~visual  0.8093 0.1449 100 0.4833 0.5126 0.5611 1.0844 1.1653 1.1773
#> textual~~textual 0.9795 0.1222 100 0.6242 0.6703 0.7485 1.2214 1.2703 1.2891
#> speed~~speed    0.3837 0.0870 100 0.1837 0.1908 0.2298 0.5730 0.5864 0.5956
#> visual~~textual 0.4082 0.0683 100 0.2639 0.2735 0.2954 0.5465 0.5998 0.6366
#> visual~~speed   0.2622 0.0525 100 0.1631 0.1637 0.1684 0.3716 0.3982 0.4116
#> textual~~speed  0.1735 0.0509 100 0.0854 0.0877 0.0932 0.2808 0.3155 0.3227
#> Standardized Monte Carlo Confidence Intervals
#>                   est     se   R  0.05%   0.5%   2.5%  97.5%  99.5% 99.95%
#> visual=~x1       0.7719 0.0608 100 0.5640 0.5802 0.6309 0.8571 0.8932 0.9196
#> visual=~x2       0.4236 0.0551 100 0.2923 0.2997 0.3156 0.5083 0.5400 0.5583
#> visual=~x3       0.5811 0.0584 100 0.4110 0.4199 0.4405 0.6736 0.6849 0.6867
#> textual=~x4      0.8516 0.0253 100 0.7743 0.7821 0.7955 0.8891 0.9001 0.9015
#> textual=~x5      0.8551 0.0227 100 0.7899 0.7957 0.8040 0.8885 0.9023 0.9118
#> textual=~x6      0.8380 0.0216 100 0.7869 0.7909 0.7975 0.8770 0.8844 0.8855
#> speed=~x7        0.5695 0.0589 100 0.3793 0.4028 0.4420 0.6583 0.6668 0.6728
#> speed=~x8        0.7230 0.0556 100 0.5237 0.5543 0.6016 0.8091 0.8309 0.8329
#> speed=~x9        0.6650 0.0550 100 0.5146 0.5295 0.5576 0.7492 0.7826 0.7895
#> x1~~x1           0.4042 0.0913 100 0.1541 0.2014 0.2654 0.6018 0.6631 0.6819
#> x2~~x2           0.8206 0.0464 100 0.6883 0.7080 0.7417 0.9004 0.9101 0.9145
#> x3~~x3           0.6623 0.0656 100 0.5285 0.5310 0.5462 0.8059 0.8235 0.8311
#> x4~~x4           0.2748 0.0426 100 0.1872 0.1897 0.2095 0.3672 0.3883 0.4005
#> x5~~x5           0.2689 0.0385 100 0.1686 0.1858 0.2106 0.3536 0.3668 0.3760
#> x6~~x6           0.2977 0.0363 100 0.2159 0.2178 0.2308 0.3640 0.3745 0.3807
#> x7~~x7           0.6757 0.0643 100 0.5474 0.5553 0.5667 0.8046 0.8370 0.8560
#> x8~~x8           0.4772 0.0781 100 0.3062 0.3096 0.3454 0.6380 0.6915 0.7255
#> x9~~x9           0.5578 0.0715 100 0.3766 0.3875 0.4387 0.6891 0.7194 0.7352
#> visual~~visual   1.0000 0.0000 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
#> textual~~textual 1.0000 0.0000 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
#> speed~~speed     1.0000 0.0000 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
#> visual~~textual  0.4585 0.0715 100 0.3100 0.3139 0.3303 0.5820 0.6731 0.6734
#> visual~~speed    0.4705 0.0815 100 0.2615 0.2742 0.3084 0.6270 0.6536 0.6553
#> textual~~speed   0.2830 0.0742 100 0.1016 0.1131 0.1342 0.4091 0.4451 0.4604
#> Standardized Monte Carlo Confidence Intervals
#>                   est     se   R  0.05%   0.5%   2.5%  97.5%  99.5% 99.95%
#> visual=~x1       0.7719 0.0560 100 0.6189 0.6326 0.6706 0.8555 0.8794 0.8901
#> visual=~x2       0.4236 0.0597 100 0.2744 0.2760 0.3029 0.5329 0.5490 0.5524
#> visual=~x3       0.5811 0.0611 100 0.3810 0.3961 0.4357 0.6796 0.7005 0.7114
#> textual=~x4      0.8516 0.0212 100 0.7810 0.7856 0.7980 0.8880 0.8962 0.8985
#> textual=~x5      0.8551 0.0244 100 0.7815 0.7879 0.8086 0.8964 0.9001 0.9020
#> textual=~x6      0.8380 0.0252 100 0.7288 0.7614 0.7993 0.8739 0.8834 0.8862
#> speed=~x7        0.5695 0.0588 100 0.3925 0.4100 0.4399 0.6823 0.6945 0.7004
#> speed=~x8        0.7230 0.0497 100 0.5531 0.5815 0.6318 0.8032 0.8351 0.8586
#> speed=~x9        0.6650 0.0569 100 0.4671 0.4994 0.5436 0.7488 0.7726 0.7805
#> x1~~x1           0.4042 0.0857 100 0.2076 0.2265 0.2681 0.5503 0.5996 0.6169
```

```
#> x2~~x2          0.8206 0.0496 100 0.6949 0.6986 0.7160 0.9082 0.9238 0.9247
#> x3~~x3          0.6623 0.0687 100 0.4938 0.5092 0.5381 0.8099 0.8428 0.8548
#> x4~~x4          0.2748 0.0358 100 0.1928 0.1969 0.2115 0.3631 0.3829 0.3900
#> x5~~x5          0.2689 0.0415 100 0.1864 0.1898 0.1964 0.3461 0.3792 0.3893
#> x6~~x6          0.2977 0.0417 100 0.2146 0.2195 0.2363 0.3611 0.4190 0.4686
#> x7~~x7          0.6757 0.0661 100 0.5095 0.5177 0.5345 0.8065 0.8315 0.8459
#> x8~~x8          0.4772 0.0709 100 0.2627 0.3018 0.3548 0.6008 0.6609 0.6939
#> x9~~x9          0.5578 0.0736 100 0.3908 0.4031 0.4392 0.7045 0.7493 0.7815
#> visual~~visual  1.0000 0.0000 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
#> textual~~textual 1.0000 0.0000 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
#> speed~~speed    1.0000 0.0000 100 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000
#> visual~~textual 0.4585 0.0642 100 0.3371 0.3404 0.3486 0.5830 0.6505 0.6723
#> visual~~speed   0.4705 0.0770 100 0.2842 0.3004 0.3387 0.6370 0.6626 0.6752
#> textual~~speed  0.2830 0.0675 100 0.1427 0.1464 0.1670 0.4059 0.4451 0.4687
#> Monte Carlo Confidence Intervals
#> Monte Carlo Confidence Intervals (Multiple Imputation Estimates)
#> Standardized Monte Carlo Confidence Intervals
#> Standardized Monte Carlo Confidence Intervals

#> test-semmcci-npd

#> Test passed
#> Test passed
#> Test passed
#> Test passed

#> test-semmcci-zzz-coverage
#> test-semmcci-zzz-heywood

#> lavaan 0.6.15 ended normally after 18 iterations
#>
#>   Estimator                                         ML
#>   Optimization method                           NLMINB
#>   Number of model parameters                         8
#>
#>   Number of observations                            50
#>
#> Model Test User Model:
#>
#>   Test statistic                                 0.000
#>   Degrees of freedom                                 2
#>   P-value (Chi-square)                           1.000
#>
#> Parameter Estimates:
#>
#>   Standard errors                             Standard
#>   Information                                 Expected
```

```
#>    Information saturated (h1) model         Structured
#>
#> Latent Variables:
#>                    Estimate  Std.Err  z-value  P(>|z|)
#>   eta1 =~
#>     y1               1.000
#>     y2               0.991    0.152    6.524    0.000
#>     y3               0.901    0.138    6.537    0.000
#>     y4               1.399    0.143    9.814    0.000
#>
#> Variances:
#>                    Estimate  Std.Err  z-value  P(>|z|)
#>    .y1               0.000    0.055    0.000    1.000
#>    .y2               0.980    0.203    4.822    0.000
#>    .y3               0.807    0.167    4.820    0.000
#>    .y4               0.696    0.176    3.960    0.000
#>     eta1             0.980    0.204    4.815    0.000
#>
#> Standardized Monte Carlo Confidence Intervals
#>              est se R 0.05% 0.5% 2.5% 97.5% 99.5% 99.95%
#> eta1=~y1   1.0000 NA 0    NA   NA   NA    NA    NA     NA
#> eta1=~y2   0.7039 NA 0    NA   NA   NA    NA    NA     NA
#> eta1=~y3   0.7047 NA 0    NA   NA   NA    NA    NA     NA
#> eta1=~y4   0.8566 NA 0    NA   NA   NA    NA    NA     NA
#> y1~~y1     0.0000 NA 0    NA   NA   NA    NA    NA     NA
#> y2~~y2     0.5045 NA 0    NA   NA   NA    NA    NA     NA
#> y3~~y3     0.5034 NA 0    NA   NA   NA    NA    NA     NA
#> y4~~y4     0.2662 NA 0    NA   NA   NA    NA    NA     NA
#> eta1~~eta1 1.0000 NA 0    NA   NA   NA    NA    NA     NA
#> [[1]]
#> [[1]][[1]]
#> [[1]][[1]]$value
#> [[1]][[1]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[1]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[2]]
#> [[1]][[2]]$value
#> [[1]][[2]]$value[[1]]
#> [1] TRUE
#>
```

```
#>
#> [[1]][[2]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[3]]
#> [[1]][[3]]$value
#> [[1]][[3]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[3]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[4]]
#> [[1]][[4]]$value
#> [[1]][[4]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[4]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[5]]
#> [[1]][[5]]$value
#> [[1]][[5]]$value[[1]]
#> Monte Carlo Confidence Intervals
#>                               est      se     R    0.05%     0.5%     2.5%
#> ses=~education            1.0000  0.0000 20000   1.0000   1.0000   1.0000
#> ses=~sei                  5.2195  0.4245 20000   3.7737   4.1305   4.3852
#> alien67=~anomia67         1.0000  0.0000 20000   1.0000   1.0000   1.0000
#> alien67=~powerless67      0.9787  0.0613 20000   0.7696   0.8244   0.8611
#> alien71=~anomia71         1.0000  0.0000 20000   1.0000   1.0000   1.0000
#> alien71=~powerless71      0.9221  0.0595 20000   0.7408   0.7701   0.8059
#> alien71~alien67           0.6070  0.0511 20000   0.4374   0.4766   0.5065
#> alien71~ses              -0.2268  0.0523 20000  -0.4045  -0.3628  -0.3293
#> alien67~ses              -0.5750  0.0568 20000  -0.7462  -0.7201  -0.6856
#> anomia67~~anomia71        1.6229  0.3150 20000   0.6139   0.8036   1.0112
#> powerless67~~powerless71  0.3387  0.2612 20000  -0.5884  -0.3499  -0.1810
#> education~~education      2.8013  0.5091 20000   1.1804   1.4717   1.7983
#> sei~~sei                264.5971 18.1675 20000 204.9921 218.4393 228.8470
#> anomia67~~anomia67        4.7307  0.4496 20000   3.3136   3.5927   3.8607
#> powerless67~~powerless67  2.5634  0.4025 20000   1.2260   1.4986   1.7615
#> anomia71~~anomia71        4.3992  0.5185 20000   2.7450   3.0823   3.4018
```

```
#> powerless71~~powerless71     3.0699  0.4345 20000     1.6627   1.9660   2.2171
#> ses~~ses                     6.7983  0.6513 20000     4.6582   5.1559   5.5346
#> alien67~~alien67             4.8415  0.4641 20000     3.3051   3.6714   3.9221
#> alien71~~alien71             4.0832  0.4058 20000     2.7261   3.0341   3.2958
#>                                97.5%    99.5%   99.95%
#> ses=~education               1.0000   1.0000   1.0000
#> ses=~sei                     6.0494   6.2935   6.5603
#> alien67=~anomia67            1.0000   1.0000   1.0000
#> alien67=~powerless67         1.1025   1.1416   1.1904
#> alien71=~anomia71            1.0000   1.0000   1.0000
#> alien71=~powerless71         1.0391   1.0723   1.1135
#> alien71~alien67              0.7064   0.7388   0.7780
#> alien71~ses                 -0.1254  -0.0919  -0.0559
#> alien67~ses                 -0.4618  -0.4251  -0.3854
#> anomia67~~anomia71           2.2495   2.4463   2.6688
#> powerless67~~powerless71     0.8470   1.0003   1.1771
#> education~~education         3.7919   4.1086   4.4344
#> sei~~sei                   300.5070 311.5501 322.2027
#> anomia67~~anomia67           5.6240   5.8981   6.1769
#> powerless67~~powerless67     3.3297   3.5726   3.8165
#> anomia71~~anomia71           5.4371   5.7683   6.1061
#> powerless71~~powerless71     3.9200   4.1834   4.4842
#> ses~~ses                     8.0960   8.4779   8.9494
#> alien67~~alien67             5.7455   6.0241   6.3328
#> alien71~~alien71             4.8739   5.1097   5.3490
#>
#>
#> [[1]][[5]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[6]]
#> [[1]][[6]]$value
#> [[1]][[6]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[6]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[7]]
#> [[1]][[7]]$value
#> [[1]][[7]]$value[[1]]
#> [1] TRUE
#>
```

```
#>
#> [[1]][[7]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[8]]
#> [[1]][[8]]$value
#> [[1]][[8]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[8]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[9]]
#> [[1]][[9]]$value
#> [[1]][[9]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[9]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[10]]
#> [[1]][[10]]$value
#> [[1]][[10]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[10]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[11]]
#> [[1]][[11]]$value
#> [[1]][[11]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[11]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[12]]
```

```
#> [[1]][[12]]$value
#> [[1]][[12]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[12]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[13]]
#> [[1]][[13]]$value
#> [[1]][[13]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[13]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[14]]
#> [[1]][[14]]$value
#> [[1]][[14]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[14]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[15]]
#> [[1]][[15]]$value
#> [[1]][[15]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[15]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[16]]
#> [[1]][[16]]$value
#> [[1]][[16]]$value[[1]]
#> [1] TRUE
#>
#>
```

```
#> [[1]][[16]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[17]]
#> [[1]][[17]]$value
#> [[1]][[17]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[17]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[18]]
#> [[1]][[18]]$value
#> [[1]][[18]]$value[[1]]
#>                         2.5%      97.5%
#> visual=~x1         0.6705850 0.8555172
#> visual=~x2         0.3029477 0.5328666
#> visual=~x3         0.4356911 0.6796242
#> textual=~x4        0.7980197 0.8879644
#> textual=~x5        0.8086317 0.8964288
#> textual=~x6        0.7993415 0.8738726
#> speed=~x7          0.4399145 0.6822537
#> speed=~x8          0.6318168 0.8032477
#> speed=~x9          0.5435616 0.7487982
#> x1~~x1             0.2680875 0.5503156
#> x2~~x2             0.7159993 0.9081995
#> x3~~x3             0.5380808 0.8098755
#> x4~~x4             0.2115125 0.3631471
#> x5~~x5             0.1964145 0.3461141
#> x6~~x6             0.2363467 0.3610532
#> x7~~x7             0.5345273 0.8064595
#> x8~~x8             0.3547646 0.6008074
#> x9~~x9             0.4392375 0.7045406
#> visual~~visual    1.0000000 1.0000000
#> textual~~textual  1.0000000 1.0000000
#> speed~~speed      1.0000000 1.0000000
#> visual~~textual    0.3486049 0.5830363
#> visual~~speed      0.3386722 0.6369860
#> textual~~speed     0.1669823 0.4059132
#>
#>
#> [[1]][[18]]$visible
```

11

```
#> [1] TRUE
#>
#>
#> [[1]][[19]]
#> [[1]][[19]]$value
#> [[1]][[19]]$value[[1]]
#> [[1]][[19]]$value[[1]]$thetahatstar
#>                   y1            y2            y3
#>    [1,] -1.039673e+00 -1.418113308 -2.0834440446
#>    [2,] -4.458494e-01 -0.807950016 -1.0043435726
#>    [3,] -1.960474e+00 -3.563291901 -4.4221490952
#>    [4,] -6.690752e-01 -1.952606549 -1.9179380093
#>    [5,]  9.653807e-01  2.433020952  2.5540347844
#>    [6,] -9.750997e-01 -0.962641705 -1.7501553117
#>    [7,]  1.936491e+00  4.208712867  4.7504244187
#>    [8,] -1.181526e-01  0.315891607  0.0279727277
#>    [9,]  6.528530e-01  1.021835518  1.3811703295
#>   [10,] -3.295927e-01 -0.911960475 -0.9170952869
#>   [11,] -2.931365e-01 -0.510138091 -0.6486405778
#>   [12,]  1.408654e+00  1.804329309  2.7578897390
#>   [13,]  1.128307e+00  2.563612279  2.8296731164
#>   [14,]  7.833114e-01  1.003183718  1.5334983301
#>   [15,] -1.102009e+00 -2.258488973 -2.6275495741
#>   [16,]  1.049037e+00  2.598162798  2.7499988209
#>   [17,] -1.435506e+00 -2.352177170 -3.0954067055
#>   [18,] -5.676339e-01 -1.976746097 -1.8048392493
#>   [19,] -4.752097e-01 -0.970904386 -1.1313880776
#>   [20,] -7.480115e-01 -1.136659448 -1.5635534989
#>   [21,]  5.180875e-01  0.673238300  1.0196636647
#>   [22,]  1.671792e+00  2.948569530  3.7210228312
#>   [23,] -1.109153e+00 -1.931505956 -2.4549964023
#>   [24,]  1.113364e+00  1.246414746  2.0800504810
#>   [25,] -1.647146e+00 -2.999893204 -3.7187730329
#>   [26,]  3.081556e-01  0.661004633  0.7510936554
#>   [27,]  6.823128e-01  0.768211983  1.2771556596
#>   [28,]  8.136023e-01  0.961796533  1.5483022537
#>   [29,] -1.114952e+00 -2.001618155 -2.5011366647
#>   [30,] -3.570117e-01 -0.438918910 -0.6887679346
#>   [31,]  8.003021e-01  1.292151190  1.7150502438
#>   [32,]  4.690854e-02  0.515562174  0.3446094172
#>   [33,]  1.238090e-01  0.080064510  0.1988197817
#>   [34,] -8.280702e-01 -2.149213214 -2.2253100074
#>   [35,] -7.335644e-01 -2.124623096 -2.0938166533
#>   [36,]  1.151022e+00  2.296703579  2.7098753319
#>   [37,] -5.180401e-01 -0.446007597 -0.8935010256
```

```
#>  [38,]  1.117776e+00  2.473652225  2.7666171743
#>  [39,] -1.168054e-01 -1.301016445 -0.8676635865
#>  [40,]  1.998923e+00  2.572730979  3.9203737714
#>  [41,]  2.925310e-01 -0.091705960  0.3138871882
#>  [42,] -3.276198e-01 -0.719917582 -0.8080593795
#>  [43,] -7.188014e-01 -1.095012403 -1.5040167138
#>  [44,] -1.014349e+00 -0.275909064 -1.4179909134
#>  [45,] -1.254378e+00 -2.991918283 -3.2245730645
#>  [46,]  7.668660e-01  1.320434964  1.6890523739
#>  [47,] -2.135862e+00 -2.829456400 -4.2336059096
#>  [48,] -1.323216e+00 -2.635255995 -3.1124804271
#>  [49,]  4.651932e-01 -0.930296334  0.0638109553
#>  [50,]  8.025929e-01  1.132508005  1.6293114957
#>  [51,]  3.670917e-01  0.755728162  0.8771533290
#>  [52,] -4.617437e-01 -0.617828512 -0.9186539351
#>  [53,]  7.374322e-01  1.020430156  1.4858588905
#>  [54,]  1.122552e+00  1.300843997  2.1217131226
#>  [55,]  1.202704e+00  1.441023234  2.2994550584
#>  [56,]  1.552627e-01 -0.372063610 -0.0128703331
#>  [57,]  4.680372e-02 -0.119547419 -0.0079805294
#>  [58,] -1.057486e+00 -1.544155064 -2.1756044523
#>  [59,]  2.049987e-01 -0.081400051  0.2104555952
#>  [60,]  9.162027e-02  0.472412822  0.3764179417
#>  [61,] -3.365883e-01 -0.005885534 -0.4229849472
#>  [62,]  9.051010e-01  1.816143622  2.1365261005
#>  [63,]  1.342820e+00  1.930715898  2.7459356220
#>  [64,]  7.871442e-01 -0.252832491  0.8412413771
#>  [65,] -1.330039e+00 -2.571849064 -3.0858006568
#>  [66,] -1.358247e+00 -3.288480502 -3.5186755118
#>  [67,]  9.869273e-01  1.314516945  1.9601801203
#>  [68,] -3.295442e-02  0.493680690  0.2328786302
#>  [69,] -5.640158e-01 -1.896940750 -1.7560389064
#>  [70,] -1.601975e-01  0.400680142  0.0225976607
#>  [71,] -5.454067e-01 -1.255257280 -1.3767262747
#>  [72,]  6.513359e-01 -0.109936189  0.7511925699
#>  [73,] -2.514455e-01  0.532012243 -0.0183029034
#>  [74,] -1.973645e-01 -0.044792825 -0.2709676404
#>  [75,]  3.580149e-01 -0.093367567  0.3946222369
#>  [76,] -7.455339e-01 -1.167804079 -1.5777479786
#>  [77,]  1.681793e+00  1.994369182  3.2039528071
#>  [78,] -3.611246e-01 -2.015570845 -1.5688724825
#>  [79,] -1.909833e+00 -2.727725182 -3.8952961495
#>  [80,] -3.355304e-01 -0.764553842 -0.8426949576
#>  [81,]  7.646510e-02  0.001082011  0.0959508854
#>  [82,]  1.489723e+00  1.174854347  2.5096490489
```

