C:\Anaconda\envs\tensorflow\python.exe "C:/Users/yongping/python work/new j30 sets experiment with 480 cases.py"

aver\_result\_480\_time 41.52800423055887

aver\_result\_480\_deviation -0.28903519102529884%

k\_1000 0

opm 42

the random choice case path in j30 ./rcpsp/j30.sm/j3010\_1.sm case j3010\_1.sm

v5 3 3.862241506576538 s [42, 51] 0.0 [0, 0, 0, 0, 6, 10, 6, 10, 13, 17, 2, 20, 19, 17, 5, 6, 11, 15, 20, 20, 25, 25, 30, 15, 19, 35, 29, 9, 40, 30, 38, 42] 0

k\_1000 1

opm 41

the random choice case path in j30 ./rcpsp/j30.sm/j3010\_10.sm case j3010\_10.sm

v5 6 6.407708406448364 s [41, 44] 0.0 [0, 0, 0, 0, 9, 1, 10, 7, 9, 10, 10, 13, 11, 10, 23, 1, 19, 10, 9, 18, 28, 13, 16, 20, 28, 25, 13, 33, 28, 35, 35, 41] 0

k\_1000 2

opm 56

the random choice case path in j30 ./rcpsp/j30.sm/j3010\_2.sm case j3010\_2.sm

v5 159 144.15145707130432 s [56, 66] 0.0 [0, 0, 0, 0, 6, 7, 11, 5, 20, 7, 11, 14, 20, 27, 13, 29, 34, 7, 34, 32, 25, 40, 29, 33, 41, 44, 41, 42, 44, 51, 51, 56] 0

k\_1000 3

opm 62

the random choice case path in j30 ./rcpsp/j30.sm/j3010\_3.sm case j3010\_3.sm

v5 34 78.90876865386963 s [62, 68] 0.0 [0, 0, 0, 0, 9, 10, 9, 17, 14, 20, 22, 13, 17, 16, 20, 30, 14, 1, 23, 30, 42, 29, 35, 50, 29, 45, 30, 35, 52, 54, 42, 62] 0

k\_1000 4

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3010\_4.sm case j3010\_4.sm

v5 5 7.843163728713989 s [58, 109] 0.0 [0, 0, 0, 0, 9, 9, 18, 19, 17, 9, 23, 19, 5, 32, 19, 12, 34, 9, 23, 22, 33, 23, 43, 23, 34, 37, 45, 49, 33, 51, 48, 58] 0

k\_1000 5

opm 41

the random choice case path in j30 ./rcpsp/j30.sm/j3010\_5.sm case j3010\_5.sm

v5 179 184.3682999610901 s [41, 50] 0.0 [0, 0, 0, 0, 9, 15, 15, 9, 1, 1, 21, 10, 18, 8, 13, 9, 20, 15, 33, 2, 24, 27, 31, 18, 1, 24, 27, 27, 35, 38, 34, 41] 0

k\_1000 6

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j3010\_6.sm case j3010\_6.sm

v5 116 135.33449482917786 s [44, 59] 0.0 [0, 0, 0, 0, 6, 6, 16, 7, 29, 4, 16, 4, 7, 16, 19, 32, 29, 4, 12, 28, 24, 16, 21, 33, 37, 18, 25, 33, 41, 38, 19, 44] 0

k\_1000 7

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3010\_7.sm case j3010\_7.sm

v5 0 0.45259833335876465 s [49, 69] 0.0 [0, 0, 0, 0, 7, 7, 18, 7, 10, 10, 20, 11, 10, 13, 17, 29, 20, 33, 26, 17, 34, 13, 36, 26, 36, 26, 46, 36, 43, 38, 48, 49] 0

k\_1000 8

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3010\_8.sm case j3010\_8.sm

v5 140 298.7243654727936 s [55, 75] 1.8518518518518516 [0, 0, 0, 0, 2, 5, 5, 8, 25, 15, 5, 8, 15, 8, 22, 18, 30, 19, 30, 39, 30, 28, 18, 38, 36, 10, 33, 45, 53, 48, 40, 55] 0

k\_1000 9

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3010\_9.sm case j3010\_9.sm

v5 0 0.2650153636932373 s [49, 82] 0.0 [0, 0, 0, 0, 2, 2, 2, 2, 7, 10, 12, 12, 12, 8, 20, 20, 7, 15, 21, 15, 21, 21, 10, 21, 31, 31, 40, 10, 31, 34, 43, 49] 0

k\_1000 10

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3011\_1.sm case j3011\_1.sm

v5 1 1.5360260009765625 s [54, 104] 0.0 [0, 0, 0, 0, 1, 1, 8, 17, 5, 1, 14, 17, 8, 26, 22, 14, 5, 15, 27, 20, 19, 31, 30, 38, 26, 31, 40, 41, 31, 46, 40, 54] 0

k\_1000 11

opm 38

the random choice case path in j30 ./rcpsp/j30.sm/j3011\_10.sm case j3011\_10.sm

v5 3 1.805417537689209 s [38, 45] 0.0 [0, 0, 0, 0, 4, 6, 3, 4, 10, 3, 7, 7, 12, 20, 14, 13, 10, 14, 22, 13, 15, 30, 19, 22, 25, 32, 22, 29, 37, 30, 25, 38] 0

k\_1000 12

opm 56

the random choice case path in j30 ./rcpsp/j30.sm/j3011\_2.sm case j3011\_2.sm

v5 14 13.210970401763916 s [56, 71] 0.0 [0, 0, 0, 0, 7, 8, 14, 9, 17, 9, 18, 12, 17, 23, 26, 37, 44, 19, 25, 33, 35, 43, 38, 12, 30, 33, 23, 48, 46, 37, 50, 56] 0

k\_1000 13

opm 81

the random choice case path in j30 ./rcpsp/j30.sm/j3011\_3.sm case j3011\_3.sm

v5 0 0.6471405029296875 s [81, 104] 0.0 [0, 0, 0, 0, 28, 10, 10, 17, 30, 21, 25, 9, 9, 18, 20, 33, 21, 36, 21, 12, 21, 25, 12, 34, 43, 49, 59, 66, 49, 36, 72, 81] 0

k\_1000 14

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3011\_4.sm case j3011\_4.sm

v5 0 0.42482590675354004 s [63, 104] 0.0 [0, 0, 0, 0, 8, 9, 8, 15, 22, 23, 2, 23, 17, 22, 32, 27, 40, 28, 32, 26, 31, 30, 40, 32, 49, 42, 37, 46, 47, 36, 59, 63] 0

k\_1000 15

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3011\_5.sm case j3011\_5.sm

v5 239 299.2445373535156 s [50, 71] 2.0408163265306123 [0, 0, 0, 3, 1, 5, 13, 13, 10, 1, 3, 13, 31, 3, 13, 25, 18, 27, 25, 27, 39, 23, 34, 31, 40, 43, 18, 41, 46, 46, 31, 50] 0

k\_1000 16

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j3011\_6.sm case j3011\_6.sm

v5 10 11.334311246871948 s [44, 44] 0.0 [0, 0, 0, 0, 4, 6, 6, 7, 13, 17, 7, 4, 12, 14, 10, 14, 12, 23, 30, 21, 29, 6, 29, 23, 35, 24, 22, 37, 32, 38, 39, 44] 0

k\_1000 17

opm 36

the random choice case path in j30 ./rcpsp/j30.sm/j3011\_7.sm case j3011\_7.sm

v5 122 73.88761734962463 s [36, 49] 0.0 [0, 0, 0, 0, 10, 2, 2, 4, 13, 2, 19, 4, 9, 13, 13, 13, 23, 13, 13, 10, 10, 23, 28, 18, 32, 28, 5, 20, 28, 30, 33, 36] 0

k\_1000 18

opm 62

the random choice case path in j30 ./rcpsp/j30.sm/j3011\_8.sm case j3011\_8.sm

v5 1 2.982567071914673 s [62, 73] 0.0 [0, 0, 0, 0, 7, 7, 16, 25, 22, 24, 24, 16, 23, 28, 30, 23, 36, 9, 12, 8, 35, 37, 35, 27, 43, 33, 53, 43, 47, 56, 51, 62] 0

k\_1000 19

opm 67

the random choice case path in j30 ./rcpsp/j30.sm/j3011\_9.sm case j3011\_9.sm

v5 0 0.42439842224121094 s [67, 67] 0.0 [0, 0, 0, 0, 3, 5, 8, 8, 15, 14, 23, 24, 26, 28, 26, 15, 8, 7, 8, 3, 28, 28, 36, 24, 45, 31, 45, 54, 63, 52, 45, 67] 0

k\_1000 20

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j3012\_1.sm case j3012\_1.sm

v5 0 0.26273441314697266 s [47, 47] 0.0 [0, 0, 0, 0, 8, 8, 8, 18, 2, 4, 18, 4, 18, 10, 24, 24, 9, 4, 23, 30, 21, 18, 23, 24, 27, 27, 30, 32, 39, 31, 39, 47] 0

k\_1000 21

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3012\_10.sm case j3012\_10.sm

v5 0 0.22488665580749512 s [57, 57] 0.0 [0, 0, 0, 0, 9, 9, 15, 8, 8, 8, 17, 18, 17, 9, 14, 14, 4, 22, 23, 15, 17, 24, 32, 39, 29, 46, 39, 27, 49, 42, 29, 57] 0

k\_1000 22

opm 46

the random choice case path in j30 ./rcpsp/j30.sm/j3012\_2.sm case j3012\_2.sm

v5 0 0.18209052085876465 s [46, 46] 0.0 [0, 0, 0, 0, 8, 15, 8, 6, 12, 16, 15, 12, 6, 21, 3, 16, 28, 16, 20, 29, 15, 20, 19, 28, 29, 21, 28, 36, 38, 36, 37, 46] 0

k\_1000 23

opm 37

the random choice case path in j30 ./rcpsp/j30.sm/j3012\_3.sm case j3012\_3.sm

v5 0 0.18187832832336426 s [37, 37] 0.0 [0, 0, 0, 0, 2, 2, 4, 9, 2, 7, 2, 9, 12, 7, 7, 16, 12, 4, 18, 12, 15, 17, 15, 18, 23, 16, 20, 23, 24, 25, 31, 37] 0

k\_1000 24

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3012\_4.sm case j3012\_4.sm

v5 0 0.2910478115081787 s [63, 78] 0.0 [0, 0, 0, 0, 9, 9, 9, 16, 5, 5, 15, 18, 10, 12, 15, 10, 19, 26, 15, 17, 22, 28, 37, 37, 25, 26, 36, 43, 25, 53, 46, 63] 0

k\_1000 25

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j3012\_5.sm case j3012\_5.sm

v5 0 0.30514979362487793 s [47, 63] 0.0 [0, 0, 0, 0, 1, 1, 3, 11, 10, 1, 3, 6, 6, 10, 3, 6, 10, 16, 20, 10, 21, 12, 24, 11, 18, 29, 20, 25, 28, 14, 39, 47] 0

k\_1000 26

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3012\_6.sm case j3012\_6.sm

v5 0 0.19412446022033691 s [53, 68] 0.0 [0, 0, 0, 0, 10, 10, 20, 10, 21, 8, 20, 21, 17, 26, 31, 20, 4, 34, 13, 23, 24, 13, 34, 27, 23, 30, 40, 31, 32, 43, 38, 53] 0

k\_1000 27

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3012\_7.sm case j3012\_7.sm

v5 0 0.23514151573181152 s [55, 55] 0.0 [0, 0, 0, 0, 6, 9, 7, 16, 16, 9, 12, 6, 24, 6, 16, 10, 20, 7, 30, 16, 32, 30, 39, 35, 35, 16, 21, 32, 45, 41, 43, 55] 0

k\_1000 28

opm 35

the random choice case path in j30 ./rcpsp/j30.sm/j3012\_8.sm case j3012\_8.sm

v5 0 0.1934492588043213 s [35, 55] 0.0 [0, 0, 0, 0, 3, 3, 3, 6, 8, 8, 6, 6, 8, 16, 6, 15, 15, 11, 8, 11, 8, 8, 16, 18, 21, 16, 26, 20, 23, 27, 22, 35] 0

k\_1000 29

opm 52

the random choice case path in j30 ./rcpsp/j30.sm/j3012\_9.sm case j3012\_9.sm

v5 0 0.20206308364868164 s [52, 73] 0.0 [0, 0, 0, 0, 2, 2, 5, 8, 7, 7, 5, 5, 13, 13, 17, 6, 21, 23, 15, 22, 17, 26, 27, 29, 30, 24, 39, 26, 33, 39, 43, 52] 0

k\_1000 30

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3013\_1.sm case j3013\_1.sm

v5 114 298.6765582561493 s [62, 73] 6.896551724137931 [0, 2, 0, 0, 13, 20, 19, 9, 44, 5, 18, 22, 30, 5, 9, 2, 20, 26, 30, 40, 25, 41, 39, 26, 50, 53, 30, 44, 53, 54, 22, 62] 0

k\_1000 31

opm 64

the random choice case path in j30 ./rcpsp/j30.sm/j3013\_10.sm case j3013\_10.sm

v5 28 130.59077167510986 s [63, 71] -1.5625 [0, 0, 0, 0, 6, 14, 23, 8, 33, 14, 40, 18, 40, 14, 15, 22, 23, 15, 33, 33, 29, 48, 51, 31, 43, 49, 50, 51, 58, 60, 62, 63] 0

k\_1000 32

opm 62

the random choice case path in j30 ./rcpsp/j30.sm/j3013\_2.sm case j3013\_2.sm

v5 66 298.21266913414 s [64, 211] 3.225806451612903 [0, 6, 0, 0, 11, 18, 32, 4, 32, 16, 28, 13, 47, 48, 14, 21, 14, 23, 38, 19, 38, 42, 54, 42, 45, 45, 29, 48, 58, 62, 58, 64] 0

k\_1000 33

opm 76

the random choice case path in j30 ./rcpsp/j30.sm/j3013\_3.sm case j3013\_3.sm

v5 46 224.04025316238403 s [76, 83] 0.0 [0, 0, 0, 1, 3, 3, 36, 19, 10, 17, 8, 33, 36, 46, 60, 19, 52, 40, 46, 40, 26, 28, 33, 60, 52, 65, 56, 45, 63, 57, 73, 76] 0

k\_1000 34

opm 72

the random choice case path in j30 ./rcpsp/j30.sm/j3013\_4.sm case j3013\_4.sm

v5 20 60.17806053161621 s [72, 82] 0.0 [0, 0, 8, 0, 10, 25, 38, 14, 16, 20, 22, 31, 42, 38, 56, 42, 48, 25, 51, 60, 48, 44, 50, 63, 60, 51, 66, 32, 56, 69, 67, 72] 0

k\_1000 35

opm 67

the random choice case path in j30 ./rcpsp/j30.sm/j3013\_5.sm case j3013\_5.sm

v5 82 300.1686246395111 s [69, 126] 2.9850746268656714 [0, 0, 0, 15, 23, 2, 15, 8, 37, 12, 12, 17, 47, 22, 24, 34, 31, 29, 33, 24, 24, 44, 44, 47, 56, 37, 51, 23, 65, 58, 66, 69] 0

k\_1000 36

opm 64

the random choice case path in j30 ./rcpsp/j30.sm/j3013\_6.sm case j3013\_6.sm

v5 75 298.9672508239746 s [65, 125] 1.5625 [0, 7, 0, 0, 14, 40, 10, 10, 18, 42, 23, 40, 14, 23, 37, 29, 29, 45, 32, 48, 49, 20, 50, 54, 49, 27, 55, 55, 62, 60, 61, 65] 0

k\_1000 37

opm 77

the random choice case path in j30 ./rcpsp/j30.sm/j3013\_7.sm case j3013\_7.sm

v5 46 299.0707302093506 s [82, 217] 6.493506493506493 [0, 0, 0, 4, 11, 9, 17, 11, 23, 40, 50, 12, 30, 52, 1, 45, 61, 68, 60, 68, 22, 21, 30, 59, 70, 76, 40, 50, 71, 76, 79, 82] 0

k\_1000 38

opm 106

the random choice case path in j30 ./rcpsp/j30.sm/j3013\_8.sm case j3013\_8.sm

v5 54 300.0502452850342 s [109, 120] 2.8301886792452833 [0, 10, 16, 0, 26, 1, 39, 10, 19, 49, 31, 31, 31, 40, 82, 55, 48, 57, 87, 76, 66, 82, 90, 48, 101, 66, 93, 26, 102, 85, 102, 109] 0

k\_1000 39

opm 71

the random choice case path in j30 ./rcpsp/j30.sm/j3013\_9.sm case j3013\_9.sm

v5 66 298.18264865875244 s [72, 104] 1.4084507042253522 [0, 0, 0, 10, 10, 2, 15, 18, 23, 50, 37, 28, 49, 26, 10, 51, 46, 50, 19, 19, 32, 48, 50, 64, 58, 38, 59, 66, 68, 68, 59, 72] 0

k\_1000 40

opm 50

the random choice case path in j30 ./rcpsp/j30.sm/j3014\_1.sm case j3014\_1.sm

v5 409 299.974426984787 s [51, 51] 2.0 [0, 0, 0, 0, 6, 2, 6, 10, 10, 11, 14, 14, 16, 9, 21, 3, 22, 20, 3, 12, 30, 21, 30, 27, 39, 40, 47, 36, 41, 49, 36, 51] 0

k\_1000 41

opm 61

the random choice case path in j30 ./rcpsp/j30.sm/j3014\_10.sm case j3014\_10.sm

v5 70 83.1404857635498 s [61, 63] 0.0 [0, 0, 0, 0, 14, 20, 9, 15, 5, 20, 20, 27, 27, 17, 18, 26, 27, 46, 34, 1, 35, 36, 44, 42, 37, 5, 52, 45, 50, 53, 50, 61] 0

k\_1000 42

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3014\_2.sm case j3014\_2.sm

v5 35 56.38109016418457 s [53, 117] 0.0 [0, 0, 0, 0, 3, 9, 11, 16, 17, 16, 27, 17, 11, 33, 16, 30, 33, 41, 26, 28, 7, 27, 25, 37, 9, 41, 42, 38, 43, 50, 43, 53] 0

k\_1000 43

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3014\_3.sm case j3014\_3.sm

v5 131 299.31067872047424 s [60, 69] 3.4482758620689653 [0, 0, 0, 10, 10, 15, 13, 30, 25, 9, 34, 9, 25, 17, 17, 41, 12, 27, 45, 23, 39, 36, 36, 28, 43, 30, 50, 43, 51, 52, 50, 60] 0