```
#>   [83,]   1.815840e-01 -0.642574865 -0.1301705714
#>   [84,]   2.165713e+00  2.109903450  3.8715080301
#>   [85,]  -4.266176e-01 -0.259763755 -0.6761414679
#>   [86,]   5.474393e-01  0.088408545  0.7317087404
#>   [87,]   6.529393e-01  0.266612980  0.9621610007
#>   [88,]  -3.528269e-01 -0.472146529 -0.7019894462
#>   [89,]  -2.554852e-01  0.546533824 -0.0152814968
#>   [90,]   1.978845e+00  2.860928201  4.0552742321
#>   [91,]   1.531212e+00  4.020453290  4.1405733464
#>   [92,]   7.166924e-01  0.633299016  1.2451551846
#>   [93,]   7.246483e-01  2.258421373  2.1569509865
#>   [94,]   1.609225e+00  2.447597818  3.3649854395
#>   [95,]   1.215284e+00  2.021853552  2.6374779276
#>   [96,]  -7.873452e-01 -1.580971020 -1.8591761562
#>   [97,]  -1.839806e+00 -3.312506402 -4.1325030077
#>   [98,]  -5.922401e-01 -1.939643156 -1.8149320827
#>   [99,]  -1.218463e+00 -3.379128339 -3.3946734048
#>  [100,]  -7.711820e-01 -1.915723463 -2.0247944851
#>  [101,]   2.232617e+00  3.951314119  4.9768419839
#>  [102,]   2.689913e-01 -0.508459556  0.0532528532
#>  [103,]   1.176922e+00  1.455572962  2.2753801136
#>  [104,]   1.005172e+00  1.209679407  1.9247507149
#>  [105,]   1.145756e-01 -0.675832007 -0.2321849992
#>  [106,]   1.018396e+00  0.709203338  1.6634971611
#>  [107,]  -1.174823e-01 -1.465169896 -0.9596059533
#>  [108,]   2.820351e+00  5.695793719  6.6778473796
#>  [109,]   9.785414e-01  1.419476842  2.0079714042
#>  [110,]   5.000498e-01  0.918163089  1.1330939933
#>  [111,]   1.517798e+00  2.581857417  3.3254861332
#>  [112,]   2.312107e+00  4.173045506  5.1990156471
#>  [113,]   1.445131e+00  3.087557456  3.5155134769
#>  [114,]   1.676816e-01 -0.411088347 -0.0190412311
#>  [115,]   1.813595e+00  2.378498287  3.5814832400
#>  [116,]  -1.481811e+00 -3.067527457 -3.5501374679
#>  [117,]   6.075926e-01  1.168002103  1.4058478696
#>  [118,]   9.703375e-01  0.929385420  1.7257610482
#>  [119,]  -5.717989e-01 -0.120339474 -0.7798049828
#>  [120,]  -1.837493e+00 -2.326535706 -3.5824457780
#>  [121,]  -2.867695e-01 -0.378046879 -0.5673959422
#>  [122,]   6.654980e-01  0.782391133  1.2640567957
#>  [123,]   1.292736e+00  4.000455619  3.8321012013
#>  [124,]   3.029691e-01  0.993555648  0.9291780492
#>  [125,]  -1.534531e+00 -2.540176202 -3.3232201523
#>  [126,]  -1.622181e-01  0.199009079 -0.0918409706
#>  [127,]  -1.035941e+00 -2.775088983 -2.8318549010
```

```
#>   [128,]   1.086286e+00   2.254038785   2.6054732389
#>   [129,]   1.399041e+00   3.583592425   3.7333190912
#>   [130,]  -1.018810e-01  -0.545209274  -0.4296118787
#>   [131,]   1.322789e+00  -0.022049222   1.6372540722
#>   [132,]   1.916379e-01   0.559076709   0.5492327145
#>   [133,]   1.198651e+00   1.800895411   2.4941146155
#>   [134,]  -1.249224e+00  -2.260047726  -2.8119883679
#>   [135,]  -6.435545e-01  -2.656414114  -2.2766979468
#>   [136,]   1.134974e-02  -0.274995291  -0.1384579804
#>   [137,]   2.444314e+00   4.823715003   5.7249692665
#>   [138,]   1.241397e+00   0.699918362   1.9364220462
#>   [139,]   4.666034e-01   1.243765651   1.2720828017
#>   [140,]   9.416175e-01   1.220001109   1.8512273482
#>   [141,]  -1.082398e+00  -2.251126206  -2.5990091283
#>   [142,]   1.201365e+00   2.185642619   2.7110177309
#>   [143,]   4.963573e-01  -0.252035294   0.4790784463
#>   [144,]  -5.521934e-01   0.053563154  -0.6588485517
#>   [145,]   1.584094e-01   0.311052984   0.3701547004
#>   [146,]  -1.734345e-01  -1.238534170  -0.9036039342
#>   [147,]   5.901919e-01   1.287104804   1.4502465989
#>   [148,]   1.776575e+00   2.674446017   3.6995588206
#>   [149,]  -9.184806e-01  -2.380604977  -2.4664626304
#>   [150,]  -7.105172e-01  -0.883085261  -1.3760757897
#>   [151,]   1.960536e-01   1.486797659   1.0695852989
#>   [152,]   1.134323e+00   1.868391687   2.4513572194
#>   [153,]   2.324632e-01   1.289329388   1.0054007561
#>   [154,]   9.630262e-01   0.135783483   1.2762281422
#>   [155,]   1.168087e+00   2.296353525   2.7309601768
#>   [156,]  -1.116603e+00  -2.381546167  -2.7140390324
#>   [157,]  -9.646153e-01  -2.010784614  -2.3187568474
#>   [158,]  -7.131407e-01  -1.253587373  -1.5849604017
#>   [159,]  -2.556244e+00  -3.352036391  -5.0478244011
#>   [160,]  -2.130346e+00  -2.802222259  -4.2116143581
#>   [161,]  -1.095581e+00  -2.432880182  -2.7163135152
#>   [162,]   5.010292e-01   1.561372436   1.4912695207
#>   [163,]   4.255661e-02   0.067449087   0.0904986400
#>   [164,]   8.980196e-01   0.638018806   1.4738858278
#>   [165,]  -6.462534e-02  -1.341797226  -0.8252277590
#>   [166,]   5.080076e-01   1.029149069   1.2046097038
#>   [167,]  -6.815511e-01  -0.799911017  -1.2937974630
#>   [168,]  -4.070558e-01  -1.484393467  -1.3313664573
#>   [169,]  -4.954296e-02  -0.292003723  -0.2238288960
#>   [170,]   1.673341e+00   2.871303729   3.6800752100
#>   [171,]  -8.609226e-01  -2.518072463  -2.4709776536
#>   [172,]   1.638098e+00   3.799508364   4.1512432212
```

```
#>   [173,]  -8.623360e-01  -1.473827732  -1.8932280998
#>   [174,]   2.615632e-01   0.025385557   0.3402519088
#>   [175,]   2.019729e+00   2.159261239   3.7168601040
#>   [176,]   8.573650e-01   2.163763000   2.2699144991
#>   [177,]  -1.213998e+00  -2.313732405  -2.7978555422
#>   [178,]  -1.027911e+00  -2.224120803  -2.5160779746
#>   [179,]  -1.010199e+00  -2.557907363  -2.6792286111
#>   [180,]   3.105134e-01   0.915510487   0.8952739065
#>   [181,]   1.197262e+00   0.527276292   1.7855775453
#>   [182,]   1.276515e-01   0.640770088   0.5147793306
#>   [183,]  -2.949037e-01  -1.336322248  -1.1093418277
#>   [184,]   1.657594e+00   3.537610170   4.0302116953
#>   [185,]   8.061719e-01  -0.130181221   0.9330347277
#>   [186,]  -7.634943e-01  -0.831005066  -1.4132348198
#>   [187,]  -1.659310e+00  -2.089320768  -3.2286117947
#>   [188,]  -1.267940e-01  -0.677605848  -0.5341524575
#>   [189,]   2.745535e+00   4.939683964   6.1649438791
#>   [190,]   2.750547e+00   3.780527788   5.5279101792
#>   [191,]   2.367133e+00   4.096230208   5.2250026037
#>   [192,]  -1.431125e+00  -2.485102005  -3.1637111168
#>   [193,]  -3.046195e-01  -0.897058386  -0.8776841213
#>   [194,]   1.238763e+00   1.960814198   2.6328822931
#>   [195,]  -5.660053e-01  -0.568485037  -1.0212824208
#>   [196,]   9.115880e-01   1.725210317   2.0941511115
#>   [197,]  -7.825981e-02  -0.368354863  -0.3020099120
#>   [198,]  -1.946893e+00  -1.777606818  -3.4142328429
#>   [199,]  -1.229989e+00  -1.889507530  -2.5823685284
#>   [200,]   1.798372e+00   4.780270288   4.8953827579
#>   [201,]   4.570437e-01   2.445593736   1.9271262484
#>   [202,]  -6.226389e-01  -1.196723813  -1.4405495860
#>   [203,]   3.090223e-01   0.807419797   0.8334287242
#>   [204,]   2.188678e+00   2.919549505   4.3494645595
#>   [205,]  -1.085673e+00  -1.673740750  -2.2826679705
#>   [206,]  -8.928878e-01   0.191984487  -1.0068694739
#>   [207,]  -3.614428e-01   0.266841941  -0.3026256890
#>   [208,]   5.991617e-01   0.676109270   1.1223547679
#>   [209,]   5.442427e-02  -0.172275639  -0.0277398166
#>   [210,]  -2.840117e-01  -0.495607841  -0.6291983856
#>   [211,]  -2.628100e-01  -0.150948053  -0.4114885401
#>   [212,]   6.024047e-01   0.458694520   1.0057425727
#>   [213,]   3.745382e-01  -0.190254534   0.3614581569
#>   [214,]   9.211657e-01   0.801287836   1.5933559968
#>   [215,]  -1.661802e+00  -3.427516361  -3.9743617655
#>   [216,]  -1.580464e+00  -3.244116716  -3.7711559137
#>   [217,]   1.440830e+00   2.609411456   3.2448001286
```

```
#>   [218,] -1.578166e+00 -2.102805269 -3.1349098422
#>   [219,]  8.276192e-01  1.935023663  2.1058813790
#>   [220,]  1.762645e+00  3.115531811  3.9269717703
#>   [221,]  1.267615e+00  1.689783117  2.5184484532
#>   [222,]  5.561380e-01 -0.715469236  0.2964372214
#>   [223,] -2.116723e+00 -3.104054336 -4.3621307196
#>   [224,]  1.176047e+00  3.018191864  3.1414767505
#>   [225,]  1.133013e-01 -0.559837861 -0.1694021672
#>   [226,] -8.243506e-01 -0.162035171 -1.1178711533
#>   [227,]  2.290683e+00  2.587929062  4.2926277386
#>   [228,] -1.194828e+00 -0.546420199 -1.7931664237
#>   [229,] -1.090327e+00 -2.028309449 -2.4852423885
#>   [230,] -3.702900e-01 -0.229271726 -0.5889802859
#>   [231,] -9.417773e-01 -0.141957354 -1.2531574233
#>   [232,] -7.512223e-01 -0.678778274 -1.3134524278
#>   [233,] -9.494143e-01 -1.603688830 -2.0738804557
#>   [234,] -2.161281e+00 -3.663250121 -4.7280232395
#>   [235,] -9.289114e-01 -2.258298768 -2.4115948798
#>   [236,] -2.990672e+00 -5.152243145 -6.5885863483
#>   [237,] -1.062001e-01 -0.793157614 -0.5725986591
#>   [238,]  8.902242e-01  2.773296097  2.6491546178
#>   [239,]  6.676364e-01  0.874027005  1.3175774202
#>   [240,] -1.638094e+00 -2.402370715 -3.3758850959
#>   [241,] -8.413147e-02 -0.843128102 -0.5728110241
#>   [242,] -2.856444e-01  1.185528858  0.3017261221
#>   [243,] -8.682600e-01 -2.941644135 -2.7151918251
#>   [244,] -6.623299e-01 -1.735931357 -1.7892810913
#>   [245,]  6.949876e-01  1.483407222  1.6898642214
#>   [246,] -2.129468e-01 -0.702646755 -0.6554798238
#>   [247,] -8.719890e-01 -2.200056203 -2.3082915870
#>   [248,]  1.441634e-01 -0.289524757  0.0190947240
#>   [249,] -1.666758e+00 -1.566518195 -2.9477651342
#>   [250,] -1.686178e-01 -2.206993844 -1.4350521052
#>   [251,] -1.678341e+00 -2.224223345 -3.3272074600
#>   [252,]  2.066153e+00  3.574031583  4.5598883317
#>   [253,] -3.671820e-01  0.823955289 -0.0006077903
#>   [254,]  7.205549e-01  0.843996087  1.3668997153
#>   [255,] -8.118779e-01 -0.656269478 -1.3765972046
#>   [256,]  6.678441e-01 -0.090116282  0.7827772530
#>   [257,]  5.542485e-02  0.497225932  0.3450532281
#>   [258,] -2.426848e-02  0.450679220  0.2198457996
#>   [259,] -1.548892e+00 -3.103808159 -3.6539199723
#>   [260,] -4.124340e-01  0.370580189 -0.3086403503
#>   [261,] -7.988383e-01 -0.710372881 -1.3903623248
#>   [262,] -4.190384e-01 -0.096235824 -0.5759392073
```

```
#>   [263,]   2.049549e+00   2.596480687   3.9966835307
#>   [264,]  -1.076603e+00  -0.154121330  -1.4280331258
#>   [265,]   6.114972e-02   1.333329466   0.8161944848
#>   [266,]   7.086751e-01   0.023152735   0.8965522471
#>   [267,]   1.539891e+00   2.750359811   3.4465468638
#>   [268,]  -2.439040e-01  -0.085035600  -0.3513345127
#>   [269,]  -5.343043e-01  -1.123961383  -1.2900180635
#>   [270,]   6.085451e-01   0.337391005   0.9460812716
#>   [271,]   1.431872e+00   2.399350741   3.1170540069
#>   [272,]   1.976727e+00   1.792229716   3.4595504270
#>   [273,]   1.024665e+00   0.850127934   1.7495216798
#>   [274,]  -5.672786e-01  -1.109091138  -1.3228840365
#>   [275,]  -4.450987e-01  -0.711785653  -0.9500402792
#>   [276,]   4.672451e-02  -0.171323006  -0.0368125809
#>   [277,]  -1.146977e+00  -2.081221366  -2.5852481288
#>   [278,]  -1.793860e+00  -4.258790982  -4.6003581331
#>   [279,]  -1.006637e+00  -1.365716670  -2.0131714975
#>   [280,]   4.793834e-01   1.793614129   1.5931621082
#>   [281,]   7.833528e-01   1.305315267   1.7012202716
#>   [282,]  -3.159511e-01   0.937595621   0.1263417772
#>   [283,]  -1.009777e+00  -1.928890345  -2.3296242814
#>   [284,]   8.910304e-01   2.352408217   2.4165847426
#>   [285,]  -6.434626e-01  -0.801238316  -1.2470384284
#>   [286,]  -1.228510e+00  -1.165501533  -2.1787314123
#>   [287,]  -6.873256e-01  -1.810471249  -1.8618167113
#>   [288,]   3.519500e-01   0.466721884   0.6978855814
#>   [289,]  -4.544476e-01  -0.408396317  -0.7933297584
#>   [290,]   1.397761e+00   1.822072601   2.7541530521
#>   [291,]  -2.001169e-01  -0.382164288  -0.4616268460
#>   [292,]  -1.082195e+00  -1.170073253  -1.9988170225
#>   [293,]   1.214373e+00   2.197465601   2.7337998660
#>   [294,]   1.162859e+00   2.196921576   2.6692606360
#>   [295,]  -1.242407e-01  -0.836102410  -0.6189274449
#>   [296,]  -1.456911e-01  -1.061996559  -0.7710374226
#>   [297,]   7.711501e-01   0.522947051   1.2518221081
#>   [298,]   1.131348e+00   1.946554754   2.4910237228
#>   [299,]  -1.412709e+00  -1.597889387  -2.6483814216
#>   [300,]   1.261738e+00   2.606290484   3.0197435300
#>   [301,]   1.138491e+00   1.113474103   2.0376064553
#>   [302,]   2.082527e+00   4.298548212   4.9823824129
#>   [303,]  -1.151325e+00  -2.356614331  -2.7435006324
#>   [304,]   2.230443e+00   2.874840790   4.3767330283
#>   [305,]  -7.316090e-01  -1.917882679  -1.9766460471
#>   [306,]   8.544168e-01   0.383804693   1.2784358137
#>   [307,]   5.402085e-01   1.145384045   1.3092691431
```

```
#>  [308,] -1.934886e-01  0.064127099 -0.2056885034
#>  [309,] -5.585306e-01 -0.149903199 -0.7796662530
#>  [310,]  1.932849e+00  3.114444135  4.1386088612
#>  [311,]  7.979450e-01  1.011958547  1.5566157149
#>  [312,] -9.202741e-01 -1.410334306 -1.9302395328
#>  [313,] -2.284087e-01  0.301349683 -0.1175845858
#>  [314,] -8.465687e-01 -2.410284697 -2.3932610201
#>  [315,]  1.084815e+00  1.583984618  2.2317869339
#>  [316,]  1.169214e+00  2.122055221  2.6356379979
#>  [317,] -1.986214e+00 -3.182027110 -4.2426606555
#>  [318,]  4.217730e-01 -0.002333575  0.5246472566
#>  [319,]  1.804786e+00  4.103347625  4.5277172144
#>  [320,]  4.561746e-01  1.439641033  1.3677808784
#>  [321,]  1.726317e+00  3.682202507  4.1961498354
#>  [322,]  1.577005e+00  2.318612051  3.2532261191
#>  [323,]  8.592699e-01  0.964412359  1.6067005788
#>  [324,]  9.901650e-01  0.577855092  1.5554008872
#>  [325,] -2.784257e-02  0.977343788  0.5076657640
#>  [326,] -1.823177e-02 -1.184879294 -0.6802930423
#>  [327,] -1.982969e+00 -5.269864861 -5.3972765036
#>  [328,]  5.733070e-02  0.578733746  0.3926632072
#>  [329,]  1.954978e+00  4.264132890  4.8042324114
#>  [330,]  5.149169e-01  0.755409488  1.0613114676
#>  [331,] -8.519922e-01 -1.976860578 -2.1594917345
#>  [332,]  7.944082e-01  1.138818538  1.6226073993
#>  [333,] -1.692493e-01 -0.187492337 -0.3151008259
#>  [334,]  6.312411e-01  1.514623338  1.6276972985
#>  [335,] -1.344451e+00 -1.783268161 -2.6661427258
#>  [336,] -1.710713e+00 -2.875064980 -3.7287653194
#>  [337,] -2.177983e-01 -0.891953654 -0.7665869508
#>  [338,] -1.257939e+00 -0.888242942 -2.0615621367
#>  [339,]  1.962138e+00  1.197574282  3.1113495044
#>  [340,] -3.036674e-02  1.000849279  0.5175627381
#>  [341,] -7.534083e-01 -0.506065917 -1.2203301821
#>  [342,]  2.378087e-01 -0.480911317  0.0296569135
#>  [343,] -2.387115e+00 -4.313568919 -5.3705339661
#>  [344,] -9.913520e-01 -2.166070343 -2.4382740233
#>  [345,]  2.417921e-01  1.038790385  0.8779950431
#>  [346,]  4.385048e-01  0.948260302  1.0730513374
#>  [347,] -2.069009e-01 -0.257320067 -0.4008031150
#>  [348,] -1.000436e+00 -1.595140646 -2.1327591591
#>  [349,] -4.827009e-02  0.127927927  0.0108028226
#>  [350,]  2.890726e-01  1.587450986  1.2414365302
#>  [351,]  1.777430e-01  0.181277369  0.3222432455
#>  [352,]  5.893186e-01 -0.417638038  0.5030966521
```