k\_1000 44

opm 50

the random choice case path in j30 ./rcpsp/j30.sm/j3014\_4.sm case j3014\_4.sm

v5 0 0.3777892589569092 s [50, 58] 0.0 [0, 0, 0, 0, 6, 14, 10, 21, 6, 3, 14, 14, 7, 25, 23, 21, 25, 18, 18, 28, 30, 21, 12, 36, 30, 38, 38, 37, 6, 46, 44, 50] 0

k\_1000 45

opm 52

the random choice case path in j30 ./rcpsp/j30.sm/j3014\_5.sm case j3014\_5.sm

v5 97 96.70600628852844 s [52, 76] 0.0 [0, 0, 0, 0, 8, 9, 2, 11, 10, 6, 13, 2, 16, 20, 29, 9, 13, 21, 14, 21, 28, 16, 29, 21, 17, 22, 29, 34, 29, 34, 43, 52] 0

k\_1000 46

opm 35

the random choice case path in j30 ./rcpsp/j30.sm/j3014\_6.sm case j3014\_6.sm

v5 340 300.32421946525574 s [36, 134] 2.857142857142857 [0, 0, 0, 0, 5, 3, 9, 6, 7, 3, 14, 9, 6, 10, 11, 13, 10, 17, 7, 17, 17, 22, 19, 22, 28, 9, 22, 28, 31, 27, 27, 36] 0

k\_1000 47

opm 50

the random choice case path in j30 ./rcpsp/j30.sm/j3014\_7.sm case j3014\_7.sm

v5 131 300.45571398735046 s [52, 68] 4.0 [0, 0, 0, 0, 7, 4, 5, 13, 5, 2, 10, 43, 20, 20, 33, 12, 21, 14, 26, 33, 24, 33, 26, 24, 34, 38, 44, 43, 40, 49, 47, 52] 0

k\_1000 48

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3014\_8.sm case j3014\_8.sm

v5 2 4.688259840011597 s [54, 57] 0.0 [0, 0, 0, 0, 9, 7, 33, 7, 16, 23, 23, 13, 12, 27, 33, 16, 33, 24, 15, 28, 15, 38, 27, 40, 35, 43, 38, 29, 44, 50, 47, 54] 0

k\_1000 49

opm 46

the random choice case path in j30 ./rcpsp/j30.sm/j3014\_9.sm case j3014\_9.sm

v5 7 10.890383005142212 s [46, 50] 0.0 [0, 0, 0, 0, 5, 10, 5, 11, 31, 9, 14, 14, 29, 24, 13, 21, 31, 16, 40, 27, 29, 22, 6, 32, 24, 32, 40, 38, 42, 38, 44, 46] 0

k\_1000 50

opm 46

the random choice case path in j30 ./rcpsp/j30.sm/j3015\_1.sm case j3015\_1.sm

v5 1 1.071488618850708 s [46, 47] 0.0 [0, 0, 0, 0, 2, 10, 3, 10, 4, 13, 3, 7, 2, 23, 15, 19, 9, 23, 26, 33, 26, 7, 29, 36, 29, 32, 34, 42, 44, 36, 28, 46] 0

k\_1000 51

opm 65

the random choice case path in j30 ./rcpsp/j30.sm/j3015\_10.sm case j3015\_10.sm

v5 1 1.051356554031372 s [65, 87] 0.0 [0, 0, 0, 0, 6, 4, 12, 22, 25, 5, 12, 25, 32, 33, 20, 20, 29, 35, 12, 23, 43, 17, 48, 22, 32, 38, 35, 48, 44, 55, 46, 65] 0

k\_1000 52

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j3015\_2.sm case j3015\_2.sm

v5 1 1.1744093894958496 s [47, 56] 0.0 [0, 0, 0, 0, 6, 6, 8, 8, 15, 6, 15, 10, 10, 14, 9, 19, 6, 15, 24, 23, 7, 11, 32, 22, 23, 19, 25, 36, 35, 26, 37, 47] 0

k\_1000 53

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j3015\_3.sm case j3015\_3.sm

v5 0 0.2826979160308838 s [48, 53] 0.0 [0, 0, 0, 0, 3, 5, 14, 10, 20, 17, 5, 10, 18, 7, 20, 21, 22, 23, 10, 21, 25, 25, 20, 27, 28, 23, 29, 24, 38, 27, 39, 48] 0

k\_1000 54

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j3015\_4.sm case j3015\_4.sm

v5 0 0.3440704345703125 s [48, 55] 0.0 [0, 0, 0, 0, 3, 7, 7, 3, 10, 3, 7, 10, 10, 10, 18, 11, 11, 27, 13, 16, 27, 18, 15, 13, 24, 37, 26, 29, 32, 45, 32, 48] 0

k\_1000 55

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3015\_5.sm case j3015\_5.sm

v5 174 299.13542675971985 s [59, 59] 1.7241379310344827 [0, 0, 0, 0, 6, 8, 15, 6, 15, 23, 24, 16, 34, 33, 16, 39, 24, 23, 24, 32, 38, 37, 15, 29, 37, 33, 47, 41, 56, 50, 50, 59] 0

k\_1000 56

opm 67

the random choice case path in j30 ./rcpsp/j30.sm/j3015\_6.sm case j3015\_6.sm

v5 1 1.8810853958129883 s [67, 94] 0.0 [0, 0, 0, 0, 6, 6, 2, 4, 13, 6, 21, 21, 17, 29, 36, 13, 32, 7, 40, 8, 13, 31, 39, 46, 9, 27, 55, 23, 44, 63, 48, 67] 0

k\_1000 57

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j3015\_7.sm case j3015\_7.sm

v5 0 0.3030276298522949 s [47, 49] 0.0 [0, 0, 0, 0, 8, 6, 6, 8, 2, 6, 19, 17, 17, 16, 16, 21, 21, 30, 8, 24, 29, 11, 31, 35, 40, 18, 36, 26, 31, 43, 39, 47] 0

k\_1000 58

opm 50

the random choice case path in j30 ./rcpsp/j30.sm/j3015\_8.sm case j3015\_8.sm

v5 1 1.3998239040374756 s [50, 65] 0.0 [0, 0, 0, 4, 1, 12, 14, 1, 10, 14, 12, 8, 22, 1, 14, 24, 25, 23, 17, 17, 12, 26, 34, 32, 35, 36, 33, 44, 44, 49, 39, 50] 0

k\_1000 59

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3015\_9.sm case j3015\_9.sm

v5 3 3.525508403778076 s [54, 62] 0.0 [0, 19, 0, 0, 6, 27, 11, 6, 13, 16, 11, 16, 11, 27, 17, 6, 17, 39, 21, 29, 30, 21, 21, 26, 35, 29, 39, 44, 41, 36, 46, 54] 0

k\_1000 60

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j3016\_1.sm case j3016\_1.sm

v5 0 0.2737298011779785 s [51, 51] 0.0 [0, 0, 0, 0, 8, 2, 18, 18, 18, 22, 1, 8, 1, 19, 26, 7, 31, 30, 11, 26, 30, 26, 8, 38, 41, 19, 37, 41, 23, 42, 49, 51] 0

k\_1000 61

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j3016\_10.sm case j3016\_10.sm

v5 0 0.21225881576538086 s [51, 51] 0.0 [0, 0, 0, 0, 4, 6, 16, 6, 6, 19, 7, 10, 8, 10, 11, 10, 14, 21, 18, 29, 16, 7, 19, 22, 36, 18, 16, 19, 29, 42, 25, 51] 0

k\_1000 62

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j3016\_2.sm case j3016\_2.sm

v5 0 0.21016907691955566 s [48, 68] 0.0 [0, 0, 0, 0, 5, 5, 9, 9, 10, 18, 18, 28, 5, 27, 10, 9, 28, 17, 14, 12, 33, 28, 20, 30, 41, 28, 37, 18, 44, 28, 33, 48] 0

k\_1000 63

opm 36

the random choice case path in j30 ./rcpsp/j30.sm/j3016\_3.sm case j3016\_3.sm

v5 0 0.1449425220489502 s [36, 36] 0.0 [0, 0, 0, 0, 1, 5, 5, 8, 11, 8, 5, 8, 11, 5, 9, 11, 19, 12, 1, 11, 15, 18, 5, 11, 22, 21, 22, 19, 23, 29, 29, 36] 0

k\_1000 64

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j3016\_4.sm case j3016\_4.sm

v5 0 0.19247865676879883 s [47, 47] 0.0 [0, 0, 0, 0, 4, 1, 4, 6, 6, 6, 7, 1, 8, 7, 7, 14, 9, 21, 13, 8, 12, 20, 16, 9, 21, 24, 34, 25, 16, 34, 38, 47] 0

k\_1000 65

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j3016\_5.sm case j3016\_5.sm

v5 0 0.20243406295776367 s [51, 61] 0.0 [0, 0, 0, 0, 7, 8, 8, 9, 9, 13, 7, 9, 19, 8, 15, 1, 25, 23, 10, 35, 11, 25, 13, 16, 23, 23, 29, 30, 42, 33, 29, 51] 0

k\_1000 66

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j3016\_6.sm case j3016\_6.sm

v5 0 0.2505350112915039 s [51, 65] 0.0 [0, 0, 0, 0, 7, 13, 13, 9, 13, 15, 7, 17, 16, 9, 7, 21, 9, 17, 20, 16, 14, 24, 32, 24, 14, 32, 14, 39, 33, 44, 18, 51] 0