```
#>  [353,] -2.418589e-01 -0.586192691 -0.6269055355
#>  [354,]  1.989296e+00  3.461698911  4.4017092330
#>  [355,]  1.173732e+00  1.873628398  2.5034050990
#>  [356,]  4.498785e-01  0.093599812  0.6129332699
#>  [357,] -3.734970e-01  0.206462459 -0.3511650708
#>  [358,] -3.358717e-01  0.451352165 -0.1683436111
#>  [359,] -1.160252e+00 -1.825568822 -2.4599247051
#>  [360,]  4.626946e-01 -0.020464607  0.5656137731
#>  [361,] -2.737414e-01 -1.126259815 -0.9663770195
#>  [362,]  2.114137e-01  1.055375638  0.8493178268
#>  [363,] -7.770032e-01 -1.316824842 -1.6996897560
#>  [364,] -7.512811e-02  0.159348688 -0.0052513736
#>  [365,] -1.096084e+00 -1.701185104 -2.3108802944
#>  [366,] -8.373685e-02  0.512828382  0.1801801380
#>  [367,]  2.162176e+00  3.503919346  4.6407175816
#>  [368,] -1.309844e+00 -1.882816643 -2.6782326694
#>  [369,] -3.511435e+00 -4.705473981 -6.9900285957
#>  [370,]  1.507433e+00  1.992162475  2.9853052924
#>  [371,]  6.449655e-01  0.242579270  0.9388801386
#>  [372,] -1.878994e-01 -0.384920032 -0.4479212030
#>  [373,] -9.818636e-01 -1.766395496 -2.2046394000
#>  [374,]  2.581840e-01  1.646410158  1.2356388693
#>  [375,]  4.809733e-01  0.904753771  1.1018643589
#>  [376,] -1.547659e+00 -1.675443979 -2.8596999243
#>  [377,] -1.428418e+00 -2.396493218 -3.1111620494
#>  [378,] -5.212146e-01 -0.615713931 -0.9916393850
#>  [379,] -9.661208e-01 -0.897872733 -1.7030146740
#>  [380,]  1.670871e+00  2.335116311  3.3794337741
#>  [381,]  2.853201e-01  0.522266995  0.6456246147
#>  [382,] -1.241522e+00 -1.776891230 -2.5342530513
#>  [383,]  1.168915e+00  1.135857255  2.0879669120
#>  [384,]  2.058531e+00  3.846479147  4.7015816556
#>  [385,]  1.309088e+00  1.462688627  2.4441367982
#>  [386,]  9.191333e-02 -0.344778067 -0.0767233491
#>  [387,]  1.304987e+00  2.976776860  3.2792787654
#>  [388,] -4.762589e-01 -1.883978013 -1.6394140476
#>  [389,] -2.192456e+00 -3.664078417 -4.7673578509
#>  [390,] -1.423192e-01 -0.883535670 -0.6677944763
#>  [391,]  3.599613e+00  5.631780568  7.6140468513
#>  [392,] -9.386428e-01 -1.550032105 -2.0306713510
#>  [393,]  3.858615e-01  0.953292921  1.0101991219
#>  [394,] -9.005386e-02  0.187663243 -0.0081500862
#>  [395,] -1.745643e+00 -4.005898765 -4.3998877426
#>  [396,]  4.461435e-01  2.242112279  1.8006102553
#>  [397,] -8.694844e-02  0.437892191  0.1345889030
```

```
#>   [398,]   1.269027e+00   0.865164305   2.0625806500
#>   [399,]   1.077225e-01   0.456785951   0.3878248083
#>   [400,]   5.578550e-01   1.588589722   1.5772345495
#>   [401,]   2.613873e-01   1.702469217   1.2707437112
#>   [402,]  -4.866112e-01  -1.808805824  -1.6106057002
#>   [403,]   2.089501e+00   3.677557798   4.6464556416
#>   [404,]  -9.246949e-01  -2.408222514  -2.4895382869
#>   [405,]  -1.172379e+00  -1.917233635  -2.5259172954
#>   [406,]   1.359734e+00   2.263051344   2.9514591096
#>   [407,]  -6.055532e-01  -0.922525380  -1.2670754397
#>   [408,]  -1.443063e+00  -2.653496114  -3.2720492002
#>   [409,]   1.764238e+00   2.301350672   3.4771223237
#>   [410,]  -2.237989e-01   0.890686206   0.2152208728
#>   [411,]  -3.478415e-01  -1.397088173  -1.2090766685
#>   [412,]  -1.186691e+00  -0.949381390  -2.0066464022
#>   [413,]   4.607019e-01   0.690674895   0.9577815371
#>   [414,]   1.583217e+00   2.863830673   3.5635454230
#>   [415,]  -1.317563e+00  -1.876051429  -2.6841038518
#>   [416,]   1.523469e-01   0.198064466   0.2998909272
#>   [417,]   1.487121e+00   2.305169219   3.1336820636
#>   [418,]  -1.383382e+00  -2.674528248  -3.2093008541
#>   [419,]   1.310379e+00   1.111205120   2.2506879542
#>   [420,]  -1.481035e-01  -0.113831028  -0.2478535162
#>   [421,]   7.995679e-02  -0.439246473  -0.1440589136
#>   [422,]   9.674841e-01   1.167611047   1.8544081872
#>   [423,]  -1.397049e+00  -2.569160305  -3.1678682915
#>   [424,]   1.512784e+00   2.910884452   3.5018301823
#>   [425,]  -5.263278e-01  -1.044850249  -1.2361681561
#>   [426,]  -2.747597e-01  -0.538508792  -0.6414695988
#>   [427,]  -5.359810e-01  -0.676039938  -1.0435311874
#>   [428,]   1.038604e+00   1.654591119   2.2133468054
#>   [429,]  -8.283381e-01  -0.786873753  -1.4696027380
#>   [430,]  -2.044049e+00  -4.493340763  -5.0425036230
#>   [431,]  -3.848692e-01  -0.750824046  -0.8965999867
#>   [432,]   3.068289e-02   1.183891666   0.6952712512
#>   [433,]   9.237584e-01   1.259521558   1.8508896618
#>   [434,]  -1.704409e-01   0.359296280  -0.0131419327
#>   [435,]   1.612880e+00   2.501862086   3.3996566359
#>   [436,]  -2.693650e-01  -0.129970975  -0.4080210793
#>   [437,]   4.155861e-01   0.965850895   1.0542341939
#>   [438,]  -3.240113e-01  -0.700546532  -0.7928094498
#>   [439,]  -1.852133e-02   0.267201068   0.1251896836
#>   [440,]  -3.965562e-02   0.834827840   0.4138447464
#>   [441,]   6.565721e-01   1.497821246   1.6499600968
#>   [442,]   8.890102e-01   2.432360882   2.4584360421
```

```
#>   [443,] -1.917466e+00 -4.305911504 -4.7806414776
#>   [444,]  9.472626e-01  2.202350885  2.4034297214
#>   [445,]  2.027294e+00  3.437455867  4.4356387267
#>   [446,] -1.616823e+00 -2.704814569 -3.5172036598
#>   [447,]  6.376179e-01  0.118217806  0.8607024775
#>   [448,]  4.712683e-01  1.100886997  1.1986081230
#>   [449,]  3.982624e-01 -0.569413950  0.1806241337
#>   [450,] -7.361917e-01 -1.928640545 -1.9883308010
#>   [451,] -1.724507e+00 -2.284759183 -3.4183712932
#>   [452,]  1.283755e+00  3.015174315  3.2741115875
#>   [453,]  2.030806e-01 -0.098393555  0.1986331023
#>   [454,] -7.861410e-02  0.418466816  0.1342013849
#>   [455,] -1.276556e-01 -0.549692707 -0.4642404285
#>   [456,]  1.432035e+00  3.801500137  3.8953924216
#>   [457,] -1.072702e+00 -1.778024774 -2.3243665485
#>   [458,] -8.254027e-01 -1.246232764 -1.7208673302
#>   [459,] -9.927267e-01 -1.624546430 -2.1394652413
#>   [460,]  9.296956e-01  1.787477791  2.1512867600
#>   [461,] -9.864008e-01 -1.805592276 -2.2320498357
#>   [462,] -1.197086e+00  0.062515113 -1.4580488703
#>   [463,]  2.342580e+00  4.157206167  5.2282251312
#>   [464,]  2.143798e+00  3.364323318  4.5403312779
#>   [465,]  7.053603e-01  0.731363844  1.2854462556
#>   [466,] -5.902057e-01 -0.367626677 -0.9399918570
#>   [467,] -5.572562e-01 -1.289180292 -1.4103281549
#>   [468,]  9.214849e-01  1.446939456  1.9520637421
#>   [469,]  1.678924e+00  2.704546026  3.5944937996
#>   [470,]  2.045793e+00  2.436261126  3.9030852983
#>   [471,] -9.188198e-01 -1.198273807 -1.8107413895
#>   [472,] -1.326092e+00 -1.581749840 -2.5314146911
#>   [473,]  2.335242e-01 -0.276643537  0.1376743614
#>   [474,]  4.684793e-02  0.454519935  0.3106579532
#>   [475,] -1.836960e+00 -3.262003484 -4.1009269093
#>   [476,] -6.820220e-01 -0.826530945 -1.3091576304
#>   [477,]  1.766692e+00  4.053370038  4.4524796343
#>   [478,] -6.829391e-01 -1.096940923 -1.4603674725
#>   [479,]  1.231157e-02  0.243641220  0.1505629505
#>   [480,] -1.089517e+00 -1.185594065 -2.0165609718
#>   [481,]  7.709275e-01  1.581104546  1.8387776567
#>   [482,] -1.034586e+00 -1.171658916 -1.9403294113
#>   [483,] -1.780696e+00 -3.371383098 -4.0914676371
#>   [484,] -5.257584e-01 -1.326722111 -1.3918851966
#>   [485,] -8.595510e-01 -1.696609549 -2.0133897844
#>   [486,] -1.463259e+00 -1.683566495 -2.7589636200
#>   [487,] -7.868584e-01 -1.297483258 -1.7012452653
```

```
#>   [488,] -4.091684e-01 -0.414508835 -0.7402597417
#>   [489,] -7.433624e-01 -1.472132845 -1.7439297942
#>   [490,] -1.379126e+00 -2.667562495 -3.2001269027
#>   [491,] -6.644316e-02 -0.618756751 -0.4262373602
#>   [492,] -5.713962e-01 -0.974596439 -1.2533796872
#>   [493,]  8.736216e-01  0.580990070  1.4118134669
#>   [494,]  1.224680e+00  1.833562298  2.5447006850
#>   [495,] -6.884586e-01 -0.994934646 -1.4106408778
#>   [496,]  6.724264e-01  0.888329844  1.3314878463
#>   [497,]  1.441305e+00  1.224076450  2.4765891089
#>   [498,]  8.221135e-02 -0.645163551 -0.2555228833
#>   [499,]  1.993583e+00  3.624542326  4.4974271299
#>   [500,] -2.813994e-01 -0.175500305 -0.4482946791
#>   [501,] -4.219914e-01 -0.251114907 -0.6655729435
#>   [502,]  2.480735e+00  4.134908969  5.3881272017
#>   [503,]  9.427477e-01  2.649047244  2.6456974711
#>   [504,] -1.225268e+00 -2.319098534 -2.8148863362
#>   [505,] -2.725135e-01  0.870618509  0.1433380367
#>   [506,]  8.988214e-01  1.110378604  1.7370256480
#>   [507,]  1.061974e+00  1.683408264  2.2584814282
#>   [508,]  1.739052e-02  0.377174640  0.2310017539
#>   [509,]  3.791748e-02 -0.160479681 -0.0417771782
#>   [510,] -6.488222e-01 -0.503738505 -1.0886218389
#>   [511,]  2.322773e+00  3.375158447  4.7695219312
#>   [512,] -1.347838e+00 -1.893407348 -2.7314889084
#>   [513,]  1.417786e-01 -0.599036882 -0.1556453489
#>   [514,] -2.268620e+00 -3.680064292 -4.8712045924
#>   [515,]  3.090784e-01  0.907286618  0.8889205175
#>   [516,] -1.124927e+00 -1.032604371 -1.9758131032
#>   [517,]  5.966483e-01 -0.074371945  0.7027349444
#>   [518,]  3.429770e-01  1.105010065  1.0409196297
#>   [519,]  8.482481e-01  1.561195724  1.9241463400
#>   [520,] -4.867255e-01 -0.121286799 -0.6742458055
#>   [521,] -6.864789e-01 -0.214352624 -0.9749818727
#>   [522,] -2.844840e-01 -0.835898564 -0.8186345105
#>   [523,] -1.338923e+00 -3.813117359 -3.7857301157
#>   [524,]  2.453804e-01 -0.498429752  0.0293766979
#>   [525,]  2.447298e-01  1.055422471  0.8908883894
#>   [526,]  5.483941e-01 -0.785489545  0.2479224284
#>   [527,]  5.548961e-01  0.358317912  0.8907955830
#>   [528,]  1.411935e+00  2.025241102  2.8845780910
#>   [529,] -9.643644e-01 -1.535750665 -2.0548200759
#>   [530,] -1.060709e+00 -1.267900330 -2.0263135275
#>   [531,]  1.040166e+00  2.750928837  2.8237157999
#>   [532,]  1.253921e+00  2.393258134  2.8917722922
```

```
#>   [533,]   1.456473e-01   0.027586404   0.1969284890
#>   [534,]  -7.675414e-01  -1.110736642  -1.5735207678
#>   [535,]   3.548034e-01   1.139580055   1.0748518413
#>   [536,]   7.450880e-01   2.112253722   2.1013218974
#>   [537,]  -1.491389e-01   0.984310456   0.3602779421
#>   [538,]  -1.213698e+00  -1.267021604  -2.2166005169
#>   [539,]  -2.340150e-01  -0.164727844  -0.3832290112
#>   [540,]  -2.762662e-01   0.035211583  -0.3249573260
#>   [541,]  -1.002834e+00  -0.699235267  -1.6385595142
#>   [542,]  -2.213006e-01  -0.694350384  -0.6612926672
#>   [543,]  -8.477033e-01  -1.237440682  -1.7437964428
#>   [544,]   1.498056e+00   1.250786849   2.5621802000
#>   [545,]  -8.871644e-01  -0.760931464  -1.5285610389
#>   [546,]  -1.634730e-01   0.769093756   0.2229673153
#>   [547,]  -1.319535e+00  -1.581632623  -2.5231733948
#>   [548,]  -4.361635e-01  -0.448971017  -0.7930470657
#>   [549,]   9.801488e-01   2.308021190   2.5030807095
#>   [550,]   1.129020e+00   1.320713069   2.1408059302
#>   [551,]   5.622163e-01   0.965072188   1.2366468596
#>   [552,]  -3.768603e-02   0.631709618   0.3035786775
#>   [553,]   1.171529e+00   1.963710769   2.5506496866
#>   [554,]   1.264905e+00   1.065912924   2.1688483209
#>   [555,]   7.923308e-01   1.664390690   1.9116875255
#>   [556,]  -6.806012e-01  -0.291967918  -1.0107257883
#>   [557,]   2.382882e-01  -0.094375123   0.2447662417
#>   [558,]  -5.930985e-01  -2.600526382  -2.1827650128
#>   [559,]   4.313327e-01   0.869012614   1.0201286467
#>   [560,]   1.985552e+00   2.884663511   4.0768100507
#>   [561,]   2.997568e-01   0.148722706   0.4563255099
#>   [562,]   6.104218e-01   0.779867445   1.1939773409
#>   [563,]   4.309978e-01   0.449416142   0.7868526468
#>   [564,]   2.647101e+00   4.283328698   5.6779496395
#>   [565,]   6.155739e-01   1.096971765   1.3763815346
#>   [566,]   1.445089e+00   4.098584043   4.0765386801
#>   [567,]   1.708444e+00   2.306610881   3.4104668951
#>   [568,]  -3.620954e-01  -0.359412502  -0.6509844812
#>   [569,]   1.518445e+00   2.784746082   3.4388878116
#>   [570,]  -1.498563e+00  -2.836943025  -3.4430616478
#>   [571,]   6.924081e-02   1.306319566   0.8112945380
#>   [572,]  -1.061769e+00  -0.369511348  -1.5290676794
#>   [573,]  -8.612901e-01  -2.613517440  -2.5244038912
#>   [574,]   1.202917e+00   2.383490594   2.8227505241
#>   [575,]   9.950879e-03  -0.167353896  -0.0804658618
#>   [576,]   1.519646e+00   0.263094048   2.0409739636
#>   [577,]   1.426005e+00   3.266006684   3.5906960484
```

```
#>   [578,]  -1.766987e-03   0.147801928   0.0798204853
#>   [579,]  -3.749074e-02  -0.160526849  -0.1358358641
#>   [580,]  -1.335667e+00  -2.905135801  -3.2777786802
#>   [581,]  -6.866096e-01  -2.739674369  -2.3765927237
#>   [582,]   1.601179e+00   3.203687866   3.7745504600
#>   [583,]   4.029332e-01   0.115040407   0.5662920351
#>   [584,]   1.911506e+00   2.282544691   3.6503253292
#>   [585,]   1.154937e+00   1.214176339   2.1140003533
#>   [586,]  -1.961031e+00  -3.192719268  -4.2171913821
#>   [587,]  -1.677940e-01  -1.082363014  -0.8099018491
#>   [588,]   6.731955e-02  -0.472208785  -0.1781100033
#>   [589,]   5.856260e-01  -0.046871179   0.7042521083
#>   [590,]   7.785529e-01   1.015714134   1.5345184471
#>   [591,]   7.065856e-01   0.307133621   1.0515441825
#>   [592,]  -1.159684e+00  -2.516270412  -2.8425268683
#>   [593,]   4.713869e-02   1.132056993   0.6870252211
#>   [594,]  -2.769192e-01  -0.123799291  -0.4140160252
#>   [595,]   1.778852e+00   3.713753047   4.2791693166
#>   [596,]   7.781385e-01   0.803073416   1.4159949315
#>   [597,]  -4.779137e-01  -2.177555442  -1.8044007767
#>   [598,]   7.573655e-02   1.050672961   0.6775214332
#>   [599,]  -5.618031e-01  -0.383792802  -0.9135459396
#>   [600,]   9.806140e-01   1.495466965   2.0527271941
#>   [601,]  -3.403951e-01  -0.436559801  -0.6667381161
#>   [602,]  -5.770460e-01  -1.506773165  -1.5557606202
#>   [603,]  -2.164556e+00  -3.110681933  -4.4254556625
#>   [604,]   1.228208e+00   3.337594787   3.3837759944
#>   [605,]  -5.957205e-01  -2.029062964  -1.8688963188
#>   [606,]  -4.229281e-01  -1.377042732  -1.2915838065
#>   [607,]   1.136093e-01   0.829834312   0.6021918294
#>   [608,]   5.816006e-01   0.252005562   0.8650966808
#>   [609,]   4.406726e-01   0.813917286   1.0011997238
#>   [610,]   7.855040e-01   1.833406563   1.9969713387
#>   [611,]  -5.575816e-01  -0.809494706  -1.1445285337
#>   [612,]   4.934445e-01   1.565796425   1.4842666239
#>   [613,]   6.730337e-01   1.960360455   1.9271772486
#>   [614,]  -2.157841e+00  -3.389905073  -4.5720391860
#>   [615,]   2.578016e+00   4.832187318   5.8963952820
#>   [616,]  -1.446354e+00  -1.470158468  -2.6194502723
#>   [617,]   3.755540e-01   1.143017311   1.1026349725
#>   [618,]   6.863731e-01   1.658928844   1.7765293577
#>   [619,]  -5.974343e-01  -0.949039034  -1.2716653070
#>   [620,]   1.710918e+00   2.586421759   3.5688353678
#>   [621,]   8.607363e-02   0.243597987   0.2425187507
#>   [622,]   5.764131e-01   0.139675792   0.7962896022
```

```
#>    [623,] -1.368462e+00 -2.384889269 -3.0299575117
#>    [624,] -1.230474e+00 -2.273608481 -2.7961332699
#>    [625,] -2.064576e-01 -1.135202761 -0.8874383810
#>    [626,] -3.660444e-01  0.184545181 -0.3540350301
#>    [627,] -2.718685e-01 -0.030844246 -0.3561316828
#>    [628,]  3.045842e-01  0.881427361  0.8689656289
#>    [629,]  8.450859e-01  1.278795440  1.7634828482
#>    [630,]  7.680455e-01  1.864979275  1.9927225291
#>    [631,]  7.395025e-01  1.011856583  1.4836825979
#>    [632,]  2.015074e+00  2.761155427  4.0450816641
#>    [633,]  8.383487e-02 -0.834528652 -0.3585880827
#>    [634,]  7.418168e-01  0.533693793  1.2212081669
#>    [635,]  1.299671e+00  1.799396103  2.6192521284
#>    [636,]  6.513958e-01  1.050991674  1.3955336727
#>    [637,] -1.443840e+00 -1.176564232 -2.4533830932
#>    [638,] -4.176175e-01  0.211651474 -0.4033028015
#>    [639,]  4.003832e-01  1.472458142  1.3164223015
#>    [640,] -1.691880e+00 -1.907839822 -3.1685113920
#>    [641,] -3.040411e-01  0.026811774 -0.3642536931
#>    [642,] -1.536710e+00 -2.222414034 -3.1495924688
#>    [643,] -1.097281e+00 -2.262932320 -2.6241198245
#>    [644,]  4.883365e-01  0.490259126  0.8810189199
#>    [645,]  2.392783e+00  3.488466615  4.9197042838
#>    [646,]  1.636913e-01  0.372100121  0.4106197381
#>    [647,]  8.693178e-01  2.641414818  2.5498962199
#>    [648,]  3.262948e-01 -0.066183456  0.3701538570
#>    [649,]  1.784408e-01  0.320441089  0.4003433960
#>    [650,]  1.503492e-01 -0.671733463 -0.1853015436
#>    [651,] -8.626697e-01 -0.894121097 -1.5719313099
#>    [652,] -6.051027e-01 -0.874358185 -1.2397829132
#>    [653,] -6.241855e-01 -1.817691443 -1.7870892915
#>    [654,]  1.870421e+00  2.805703655  3.8894252255
#>    [655,] -2.345126e+00 -3.119960210 -4.6557718756
#>    [656,] -4.234107e-01 -0.329519290 -0.7108539173
#>    [657,]  1.593872e+00  3.006872525  3.6562145018
#>    [658,] -1.863783e+00 -3.521906094 -4.2786103645
#>    [659,] -2.199872e+00 -3.708902393 -4.8014811556
#>    [660,]  1.280917e+00  1.460298447  2.4076817928
#>    [661,] -6.504626e-01 -1.587500609 -1.6921099498
#>    [662,]  6.362460e-01  1.568389337  1.6637762560
#>    [663,]  1.330877e+00  1.430029531  2.4531830695
#>    [664,]  9.157967e-01  0.579034205  1.4633195010
#>    [665,] -1.152112e+00 -1.611326762 -2.3308792138
#>    [666,]  1.968313e-01  0.686278228  0.6263002426
#>    [667,] -2.836442e-01  0.654808159  0.0096926287
```

```
#>  [668,] -4.796652e-01 -0.228622169  0.7250084437
#>  [669,]  3.049470e-01  0.024764725  0.3940060831
#>  [670,] -1.836593e-01  0.235173525 -0.0985079320
#>  [671,] -7.957352e-02 -1.242004485 -0.7884870471
#>  [672,]  3.698597e-01  1.039022896  1.0378216522
#>  [673,] -8.053772e-01 -0.537928232 -1.3028166497
#>  [674,]  1.316866e+00  1.573036210  2.5150739748
#>  [675,]  1.073668e-01  0.707903155  0.5267407742
#>  [676,]  2.180235e-01 -0.148224427  0.1896124583
#>  [677,] -1.944298e-01  0.675812701  0.1325977497
#>  [678,] -7.368465e-01 -0.342831458 -1.1090896185
#>  [679,]  8.453045e-01  1.445411542  1.8562203582
#>  [680,] -1.213451e+00 -2.978680114 -3.1661915027
#>  [681,]  3.599668e-01  1.013249567  1.0111823077
#>  [682,]  1.755306e+00  2.431117304  3.5379992700
#>  [683,] -1.308025e-01  0.192952920 -0.0560272329
#>  [684,]  4.555730e-02 -0.101770667  0.0003305610
#>  [685,] -2.106802e+00 -2.992708774 -4.2879669812
#>  [686,]  5.168480e-01  3.066188293  2.3461050067
#>  [687,] -2.910055e-01 -1.753922607 -1.3362315576
#>  [688,] -4.334045e-01 -0.559440517 -0.8509126958
#>  [689,] -7.173941e-01 -0.730391842 -1.2999127203
#>  [690,]  2.299257e-01  0.502914434  0.5658091070
#>  [691,]  2.558424e-01  0.664126628  0.6875926780
#>  [692,]  1.039522e+00  2.254228204  2.5472652998
#>  [693,] -2.575628e-01 -0.795761683 -0.7627899685
#>  [694,] -2.994335e-01 -0.172869322 -0.4693227347
#>  [695,] -2.789616e-01  0.223271557 -0.2239530252
#>  [696,] -1.979426e+00 -2.641655908 -3.9343122974
#>  [697,]  1.343382e-01  0.124911907  0.2368379029
#>  [698,] -1.702757e+00 -2.727915647 -3.6371817319
#>  [699,] -9.469594e-01 -1.652319421 -2.0978071030
#>  [700,] -1.580537e+00 -3.355906525 -3.8332845140
#>  [701,] -3.843921e-01 -0.299272951 -0.6454130577
#>  [702,]  1.871037e+00  3.311292552  4.1707733464
#>  [703,] -9.234043e-01 -2.190141526 -2.3669031497
#>  [704,] -1.354392e+00 -1.537465179 -2.5421276861
#>  [705,] -1.466096e-01  0.158054375 -0.0951056036
#>  [706,] -4.923245e-01 -1.147683670 -1.2508350261
#>  [707,] -3.519408e-01  0.509502352 -0.1561104688
#>  [708,] -2.542375e-01  1.591718270  0.5663080797
#>  [709,]  4.874223e-01  1.691248929  1.5463780480
#>  [710,]  1.258489e+00  2.444248625  2.9257653508
#>  [711,] -3.404384e-01  0.198344916 -0.3144466776
#>  [712,]  1.012156e+00  2.433824859  2.6128087574
```

```
#>  [713,] -8.882095e-01 -1.473095439 -1.9250854759
#>  [714,] -1.041093e-01  0.196521064 -0.0207612578
#>  [715,] -6.475924e-01 -1.043334925 -1.3865417567
#>  [716,]  2.180718e+00  4.273574496  5.0909655989
#>  [717,]  1.077577e+00  0.867987844  1.8254133220
#>  [718,]  1.610407e+00  3.101065635  3.7291062122
#>  [719,]  9.034658e-02 -0.374806460 -0.0953415451
#>  [720,]  8.461877e-01  1.130263810  1.6824278375
#>  [721,] -2.412475e+00 -3.102150522 -4.7298702802
#>  [722,] -1.156266e+00 -1.249347806 -2.1351759832
#>  [723,] -1.242255e-01 -0.268764180 -0.3040595904
#>  [724,] -2.575979e-01  0.213282807 -0.2028562477
#>  [725,] -4.297949e-01 -0.132515232 -0.6094858545
#>  [726,] -1.748302e+00 -2.890387314 -3.7841411638
#>  [727,]  3.467991e-01  0.345820313  0.6243671783
#>  [728,]  3.378679e-02  0.532677773  0.3377452957
#>  [729,] -3.780637e-01 -1.248205493 -1.1641394591
#>  [730,]  8.938113e-01  1.988975965  2.2183628034
#>  [731,]  6.385993e-01  1.958860995  1.8834060844
#>  [732,]  1.984054e+00  3.677444056  4.5149029254
#>  [733,]  9.550295e-01  2.426438659  2.5374741770
#>  [734,]  1.153633e+00  1.876103254  2.4797153276
#>  [735,]  6.314870e-01  0.647033797  1.1465280350
#>  [736,] -9.959131e-01 -0.361809820 -1.4426726812
#>  [737,] -3.281249e-01  0.004150045 -0.4068619089
#>  [738,] -5.965106e-01 -0.060616594 -0.7774762379
#>  [739,]  1.012070e+00  2.095494022  2.4249418865
#>  [740,]  6.660433e-01  0.403851659  1.0546631146
#>  [741,]  1.733263e-02  1.108005690  0.6365102021
#>  [742,] -1.235194e+00 -1.022187527 -2.1075329571
#>  [743,]  3.300846e+00  5.623676014  7.2369921914
#>  [744,] -2.344459e-02 -1.089238089 -0.6337164614
#>  [745,]  3.364630e-02  0.520047976  0.3305611027
#>  [746,]  4.789935e-01  2.442468927  1.9527631750
#>  [747,] -1.727628e+00 -4.391486783 -4.5914082784
#>  [748,] -1.489275e-01 -0.992807182 -0.7366760229
#>  [749,] -6.852225e-01 -0.719124003 -1.2535422442
#>  [750,] -1.721933e-01 -0.920692023 -0.7256669978
#>  [751,]  9.237702e-01  1.136261535  1.7825001720
#>  [752,]  1.150128e+00  1.365313186  2.1918783905
#>  [753,] -2.249014e+00 -3.310266834 -4.6415343321
#>  [754,]  1.457346e+00  1.519829495  2.6607223329
#>  [755,]  1.622040e+00  4.091880367  4.2934729817
#>  [756,]  3.082223e-01  1.235410927  1.0699482163
#>  [757,]  6.362231e-02 -0.140349036  0.0014478883
```

```
#>   [758,]   6.321561e-01   1.028442876   1.3590284663
#>   [759,]  -5.421147e-01   0.147925061  -0.5939137076
#>   [760,]   6.688875e-01  -0.136980613   0.7580706260
#>   [761,]  -2.353260e+00  -4.119822213  -5.2207962417
#>   [762,]   6.120046e-01   0.811224471   1.2133528960
#>   [763,]  -1.987394e-01  -0.194118818  -0.3555517903
#>   [764,]  -2.824469e-01  -0.352934109  -0.5480691649
#>   [765,]   6.935470e-02  -1.389300560  -0.6845197454
#>   [766,]   1.625577e-01  -0.152002969   0.1183508905
#>   [767,]  -1.675499e-01  -0.592991969  -0.5380169990
#>   [768,]   2.056110e+00   3.500540735   4.5065813091
#>   [769,]   6.468120e-01   1.942127382   1.8843607189
#>   [770,]  -1.448505e+00  -2.648050081  -3.2758130449
#>   [771,]   8.756211e-01   1.915114811   2.1546902367
#>   [772,]  -1.077436e+00  -2.324334157  -2.6334484973
#>   [773,]   1.402496e+00   1.113590511   2.3668798961
#>   [774,]  -1.429075e+00  -0.760274453  -2.2039481447
#>   [775,]   9.366742e-01   0.899308554   1.6670921887
#>   [776,]   3.672872e-01  -0.180160172   0.3580183470
#>   [777,]  -2.803739e-01  -0.105567068  -0.4082057904
#>   [778,]   4.741489e-01   0.815113716   1.0436079970
#>   [779,]   2.082063e-01   0.435322812   0.5012149203
#>   [780,]   7.859061e-01   1.120166354   1.6016543349
#>   [781,]  -1.656276e+00  -2.788813011  -3.6130167844
#>   [782,]  -8.226670e-01  -1.355277775  -1.7779714128
#>   [783,]  -8.378420e-02   0.065172541  -0.0683091616
#>   [784,]   1.011036e-01  -0.666352693  -0.2437237441
#>   [785,]   1.832645e+00   4.449449901   4.7545293096
#>   [786,]  -5.598516e-01   0.018644174  -0.6877768435
#>   [787,]   2.484940e+00   4.606532230   5.6551015648
#>   [788,]  -8.399793e-01  -0.214983684  -1.1667440386
#>   [789,]  -1.220298e-01  -0.917449399  -0.6613146232
#>   [790,]   9.023177e-01   1.479002223   1.9459560375
#>   [791,]  -3.712870e-01  -0.071881576  -0.5028785344
#>   [792,]   1.698589e+00   2.656003567   3.5920766142
#>   [793,]   1.031230e+00   1.752048250   2.2582366797
#>   [794,]   7.736051e-01  -0.192699140   0.8577297926
#>   [795,]  -2.353027e+00  -5.444765768  -5.9557938785
#>   [796,]   1.738790e-01   0.173401235   0.3130540514
#>   [797,]  -7.925465e-01  -1.995252554  -2.0955709415
#>   [798,]  -3.144308e-01  -0.022804605  -0.4047443988
#>   [799,]  -6.304119e-02   0.313125155   0.0951602786
#>   [800,]   1.170402e-01   0.797222955   0.5883720439
#>   [801,]   1.479373e+00   1.701081665   2.7887770910
#>   [802,]   1.574151e+00   2.918796356   3.5827443021
```

```
#>  [803,]   7.975464e-01   1.883162681   2.0396005788
#>  [804,]   2.263205e-01   1.712413004   1.2325345754
#>  [805,]   1.825327e-01  -0.125981599   0.1577000422
#>  [806,]  -1.325146e+00  -1.653350352  -2.5699699983
#>  [807,]  -1.606401e+00  -3.243407424  -3.8031045612
#>  [808,]  -3.786617e-01  -0.894681509  -0.9686942415
#>  [809,]   1.445719e+00   3.441862428   3.7128718545
#>  [810,]  -2.249780e+00  -3.904656910  -4.9723508989
#>  [811,]   1.711029e+00   1.536411541   2.9862627963
#>  [812,]  -2.666746e+00  -5.424493478  -6.3357451473
#>  [813,]   8.076134e-02  -0.359610603  -0.0988610811
#>  [814,]   5.869197e-02  -0.618607691  -0.2701136731
#>  [815,]   2.276318e+00   2.641764095   4.3045909627
#>  [816,]   1.394291e+00   1.057107712   2.3253027729
#>  [817,]  -2.173728e-01   0.928039867   0.2439637798
#>  [818,]   1.511212e+00   3.047695412   3.5757936911
#>  [819,]   1.144755e+00   1.105932669   2.0412328003
#>  [820,]   7.831839e-01   1.162463790   1.6217330652
#>  [821,]   8.809137e-01   2.330095736   2.3915869386
#>  [822,]   8.117600e-01   0.863542532   1.4914781638
#>  [823,]  -1.968568e+00  -3.164319914  -4.2108287410
#>  [824,]   2.779482e+00   4.290512423   5.8470127448
#>  [825,]   3.906127e-01   0.199618864   0.5978661434
#>  [826,]  -2.877090e-01  -1.020632391  -0.9251755190
#>  [827,]  -6.734325e-01  -0.067744160  -0.8773517318
#>  [828,]   8.357814e-02   0.319525030   0.2815432496
#>  [829,]  -2.029682e+00  -2.730417995  -4.0462394040
#>  [830,]   6.207218e-01   2.633415124   2.2354625224
#>  [831,]   1.104346e+00   1.869162009   2.4144036763
#>  [832,]   1.179580e+00   3.281071338   3.2917692237
#>  [833,]   1.083900e+00   1.616844660   2.2488824025
#>  [834,]   1.845760e-01   0.262523840   0.3758522634
#>  [835,]  -8.438687e-02  -0.056239014  -0.1364390040
#>  [836,]  -2.095505e+00  -4.649169678  -5.1931468931
#>  [837,]   4.822474e-01   1.341179165   1.3456509695
#>  [838,]   6.173050e-01   1.768339514   1.7511210923
#>  [839,]   2.982155e-02   0.037857290   0.0581960777
#>  [840,]  -8.073017e-02   1.003625117   0.4563010445
#>  [841,]   1.502524e+00   2.088037334   3.0323894788
#>  [842,]  -3.798541e-01   0.446299088  -0.2259929794
#>  [843,]  -9.225058e-01  -1.024220633  -1.7187454902
#>  [844,]   1.371699e-01   0.960087824   0.7038566245
#>  [845,]   1.037538e-01  -1.375611001  -0.6340276284
#>  [846,]  -2.416754e-01   0.183547373  -0.1995031793
#>  [847,]   6.592652e-01   1.441961796   1.6223186739
```

```
#>   [848,]   1.321687e+00   1.842485374    2.6706191229
#>   [849,]   5.526962e-01   0.951817374    1.2174197156
#>   [850,]   1.425663e+00   2.196969645    2.9969987628
#>   [851,]   7.639611e-01   0.781916867    1.3865750873
#>   [852,]  -6.808576e-01  -0.564975233   -1.1625531266
#>   [853,]  -1.360138e+00  -2.658496161   -3.1714179420
#>   [854,]  -1.124643e+00  -1.615880663   -2.2991530298
#>   [855,]   1.267702e+00   1.887559716    2.6283155915
#>   [856,]  -3.514089e-01   0.328223116   -0.2560496911
#>   [857,]   7.435259e-01   2.336499040    2.2238207838
#>   [858,]   2.931027e-01   0.414628843    0.5955947602
#>   [859,]  -5.766797e-01  -1.539850738   -1.5736604510
#>   [860,]  -1.220988e+00  -1.737469245   -2.4867697102
#>   [861,]   2.185232e+00   3.806851609    4.8375828226
#>   [862,]  -2.840789e-01  -0.310612671   -0.5266176227
#>   [863,]   5.617850e-01   1.058595563    1.2880106787
#>   [864,]  -1.337147e+00  -1.206492119   -2.3369475451
#>   [865,]  -2.728718e-01   1.374712888    0.4226425332
#>   [866,]  -1.024850e+00  -1.559246084   -2.1432835340
#>   [867,]  -1.818112e+00  -4.772743055   -4.9158210088
#>   [868,]  -5.687327e-01  -0.082178181   -0.7548035600
#>   [869,]   5.831929e-01   0.896575882    1.2247917615
#>   [870,]   6.049902e-01   0.088172620    0.8033425318
#>   [871,]   1.455419e+00   1.686651292    2.7508983095
#>   [872,]  -3.930986e-01  -0.097102134   -0.5440735446
#>   [873,]  -1.940926e+00  -4.989500988   -5.1892594585
#>   [874,]  -1.115814e+00  -2.246866925   -2.6383139558
#>   [875,]   1.197077e+00   2.278060045    2.7569587093
#>   [876,]   7.870218e-01   3.184545925    2.7486897986
#>   [877,]   9.919243e-01   1.874279277    2.2770558856
#>   [878,]  -1.034337e+00  -1.879114240   -2.3326271032
#>   [879,]   2.885051e+00   7.230960594    7.6104799796
#>   [880,]  -1.330766e+00  -1.843717155   -2.6826232730
#>   [881,]   1.053872e+00   1.695594018    2.2551401603
#>   [882,]  -3.700440e-01  -0.178587435   -0.5605459251
#>   [883,]   6.835216e-01   0.432949319    1.0926062725
#>   [884,]   4.586500e-01   1.563432072    1.4395664859
#>   [885,]   8.294283e-01   0.801309008    1.4789731149
#>   [886,]  -1.309461e-01  -1.052145869   -0.7471840352
#>   [887,]   6.700520e-01   1.964028327    1.9254947235
#>   [888,]   3.854755e-01   0.923181753    0.9930073142
#>   [889,]  -4.476542e-01  -0.873735565   -1.0431022821
#>   [890,]  -1.290231e+00  -2.791568031   -3.1580946370
#>   [891,]  -1.853932e+00  -3.465426244   -4.2349820944
#>   [892,]   7.498251e-02   0.563877547    0.4064300918
```