k\_1000 67

opm 34

the random choice case path in j30 ./rcpsp/j30.sm/j3016\_7.sm case j3016\_7.sm

v5 0 0.1535661220550537 s [34, 45] 0.0 [0, 0, 0, 0, 2, 3, 9, 2, 3, 10, 13, 9, 15, 5, 3, 15, 2, 5, 25, 12, 19, 18, 11, 23, 25, 20, 27, 26, 33, 20, 29, 34] 0

k\_1000 68

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j3016\_8.sm case j3016\_8.sm

v5 0 0.20307374000549316 s [44, 44] 0.0 [0, 0, 0, 0, 1, 1, 2, 1, 2, 11, 11, 2, 2, 2, 4, 11, 14, 14, 14, 19, 18, 11, 24, 19, 17, 25, 4, 30, 24, 26, 40, 44] 0

k\_1000 69

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j3016\_9.sm case j3016\_9.sm

v5 0 0.16148805618286133 s [44, 44] 0.0 [0, 0, 0, 0, 5, 6, 5, 5, 12, 4, 7, 16, 6, 8, 16, 26, 6, 26, 28, 30, 35, 13, 35, 7, 11, 38, 12, 30, 40, 40, 26, 44] 0

k\_1000 70

opm 64

the random choice case path in j30 ./rcpsp/j30.sm/j3017\_1.sm case j3017\_1.sm

v5 2 3.605031728744507 s [61, 61] -4.6875 [0, 0, 0, 0, 15, 5, 23, 5, 13, 32, 14, 24, 2, 26, 5, 15, 14, 42, 32, 5, 9, 42, 31, 51, 55, 42, 32, 52, 52, 60, 45, 61] 0

k\_1000 71

opm 66

the random choice case path in j30 ./rcpsp/j30.sm/j3017\_10.sm case j3017\_10.sm

v5 4 3.9674768447875977 s [66, 66] 0.0 [0, 0, 0, 0, 10, 9, 16, 9, 23, 11, 21, 5, 21, 9, 18, 10, 10, 29, 16, 16, 24, 33, 24, 26, 34, 34, 40, 49, 56, 56, 39, 66] 0

k\_1000 72

opm 68

the random choice case path in j30 ./rcpsp/j30.sm/j3017\_2.sm case j3017\_2.sm

v5 6 4.448837757110596 s [68, 100] 0.0 [0, 0, 0, 0, 7, 14, 14, 22, 7, 31, 31, 15, 22, 13, 22, 30, 21, 13, 45, 26, 55, 33, 7, 30, 36, 61, 45, 55, 58, 65, 38, 68] 0

k\_1000 73

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3017\_3.sm case j3017\_3.sm

v5 0 0.3562180995941162 s [60, 82] 0.0 [0, 0, 0, 0, 7, 17, 22, 17, 22, 27, 22, 17, 17, 21, 30, 31, 31, 24, 40, 36, 42, 32, 32, 42, 45, 42, 40, 36, 45, 52, 53, 60] 0

k\_1000 74

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3017\_4.sm case j3017\_4.sm

v5 4 5.866316318511963 s [49, 49] 0.0 [0, 0, 0, 0, 8, 16, 2, 7, 16, 19, 11, 19, 19, 28, 8, 20, 20, 29, 26, 11, 22, 28, 11, 40, 39, 32, 31, 39, 40, 47, 47, 49] 0

k\_1000 75

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j3017\_5.sm case j3017\_5.sm

v5 2 2.659306287765503 s [47, 106] 0.0 [0, 3, 0, 0, 1, 3, 13, 1, 5, 23, 25, 1, 3, 2, 29, 22, 13, 5, 23, 13, 13, 23, 29, 32, 31, 38, 28, 37, 40, 40, 41, 47] 0

k\_1000 76

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3017\_6.sm case j3017\_6.sm

v5 1 1.5785915851593018 s [63, 63] 0.0 [0, 0, 0, 0, 3, 4, 10, 4, 3, 10, 14, 21, 21, 14, 10, 23, 10, 21, 24, 33, 4, 31, 14, 33, 42, 33, 41, 45, 61, 53, 52, 63] 0

k\_1000 77

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3017\_7.sm case j3017\_7.sm

v5 3 3.0599365234375 s [57, 90] 0.0 [0, 0, 0, 0, 9, 1, 9, 9, 9, 19, 26, 22, 16, 16, 29, 1, 23, 29, 23, 36, 36, 29, 9, 41, 34, 37, 32, 39, 49, 40, 47, 57] 0

k\_1000 78

opm 61

the random choice case path in j30 ./rcpsp/j30.sm/j3017\_8.sm case j3017\_8.sm

v5 0 0.486804723739624 s [61, 82] 0.0 [0, 0, 0, 0, 1, 5, 8, 15, 15, 21, 5, 8, 8, 13, 23, 17, 10, 23, 30, 23, 32, 38, 38, 42, 45, 30, 44, 45, 52, 48, 48, 61] 0

k\_1000 79

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j3017\_9.sm case j3017\_9.sm

v5 2 1.1873183250427246 s [47, 48] -2.083333333333333 [0, 0, 0, 0, 3, 9, 3, 7, 16, 9, 16, 16, 23, 31, 12, 16, 20, 22, 27, 22, 11, 7, 25, 16, 30, 36, 40, 36, 41, 23, 41, 47] 0

k\_1000 80

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3018\_1.sm case j3018\_1.sm

v5 1 0.9921448230743408 s [53, 53] 0.0 [0, 0, 0, 0, 8, 17, 9, 4, 8, 8, 8, 14, 17, 24, 14, 17, 19, 17, 27, 28, 19, 28, 27, 24, 34, 34, 42, 42, 34, 40, 52, 53] 0

k\_1000 81

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3018\_10.sm case j3018\_10.sm

v5 0 0.36474156379699707 s [47, 63] -4.081632653061225 [0, 0, 0, 0, 3, 1, 1, 9, 3, 9, 12, 9, 20, 12, 5, 21, 21, 9, 24, 21, 9, 15, 23, 29, 26, 26, 18, 35, 33, 45, 35, 47] 0

k\_1000 82

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3018\_2.sm case j3018\_2.sm

v5 0 0.19307804107666016 s [55, 55] 0.0 [0, 0, 0, 0, 3, 9, 7, 9, 7, 9, 18, 18, 20, 7, 12, 26, 26, 26, 34, 21, 34, 23, 32, 23, 32, 38, 43, 43, 51, 51, 26, 55] 0

k\_1000 83

opm 56

the random choice case path in j30 ./rcpsp/j30.sm/j3018\_3.sm case j3018\_3.sm

v5 0 0.34483981132507324 s [56, 82] 0.0 [0, 0, 0, 0, 5, 1, 1, 10, 10, 13, 21, 6, 27, 21, 6, 1, 27, 11, 28, 14, 24, 38, 18, 35, 38, 41, 41, 48, 51, 48, 26, 56] 0

k\_1000 84

opm 70

the random choice case path in j30 ./rcpsp/j30.sm/j3018\_4.sm case j3018\_4.sm

v5 4 3.6859169006347656 s [70, 105] 0.0 [0, 0, 3, 0, 19, 11, 3, 20, 26, 12, 20, 26, 7, 27, 11, 20, 28, 26, 20, 19, 27, 36, 36, 26, 40, 49, 32, 52, 58, 49, 61, 70] 0

k\_1000 85

opm 52

the random choice case path in j30 ./rcpsp/j30.sm/j3018\_5.sm case j3018\_5.sm

v5 0 0.37395143508911133 s [50, 50] -3.8461538461538463 [0, 0, 0, 0, 2, 2, 4, 14, 9, 9, 16, 27, 2, 18, 4, 9, 4, 21, 22, 18, 29, 18, 27, 17, 29, 39, 35, 35, 45, 41, 45, 50] 0

k\_1000 86

opm 62

the random choice case path in j30 ./rcpsp/j30.sm/j3018\_6.sm case j3018\_6.sm

v5 124 101.2127616405487 s [62, 109] 0.0 [0, 0, 0, 0, 10, 2, 6, 18, 10, 18, 6, 8, 10, 25, 10, 25, 24, 18, 18, 26, 33, 15, 33, 27, 45, 36, 33, 55, 61, 55, 41, 62] 0

k\_1000 87

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j3018\_7.sm case j3018\_7.sm

v5 2 1.475559949874878 s [48, 50] 0.0 [0, 5, 0, 0, 8, 8, 8, 9, 11, 13, 17, 12, 15, 17, 23, 15, 19, 28, 15, 26, 5, 10, 18, 25, 28, 28, 35, 29, 34, 38, 41, 48] 0

k\_1000 88

opm 52

the random choice case path in j30 ./rcpsp/j30.sm/j3018\_8.sm case j3018\_8.sm

v5 0 0.32151150703430176 s [49, 49] -5.769230769230769 [0, 0, 0, 0, 2, 4, 4, 6, 4, 13, 13, 8, 18, 6, 14, 13, 22, 3, 18, 10, 16, 25, 25, 29, 19, 27, 33, 32, 23, 36, 42, 49] 0

k\_1000 89

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j3018\_9.sm case j3018\_9.sm