```
#>   [893,]   1.649165e+00   2.803538905   3.6123216017
#>   [894,]  -3.228413e-01  -0.940990950  -0.9247870444
#>   [895,]  -2.780575e-01  -0.184929768  -0.4493603553
#>   [896,]   4.211223e-01   1.839225328   1.5458240152
#>   [897,]   3.680184e-01  -0.319538691   0.2815809051
#>   [898,]  -5.568207e-02  -1.246839254  -0.7613779851
#>   [899,]  -9.590514e-02   0.740881309   0.2915663480
#>   [900,]  -3.457064e-01  -0.512877474  -0.7157144122
#>   [901,]   1.378019e+00   2.431920514   3.0679755630
#>   [902,]   3.058996e-01   0.033462990   0.4000210830
#>   [903,]   4.294725e-01  -0.377939520   0.3258027994
#>   [904,]  -4.103320e-01  -0.322849010  -0.6908433390
#>   [905,]  -3.249025e-01  -1.054206028  -0.9901869905
#>   [906,]   4.971238e-01   0.867688958   1.1014342550
#>   [907,]  -2.492723e-01   0.556296924  -0.0021159132
#>   [908,]  -2.438526e-01  -0.798152778  -0.7470206094
#>   [909,]  -1.327319e+00  -1.713001746  -2.6057839012
#>   [910,]   5.088346e-01   1.447307764   1.4377015478
#>   [911,]  -1.642972e+00  -2.957592340  -3.6900920555
#>   [912,]  -7.893070e-01  -0.865700247  -1.4646770752
#>   [913,]  -3.770600e-01  -0.401036105  -0.6927443331
#>   [914,]  -3.972780e-01  -0.314405216  -0.6698792477
#>   [915,]   4.263242e-01   2.064037281   1.6770718133
#>   [916,]  -5.039137e-01  -0.365349856  -0.8311239844
#>   [917,]   3.961392e-02  -0.036646299   0.0290605875
#>   [918,]  -1.052390e+00  -1.610569585  -2.2061080799
#>   [919,]  -8.599072e-01  -1.241264165  -1.7611364085
#>   [920,]   3.307999e-01   0.885084829   0.9036857746
#>   [921,]  -8.488050e-01  -0.999509098  -1.6131282293
#>   [922,]  -8.861261e-01  -1.771803938  -2.0882581663
#>   [923,]  -1.001759e+00  -1.506584038  -2.0852646434
#>   [924,]   2.193721e+00   2.365870998   4.0484849035
#>   [925,]  -2.195867e-01  -0.217767691  -0.3946720572
#>   [926,]  -1.449334e+00  -3.455271254  -3.7248206521
#>   [927,]  -1.819923e-01  -0.092852659  -0.2784700761
#>   [928,]  -2.548521e-01  -1.041286829  -0.8956659833
#>   [929,]   3.243278e-02   0.390449271   0.2571260095
#>   [930,]   8.875013e-01   0.146014365   1.1877278642
#>   [931,]   1.328025e-02  -0.683429250  -0.3627144231
#>   [932,]   1.119163e+00   1.446880658   2.1985319619
#>   [933,]  -8.284525e-01   0.088138976  -0.9841498921
#>   [934,]   4.176467e-02  -1.107614096  -0.5625997520
#>   [935,]   1.156011e+00   1.409741378   2.2238690577
#>   [936,]  -4.141056e-01  -0.852885159  -0.9896967442
#>   [937,]   1.969715e-01   1.407785166   1.0268813058
```

```
#>    [938,]  8.447621e-01  1.486023578  1.8780819233
#>    [939,] -9.409717e-01 -2.272794834 -2.4346784480
#>    [940,] -1.310649e+00 -2.545736402 -3.0471298700
#>    [941,] -7.266149e-01 -0.310196554 -1.0782200236
#>    [942,] -4.492649e-01 -1.227551194 -1.2414636755
#>    [943,]  2.367151e+00  2.436866349  4.3041481073
#>    [944,] -3.481840e-01 -1.842809434 -1.4568603838
#>    [945,] -5.154188e-02  0.414460604  0.1657366102
#>    [946,] -4.710058e-01 -1.403127537 -1.3660116713
#>    [947,]  8.317798e-01  1.133011478  1.6659864386
#>    [948,]  2.291746e-01 -0.811036472 -0.1643152062
#>    [949,] -7.199354e-01  0.251611128 -0.7581111230
#>    [950,]  9.091449e-01  0.916290101  1.6421878037
#>    [951,]  1.203526e+00  1.410311165  2.2834357649
#>    [952,] -1.595140e-01  0.181279875 -0.0983079349
#>    [953,] -6.307870e-01 -1.714000450 -1.7377770338
#>    [954,] -1.052365e+00 -2.388693653 -2.6379025107
#>    [955,]  1.013835e+00  0.854676158  1.7385409037
#>    [956,]  1.699064e+00  2.381062742  3.4400877476
#>    [957,]  2.233810e-01  1.581885836  1.1564319703
#>    [958,]  6.746001e-01  0.338320916  1.0289664728
#>    [959,] -5.481805e-01 -1.684202217 -1.6182316116
#>    [960,]  1.246476e+00  1.114348596  2.1727466085
#>    [961,] -5.400870e-01 -0.893928530 -1.1695703431
#>    [962,]  1.332865e+00  1.278627928  2.3716404876
#>    [963,] -3.909627e-01 -1.146912300 -1.1240108791
#>    [964,] -1.447558e-01  1.188649577  0.4791432265
#>    [965,] -1.712694e+00 -2.067234787 -3.2829226652
#>    [966,]  5.563693e-01  0.998011098  1.2476355563
#>    [967,] -3.620850e+00 -6.969570488 -8.3829465132
#>    [968,] -2.329643e-01 -0.215838756 -0.4102832574
#>    [969,] -4.936479e-01 -1.661983707 -1.5379002615
#>    [970,]  1.639277e+00  2.540065640  3.4537753684
#>    [971,]  5.132180e-01  1.076676206  1.2374825753
#>    [972,]  4.744507e-01  0.131291608  0.6644917277
#>    [973,] -3.338880e-01 -1.068462342 -1.0093034522
#>    [974,]  1.290022e+00  1.655967637  2.5276236964
#>    [975,] -1.686115e+00 -2.827143013 -3.6714964777
#>    [976,] -7.252922e-01 -0.496542977 -1.1799851605
#>    [977,]  1.984408e+00  3.041519780  4.1624323833
#>    [978,] -8.498785e-01 -1.862106828 -2.0931724370
#>    [979,] -5.952005e-01 -2.266569096 -2.0000538867
#>    [980,]  6.926271e-01  1.548472879  1.7230295412
#>    [981,]  5.314511e-01  1.127561194  1.2884578751
#>    [982,] -7.074281e-01 -0.932040422 -1.3993918488
```

```
#>   [983,] -1.291150e+00 -2.183907925 -2.8220152227
#>   [984,]  4.284587e-01  0.764564995  0.9585808382
#>   [985,] -1.014958e-01  0.067809190 -0.0889319633
#>   [986,]  9.863060e-02 -0.864642990 -0.3568503095
#>   [987,] -2.745343e-01 -0.532050149 -0.6376042600
#>   [988,]  1.914623e+00  3.780975061  4.4857787603
#>   [989,]  1.936411e+00  3.754688416  4.4983604846
#>   [990,]  6.852225e-02 -0.452314542 -0.1655697912
#>   [991,]  1.349744e+00  2.881135944  3.2820136714
#>   [992,]  8.485062e-01  2.523516204  2.4585158220
#>   [993,] -1.996342e+00 -3.664849425 -4.5232361016
#>   [994,]  1.618953e+00  2.218061309  3.2497322126
#>   [995,]  1.014205e-01  1.038269346  0.7026652771
#>   [996,]  2.141562e+00  3.326583306  4.5165991685
#>   [997,]  1.104087e+00  1.354910950  2.1286930765
#>   [998,]  9.787600e-02  1.034616715  0.6962183337
#>   [999,] -1.697032e+00 -2.049669157 -3.2536453973
#> [1000,]  3.688508e-02  1.456055342  0.8540446962
#> [1001,]  1.267966e+00  2.060148495  2.7244241588
#> [1002,] -1.428909e+00 -2.504589057 -3.1717627862
#> [1003,]  9.286161e-01  0.734353554  1.5655007666
#> [1004,] -5.735190e-01 -1.988875022 -1.8189088068
#> [1005,] -2.059590e+00 -2.821354453 -4.1340003436
#> [1006,] -7.781982e-01 -0.920823282 -1.4814156170
#> [1007,]  9.940224e-01  1.494593810  2.0689626787
#> [1008,] -1.750745e-01  0.386252674 -0.0039602693
#> [1009,]  1.437380e+00  1.125936414  2.4172309080
#> [1010,] -1.357413e-02 -0.557802860 -0.3264838990
#> [1011,] -3.853170e-01 -0.759681002 -0.9020736034
#> [1012,]  1.237955e+00  1.475710159  2.3626613716
#> [1013,]  1.788032e+00  1.936615643  3.3043805915
#> [1014,]  4.698807e-01  1.573559282  1.4591911975
#> [1015,] -1.271999e+00 -1.775659662 -2.5715730842
#> [1016,]  1.258972e+00  2.393645131  2.8982846198
#> [1017,]  9.659940e-01  1.888854856  2.2528101712
#> [1018,]  4.885754e-01  1.712295062  1.5594955720
#> [1019,] -1.056109e+00 -1.870108589 -2.3547789607
#> [1020,]  4.437127e-02  0.342462350  0.2453823339
#> [1021,]  5.395744e-01  0.703022564  1.0629863484
#> [1022,] -1.075162e+00 -0.117683203 -1.4060145956
#> [1023,]  1.850015e-01  1.221277504  0.9084510369
#> [1024,] -1.263338e+00 -4.002620772 -3.7966431649
#> [1025,]  1.030520e+00  1.247083648  1.9771167638
#> [1026,] -2.288495e+00 -3.683487900 -4.8978886313
#> [1027,]  1.521377e+00  1.161333411  2.5416179414
```

```
#> [1028,]   4.779724e-01   0.573391562   0.9142301363
#> [1029,]  -2.009542e+00  -4.189207915  -4.8306922796
#> [1030,]   5.906574e-01   0.118261291   0.8021677768
#> [1031,]  -1.059733e+00  -2.501460464  -2.7096711102
#> [1032,]  -2.231523e-01  -0.264035980  -0.4247953161
#> [1033,]   4.602362e-01   1.765972857   1.5539461477
#> [1034,]   9.263114e-01   1.383885679   1.9230900169
#> [1035,]  -8.345071e-02  -1.471969706  -0.9209428907
#> [1036,]  -1.079265e+00  -1.344974894  -2.0922261287
#> [1037,]   9.715649e-01   1.165181945   1.8581488338
#> [1038,]  -3.835223e-01  -0.663799559  -0.8466254799
#> [1039,]   7.163377e-02   0.693991381   0.4744620098
#> [1040,]  -7.942231e-01  -1.677786260  -1.9214811198
#> [1041,]   4.478509e-02  -1.843564066  -0.9672547763
#> [1042,]  -1.228373e+00  -2.935436579  -3.1608003177
#> [1043,]  -1.357353e+00  -1.719959196  -2.6470964102
#> [1044,]  -2.501410e+00  -4.870939216  -5.8223748843
#> [1045,]   1.302838e+00   2.653547537   3.0972200980
#> [1046,]   4.733815e-01   0.110962304   0.6518764727
#> [1047,]  -8.929829e-01  -1.890474960  -2.1626658605
#> [1048,]   9.929425e-03   0.587643706   0.3384994441
#> [1049,]   2.175232e+00   4.507885249   5.2141572435
#> [1050,]   1.100306e+00   1.009077066   1.9320542406
#> [1051,]  -3.058781e-01  -1.660762704  -1.3030775495
#> [1052,]   2.302376e+00   4.197278065   5.2003296030
#> [1053,]   1.401325e+00   2.957505526   3.3887149152
#> [1054,]   1.812229e+00   3.048744834   3.9517382555
#> [1055,]   1.278779e+00   1.695435841   2.5355070858
#> [1056,]  -1.358683e+00  -2.596003866  -3.1349234536
#> [1057,]   2.646362e+00   4.196926727   5.6290778333
#> [1058,]   9.149194e-01   1.975007297   2.2369321598
#> [1059,]   1.914654e+00   3.011251605   4.0586531684
#> [1060,]  -2.544359e-01  -0.021221295  -0.3290533297
#> [1061,]   2.494663e-01   0.180816587   0.4114249768
#> [1062,]   1.077010e+00   2.471313522   2.7144852776
#> [1063,]   8.975719e-01   1.322345833   1.8531003826
#> [1064,]  -3.822802e-01  -0.439040568  -0.7203447553
#> [1065,]   1.148939e-02  -0.227388353  -0.1118639795
#> [1066,]   2.826256e-01   0.584749057   0.6769396371
#> [1067,]  -4.954278e-01  -2.079147025  -1.7716278938
#> [1068,]  -1.253087e+00  -1.024017497  -2.1308609163
#> [1069,]  -1.023608e-01   0.829829380   0.3328787519
#> [1070,]   1.146830e+00   0.847585697   1.9004480818
#> [1071,]   2.180331e+00   2.421107085   4.0624417415
#> [1072,]  -1.222052e+00  -3.506279965  -3.4697121133
```

```
#> [1073,] -8.769308e-01 -1.652606563 -2.0106422908
#> [1074,] -1.769161e+00 -3.100023010 -3.9264902990
#> [1075,] -6.326894e-01 -0.081357867 -0.8341009511
#> [1076,]  1.507093e+00  1.009139509  2.4393448210
#> [1077,] -5.959173e-01 -1.518827485 -1.5859824004
#> [1078,]  2.587876e-01  0.158146562  0.4104675941
#> [1079,]  1.346981e-02 -0.775699621 -0.4136842316
#> [1080,] -1.372390e+00 -2.034894361 -2.8406233304
#> [1081,]  2.932868e-01 -0.413388209  0.1363095560
#> [1082,] -1.793769e-01 -0.175744477 -0.3212101225
#> [1083,]  2.934692e-01  1.238166278  1.0530805923
#> [1084,] -4.213170e-01 -0.395573358 -0.7449003783
#> [1085,]  1.302132e+00  2.415873161  2.9644405828
#> [1086,] -1.890477e+00 -2.243377245 -3.6023662855
#> [1087,] -9.578399e-01 -0.506912971 -1.4757223469
#> [1088,] -5.125507e-01 -1.299924076 -1.3605437088
#> [1089,]  8.344197e-01  1.425183769  1.8314217045
#> [1090,]  8.272718e-02  0.897647001  0.6013156146
#> [1091,] -9.757159e-01 -0.987524495 -1.7647325848
#> [1092,] -9.219384e-01 -0.194491442 -1.2575730212
#> [1093,] -3.681960e+00 -5.717964215 -7.7645599498
#> [1094,] -1.207563e-01 -0.048532856 -0.1775144038
#> [1095,]  6.071295e-01  1.246047881  1.4485825155
#> [1096,] -1.191984e-01 -1.007758291 -0.7079016442
#> [1097,]  4.658054e-02  0.502309633  0.3368458041
#> [1098,]  1.180809e+00  1.640132635  2.3826494834
#> [1099,]  4.571837e-01  1.404013537  1.3492674944
#> [1100,] -9.031374e-01 -2.653878738 -2.5989854822
#> [1101,]  9.679118e-01  2.327635518  2.4987065119
#> [1102,] -2.710640e+00 -5.485260543 -6.4242023645
#> [1103,] -8.022453e-01 -1.834320905 -2.0183548696
#> [1104,] -1.496920e+00 -2.744290901 -3.3895949064
#> [1105,] -2.448851e-01  0.058387986 -0.2729638051
#> [1106,] -4.748751e-02  1.395427755  0.7151880192
#> [1107,]  7.953066e-01  0.732338527  1.3981482904
#> [1108,] -1.023427e+00 -1.877873864 -2.3183345392
#> [1109,] -1.695282e-01 -1.596384225 -1.0973246069
#> [1110,]  9.321481e-01  0.845160202  1.6313982458
#> [1111,]  2.706775e-01  0.035471954  0.3572147718
#> [1112,]  2.055073e-01 -0.501126766 -0.0218409168
#> [1113,] -2.169442e+00 -4.037966572 -4.9461521378
#> [1114,] -7.387323e-02  0.273420744  0.0596186570
#> [1115,] -1.399266e-01 -0.611350589 -0.5137595811
#> [1116,]  1.974660e+00  2.227105643  3.6983108159
#> [1117,] -1.376670e+00 -2.985574364 -3.3735481093
```

```
#> [1118,]   9.297413e-01   1.849537361   2.1857842776
#> [1119,]   9.164854e-01   2.239283317   2.3855470738
#> [1120,]  -2.513771e+00  -4.479114833  -5.6203429187
#> [1121,]  -2.626600e+00  -5.618769818  -6.3934989022
#> [1122,]   6.918488e-01   1.371240628   1.6237024248
#> [1123,]   9.688989e-01   1.625974684   2.1105450208
#> [1124,]  -2.148560e+00  -4.238180116  -5.0312225884
#> [1125,]   8.604025e-01   2.538837234   2.4818526900
#> [1126,]  -4.859944e-01   0.115738391  -0.5417951776
#> [1127,]  -1.011343e+00  -0.997322940  -1.8145961253
#> [1128,]   9.756796e-01   2.065438747   2.3628845581
#> [1129,]  -1.928322e+00  -2.771669819  -3.9427389372
#> [1130,]   3.719822e-01  -0.949127659  -0.0628719505
#> [1131,]  -2.192297e+00  -2.601535902  -4.1774926797
#> [1132,]   1.405155e+00   1.777931620   2.7388776028
#> [1133,]   9.990066e-02   0.856212440   0.5997361372
#> [1134,]  -1.252884e+00  -1.929116699  -2.6328992713
#> [1135,]  -4.408192e-01  -0.231821109  -0.6783435992
#> [1136,]   2.947982e-02  -0.765657101  -0.3881469009
#> [1137,]  -7.978928e-01  -0.711557008  -1.3898403451
#> [1138,]  -5.054014e-02   0.171748448   0.0322906725
#> [1139,]   7.595240e-01   1.842526650   1.9696361104
#> [1140,]   4.432673e-02   0.981924384   0.6002014561
#> [1141,]  -1.328678e+00  -1.239487273  -2.3446983462
#> [1142,]  -8.981363e-01  -0.641245883  -1.4758222775
#> [1143,]  -1.441095e+00  -2.407641458  -3.1331557901
#> [1144,]  -1.250477e+00  -2.523451443  -2.9597297740
#> [1145,]  -9.576208e-02  -0.561673319  -0.4311185302
#> [1146,]   1.993480e-01   0.892571447   0.7439226222
#> [1147,]   1.466952e+00   2.637019652   3.2926941313
#> [1148,]   2.760769e-01   0.988378662   0.8927710127
#> [1149,]   1.609894e+00   3.132590474   3.7459612175
#> [1150,]   1.057200e+00   0.683522461   1.6976334080
#> [1151,]   4.260531e-01   1.043730587   1.1105063387
#> [1152,]  -2.780661e-01  -0.334215899  -0.5322185602
#> [1153,]  -3.760574e-01   1.294609765   0.2495183571
#> [1154,]   1.450712e+00   1.364869154   2.5664535848
#> [1155,]  -3.743900e-02   0.748645105   0.3687810159
#> [1156,]   2.856713e-01   0.778781079   0.7884171498
#> [1157,]   9.604410e-01   1.982903438   2.2980787390
#> [1158,]   2.693007e-01   0.635870074   0.6886937353
#> [1159,]   3.936282e-01   0.284867899   0.6489361497
#> [1160,]  -6.223544e-05  -0.104458609  -0.0580477608
#> [1161,]   1.604672e-01   0.056480856   0.2314438312
#> [1162,]   1.101324e+00   1.467002938   2.1874542052
```

```
#> [1163,] -1.178488e+00 -3.494739131 -3.4089843566
#> [1164,]  1.279958e+00  1.620185275  2.4952158918
#> [1165,] -2.632413e-01 -0.055365292 -0.3589819303
#> [1166,] -7.513850e-01 -0.226542192 -1.0626832110
#> [1167,]  1.307932e+00  1.530270625  2.4802005821
#> [1168,] -6.117480e-01 -1.117386982 -1.3829403140
#> [1169,]  1.890768e+00  2.928761922  3.9830894036
#> [1170,] -1.237257e+00 -2.126607771 -2.7230125731
#> [1171,] -3.113886e-01  0.232379837 -0.2593341276
#> [1172,]  1.663119e+00  2.660872099  3.5505483230
#> [1173,]  1.668528e+00  2.548074888  3.4946946512
#> [1174,]  1.217823e+00  1.860820689  2.5512782216
#> [1175,]  1.568488e+00  3.073218075  3.6613799386
#> [1176,]  4.982159e-01  1.934717611  1.6949523255
#> [1177,] -1.953614e+00 -4.187168628 -4.7598205010
#> [1178,] -1.269208e+00 -0.799619700 -2.0264323312
#> [1179,]  5.216366e-01  1.329528570  1.3883029454
#> [1180,] -7.891104e-01 -0.626240762 -1.3315420040
#> [1181,] -1.587893e+00 -3.689776146 -4.0277420546
#> [1182,]  1.181507e+00  2.387069528  2.7980387380
#> [1183,]  1.204191e-01 -0.194274081  0.0423461381
#> [1184,] -1.361731e+00 -2.874671781 -3.2933736476
#> [1185,] -1.101465e+00 -1.670176584 -2.3003828866
#> [1186,]  9.209398e-03 -0.224632207 -0.1131775391
#> [1187,] -9.472799e-01 -2.049326927 -2.3185294084
#> [1188,]  2.072397e+00  4.548153580  5.1082710704
#> [1189,]  1.194030e+00  2.338831183  2.7868843288
#> [1190,] -1.733683e+00 -2.350831935 -3.4664811766
#> [1191,]  3.209024e-01 -0.011861682  0.3935759880
#> [1192,]  1.219962e-01  0.891595797  0.6469251495
#> [1193,]  1.397532e+00  2.333070776  3.0374508873
#> [1194,] -8.899081e-01  0.665384827 -0.7404364712
#> [1195,]  1.807286e+00  2.291107764  3.5251171656
#> [1196,] -9.951921e-01 -1.095848867 -1.8491344699
#> [1197,]  1.264958e-01  0.869792813  0.6404362767
#> [1198,] -6.460791e-01 -0.829789057 -1.2661457017
#> [1199,]  1.801551e+00  2.424294010  3.5918790369
#> [1200,]  5.569376e-01  1.514219030  1.5348180467
#> [1201,] -6.099313e-01 -0.646002131 -1.1190760301
#> [1202,] -2.121062e+00 -3.701302124 -4.6989889043
#> [1203,] -3.982862e-01 -1.240782931 -1.1852373762
#> [1204,] -3.685538e-02 -0.605931412 -0.3822244735
#> [1205,] -1.517737e+00 -1.405284879 -2.6724614402
#> [1206,] -2.193430e+00 -4.610459657 -5.2937743176
#> [1207,]  1.255039e+00  2.877720408  3.1620225816
```

```
#> [1208,]   8.496925e-01   0.307723731   1.2303230609
#> [1209,]   5.624539e-02   0.320599289   0.2480560335
#> [1210,]   1.589030e+00   2.099706326   3.1467369631
#> [1211,]  -9.903517e-01  -2.988439201  -2.8934069475
#> [1212,]   1.228594e+00   1.794892469   2.5281222047
#> [1213,]  -5.556901e-01  -0.973858561  -1.2333849123
#> [1214,]  -5.058774e-01  -1.268065425  -1.3345420656
#> [1215,]   1.429879e+00   1.946469641   2.8632389372
#> [1216,]  -1.661565e-01   0.791761823   0.2322009421
#> [1217,]  -1.478758e+00  -2.491110058  -3.2264434670
#> [1218,]  -1.022687e-01   0.894774325   0.3690352637
#> [1219,]  -1.571919e+00  -3.131208345  -3.6978404332
#> [1220,]   6.133192e-01   1.420558083   1.5531467323
#> [1221,]   1.150201e+00   1.877581537   2.4762568729
#> [1222,]  -2.797598e-01   0.315952470  -0.1735143236
#> [1223,]   7.974396e-01   1.020280323   1.5606037720
#> [1224,]  -9.396740e-01  -2.312964983  -2.4553530439
#> [1225,]   5.728425e-01   1.664942897   1.6382965002
#> [1226,]  -1.563499e+00  -2.435831896  -3.3014358106
#> [1227,]  -7.983076e-01  -0.517312009  -1.2825597503
#> [1228,]  -2.901819e-02  -0.056554137  -0.0675702630
#> [1229,]  -8.053395e-01  -1.946605580  -2.0845264978
#> [1230,]   3.511784e-01  -0.041822007   0.4147028348
#> [1231,]  -6.967369e-01  -0.632306547  -1.2197203365
#> [1232,]   1.700958e+00   1.437275180   2.9186875693
#> [1233,]  -1.268196e-02   0.244014756   0.1196038250
#> [1234,]   1.859445e+00   2.591272690   3.7567380759
#> [1235,]   1.906479e-03   0.524078885   0.2932191789
#> [1236,]   1.318122e+00   2.362001692   2.9544827400
#> [1237,]  -1.025260e-01  -0.926215533  -0.6418586171
#> [1238,]  -2.178296e+00  -2.677346549  -4.2021062519
#> [1239,]   4.695167e-01   1.173471178   1.2367051033
#> [1240,]  -7.133347e-01  -1.220382015  -1.5667747395
#> [1241,]   2.356132e+00   4.399793812   5.3797498964
#> [1242,]  -2.454782e-01   0.367030450  -0.1024197142
#> [1243,]   1.536963e+00   4.127385312   4.2070869331
#> [1244,]   1.354020e+00   2.097946666   2.8527073248
#> [1245,]  -1.268578e+00  -1.086653796  -2.1849388754
#> [1246,]  -1.512738e+00  -2.206377037  -3.1108006685
#> [1247,]   6.190367e-01   1.913252329   1.8337010964
#> [1248,]   1.214599e+00   0.676781445   1.8901655793
#> [1249,]  -2.321398e-01  -0.360467646  -0.4895180957
#> [1250,]   2.872220e-01   0.264781676   0.5051027117
#> [1251,]  -4.853673e-01  -1.124051491  -1.2290446560
#> [1252,]  -9.260008e-01  -1.303045500  -1.8778397885
```

```
#> [1253,]   4.041824e-01   0.970341853   1.0425063169
#> [1254,]  -8.956012e-01  -2.496488229  -2.5022428863
#> [1255,]   3.661461e-01   0.124114700   0.5254552366
#> [1256,]  -1.246932e+00  -1.580127319  -2.4318035565
#> [1257,]  -9.861266e-02   0.357642917   0.0755088727
#> [1258,]   1.782512e+00   2.058882664   3.3653498403
#> [1259,]   6.172954e-01   2.094889330   1.9323306438
#> [1260,]  -1.395990e+00  -3.583544322  -3.7294875937
#> [1261,]   6.843585e-01   2.240942801   2.0970104613
#> [1262,]   1.402806e+00   2.113802810   2.9223422885
#> [1263,]   3.989876e-02   0.967001845   0.5863984797
#> [1264,]  -1.021165e+00  -0.307741129  -1.4441553317
#> [1265,]   6.422188e-01   0.958353449   1.3326797589
#> [1266,]  -6.467604e-01  -2.064715016  -1.9523273965
#> [1267,]   6.121855e-01   1.152573583   1.4030129228
#> [1268,]   2.247451e+00   3.617301631   4.8099767726
#> [1269,]   2.051934e-01   0.129324066   0.3276414826
#> [1270,]  -1.866609e-01   0.462528088   0.0239214262
#> [1271,]   1.589494e+00   2.386247997   3.3063347935
#> [1272,]   1.273480e+00   2.072552623   2.7381834078
#> [1273,]   3.218952e-01  -0.433168088   0.1610065908
#> [1274,]   2.687254e-01  -0.316918054   0.1592188832
#> [1275,]  -1.511640e-01  -0.315398568  -0.3635314287
#> [1276,]   4.206556e-01   0.854491668   0.9987560209
#> [1277,]   4.703745e-01   2.120390791   1.7632755811
#> [1278,]  -5.230131e-01  -1.291262082  -1.3687830593
#> [1279,]   2.458372e+00   3.925774212   5.2441794461
#> [1280,]   2.871615e-01   0.231745439   0.4866935147
#> [1281,]  -3.925537e-01  -1.392394397  -1.2622270771
#> [1282,]   8.680837e-01   1.437833466   1.8804199942
#> [1283,]  -1.056868e+00  -2.092554113  -2.4791733071
#> [1284,]   4.392518e-01  -0.225643461   0.4225153438
#> [1285,]  -4.950597e-01  -1.420368060  -1.4055742008
#> [1286,]  -8.548378e-01  -1.118666247  -1.6867782764
#> [1287,]   8.122380e-01   2.585243956   2.4475464081
#> [1288,]  -6.680720e-01  -1.248584929  -1.5259844872
#> [1289,]   8.290271e-01   0.033117061   1.0521585031
#> [1290,]  -6.850109e-01  -1.515676340  -1.6953315295
#> [1291,]   1.654235e+00   2.052739780   3.2019823161
#> [1292,]  -3.562056e-01  -1.145802205  -1.0800533853
#> [1293,]   7.997312e-01   0.905322137   1.4996643878
#> [1294,]  -5.042530e-01  -0.274351942  -0.7810470801
#> [1295,]   1.381387e+00   3.042614020   3.4110850132
#> [1296,]   9.700076e-01   2.236932397   2.4509835583
#> [1297,]   1.671192e+00   2.918976385   3.7038518856
```

```
#> [1298,] -7.119383e-01 -0.336952447 -1.0747670418
#> [1299,] -2.466555e-01 -0.801045495 -0.7521210744
#> [1300,]  1.615569e+00  1.719223300  2.9686781652
#> [1301,]  2.732476e-01  0.476137871  0.6049707165
#> [1302,] -3.968006e-01 -0.988009162 -1.0431059306
#> [1303,]  7.553444e-01  2.470495282  2.3129204582
#> [1304,]  9.271303e-01  1.287713586  1.8707397621
#> [1305,]  3.369023e-01  0.567622466  0.7351170566
#> [1306,]  1.272790e+00  1.534273324  2.4386011680
#> [1307,] -1.436647e+00 -3.635569487 -3.8090586811
#> [1308,]  2.458703e+00  3.714815627  5.1275195925
#> [1309,] -5.761390e-02  0.189764800  0.0334681647
#> [1310,]  8.304373e-01  1.752338643  2.0080129726
#> [1311,] -9.845016e-01 -1.276728056 -1.9361839700
#> [1312,] -1.156715e+00 -2.464003373 -2.8098184739
#> [1313,]  5.941415e-01  1.285552194  1.4543099147
#> [1314,]  5.452891e-01  0.424665237  0.9156358727
#> [1315,] -1.480188e+00 -2.361231941 -3.1561494059
#> [1316,]  5.573825e-01  1.023120948  1.2628339146
#> [1317,]  4.567885e-01  0.664943739  0.9386218492
#> [1318,]  1.986191e+00  3.057197561  4.1733565147
#> [1319,]  4.382361e-01  1.275876731  1.2545296311
#> [1320,]  1.625567e+00  3.299948966  3.8583825878
#> [1321,]  1.460235e+00  1.595875559  2.7065273412
#> [1322,] -7.812289e-01 -0.963332595 -1.5087858043
#> [1323,]  1.852285e+00  2.465958872  3.6782659860
#> [1324,]  3.395092e-01  0.720793071  0.8233710266
#> [1325,]  7.681099e-01  1.351931213  1.7080826319
#> [1326,] -5.261268e-01 -0.456610539 -0.9094691588
#> [1327,] -5.288733e-01 -0.369688938 -0.8646561112
#> [1328,]  4.166020e-01 -1.113409093 -0.0984012562
#> [1329,]  1.055564e+00  1.532574002  2.1667813205
#> [1330,]  2.830431e-02  0.150980531  0.1190827721
#> [1331,] -5.122480e-01 -0.787909938 -1.0760197994
#> [1332,] -1.228135e+00 -2.031485188 -2.6588483861
#> [1333,] -1.979254e+00 -4.460688061 -4.9435848580
#> [1334,]  2.543993e+00  4.408324117  5.6187430479
#> [1335,]  2.145658e-01 -0.326426512  0.0864061461
#> [1336,] -6.970298e-02 -0.214097421 -0.2057333025
#> [1337,] -1.521309e+00 -3.170312417 -3.6564317712
#> [1338,] -2.244010e-01 -0.406273507 -0.5052882312
#> [1339,] -1.341257e-02 -0.129282556 -0.0884716123
#> [1340,]  2.211646e+00  3.263875085  4.5691908758
#> [1341,] -1.273627e+00 -3.571866425 -3.5704233715
#> [1342,]  1.896530e+00  3.859898760  4.5070159011
```

```
#> [1343,]   1.258599e+00   3.025330172   3.2483791443
#> [1344,]   5.321026e-01   0.674510623   1.0378463069
#> [1345,]  -1.122300e+00  -1.362276071  -2.1554915683
#> [1346,]   4.045157e-01   0.601399539   0.8381744228
#> [1347,]   2.041946e+00   3.301367215   4.3783860693
#> [1348,]  -9.049765e-01  -2.165984802  -2.3305180706
#> [1349,]  -7.115141e-03  -0.327580782  -0.1906660546
#> [1350,]   4.236585e-01  -0.407691786   0.3020415922
#> [1351,]   6.823795e-01   0.857818944   1.3269669450
#> [1352,]   3.457153e+00   6.223436059   7.7647453192
#> [1353,]  -1.712493e+00  -1.699608508  -3.0786553479
#> [1354,]  -1.464916e+00  -2.628576921  -3.2854710868
#> [1355,]   4.470277e-01   0.564721241   0.8708310654
#> [1356,]   2.538705e-01   0.032668330   0.3347009403
#> [1357,]  -6.280021e-01  -1.205350243  -1.4520247056
#> [1358,]   1.663875e-01   0.353583706   0.4037059882
#> [1359,]   2.148130e+00   3.615225948   4.6849728152
#> [1360,]   2.116681e+00   3.445176334   4.5513867338
#> [1361,]   1.164829e+00   0.914925075   1.9602628305
#> [1362,]   8.249207e-01   1.085118369   1.6308544997
#> [1363,]   1.057350e+00   1.759230137   2.2947923730
#> [1364,]  -5.515306e-01  -0.981593514  -1.2324906905
#> [1365,]   7.370968e-01   1.059881931   1.5073347993
#> [1366,]  -1.732180e+00  -2.988427792  -3.8184456719
#> [1367,]   1.199022e+00   2.560467759   2.9161080777
#> [1368,]   1.182654e+00   2.537702874   2.8830638732
#> [1369,]   3.837089e-03  -0.174570440  -0.0920945141
#> [1370,]   7.726829e-01   1.737678751   1.9278587265
#> [1371,]  -1.626310e+00  -2.033696065  -3.1565910820
#> [1372,]   3.372140e-01   0.760595974   0.8425978827
#> [1373,]   5.020498e-01   0.141090805   0.7043453172
#> [1374,]  -7.415588e-01  -0.967258540  -1.4614967486
#> [1375,]  -4.650431e-02  -0.231801612  -0.1866301140
#> [1376,]   8.633284e-01   1.384405814   1.8448402052
#> [1377,]   8.288731e-01   0.975719149   1.5750711465
#> [1378,]   6.239387e-01   1.869136047   1.8153311230
#> [1379,]  -5.958053e-01  -1.921852571  -1.8095047869
#> [1380,]   1.123002e+00   1.283806339   2.1128195470
#> [1381,]  -8.965492e-02  -0.867570864  -0.5932633563
#> [1382,]  -1.784667e+00  -3.671622231  -4.2630402015
#> [1383,]   5.286775e-01   0.153393069   0.7443768001
#> [1384,]  -2.750567e-01   0.139106549  -0.2657918097
#> [1385,]   9.360091e-01   1.038617939   1.7435737362
#> [1386,]   6.533501e-01   1.380811500   1.5810068631
#> [1387,]   6.211810e-02  -0.203191093  -0.0353025414
```

```
#> [1388,]   1.627167e+00   2.208954136   3.2549210963
#> [1389,]   2.009673e-01   0.393006635   0.4687044124
#> [1390,]   1.890473e+00   2.899446618   3.9664525133
#> [1391,]   3.751912e-01   1.054027533   1.0527969141
#> [1392,]   1.054844e+00   1.496051766   2.1456155125
#> [1393,]   1.396747e+00   2.546950444   3.1551656518
#> [1394,]   3.309884e-01  -0.221543557   0.2897883941
#> [1395,]   1.487164e+00   2.301131499   3.1314942028
#> [1396,]  -5.947187e-01  -0.111353618  -0.8033986473
#> [1397,]  -4.555681e-01  -2.437480589  -1.9207837739
#> [1398,]  -9.273035e-01  -3.074623801  -2.8626159907
#> [1399,]   6.435167e-01   0.827657165   1.2617672926
#> [1400,]   1.023221e+00   2.625511493   2.7329841724
#> [1401,]  -5.369867e-01  -1.807234841  -1.6725511108
#> [1402,]   4.812433e-01   1.988805034   1.7038040961
#> [1403,]  -8.263782e-01  -3.322553446  -2.8743548582
#> [1404,]   1.970880e+00   4.463553705   4.9347324217
#> [1405,]  -8.570797e-01  -1.208962011  -1.7396841567
#> [1406,]  -1.260440e+00  -1.533735787  -2.4229027120
#> [1407,]  -1.673635e+00  -3.710006040  -4.1458868059
#> [1408,]   6.864762e-01   1.438940492   1.6545735306
#> [1409,]   6.393509e-01   1.222293149   1.4755790467
#> [1410,]  -9.730860e-01  -1.328721839  -1.9508034458
#> [1411,]  -1.134993e-01   0.377062740   0.0677226740
#> [1412,]   9.457862e-01   1.547487194   2.0381667073
#> [1413,]  -2.077638e-01  -0.476789836  -0.5236756454
#> [1414,]   9.817331e-01   1.945760065   2.3040165685
#> [1415,]  -1.034659e+00  -0.570747795  -1.6069398624
#> [1416,]   8.459769e-02   0.425221719   0.3414718407
#> [1417,]  -3.385947e-01   0.177788092  -0.3235557064
#> [1418,]   2.659647e-02   0.032154959   0.0510099167
#> [1419,]   6.979459e-01   0.550077580   1.1755943787
#> [1420,]  -7.500203e-01  -1.400402249  -1.7124245796
#> [1421,]   1.161084e+00   1.486237536   2.2726480413
#> [1422,]  -1.141062e+00  -2.905866774  -3.0355158528
#> [1423,]   9.490213e-01   1.585894088   2.0635150645
#> [1424,]   8.285270e-01   2.358052376   2.3417766210
#> [1425,]  -1.346600e+00  -2.162443939  -2.8792481303
#> [1426,]   3.554800e+00   4.890731363   7.1469139891
#> [1427,]  -3.469524e-01  -0.266275997  -0.5804145720
#> [1428,]   1.592104e+00   2.162193343   3.1852474669
#> [1429,]  -6.211161e-01  -0.662175820  -1.1419989143
#> [1430,]   1.384898e+00   1.920208386   2.7925747153
#> [1431,]  -2.075416e+00  -4.407025229  -5.0337160118
#> [1432,]   9.680356e-01   1.211596557   1.8795060553
```

```
#> [1433,] -2.228465e+00 -4.475456538 -5.2625418123
#> [1434,]  2.337767e-01 -0.412903594  0.0623705822
#> [1435,]  4.104122e-01  0.387166827  0.7266370163
#> [1436,]  2.263294e-01  1.075300434  0.8789748652
#> [1437,] -1.740547e-01  0.025083122 -0.2031226190
#> [1438,]  1.848557e+00  2.669239751  3.7864297873
#> [1439,] -1.977499e+00 -2.701614326 -3.9651831694
#> [1440,]  1.502273e+00  3.384777428  3.7517138105
#> [1441,] -6.702261e-01 -1.610380175 -1.7294517904
#> [1442,]  6.093636e-01  1.850184117  1.7866387377
#> [1443,]  2.627189e-01  1.470930243  1.1439098086
#> [1444,]  1.409589e-01 -0.338855759 -0.0122778459
#> [1445,]  1.160431e-01 -0.068129645  0.1068942523
#> [1446,] -3.583070e-01  1.303782196  0.2767430020
#> [1447,]  2.098882e-01  1.092399360  0.8679622178
#> [1448,] -2.113563e-01  0.131524888 -0.1905661716
#> [1449,]  3.639036e-01  0.726202680  0.8567924171
#> [1450,] -7.173305e-01  0.721356704 -0.4941737545
#> [1451,] -1.408071e-01 -0.782837781 -0.6100257532
#> [1452,]  2.124650e+00  2.157399992  3.8466624734
#> [1453,]  2.098608e-01 -1.644767026 -0.6510847503
#> [1454,] -6.014174e-01 -1.482719869 -1.5728026744
#> [1455,]  2.084229e+00  2.655051937  4.0724331617
#> [1456,] -5.378357e-01 -1.139194765 -1.3028755521
#> [1457,] -1.688953e+00 -2.170154536 -3.3104343936
#> [1458,] -4.322215e-01 -1.260463479 -1.2384758472
#> [1459,] -5.033160e-01  0.045642875 -0.6022948494
#> [1460,]  1.849788e+00  2.638349872  3.7708217213
#> [1461,]  2.611732e+00  5.165017324  6.1231452206
#> [1462,] -9.698723e-01 -1.188933414 -1.8692192229
#> [1463,] -5.514288e-01 -1.751682991 -1.6597311594
#> [1464,] -4.351118e-01 -0.302622742 -0.7105184893
#> [1465,]  2.361575e-01  0.481149005  0.5615011766
#> [1466,] -1.209889e+00 -1.998746332 -2.6179273475
#> [1467,]  8.252209e-01  2.210011102  2.2554972063
#> [1468,]  4.399761e-01  0.017283559  0.5582328450
#> [1469,] -1.130429e+00 -2.517491453 -2.8067245262
#> [1470,] -1.324976e-01 -0.749490302 -0.5811575090
#> [1471,] -7.580355e-02  0.353461990  0.1016311300
#> [1472,]  1.682562e+00  2.447143637  3.4561828685
#> [1473,] -1.529510e+00 -1.773066118 -2.8912456770
#> [1474,]  3.191578e-01  1.923713134  1.4655635163
#> [1475,] -1.858998e-02  0.419102255  0.2094028792
#> [1476,] -3.003282e-01  0.125260690 -0.3049886919
#> [1477,]  8.857227e-03  0.578534896  0.3321074266
```