v5 0 0.2570812702178955 s [47, 47] 0.0 [0, 0, 0, 0, 2, 17, 7, 10, 10, 10, 3, 13, 23, 9, 17, 7, 32, 23, 13, 17, 26, 23, 33, 13, 28, 28, 37, 34, 35, 44, 43, 47] 0

k\_1000 90

opm 40

the random choice case path in j30 ./rcpsp/j30.sm/j3019\_1.sm case j3019\_1.sm

v5 2 1.0622060298919678 s [40, 40] 0.0 [0, 0, 6, 0, 5, 6, 6, 6, 7, 10, 13, 10, 5, 6, 11, 15, 19, 17, 17, 17, 15, 18, 24, 29, 24, 24, 15, 30, 34, 25, 24, 40] 0

k\_1000 91

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j3019\_10.sm case j3019\_10.sm

v5 0 0.224287748336792 s [47, 86] 0.0 [0, 0, 0, 0, 1, 8, 7, 7, 16, 11, 5, 18, 25, 7, 31, 8, 18, 18, 28, 13, 11, 8, 13, 28, 38, 41, 28, 35, 33, 41, 45, 47] 0

k\_1000 92

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3019\_2.sm case j3019\_2.sm

v5 0 0.4750216007232666 s [58, 74] 0.0 [0, 0, 0, 0, 5, 5, 5, 6, 11, 12, 20, 16, 16, 16, 12, 25, 6, 34, 15, 24, 34, 15, 34, 22, 24, 30, 32, 40, 35, 48, 39, 58] 0

k\_1000 93

opm 83

the random choice case path in j30 ./rcpsp/j30.sm/j3019\_3.sm case j3019\_3.sm

v5 1 0.8680970668792725 s [83, 83] 0.0 [0, 0, 0, 0, 6, 17, 6, 10, 9, 17, 15, 27, 27, 22, 37, 27, 6, 25, 44, 44, 44, 54, 54, 37, 47, 24, 60, 67, 76, 63, 60, 83] 0

k\_1000 94

opm 39

the random choice case path in j30 ./rcpsp/j30.sm/j3019\_4.sm case j3019\_4.sm

v5 1 0.8762514591217041 s [39, 75] 0.0 [0, 0, 0, 0, 10, 1, 4, 13, 13, 19, 10, 18, 4, 19, 21, 18, 18, 4, 19, 28, 18, 27, 27, 19, 19, 19, 29, 23, 37, 33, 37, 39] 0

k\_1000 95

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j3019\_5.sm case j3019\_5.sm

v5 0 0.35472607612609863 s [48, 49] 0.0 [0, 0, 0, 0, 4, 12, 10, 12, 5, 10, 13, 20, 20, 20, 15, 26, 24, 22, 13, 23, 24, 23, 26, 19, 28, 29, 34, 29, 34, 39, 34, 48] 0

k\_1000 96

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3019\_6.sm case j3019\_6.sm

v5 0 0.27300548553466797 s [49, 49] 0.0 [0, 0, 0, 0, 3, 13, 3, 23, 13, 5, 8, 13, 2, 18, 11, 23, 16, 16, 24, 23, 3, 18, 20, 23, 26, 31, 24, 36, 41, 41, 36, 49] 0

k\_1000 97

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3019\_7.sm case j3019\_7.sm

v5 0 0.462310791015625 s [57, 94] 0.0 [0, 0, 7, 0, 10, 14, 15, 17, 25, 7, 7, 10, 22, 17, 14, 28, 14, 28, 27, 37, 22, 31, 27, 31, 23, 37, 38, 25, 32, 47, 48, 57] 0

k\_1000 98

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3019\_8.sm case j3019\_8.sm

v5 2 1.849299430847168 s [55, 80] 0.0 [0, 0, 0, 0, 10, 2, 13, 5, 18, 13, 22, 7, 13, 7, 14, 5, 17, 18, 17, 18, 25, 35, 22, 30, 25, 25, 39, 25, 49, 39, 33, 55] 0

k\_1000 99

opm 38

the random choice case path in j30 ./rcpsp/j30.sm/j3019\_9.sm case j3019\_9.sm

v5 3 1.1606979370117188 s [38, 75] 0.0 [0, 0, 15, 0, 3, 12, 16, 12, 16, 7, 7, 3, 24, 23, 25, 25, 15, 24, 15, 23, 27, 29, 18, 31, 24, 36, 27, 25, 37, 36, 37, 38] 0

k\_1000 100

opm 43

the random choice case path in j30 ./rcpsp/j30.sm/j301\_1.sm case j301\_1.sm

v5 3 4.8693225383758545 s [43, 50] 0.0 [0, 4, 0, 0, 12, 31, 4, 4, 10, 6, 12, 13, 4, 15, 12, 13, 23, 10, 18, 28, 29, 29, 36, 38, 35, 21, 15, 35, 21, 41, 38, 43] 0

k\_1000 101

opm 45

the random choice case path in j30 ./rcpsp/j30.sm/j301\_10.sm case j301\_10.sm

v5 0 0.295257568359375 s [44, 86] -2.2222222222222223 [0, 0, 0, 0, 4, 27, 4, 5, 14, 17, 10, 17, 18, 18, 22, 18, 27, 10, 22, 4, 20, 3, 20, 31, 28, 31, 31, 34, 38, 33, 43, 44] 0

k\_1000 102

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j301\_2.sm case j301\_2.sm

v5 12 17.206841468811035 s [47, 54] 0.0 [0, 0, 0, 0, 10, 11, 7, 13, 10, 2, 13, 7, 15, 20, 24, 14, 11, 24, 14, 24, 28, 7, 33, 30, 28, 24, 33, 35, 32, 39, 35, 47] 0

k\_1000 103

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j301\_3.sm case j301\_3.sm

v5 1 1.0569324493408203 s [47, 60] 0.0 [0, 0, 0, 0, 1, 1, 1, 5, 5, 8, 13, 5, 16, 10, 6, 28, 21, 7, 13, 1, 17, 36, 1, 23, 38, 42, 27, 28, 45, 45, 36, 47] 0

k\_1000 104

opm 62

the random choice case path in j30 ./rcpsp/j30.sm/j301\_4.sm case j301\_4.sm

v5 0 0.4804091453552246 s [61, 61] -1.6129032258064515 [0, 0, 10, 0, 10, 3, 9, 17, 24, 24, 33, 28, 25, 3, 20, 37, 37, 34, 12, 37, 32, 24, 31, 18, 34, 33, 12, 44, 46, 52, 44, 61] 0

k\_1000 105

opm 39

the random choice case path in j30 ./rcpsp/j30.sm/j301\_5.sm case j301\_5.sm

v5 0 0.4039034843444824 s [39, 55] 0.0 [0, 0, 0, 0, 4, 5, 10, 7, 15, 12, 6, 6, 20, 5, 6, 4, 18, 10, 12, 10, 20, 21, 21, 30, 20, 28, 2, 36, 31, 37, 29, 39] 0

k\_1000 106

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j301\_6.sm case j301\_6.sm

v5 25 17.12852191925049 s [48, 49] 0.0 [0, 0, 12, 0, 10, 9, 15, 10, 22, 10, 13, 10, 12, 22, 13, 19, 16, 28, 20, 38, 12, 20, 13, 26, 22, 41, 19, 22, 47, 28, 38, 48] 0

k\_1000 107

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j301\_7.sm case j301\_7.sm

v5 1 0.9455208778381348 s [60, 60] 0.0 [0, 0, 0, 0, 2, 3, 6, 19, 18, 10, 21, 18, 6, 30, 19, 21, 29, 3, 25, 34, 29, 29, 30, 9, 39, 34, 44, 44, 33, 52, 49, 60] 0

k\_1000 108

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j301\_8.sm case j301\_8.sm

v5 2 2.522810459136963 s [53, 78] 0.0 [0, 0, 0, 0, 3, 12, 14, 6, 20, 3, 17, 10, 22, 10, 20, 20, 10, 25, 14, 14, 35, 25, 25, 26, 25, 35, 29, 36, 45, 20, 43, 53] 0

k\_1000 109

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j301\_9.sm case j301\_9.sm

v5 329 299.98272156715393 s [50, 57] 2.0408163265306123 [0, 0, 0, 0, 7, 15, 5, 11, 18, 5, 15, 11, 27, 32, 15, 31, 10, 22, 20, 3, 22, 28, 27, 15, 34, 38, 40, 41, 38, 46, 40, 50] 0

k\_1000 110

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3020\_1.sm case j3020\_1.sm

v5 0 0.2324841022491455 s [57, 57] 0.0 [0, 0, 0, 0, 8, 8, 15, 7, 15, 8, 15, 8, 20, 20, 8, 18, 23, 32, 32, 23, 37, 46, 37, 14, 22, 23, 32, 26, 51, 40, 34, 57] 0

k\_1000 111

opm 37

the random choice case path in j30 ./rcpsp/j30.sm/j3020\_10.sm case j3020\_10.sm

v5 0 0.14290690422058105 s [37, 37] 0.0 [0, 0, 0, 0, 9, 3, 9, 9, 10, 14, 15, 10, 14, 8, 14, 19, 14, 24, 24, 28, 24, 12, 24, 32, 25, 32, 12, 25, 32, 36, 33, 37] 0

k\_1000 112

opm 70

the random choice case path in j30 ./rcpsp/j30.sm/j3020\_2.sm case j3020\_2.sm

v5 0 0.2341322898864746 s [70, 127] 0.0 [0, 0, 0, 0, 6, 13, 6, 9, 9, 9, 19, 13, 27, 35, 27, 27, 20, 37, 43, 40, 6, 51, 43, 40, 37, 52, 42, 56, 63, 58, 48, 70] 0