```
#> [1478,] -1.091980e+00 -1.359426335 -2.1161010460
#> [1479,] -2.318459e-01 -1.149296733 -0.9269186294
#> [1480,] -3.539237e-01 -0.603269591 -0.7761250204
#> [1481,]  9.890755e-01  0.288698195  1.3935723716
#> [1482,] -2.385500e+00 -4.733086732 -5.6013349172
#> [1483,] -3.094304e-01 -0.273541563 -0.5376575286
#> [1484,]  1.332533e+00  1.888248841  2.7095402954
#> [1485,]  6.897190e-01  1.602900368  1.7496080669
#> [1486,]  1.184880e+00  1.570775547  2.3492358862
#> [1487,]  2.753284e+00  5.228752023  6.3350270195
#> [1488,]  3.755364e-01  0.713270921  0.8641217254
#> [1489,] -6.665939e-01 -0.932957317 -1.3489813043
#> [1490,] -1.288029e+00 -2.676426222 -3.0914498590
#> [1491,]  4.377296e-01  0.392887597  0.7638760661
#> [1492,] -2.108400e-01  0.233004676 -0.1336053479
#> [1493,] -3.108868e-02 -0.539587997 -0.3382156931
#> [1494,]  1.024755e+00  2.193377029  2.4950812015
#> [1495,] -1.423787e+00 -1.376257950 -2.5391986093
#> [1496,] -1.446545e+00 -3.317173178 -3.6447044524
#> [1497,]  3.714175e+00  6.988487258  8.5098189181
#> [1498,] -6.919974e-01 -1.540738004 -1.7179517143
#> [1499,]  1.468598e-01  0.319348296  0.3603560517
#> [1500,] -1.193724e+00 -2.664107145 -2.9670176729
#> [1501,]  1.088289e+00  2.323192740  2.6463483727
#> [1502,] -2.100001e-02 -1.791193696 -1.0202240875
#> [1503,]  1.915848e+00  2.814868359  3.9511568964
#> [1504,]  1.658027e+00  1.651064333  2.9837973986
#> [1505,]  6.352859e-01  1.476683081  1.6116858072
#> [1506,] -1.333127e+00 -1.731673458 -2.6233881392
#> [1507,] -1.332729e+00 -2.600386975 -3.1049914334
#> [1508,] -9.868478e-01 -1.385239220 -1.9993288092
#> [1509,]  9.273966e-01  0.731438889  1.5623625967
#> [1510,]  5.417816e-01  1.178948920  1.3298578878
#> [1511,]  6.701111e-01  1.441326633  1.6354908311
#> [1512,]  6.025612e-01  1.318328604  1.4829987180
#> [1513,]  5.500769e-01  0.898353675  1.1844833677
#> [1514,]  6.231602e-01 -0.478180548  0.5116979303
#> [1515,] -1.461777e+00 -2.307969448 -3.1036321568
#> [1516,]  4.885434e-01  3.162620802  2.3643257538
#> [1517,] -1.394733e+00 -2.053258727 -2.8786763073
#> [1518,] -1.878980e+00 -3.294478034 -4.1713477344
#> [1519,] -4.792264e-01 -1.117487103 -1.2177441035
#> [1520,] -4.872392e-01 -0.640186532 -0.9628541020
#> [1521,]  2.429469e-01  0.141593766  0.3815284424
#> [1522,]  2.163604e+00  4.678556625  5.2943726599
```

```
#> [1523,]   6.208777e-01   0.639325084   1.1290205337
#> [1524,]  -1.191458e+00  -1.861486253  -2.5187705098
#> [1525,]   3.468479e-01   0.764220079   0.8566224082
#> [1526,]  -3.195648e+00  -6.074369958  -7.3559293141
#> [1527,]   1.292244e+00   2.009730273   2.7267180831
#> [1528,]   8.272423e-01   1.828182607   2.0461190762
#> [1529,]  -9.768276e-01  -0.283074687  -1.3751787202
#> [1530,]  -4.076973e-01  -0.910177731  -1.0135007422
#> [1531,]   5.651631e-01   1.672653701   1.6329995737
#> [1532,]   1.850576e+00   1.115049173   2.9264366058
#> [1533,]  -5.925604e-01  -0.589389910  -1.0659975160
#> [1534,]   8.724533e-01   2.377486682   2.4073369935
#> [1535,]   3.906033e-01   0.699468568   0.8752501001
#> [1536,]  -3.138361e-01   0.255954102  -0.2493033604
#> [1537,]  -5.213616e-01  -0.759406337  -1.0715660516
#> [1538,]   2.065674e+00   2.689371602   4.0683420881
#> [1539,]  -1.570900e+00  -2.935361676  -3.5878835471
#> [1540,]   5.568800e-01   1.349033175   1.4430749108
#> [1541,]   2.547840e+00   4.108142168   5.4569516685
#> [1542,]   1.960443e+00   4.712150427   5.0596789148
#> [1543,]  -1.718250e-01  -0.780615599  -0.6474713050
#> [1544,]  -1.309160e+00  -1.871063741  -2.6708574035
#> [1545,]   7.974700e-01   1.366397651   1.7527223140
#> [1546,]  -8.533554e-01  -2.139202203  -2.2512844190
#> [1547,]   9.995368e-01   0.567849330   1.5615346074
#> [1548,]  -9.265877e-01  -0.222681117  -1.2790146233
#> [1549,]   1.090175e-02   0.957948320   0.5452154697
#> [1550,]  -2.072845e+00  -3.817419321  -4.7033029153
#> [1551,]  -4.516934e-01  -0.936406012  -1.0829185862
#> [1552,]   1.448611e+00   2.189319479   3.0213695706
#> [1553,]   9.378605e-01   2.781389131   2.7130474635
#> [1554,]   1.306439e+00   1.932254152   2.7014224577
#> [1555,]   1.012951e+00   2.360179025   2.5729301663
#> [1556,]  -5.478830e-01   0.312909151  -0.5095474015
#> [1557,]  -4.029505e-01  -1.027629157  -1.0727622730
#> [1558,]   1.044667e+00   2.627276926   2.7607072467
#> [1559,]   4.607355e-01  -0.551088067   0.2686969612
#> [1560,]   1.872033e+00   3.539125176   4.2984527940
#> [1561,]   6.020202e-01   1.674153463   1.6797920379
#> [1562,]   1.238310e+00   2.363723248   2.8559145582
#> [1563,]  -1.149009e+00  -1.378919100  -2.1980337628
#> [1564,]   5.129131e-01  -0.092060762   0.5885023418
#> [1565,]   2.150829e+00   3.496110028   4.6222350959
#> [1566,]  -1.476340e-01  -0.994014834  -0.7357332254
#> [1567,]  -1.126442e+00  -1.527932887  -2.2525886911
```

```
#> [1568,]   9.445564e-01   1.672024817   2.1057463561
#> [1569,]   1.303258e+00   2.645933510   3.0935183604
#> [1570,]  -5.255738e-01   0.252996014  -0.5149776727
#> [1571,]   1.177946e+00   2.217068089   2.6992542906
#> [1572,]  -3.556445e-01  -1.391349354  -1.2156220873
#> [1573,]   5.423353e-01   2.545304665   2.0888185731
#> [1574,]   1.307641e-01  -0.155136681   0.0769658180
#> [1575,]   2.096354e+00   4.479225911   5.0998929351
#> [1576,]   2.489374e+00   5.401102597   6.1015837951
#> [1577,]  -1.133322e-01  -0.099920417  -0.1967745806
#> [1578,]   6.008450e-01   0.390753377   0.9660932089
#> [1579,]   5.139557e-01   0.295426575   0.8048417025
#> [1580,]  -8.361654e-01  -0.943186433  -1.5661101918
#> [1581,]   1.133015e+00   1.206723218   2.0825278104
#> [1582,]  -1.739923e+00  -4.464441525  -4.6472272272
#> [1583,]   5.978732e-01   0.640837645   1.1011737390
#> [1584,]  -4.585507e-02  -0.307842772  -0.2280201924
#> [1585,]  -4.265048e-01  -1.310649806  -1.2591985018
#> [1586,]  -9.909632e-02  -1.336994649  -0.8655471369
#> [1587,]   9.228558e-01   1.385080699   1.9194440984
#> [1588,]   9.287507e-01   1.503125662   1.9923050119
#> [1589,]  -1.560504e+00  -2.541137058  -3.3561416276
#> [1590,]  -1.444520e+00  -3.544401115  -3.7682808243
#> [1591,]   1.095371e+00   1.062374134   1.9554786602
#> [1592,]  -1.188748e+00  -1.514380324  -2.3227616167
#> [1593,]   1.787318e+00   2.288566392   3.4988072014
#> [1594,]  -2.084035e-01   0.120633003  -0.1929286885
#> [1595,]   1.083886e+00   1.197264494   2.0160155312
#> [1596,]   1.395166e+00   2.280521282   3.0053373547
#> [1597,]  -1.966927e-01  -0.676572883  -0.6207414202
#> [1598,]   2.814108e+00   5.044986644   6.3088918718
#> [1599,]  -1.678486e+00  -3.161196340  -3.8473688437
#> [1600,]  -1.829899e-01   1.141034577   0.4050417117
#> [1601,]  -6.603963e-01  -1.427808768  -1.6158748199
#> [1602,]   8.205270e-01   0.260065686   1.1675060122
#> [1603,]  -3.422803e-01   0.288761181  -0.2665661600
#> [1604,]  -9.546626e-01  -0.882187121  -1.6800217283
#> [1605,]   1.056716e+00   2.262522010   2.5733082481
#> [1606,]  -2.511117e+00  -5.551600928  -6.2122182722
#> [1607,]  -1.516893e-01  -0.842753757  -0.6568465664
#> [1608,]  -8.629023e-01  -0.574802594  -1.3950129310
#> [1609,]  -2.013789e+00  -2.716068081  -4.0184576651
#> [1610,]  -2.633828e+00  -4.170681289  -5.5988833178
#> [1611,]   1.781588e-01   0.118630038   0.2879951323
#> [1612,]   7.483860e-01   1.889179626   1.9816376363
```

```
#> [1613,] -1.490607e+00 -2.501488094 -3.2469780074
#> [1614,]  8.338187e-01  1.008245100  1.5992887254
#> [1615,] -1.330110e+00 -1.663522905 -2.5818051042
#> [1616,]  9.323705e-01  0.570252443  1.4791131933
#> [1617,] -6.782685e-01 -1.648260209 -1.7605024373
#> [1618,] -5.163341e-02 -0.047499083 -0.0907458169
#> [1619,] -1.587500e+00 -2.389290810 -3.3055362876
#> [1620,]  1.859037e+00  3.810203435  4.4326841879
#> [1621,] -6.446577e-01 -1.317694324 -1.5351401484
#> [1622,]  5.741969e-01  1.354051937  1.4674539493
#> [1623,] -1.140861e-01 -0.426124014 -0.3787440862
#> [1624,]  1.829442e+00  2.702849986  3.7812451099
#> [1625,]  1.042956e+00  1.500703210  2.1333725359
#> [1626,]  4.463366e-01  1.041176711  1.1343821198
#> [1627,] -3.316325e-01 -0.866488630 -0.8944038468
#> [1628,] -2.703646e-01 -1.238979760 -1.0247210253
#> [1629,]  9.700409e-01  1.887497615  2.2571034069
#> [1630,]  4.032825e-01  0.833791975  0.9656046675
#> [1631,] -1.191400e+00 -1.718495521 -2.4393441764
#> [1632,] -5.453801e-01  0.038357114 -0.6587912827
#> [1633,]  5.017665e-01  0.187186777  0.7295734141
#> [1634,]  4.585661e-01  1.140429301  1.2047131230
#> [1635,] -1.070988e+00 -2.279481867 -2.6005176321
#> [1636,] -3.581416e-01 -0.550246526 -0.7519590277
#> [1637,] -1.659564e+00 -2.585335598 -3.5041955249
#> [1638,]  1.144707e-01  0.270287227  0.2927407275
#> [1639,]  6.184284e-01  0.609151258  1.1092210448
#> [1640,]  1.999991e-01 -0.511982098 -0.0347338492
#> [1641,] -7.610685e-01 -0.633861368 -1.3008034481
#> [1642,]  7.534546e-01  2.050724762  2.0776088893
#> [1643,] -7.961103e-01 -0.481183609 -1.2597700390
#> [1644,]  9.721606e-01  1.875918689  2.2533207934
#> [1645,] -1.856048e-01  0.651523768  0.1301230260
#> [1646,] -8.931941e-02 -0.376576902 -0.3203639005
#> [1647,] -2.127970e+00 -2.966544861 -4.2998435792
#> [1648,]  5.222719e-02  0.134890399  0.1399847627
#> [1649,]  1.361956e+00  1.755589345  2.6726105177
#> [1650,] -4.107913e-01 -1.040517245 -1.0896919224
#> [1651,] -1.855729e+00 -2.415415559 -3.6545103101
#> [1652,] -1.205161e+00 -2.233805010 -2.7424791037
#> [1653,] -1.284772e+00 -2.490622342 -2.9842755857
#> [1654,] -5.275283e-01 -1.740147217 -1.6235258680
#> [1655,] -5.867755e-01 -0.783007491 -1.1662334503
#> [1656,]  1.548890e+00  1.594070324  2.8160764208
#> [1657,]  3.007031e-01 -0.319787245  0.1975021266
```

```
#> [1658,]   1.583026e+00   2.260539351   3.2285055688
#> [1659,]   2.492747e+00   3.953714948   5.3025505500
#> [1660,]  -7.029224e-01  -1.520847238  -1.7205364172
#> [1661,]   1.403376e+00   2.630433183   3.2097613466
#> [1662,]  -2.310071e-01  -0.604449461  -0.6235052995
#> [1663,]   2.160626e-01   1.183188102   0.9260455390
#> [1664,]  -1.422163e+00  -2.523094996  -3.1736197525
#> [1665,]   2.142478e+00   4.087814458   4.9401923049
#> [1666,]   1.299269e+00   2.227059499   2.8560871723
#> [1667,]   2.152440e+00   2.996880957   4.3471916545
#> [1668,]  -1.379436e-01  -1.689060800  -1.1093709283
#> [1669,]   6.407898e-01   0.820630162   1.2544672485
#> [1670,]  -5.981941e-01  -1.799391707  -1.7445228825
#> [1671,]  -7.133531e-01  -1.299829979  -1.6108880297
#> [1672,]  -9.260110e-01  -1.269312881  -1.8591323353
#> [1673,]   1.337525e-01   0.197597719   0.2764451112
#> [1674,]  -1.937013e-01  -1.020650973  -0.8079601413
#> [1675,]   2.350435e+00   3.557571094   4.9052473189
#> [1676,]   1.076004e+00   1.131071960   1.9694526491
#> [1677,]  -8.191260e-01  -1.713758556  -1.9724976823
#> [1678,]   5.510453e-01   1.873072857   1.7266193205
#> [1679,]  -6.272368e-01  -0.686128041  -1.1629237785
#> [1680,]  -1.574117e+00  -2.210855428  -3.1898234479
#> [1681,]   1.276519e+00   2.542242611   3.0026319058
#> [1682,]  -6.019229e-01  -1.596653571  -1.6366615134
#> [1683,]  -9.102379e-01  -1.015818224  -1.6987846531
#> [1684,]  -1.915110e+00  -3.148069634  -4.1351500236
#> [1685,]  -8.765798e-01  -0.532368506  -1.3885194182
#> [1686,]  -2.225987e+00  -3.576233317  -4.7604199204
#> [1687,]  -1.130596e+00  -2.123333156  -2.5881907002
#> [1688,]  -1.093644e+00  -2.014550076  -2.4817428996
#> [1689,]   6.686839e-01   0.919922551   1.3443537431
#> [1690,]   5.886807e-01   1.620839124   1.6335707016
#> [1691,]   8.812416e-01   1.304213759   1.8226743333
#> [1692,]   8.997674e-01   3.463344300   3.0440026616
#> [1693,]  -2.993203e-01  -0.453532710  -0.6249379952
#> [1694,]   7.577003e-01   1.229818605   1.6273346030
#> [1695,]   5.898112e-01   1.520709760   1.5794127352
#> [1696,]   2.992737e-01  -0.721882001  -0.0274261030
#> [1697,]  -1.534910e+00  -2.094358239  -3.0762825705
#> [1698,]  -2.158996e-01  -1.009144517  -0.8292553029
#> [1699,]   5.762015e-01   0.864994644   1.1985473522
#> [1700,]  -6.890242e-01  -1.666412443  -1.7839882524
#> [1701,]  -3.525530e+00  -5.267302655  -7.3193966559
#> [1702,]  -1.067473e+00  -2.110716335  -2.5024763570
```

```
#> [1703,]  -7.028707e-01  -1.640096624  -1.7866503862
#> [1704,]   4.169155e-02  -0.201778868  -0.0599903135
#> [1705,]   2.060089e-01   0.685828087   0.6374947541
#> [1706,]  -9.089010e-01  -1.739687326  -2.0988346546
#> [1707,]   3.402913e-01   0.902531294   0.9252033451
#> [1708,]   6.777162e-01   1.787134600   1.8368832191
#> [1709,]   3.716834e-01   0.470541079   0.7246122626
#> [1710,]   9.828498e-01   1.669812799   2.1522698914
#> [1711,]  -7.901198e-01  -1.032887730  -1.5584727806
#> [1712,]   1.033004e-02   0.506412119   0.2939188751
#> [1713,]  -4.020159e+00  -6.909415647  -8.8474922864
#> [1714,]  -3.425361e-01  -0.248426814  -0.5650019844
#> [1715,]  -4.463280e-01  -1.445978668  -1.3590194771
#> [1716,]   5.019712e-01   0.033338976   0.6444495362
#> [1717,]  -2.584085e+00  -5.521778310  -6.2866568368
#> [1718,]   7.301997e-01   2.525249497   2.3119518318
#> [1719,]   1.419856e-01   0.750936977   0.5937917888
#> [1720,]  -4.339278e-01  -0.281644880  -0.6974002215
#> [1721,]  -3.098935e+00  -4.564468094  -6.3973969125
#> [1722,]   1.216959e-01  -0.435581260  -0.0899770682
#> [1723,]   5.847885e-01   0.321971645   0.9079000533
#> [1724,]   1.371117e+00   2.384642778   3.0331314347
#> [1725,]  -3.750260e-01  -0.291632867  -0.6294938362
#> [1726,]   5.305383e-01   1.750160990   1.6328365572
#> [1727,]  -6.484615e-01  -0.455645198  -1.0614823303
#> [1728,]   2.572830e-01  -0.097358240   0.2667968630
#> [1729,]  -1.885330e+00  -3.163913404  -4.1068076635
#> [1730,]  -4.959202e-01  -0.330236005  -0.8016695404
#> [1731,]  -1.740037e+00  -2.514264943  -3.5651029854
#> [1732,]  -6.665037e-01  -1.116341367  -1.4506392240
#> [1733,]   6.836924e-01   0.707040587   1.2449284427
#> [1734,]  -4.682938e-01  -0.785875958  -1.0200810571
#> [1735,]   1.231006e+00   1.689744426   2.4727764880
#> [1736,]   1.775078e+00   1.840935401   3.2351287058
#> [1737,]  -1.601286e-01  -0.567868717  -0.5148204670
#> [1738,]   1.524694e+00   2.821918069   3.4673084252
#> [1739,]   1.886211e+00   3.157884082   4.1045604309
#> [1740,]  -4.680866e-01  -0.171032288  -0.6786101638
#> [1741,]  -2.115185e-03   0.641419789   0.3533235359
#> [1742,]   9.962756e-01   1.119612742   1.8636735182
#> [1743,]   3.055177e-01   0.765139738   0.8055948136
#> [1744,]  -7.038583e-01  -1.072170502  -1.4727067061
#> [1745,]  -1.261319e+00  -3.329884887  -3.4207854821
#> [1746,]  -4.922067e-01  -1.389827335  -1.3850676732
#> [1747,]  -3.723535e-01  -2.036168938  -1.5943057104
```

```
#> [1748,] -2.172100e+00 -3.969926495 -4.9117067678
#> [1749,]  1.350636e-01  0.429030258  0.4065154206
#> [1750,] -1.086933e+00 -1.934220856 -2.4287950077
#> [1751,] -2.598582e-01 -0.332894737 -0.5087805627
#> [1752,]  8.063855e-02  0.503050296  0.3797264842
#> [1753,]  8.490155e-01  0.456272225  1.3119170022
#> [1754,]  3.379693e-01 -0.332526231  0.2369026675
#> [1755,] -2.071087e-01  0.159650525 -0.1696609539
#> [1756,] -2.539711e-01 -0.625305125 -0.6637148843
#> [1757,]  6.998896e-01  1.078751628  1.4714100032
#> [1758,]  1.678707e+00  2.943625437  3.7269024411
#> [1759,]  4.515742e-01 -0.186685736  0.4595011051
#> [1760,] -1.554562e+00 -2.291953777 -3.2104457041
#> [1761,] -2.336142e+00 -4.333643400 -5.3181126896
#> [1762,]  1.261116e-02  0.880931258  0.5046058299
#> [1763,] -1.207165e+00 -1.722713150 -2.4613443074
#> [1764,]  6.850503e-01  2.038326092  1.9854293545
#> [1765,]  7.085454e-01  0.404152353  1.1078293459
#> [1766,] -5.336430e-01 -0.359588981 -0.8649987816
#> [1767,]  6.411657e-01  1.624252246  1.7009124923
#> [1768,]  3.585730e-01 -0.576844190  0.1270088889
#> [1769,] -6.884554e-01 -0.442981535 -1.1043261005
#> [1770,] -5.464530e-01 -0.612657466 -1.0214150034
#> [1771,] -1.665218e+00 -3.441195760 -3.9862129783
#> [1772,] -2.010856e+00 -3.391006398 -4.3893627610
#> [1773,] -3.042978e-01 -0.936259432 -0.8990379512
#> [1774,]  2.592066e-02 -0.782865918 -0.4021352712
#> [1775,]  2.459474e+00  5.355737636  6.0391239695
#> [1776,] -5.413443e-02 -0.266213572 -0.2152419200
#> [1777,] -9.225782e-01 -0.576192886 -1.4701991151
#> [1778,]  1.009747e+00  2.167102350  2.4617849870
#> [1779,]  1.747490e+00  3.622801959  4.1895883749
#> [1780,]  8.905235e-01  1.787593279  2.1025040789
#> [1781,]  1.123913e+00  2.389865640  2.7277718535
#> [1782,]  6.883848e-01  2.102945386  2.0254484503
#> [1783,] -3.586368e-01 -1.694356159 -1.3875094636
#> [1784,] -5.609647e-02  0.874329550  0.4152651418
#> [1785,]  7.752271e-01  0.778857264  1.3989256004
#> [1786,] -8.429722e-01 -1.385100813 -1.8198421020
#> [1787,] -2.726847e-01 -0.454690943 -0.5923666979
#> [1788,] -1.106026e+00 -2.439190157 -2.7328397030
#> [1789,]  9.130998e-01  1.921842981  2.2051592421
#> [1790,]  6.104408e-03 -0.075382966 -0.0342223178
#> [1791,] -3.225365e-01 -0.888155558 -0.8950855643
#> [1792,]  1.584198e+00  3.259503929  3.7843501931
```

51

```
#> [1793,] -1.087836e-02  1.849576443  1.0128723980
#> [1794,]  2.172783e-01  0.516548430  0.5576044028
#> [1795,]  1.711079e+00  2.300233640  3.4102142052
#> [1796,] -1.730275e+00 -2.804463698 -3.7139775160
#> [1797,]  2.239621e+00  3.346382765  4.6498634992
#> [1798,]  1.635907e+00  3.187596960  3.8089249897
#> [1799,]  2.739017e-01  1.190225645  1.0020752143
#> [1800,] -7.731881e-01 -1.337235215 -1.7062593643
#> [1801,] -1.503761e-01 -0.770217049 -0.6149541441
#> [1802,] -6.629437e-01 -1.525921303 -1.6734997323
#> [1803,]  5.041711e-02 -0.204230171 -0.0504700821
#> [1804,] -3.778677e-01 -0.355283462 -0.6683607069
#> [1805,] -7.826175e-01  0.224093807 -0.8515453713
#> [1806,]  1.735108e-01 -0.261095728  0.0714672214
#> [1807,] -8.008492e-02 -1.746817146 -1.0692746369
#> [1808,] -1.433154e-01  0.428228366  0.0589374587
#> [1809,] -7.032451e-01 -2.012651665 -1.9938697219
#> [1810,] -6.227418e-02 -0.344194700 -0.2686682762
#> [1811,] -6.527530e-01 -2.198428793 -2.0340056509
#> [1812,]  2.112456e+00  4.206708513  4.9687361264
#> [1813,]  7.065542e-01  1.256840710  1.5785526070
#> [1814,] -1.391147e+00 -2.730878551 -3.2502550604
#> [1815,]  5.837653e-01  1.471473259  1.5445494643
#> [1816,] -1.003565e-01  0.645152463  0.2328901311
#> [1817,] -1.127760e+00 -1.892889063 -2.4567683828
#> [1818,] -6.312785e-01 -0.098550892 -0.8418830152
#> [1819,] -1.216646e+00 -1.445065703 -2.3190830889
#> [1820,] -4.022550e-01 -0.237038958 -0.6331504702
#> [1821,]  2.036460e+00  2.945982541  4.1743214403
#> [1822,] -1.305198e+00 -2.362507708 -2.9386475675
#> [1823,] -3.894173e-01 -0.867920069 -0.9672547093
#> [1824,] -1.873957e+00 -2.878005104 -3.9339584920
#> [1825,] -2.264453e-01 -1.433428220 -1.0778652890
#> [1826,]  3.489061e-01  1.461256664  1.2460150329
#> [1827,]  1.201418e+00  3.141382606  3.2414792935
#> [1828,] -9.021015e-02 -1.228605847 -0.7943150176
#> [1829,] -1.289296e+00 -2.859231891 -3.1944793880
#> [1830,] -1.373316e+00 -0.611955400 -2.0521069326
#> [1831,]  3.783975e-01  0.420072118  0.7049764598
#> [1832,]  2.479939e+00  4.002622462  5.3137207995
#> [1833,]  1.463202e+00  2.816034124  3.3873644439
#> [1834,] -9.639649e-01 -2.009431059 -2.3171947273
#> [1835,]  5.866090e-01  1.162515004  1.3766366201
#> [1836,] -8.068251e-01 -1.261798087 -1.7063394975
#> [1837,] -8.271563e-01 -1.213776203 -1.7050419731
```

```
#> [1838,]  1.321141e+00  2.112740101  2.8199181109
#> [1839,] -6.073129e-01 -1.083404024 -1.3585507341
#> [1840,]  9.291175e-01  0.248825024  1.2966780887
#> [1841,] -4.088080e-01 -0.499447500 -0.7869477159
#> [1842,]  2.084867e+00  2.867302054  4.1910196537
#> [1843,] -1.135657e-01 -0.943072303 -0.6649798096
#> [1844,] -1.441834e-01 -0.616591622 -0.5219762648
#> [1845,] -4.950656e-01 -1.014174146 -1.1801609217
#> [1846,]  7.872869e-01 -0.005964712  0.9784204958
#> [1847,]  1.392865e+00  1.587684993  2.6179735562
#> [1848,] -1.288183e-01 -0.759034895 -0.5818664084
#> [1849,] -1.175951e+00 -1.579910642 -2.3431717864
#> [1850,] -1.678945e+00 -1.820298319 -3.1037991543
#> [1851,] -1.548645e+00 -2.573091081 -3.3590869284
#> [1852,]  9.502274e-01  2.312365658  2.4681803578
#> [1853,]  1.548738e-02  0.181289858  0.1199207305
#> [1854,] -1.535858e+00 -3.413020476 -3.8092672000
#> [1855,] -1.096526e+00 -1.584563546 -2.2467124096
#> [1856,] -1.859091e+00 -2.791842115 -3.8676034641
#> [1857,] -3.160153e-01 -1.087602280 -0.9976383560
#> [1858,] -5.645161e-01 -0.313504738 -0.8779221278
#> [1859,] -1.467690e+00 -2.406664116 -3.1657773369
#> [1860,]  4.248441e-01 -0.473297258  0.2671117143
#> [1861,] -1.256608e-02  1.262272406  0.6848386887
#> [1862,] -8.239635e-02 -1.224251278 -0.7821547689
#> [1863,] -1.250313e+00 -3.070268475 -3.2629851534
#> [1864,]  6.040764e-01  1.386872343  1.5229270212
#> [1865,] -5.778437e-01 -0.425631642 -0.9567669961
#> [1866,] -1.362865e+00 -1.943744232 -2.7781609907
#> [1867,]  9.011412e-01  1.295519043  1.8426634733
#> [1868,] -7.486621e-01 -1.182623509 -1.5898728581
#> [1869,]  8.649936e-01  1.217817009  1.7544668805
#> [1870,]  1.132784e+00  2.164177670  2.6135867978
#> [1871,] -2.345280e-01 -0.040832579 -0.3151119564
#> [1872,]  9.488524e-01  1.378145178  1.9480124591
#> [1873,]  2.537423e-01 -0.345076633  0.1249084502
#> [1874,] -1.183624e-01  0.761194789  0.2748357191
#> [1875,] -3.558649e-01 -0.246289850 -0.5804368894
#> [1876,]  1.120838e+00  1.509976212  2.2356358070
#> [1877,] -9.742901e-02 -0.535698352 -0.4187821446
#> [1878,]  5.357424e-01  0.863350576  1.1471832740
#> [1879,] -1.183435e+00 -0.985212157 -2.0224705819
#> [1880,]  1.726436e-01  0.334190339  0.4007446567
#> [1881,]  3.795578e-01  0.117120704  0.5382978684
#> [1882,] -2.203823e+00 -4.296455244 -5.1324751451
```

```
#> [1883,]   2.222833e-01   1.327835354   1.0140758103
#> [1884,]  -1.258829e+00  -0.600740730  -1.9031200374
#> [1885,]  -1.471521e-01   0.080864728  -0.1386191706
#> [1886,]  -1.746029e+00  -2.650435120  -3.6481427223
#> [1887,]  -5.179531e-01  -0.524642202  -0.9370313882
#> [1888,]   1.148937e+00   2.727158201   2.9461600172
#> [1889,]   8.470131e-01   2.068827656   2.2043207590
#> [1890,]  -1.136964e+00  -0.901374242  -1.9179961642
#> [1891,]  -3.447766e-01   0.066766226  -0.3928768778
#> [1892,]   2.188321e-01  -1.206599959  -0.3967333453
#> [1893,]  -6.547163e-01  -1.917954606  -1.8808023183
#> [1894,]   5.017890e-01   0.179910140   0.7255632093
#> [1895,]  -4.678840e-01   0.081469398  -0.5382297529
#> [1896,]   1.390714e+00   1.942243995   2.8120561225
#> [1897,]   1.807497e-02   0.232554450   0.1515970993
#> [1898,]   8.046094e-01   0.498644147   1.2800581290
#> [1899,]  -5.846212e-01  -1.720073271  -1.6835794193
#> [1900,]   1.778268e+00   4.564521437   4.7505817987
#> [1901,]  -6.024358e-01  -0.305337964  -0.9206749471
#> [1902,]  -5.276378e-01  -1.983852474  -1.7589086967
#> [1903,]   1.626486e+00   4.443749457   4.4942901530
#> [1904,]   4.464700e-01   0.292615691   0.7191283972
#> [1905,]  -1.004693e+00  -2.475310259  -2.6265256488
#> [1906,]   3.793117e-01   1.483881242   1.2964858699
#> [1907,]   1.042164e+00   2.715202734   2.8063812560
#> [1908,]   1.307120e+00   2.238774694   2.8723780539
#> [1909,]   9.904595e-01   1.651695627   2.1517046964
#> [1910,]  -2.024316e+00  -3.599607118  -4.5219118819
#> [1911,]   2.925319e-01   0.366349224   0.5680897665
#> [1912,]   4.410710e-01   0.662382249   0.9176010147
#> [1913,]  -2.032148e+00  -3.770561203  -4.6265509870
#> [1914,]  -3.114932e-01  -0.136884160  -0.4643905925
#> [1915,]  -3.726740e-01   0.281512051  -0.3084894583
#> [1916,]  -3.289159e-01   0.791029309   0.0288367478
#> [1917,]  -1.423827e-01  -0.241859895  -0.3117704143
#> [1918,]   3.487884e-01   0.735396069   0.8430460808
#> [1919,]   1.244704e+00   1.822599771   2.5635872765
#> [1920,]   1.142429e+00   2.210134243   2.6511180501
#> [1921,]   4.381383e-01  -0.134434912   0.4717437968
#> [1922,]   1.094261e+00   2.681764482   2.8527879481
#> [1923,]  -9.189897e-01  -1.727455711  -2.1046269643
#> [1924,]   1.036160e+00   2.287487227   2.5615298178
#> [1925,]  -1.128490e+00  -2.955777148  -3.0475367364
#> [1926,]  -8.612549e-01  -1.574730232  -1.9478765984
#> [1927,]  -4.734680e-01  -1.766048330  -1.5704878526
```

```
#> [1928,] -5.629332e-01 -1.202615877 -1.3693677141
#> [1929,]  1.717987e+00  3.280126954  3.9626282834
#> [1930,] -9.166458e-01 -0.877662770 -1.6301046610
#> [1931,]  2.417457e-01 -0.434783671  0.0601652447
#> [1932,]  4.340556e-01  1.388660867  1.3119071752
#> [1933,]  1.040948e+00  1.665937162  2.2225669057
#> [1934,]  2.428160e-01 -0.957425655 -0.2285446062
#> [1935,]  4.443546e-01  0.792182320  0.9937291601
#> [1936,]  1.630653e+00  2.058433966  3.1757360438
#> [1937,] -1.064032e+00 -1.319084607 -2.0588623391
#> [1938,] -5.449485e-01 -0.554194780 -0.9870945608
#> [1939,]  6.100984e-01  0.548728893  1.0653017973
#> [1940,] -8.522699e-01 -1.846673428 -2.0875896006
#> [1941,] -8.726505e-01 -2.351534866 -2.3931807703
#> [1942,] -1.072362e+00 -1.282665121 -2.0490391425
#> [1943,] -2.399801e-01 -0.308110447 -0.4702386939
#> [1944,] -1.174558e+00 -2.119599293 -2.6409381170
#> [1945,] -4.550553e-01 -0.212871335 -0.6855793036
#> [1946,] -1.163616e+00 -2.348425243 -2.7542831842
#> [1947,]  1.947159e+00  2.684813048  3.9180266237
#> [1948,] -3.492871e-01 -0.923268822 -0.9479294896
#> [1949,]  7.415802e-01  0.927845731  1.4396509160
#> [1950,]  8.648370e-01  1.250748439  1.7725471028
#> [1951,] -6.244218e-02  0.115209275 -0.0139278059
#> [1952,] -1.296118e-01  0.249005632 -0.0234356149
#> [1953,] -1.040940e+00 -2.366040250 -2.6110836666
#> [1954,]  7.471425e-01  0.225715941  1.0569343778
#> [1955,] -5.429301e-01 -1.552079397 -1.5383618424
#> [1956,]  1.570221e+00  2.615919860  3.4097592197
#> [1957,]  2.276131e+00  4.802192756  5.5033045889
#> [1958,]  6.891130e-01  1.555854780  1.7227441172
#> [1959,]  1.079964e+00  0.746445390  1.7609391265
#> [1960,] -1.476889e-01 -0.907516977 -0.6877989296
#> [1961,] -6.138500e-01 -0.573920380 -1.0839602256
#> [1962,] -1.543625e+00 -1.642214800 -2.8362297895
#> [1963,] -3.623464e-01 -2.250102461 -1.7005512444
#> [1964,]  1.080824e+00  0.960642295  1.8808817949
#> [1965,]  1.851622e+00  1.838196841  3.3290565477
#> [1966,] -2.237923e-01 -1.069691697 -0.8726985651
#> [1967,]  9.737631e-01  1.877034323  2.2559381271
#> [1968,] -6.714080e-01 -0.443692590 -1.0834629244
#> [1969,]  1.731134e+00  2.502955005  3.5477235012
#> [1970,]  5.822586e-01 -0.290912684  0.5646202578
#> [1971,]  4.476203e-01  1.934591232  1.6317905251
#> [1972,]  1.942359e+00  4.430653181  4.8809091312
```

55

```
#> [1973,]  -3.834125e-01 -2.194249832 -1.6958243159
#> [1974,]  -2.497706e+00 -5.073401786 -5.9301145510
#> [1975,]   2.037691e+00  3.081446655  4.2510328824
#> [1976,]   8.081937e-01  2.261676712  2.2629369887
#> [1977,]  -6.941992e-01 -2.139189052 -2.0528126526
#> [1978,]  -3.073030e-01 -1.074710815 -0.9796200851
#> [1979,]   9.163974e-01  2.147259304  2.3343679237
#> [1980,]  -1.045289e+00 -1.944417188 -2.3825242807
#> [1981,]  -1.024422e+00 -1.637604639 -2.1862357712
#> [1982,]  -2.416459e+00 -5.403349211 -6.0119074307
#> [1983,]   2.500777e-01  1.209652242  0.9831481304
#> [1984,]   8.868190e-01  1.209747079  1.7772041514
#> [1985,]   3.102387e-01 -0.364245233  0.1847204232
#> [1986,]   4.411917e-01  0.598079839  0.8820663670
#> [1987,]   1.048359e+00  2.050115512  2.4450110222
#> [1988,]  -2.339112e-01  0.532783566  0.0039901026
#> [1989,]   7.539552e-02 -0.820954248 -0.3615785632
#> [1990,]   9.038941e-02 -0.349562026 -0.0812785408
#> [1991,]   4.871432e-01  1.388724745  1.3781417508
#> [1992,]   4.085422e-01 -0.307876138  0.3385854643
#> [1993,]  -8.497813e-01 -0.200533460 -1.1709476802
#> [1994,]   7.848296e-01 -0.511480648  0.6948161490
#> [1995,]  -1.093459e+00 -1.866115610 -2.3991372180
#> [1996,]  -1.639124e+00 -1.754109743 -3.0174111920
#> [1997,]  -9.152097e-01 -2.374355460 -2.4589157052
#> [1998,]   4.480779e-03  0.817788850  0.4594260118
#> [1999,]  -7.231940e-01 -1.060976267 -1.4906055442
#> [2000,]  -9.925315e-01 -3.025258374 -2.9165582833
#>
#> [[1]][[19]]$value[[1]]$decomposition
#> [1] "eigen"
#>
#>
#>
#> [[1]][[19]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[20]]
#> [[1]][[20]]$value
#> [[1]][[20]]$value[[1]]
#> [[1]][[20]]$value[[1]]$M
#> [1] 2
#>
#> [[1]][[20]]$value[[1]]$est
```

```
#> [1] 0 0 0
#>
#> [[1]][[20]]$value[[1]]$within
#>      [,1] [,2] [,3]
#> [1,]    1    0    0
#> [2,]    0    1    0
#> [3,]    0    0    1
#>
#> [[1]][[20]]$value[[1]]$between
#>      [,1] [,2] [,3]
#> [1,]    0    0    0
#> [2,]    0    0    0
#> [3,]    0    0    0
#>
#> [[1]][[20]]$value[[1]]$total
#>      [,1] [,2] [,3]
#> [1,]    1    0    0
#> [2,]    0    1    0
#> [3,]    0    0    1
#>
#> [[1]][[20]]$value[[1]]$ariv
#> [1] NA
#>
#> [[1]][[20]]$value[[1]]$total_adj
#> [1] NA
#>
#>
#>
#> [[1]][[20]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[21]]
#> [[1]][[21]]$value
#> [[1]][[21]]$value[[1]]
#>              est se R 0.05% 0.5% 2.5% 97.5% 99.5% 99.95%
#> eta1=~y1   1.0000 NA 0    NA   NA   NA    NA    NA     NA
#> eta1=~y2   0.7039 NA 0    NA   NA   NA    NA    NA     NA
#> eta1=~y3   0.7047 NA 0    NA   NA   NA    NA    NA     NA
#> eta1=~y4   0.8566 NA 0    NA   NA   NA    NA    NA     NA
#> y1~~y1     0.0000 NA 0    NA   NA   NA    NA    NA     NA
#> y2~~y2     0.5045 NA 0    NA   NA   NA    NA    NA     NA
#> y3~~y3     0.5034 NA 0    NA   NA   NA    NA    NA     NA
#> y4~~y4     0.2662 NA 0    NA   NA   NA    NA    NA     NA
#> eta1~~eta1 1.0000 NA 0    NA   NA   NA    NA    NA     NA
```

```
#>
#>
#> [[1]][[21]]$visible
#> [1] TRUE
```

Environment

```
ls()

#> [1] "i"        "root"      "tex_file"
```

Class

```
#> [[1]]
#> [1] "character"
#>
#> [[2]]
#> [1] "root_criterion"
#>
#> [[3]]
#> [1] "character"
```

References

R Core Team. (2023). *R: A language and environment for statistical computing.* R Foundation for
       Statistical Computing. Vienna, Austria. https://www.R-project.org/