k\_1000 113

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3020\_3.sm case j3020\_3.sm

v5 0 0.18391966819763184 s [49, 49] 0.0 [0, 0, 0, 0, 7, 3, 7, 8, 10, 7, 3, 13, 19, 10, 19, 19, 24, 24, 24, 17, 26, 31, 29, 39, 26, 27, 10, 38, 35, 12, 42, 49] 0

k\_1000 114

opm 43

the random choice case path in j30 ./rcpsp/j30.sm/j3020\_4.sm case j3020\_4.sm

v5 0 0.16362404823303223 s [43, 43] 0.0 [0, 0, 0, 0, 3, 9, 3, 13, 9, 16, 9, 9, 13, 14, 14, 14, 9, 6, 12, 23, 25, 23, 27, 25, 21, 29, 27, 25, 36, 34, 36, 43] 0

k\_1000 115

opm 61

the random choice case path in j30 ./rcpsp/j30.sm/j3020\_5.sm case j3020\_5.sm

v5 0 0.18383502960205078 s [61, 61] 0.0 [0, 0, 0, 0, 4, 11, 4, 11, 2, 11, 2, 13, 13, 13, 17, 13, 19, 23, 19, 19, 28, 22, 19, 27, 4, 37, 45, 47, 57, 31, 57, 61] 0

k\_1000 116

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j3020\_6.sm case j3020\_6.sm

v5 0 0.1711740493774414 s [51, 51] 0.0 [0, 0, 0, 0, 5, 8, 14, 8, 5, 8, 8, 18, 20, 20, 15, 30, 31, 23, 30, 36, 15, 14, 31, 41, 20, 31, 5, 41, 23, 36, 43, 51] 0

k\_1000 117

opm 42

the random choice case path in j30 ./rcpsp/j30.sm/j3020\_7.sm case j3020\_7.sm

v5 0 0.14293766021728516 s [42, 42] 0.0 [0, 0, 0, 0, 6, 11, 11, 3, 9, 19, 12, 17, 6, 14, 9, 15, 21, 23, 21, 14, 22, 24, 11, 24, 21, 29, 31, 31, 36, 41, 27, 42] 0

k\_1000 118

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j3020\_8.sm case j3020\_8.sm

v5 0 0.26335859298706055 s [51, 51] 0.0 [0, 0, 0, 0, 6, 2, 9, 2, 9, 16, 11, 14, 24, 13, 17, 24, 15, 2, 8, 20, 14, 20, 23, 24, 22, 25, 35, 44, 30, 31, 49, 51] 0

k\_1000 119

opm 41

the random choice case path in j30 ./rcpsp/j30.sm/j3020\_9.sm case j3020\_9.sm

v5 0 0.17384934425354004 s [41, 66] 0.0 [0, 0, 0, 0, 4, 1, 8, 4, 10, 4, 4, 4, 8, 11, 12, 10, 13, 12, 22, 31, 22, 12, 31, 11, 34, 22, 22, 19, 40, 38, 31, 41] 0

k\_1000 120

opm 84

the random choice case path in j30 ./rcpsp/j30.sm/j3021\_1.sm case j3021\_1.sm

v5 0 0.4293351173400879 s [74, 83] -11.904761904761903 [0, 0, 12, 0, 5, 15, 25, 5, 26, 5, 26, 34, 31, 2, 25, 39, 46, 36, 36, 46, 31, 54, 46, 59, 39, 42, 44, 52, 68, 69, 54, 74] 0

k\_1000 121

opm 69

the random choice case path in j30 ./rcpsp/j30.sm/j3021\_10.sm case j3021\_10.sm

v5 9 22.447831392288208 s [69, 148] 0.0 [0, 0, 0, 0, 7, 27, 17, 6, 16, 18, 36, 7, 36, 24, 38, 24, 48, 10, 32, 43, 52, 52, 13, 54, 54, 61, 18, 62, 52, 61, 63, 69] 0

k\_1000 122

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3021\_2.sm case j3021\_2.sm

v5 4 6.741965055465698 s [59, 116] 0.0 [0, 0, 0, 2, 8, 9, 9, 31, 14, 14, 29, 18, 11, 20, 20, 39, 29, 25, 33, 14, 22, 37, 37, 42, 42, 50, 46, 50, 56, 52, 44, 59] 0

k\_1000 123

opm 76

the random choice case path in j30 ./rcpsp/j30.sm/j3021\_3.sm case j3021\_3.sm

v5 67 97.71753525733948 s [76, 96] 0.0 [0, 0, 0, 0, 8, 4, 12, 12, 22, 22, 2, 12, 38, 45, 22, 59, 39, 45, 8, 9, 39, 64, 32, 24, 45, 49, 54, 59, 66, 54, 49, 76] 0

k\_1000 124

opm 70

the random choice case path in j30 ./rcpsp/j30.sm/j3021\_4.sm case j3021\_4.sm

v5 1 1.6347806453704834 s [69, 69] -1.4285714285714286 [0, 0, 8, 0, 22, 2, 10, 8, 17, 27, 2, 10, 45, 17, 30, 37, 14, 21, 30, 37, 45, 53, 50, 42, 42, 59, 48, 58, 65, 65, 65, 69] 0

k\_1000 125

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3021\_5.sm case j3021\_5.sm

v5 17 32.67844080924988 s [55, 75] 0.0 [0, 0, 0, 0, 3, 3, 7, 8, 18, 17, 11, 30, 22, 22, 17, 12, 33, 11, 37, 7, 32, 38, 37, 45, 30, 44, 43, 38, 49, 46, 49, 55] 0

k\_1000 126

opm 76

the random choice case path in j30 ./rcpsp/j30.sm/j3021\_6.sm case j3021\_6.sm

v5 1 2.8943729400634766 s [75, 187] -1.3157894736842104 [0, 0, 0, 20, 9, 15, 15, 9, 15, 1, 25, 9, 25, 24, 12, 25, 39, 9, 49, 35, 26, 49, 59, 39, 53, 59, 65, 49, 69, 59, 69, 75] 0

k\_1000 127

opm 65

the random choice case path in j30 ./rcpsp/j30.sm/j3021\_7.sm case j3021\_7.sm

v5 0 0.612821102142334 s [65, 122] 0.0 [0, 0, 0, 5, 9, 10, 19, 5, 5, 16, 38, 15, 28, 19, 44, 21, 45, 30, 47, 43, 28, 38, 45, 49, 26, 47, 45, 47, 47, 50, 55, 65] 0

k\_1000 128

opm 62

the random choice case path in j30 ./rcpsp/j30.sm/j3021\_8.sm case j3021\_8.sm

v5 3 5.23776388168335 s [61, 103] -1.6129032258064515 [0, 0, 0, 0, 1, 11, 10, 20, 24, 10, 11, 10, 14, 25, 22, 31, 35, 10, 35, 30, 31, 31, 40, 40, 40, 22, 49, 45, 55, 49, 56, 61] 0

k\_1000 129

opm 69

the random choice case path in j30 ./rcpsp/j30.sm/j3021\_9.sm case j3021\_9.sm

v5 8 15.692485094070435 s [68, 73] -1.4492753623188406 [0, 0, 0, 24, 10, 16, 10, 8, 10, 16, 30, 16, 18, 21, 9, 28, 38, 18, 18, 24, 25, 51, 35, 38, 41, 28, 40, 57, 51, 58, 40, 68] 0

k\_1000 130

opm 42

the random choice case path in j30 ./rcpsp/j30.sm/j3022\_1.sm case j3022\_1.sm

v5 0 0.20349335670471191 s [42, 45] 0.0 [0, 0, 0, 0, 10, 16, 2, 7, 2, 7, 7, 10, 13, 14, 18, 14, 14, 18, 14, 16, 21, 19, 20, 24, 25, 24, 2, 22, 30, 32, 30, 42] 0

k\_1000 131

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3022\_10.sm case j3022\_10.sm

v5 69 101.1042697429657 s [55, 66] 0.0 [0, 0, 0, 0, 6, 2, 15, 6, 2, 25, 10, 11, 29, 20, 20, 18, 1, 29, 30, 18, 15, 29, 22, 28, 25, 32, 39, 37, 47, 39, 44, 55] 0

k\_1000 132

opm 45

the random choice case path in j30 ./rcpsp/j30.sm/j3022\_2.sm case j3022\_2.sm

v5 1 0.5489459037780762 s [45, 45] 0.0 [0, 0, 0, 0, 5, 7, 5, 7, 7, 8, 12, 10, 17, 15, 5, 17, 17, 25, 17, 24, 33, 33, 32, 12, 25, 37, 38, 35, 42, 42, 40, 45] 0

k\_1000 133

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3022\_3.sm case j3022\_3.sm

v5 0 0.2738182544708252 s [61, 90] -3.1746031746031744 [0, 0, 0, 0, 10, 10, 16, 16, 23, 26, 26, 23, 16, 16, 26, 10, 6, 31, 31, 39, 10, 39, 35, 20, 23, 32, 48, 34, 48, 46, 53, 61] 0

k\_1000 134

opm 42

the random choice case path in j30 ./rcpsp/j30.sm/j3022\_4.sm case j3022\_4.sm

v5 164 110.9970452785492 s [42, 60] 0.0 [0, 0, 0, 0, 4, 3, 4, 4, 12, 4, 17, 10, 10, 17, 20, 14, 14, 21, 15, 17, 7, 29, 23, 31, 10, 29, 32, 21, 38, 31, 32, 42] 0

k\_1000 135

opm 52

the random choice case path in j30 ./rcpsp/j30.sm/j3022\_5.sm case j3022\_5.sm

v5 9 9.433791160583496 s [52, 88] 0.0 [0, 0, 0, 8, 10, 13, 13, 8, 20, 17, 32, 20, 19, 26, 19, 27, 19, 10, 26, 38, 32, 36, 31, 43, 41, 28, 38, 45, 46, 46, 46, 52] 0

k\_1000 136

opm 52

the random choice case path in j30 ./rcpsp/j30.sm/j3022\_6.sm case j3022\_6.sm

v5 257 222.05228567123413 s [52, 68] 0.0 [0, 0, 0, 0, 10, 8, 7, 7, 18, 3, 17, 11, 6, 17, 23, 27, 35, 23, 18, 17, 23, 32, 27, 10, 32, 36, 36, 40, 42, 39, 40, 52] 0

k\_1000 137

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3022\_7.sm case j3022\_7.sm

v5 14 18.713170289993286 s [60, 60] 0.0 [0, 4, 0, 8, 1, 1, 6, 3, 8, 22, 1, 29, 15, 8, 14, 14, 22, 29, 36, 22, 38, 14, 31, 36, 22, 38, 45, 45, 52, 38, 51, 60] 0

k\_1000 138

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3022\_8.sm case j3022\_8.sm

v5 7 6.54357647895813 s [55, 68] 0.0 [0, 0, 0, 0, 6, 13, 14, 21, 13, 10, 17, 28, 20, 27, 17, 27, 22, 17, 28, 14, 6, 31, 28, 37, 38, 38, 41, 14, 51, 38, 46, 55] 0

k\_1000 139

opm 76

the random choice case path in j30 ./rcpsp/j30.sm/j3022\_9.sm case j3022\_9.sm

v5 1 1.1722922325134277 s [76, 83] 0.0 [0, 0, 0, 0, 10, 6, 18, 10, 11, 28, 17, 6, 28, 18, 37, 21, 24, 33, 43, 43, 51, 21, 42, 33, 25, 60, 42, 65, 75, 60, 65, 76] 0

k\_1000 140

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3023\_1.sm case j3023\_1.sm

v5 0 0.42029404640197754 s [63, 64] 0.0 [0, 0, 0, 0, 4, 10, 5, 15, 5, 15, 22, 14, 4, 10, 31, 22, 18, 31, 18, 27, 40, 22, 33, 40, 31, 42, 47, 37, 45, 49, 54, 63] 0

k\_1000 141

opm 61

the random choice case path in j30 ./rcpsp/j30.sm/j3023\_10.sm case j3023\_10.sm

v5 0 0.20470857620239258 s [61, 61] 0.0 [0, 0, 0, 0, 10, 14, 6, 13, 8, 8, 10, 23, 33, 23, 33, 23, 37, 38, 37, 8, 47, 26, 33, 34, 48, 44, 37, 47, 54, 52, 13, 61] 0

k\_1000 142

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3023\_2.sm case j3023\_2.sm

v5 0 0.1942901611328125 s [53, 54] 0.0 [0, 0, 0, 0, 3, 3, 3, 9, 9, 5, 15, 9, 1, 14, 3, 18, 1, 4, 11, 18, 26, 25, 25, 25, 25, 33, 35, 38, 38, 45, 33, 53] 0

k\_1000 143

opm 46

the random choice case path in j30 ./rcpsp/j30.sm/j3023\_3.sm case j3023\_3.sm

v5 1 0.8082592487335205 s [46, 59] 0.0 [0, 0, 0, 0, 4, 4, 4, 16, 11, 11, 7, 16, 16, 22, 10, 22, 25, 13, 16, 20, 26, 26, 23, 23, 29, 19, 37, 27, 35, 29, 41, 46] 0

k\_1000 144

opm 65

the random choice case path in j30 ./rcpsp/j30.sm/j3023\_4.sm case j3023\_4.sm

v5 26 25.63129734992981 s [65, 98] 0.0 [0, 0, 6, 0, 10, 11, 18, 18, 23, 11, 12, 23, 15, 20, 29, 35, 25, 28, 32, 36, 31, 36, 39, 40, 39, 40, 36, 48, 20, 43, 56, 65] 0

k\_1000 145

opm 52

the random choice case path in j30 ./rcpsp/j30.sm/j3023\_5.sm case j3023\_5.sm

v5 0 0.22503256797790527 s [50, 56] -3.8461538461538463 [0, 0, 0, 0, 4, 7, 13, 4, 19, 7, 4, 14, 15, 5, 15, 13, 29, 19, 22, 25, 26, 22, 26, 29, 22, 27, 36, 39, 21, 46, 27, 50] 0

k\_1000 146

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j3023\_6.sm case j3023\_6.sm

v5 10 5.27658224105835 s [48, 59] 0.0 [0, 0, 0, 6, 13, 10, 13, 13, 2, 17, 4, 4, 17, 4, 10, 25, 17, 14, 20, 28, 6, 22, 17, 23, 31, 28, 36, 40, 33, 36, 45, 48] 0

k\_1000 147

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3023\_7.sm case j3023\_7.sm

v5 4 2.9261314868927 s [60, 60] 0.0 [0, 14, 0, 0, 16, 10, 11, 18, 11, 15, 21, 25, 15, 27, 19, 27, 50, 32, 31, 32, 11, 30, 10, 22, 41, 42, 41, 47, 50, 57, 32, 60] 0

k\_1000 148

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j3023\_8.sm case j3023\_8.sm

v5 1 1.0287890434265137 s [48, 178] 0.0 [0, 0, 0, 0, 3, 9, 8, 8, 9, 12, 13, 21, 23, 9, 23, 10, 23, 30, 31, 9, 33, 10, 24, 35, 40, 21, 31, 23, 39, 40, 45, 48] 0

k\_1000 149

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3023\_9.sm case j3023\_9.sm

v5 2 2.264752149581909 s [62, 80] -1.5873015873015872 [0, 0, 0, 0, 4, 5, 5, 15, 15, 2, 16, 20, 12, 15, 27, 5, 20, 18, 25, 27, 20, 23, 23, 29, 35, 38, 39, 47, 29, 53, 29, 62] 0

k\_1000 150

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3024\_1.sm case j3024\_1.sm

v5 0 0.19429540634155273 s [53, 63] 0.0 [0, 0, 0, 0, 7, 7, 7, 15, 15, 22, 17, 18, 26, 18, 26, 33, 18, 33, 1, 17, 22, 19, 21, 24, 27, 27, 30, 40, 27, 39, 43, 53] 0

k\_1000 151

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3024\_10.sm case j3024\_10.sm

v5 0 0.24205732345581055 s [53, 66] 0.0 [0, 0, 0, 0, 8, 8, 5, 7, 5, 11, 11, 19, 19, 24, 11, 18, 13, 29, 18, 14, 11, 28, 19, 35, 29, 39, 29, 31, 37, 48, 39, 53] 0

k\_1000 152

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3024\_2.sm case j3024\_2.sm

v5 0 0.2233905792236328 s [58, 87] 0.0 [0, 0, 0, 0, 10, 10, 3, 14, 4, 14, 3, 14, 3, 22, 15, 22, 10, 22, 27, 30, 19, 27, 20, 25, 31, 28, 35, 43, 31, 48, 32, 58] 0

k\_1000 153

opm 69

the random choice case path in j30 ./rcpsp/j30.sm/j3024\_3.sm case j3024\_3.sm

v5 0 0.20472335815429688 s [69, 69] 0.0 [0, 0, 0, 0, 10, 20, 29, 8, 20, 9, 25, 5, 13, 13, 20, 28, 36, 36, 45, 28, 35, 55, 40, 36, 45, 10, 45, 45, 61, 55, 36, 69] 0

k\_1000 154

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3024\_4.sm case j3024\_4.sm

v5 0 0.21254229545593262 s [53, 91] 0.0 [0, 0, 0, 0, 5, 1, 1, 1, 5, 15, 15, 5, 15, 2, 21, 22, 22, 5, 21, 22, 8, 30, 5, 32, 27, 32, 37, 32, 45, 28, 37, 53] 0

k\_1000 155

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j3024\_5.sm case j3024\_5.sm

v5 0 0.1833484172821045 s [51, 51] 0.0 [0, 0, 0, 0, 8, 11, 17, 9, 25, 5, 6, 9, 6, 17, 35, 11, 17, 17, 22, 17, 23, 20, 35, 30, 25, 21, 23, 38, 43, 37, 43, 51] 0

k\_1000 156

opm 56

the random choice case path in j30 ./rcpsp/j30.sm/j3024\_6.sm case j3024\_6.sm

v5 0 0.20257806777954102 s [56, 87] 0.0 [0, 0, 0, 0, 10, 1, 5, 15, 8, 24, 24, 1, 24, 16, 4, 14, 14, 32, 14, 8, 32, 10, 15, 32, 22, 33, 39, 36, 46, 22, 40, 56] 0

k\_1000 157

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j3024\_7.sm case j3024\_7.sm

v5 0 0.15568161010742188 s [44, 44] 0.0 [0, 0, 0, 0, 1, 1, 7, 6, 1, 6, 11, 11, 21, 11, 3, 16, 13, 10, 18, 31, 21, 31, 10, 31, 31, 7, 34, 38, 33, 38, 42, 44] 0

k\_1000 158

opm 38

the random choice case path in j30 ./rcpsp/j30.sm/j3024\_8.sm case j3024\_8.sm

v5 0 0.16348481178283691 s [38, 38] 0.0 [0, 0, 0, 0, 3, 8, 9, 3, 9, 10, 10, 3, 15, 19, 9, 10, 8, 15, 15, 12, 24, 20, 24, 31, 17, 13, 21, 26, 34, 28, 29, 38] 0

k\_1000 159

opm 43

the random choice case path in j30 ./rcpsp/j30.sm/j3024\_9.sm case j3024\_9.sm

v5 0 0.1738905906677246 s [43, 69] 0.0 [0, 0, 0, 0, 3, 8, 8, 8, 16, 12, 20, 16, 20, 20, 16, 21, 4, 30, 29, 28, 10, 11, 20, 26, 15, 30, 26, 36, 33, 33, 41, 43] 0

k\_1000 160

opm 93

the random choice case path in j30 ./rcpsp/j30.sm/j3025\_1.sm case j3025\_1.sm

v5 78 298.49340319633484 s [96, 261] 3.225806451612903 [0, 0, 9, 20, 16, 16, 29, 9, 29, 32, 19, 29, 19, 36, 40, 36, 50, 56, 25, 63, 38, 42, 71, 75, 46, 82, 63, 91, 94, 70, 71, 96] 0

k\_1000 161

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3025\_10.sm case j3025\_10.sm

v5 31 65.45540165901184 s [57, 136] -1.7241379310344827 [0, 5, 0, 0, 5, 13, 28, 7, 7, 11, 13, 4, 16, 22, 19, 6, 7, 23, 44, 22, 31, 19, 27, 36, 44, 31, 47, 49, 50, 50, 49, 57] 0

k\_1000 162

opm 75

the random choice case path in j30 ./rcpsp/j30.sm/j3025\_2.sm case j3025\_2.sm

v5 7 22.48612689971924 s [74, 108] -1.3333333333333335 [0, 0, 12, 0, 4, 16, 11, 20, 16, 22, 16, 22, 33, 6, 27, 27, 4, 27, 33, 33, 37, 47, 41, 48, 49, 40, 41, 54, 65, 60, 49, 74] 0

k\_1000 163

opm 76

the random choice case path in j30 ./rcpsp/j30.sm/j3025\_3.sm case j3025\_3.sm

v5 34 115.34045124053955 s [76, 121] 0.0 [0, 0, 0, 0, 9, 11, 25, 11, 20, 20, 8, 11, 25, 44, 36, 57, 46, 58, 11, 34, 26, 49, 61, 18, 26, 57, 60, 63, 67, 67, 67, 76] 0

k\_1000 164

opm 81

the random choice case path in j30 ./rcpsp/j30.sm/j3025\_4.sm case j3025\_4.sm

v5 1 4.636646509170532 s [77, 112] -4.938271604938271 [0, 9, 0, 0, 8, 8, 14, 23, 21, 8, 37, 21, 31, 10, 51, 41, 31, 21, 41, 41, 43, 55, 30, 55, 45, 69, 63, 55, 72, 69, 72, 77] 0

k\_1000 165

opm 72

the random choice case path in j30 ./rcpsp/j30.sm/j3025\_5.sm case j3025\_5.sm

v5 1 2.991960048675537 s [65, 293] -9.722222222222223 [0, 0, 0, 0, 8, 16, 8, 2, 21, 13, 29, 39, 38, 8, 37, 28, 21, 38, 52, 53, 44, 52, 53, 28, 60, 24, 56, 56, 64, 62, 60, 65] 0

k\_1000 166

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3025\_6.sm case j3025\_6.sm

v5 162 300.53482699394226 s [60, 84] 3.4482758620689653 [0, 0, 7, 0, 13, 22, 20, 12, 10, 7, 13, 36, 14, 14, 34, 41, 26, 22, 30, 12, 30, 50, 37, 30, 51, 37, 44, 54, 54, 59, 50, 60] 0

k\_1000 167

opm 95

the random choice case path in j30 ./rcpsp/j30.sm/j3025\_7.sm case j3025\_7.sm

v5 5 18.074644327163696 s [95, 117] 0.0 [0, 0, 8, 0, 26, 19, 19, 12, 19, 28, 43, 33, 43, 26, 29, 46, 36, 51, 31, 51, 48, 70, 49, 61, 70, 34, 76, 61, 85, 55, 76, 95] 0

k\_1000 168

opm 69

the random choice case path in j30 ./rcpsp/j30.sm/j3025\_8.sm case j3025\_8.sm

v5 63 298.1288137435913 s [72, 77] 4.3478260869565215 [0, 0, 5, 0, 5, 1, 35, 8, 24, 14, 24, 8, 14, 30, 35, 35, 46, 48, 14, 44, 31, 45, 54, 30, 44, 53, 62, 53, 70, 71, 62, 72] 0

k\_1000 169

opm 84

the random choice case path in j30 ./rcpsp/j30.sm/j3025\_9.sm case j3025\_9.sm

v5 1 3.123258113861084 s [82, 132] -2.380952380952381 [0, 0, 7, 1, 7, 14, 18, 14, 1, 18, 18, 28, 31, 35, 24, 37, 43, 53, 37, 27, 45, 40, 46, 61, 40, 46, 67, 50, 74, 67, 74, 82] 0

k\_1000 170

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3026\_1.sm case j3026\_1.sm

v5 8 7.143018960952759 s [59, 60] 0.0 [0, 0, 0, 0, 9, 9, 11, 10, 3, 15, 15, 24, 30, 16, 32, 23, 32, 45, 35, 46, 48, 38, 38, 45, 24, 9, 52, 40, 46, 46, 54, 59] 0

k\_1000 171

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3026\_10.sm case j3026\_10.sm

v5 237 299.77135825157166 s [50, 94] 2.0408163265306123 [0, 0, 0, 0, 9, 3, 18, 7, 12, 9, 36, 23, 21, 11, 21, 3, 27, 6, 12, 26, 12, 27, 27, 35, 34, 42, 33, 37, 44, 47, 44, 50] 0

k\_1000 172

opm 40

the random choice case path in j30 ./rcpsp/j30.sm/j3026\_2.sm case j3026\_2.sm

v5 2 1.5470855236053467 s [40, 42] 0.0 [0, 0, 0, 0, 4, 3, 5, 3, 4, 6, 9, 3, 12, 4, 12, 14, 9, 18, 17, 7, 7, 17, 24, 23, 20, 18, 30, 20, 33, 31, 30, 40] 0

k\_1000 173

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3026\_3.sm case j3026\_3.sm

v5 0 0.49532461166381836 s [58, 86] 0.0 [0, 0, 0, 0, 3, 3, 8, 11, 15, 15, 24, 5, 15, 20, 21, 32, 32, 30, 42, 30, 22, 49, 33, 42, 42, 46, 8, 52, 50, 56, 52, 58] 0

k\_1000 174

opm 62

the random choice case path in j30 ./rcpsp/j30.sm/j3026\_4.sm case j3026\_4.sm

v5 1 1.9678480625152588 s [62, 65] 0.0 [0, 0, 0, 0, 1, 3, 10, 3, 8, 14, 20, 20, 23, 26, 36, 7, 20, 15, 29, 25, 34, 32, 39, 37, 10, 44, 20, 39, 47, 52, 47, 62] 0

k\_1000 175

opm 74

the random choice case path in j30 ./rcpsp/j30.sm/j3026\_5.sm case j3026\_5.sm

v5 1 1.6206903457641602 s [74, 74] 0.0 [0, 0, 0, 0, 3, 10, 19, 10, 18, 3, 6, 18, 21, 31, 24, 27, 24, 35, 29, 35, 33, 41, 43, 35, 43, 46, 41, 56, 56, 48, 65, 74] 0

k\_1000 176

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3026\_6.sm case j3026\_6.sm

v5 41 37.67137360572815 s [53, 113] 0.0 [0, 0, 0, 0, 4, 7, 14, 7, 28, 7, 7, 14, 16, 16, 22, 36, 18, 28, 29, 33, 37, 39, 28, 36, 37, 42, 41, 42, 42, 44, 45, 53] 0

k\_1000 177

opm 56

the random choice case path in j30 ./rcpsp/j30.sm/j3026\_7.sm case j3026\_7.sm

v5 318 300.04131865501404 s [58, 153] 3.571428571428571 [0, 0, 0, 0, 8, 14, 14, 23, 9, 21, 34, 35, 8, 17, 32, 25, 32, 18, 14, 21, 25, 23, 35, 42, 34, 40, 51, 40, 41, 53, 46, 58] 0

k\_1000 178

opm 66

the random choice case path in j30 ./rcpsp/j30.sm/j3026\_8.sm case j3026\_8.sm

v5 0 0.7496902942657471 s [66, 85] 0.0 [0, 0, 4, 0, 6, 15, 6, 10, 20, 1, 1, 15, 13, 13, 28, 22, 22, 32, 36, 10, 26, 33, 26, 41, 36, 41, 41, 51, 56, 46, 43, 66] 0

k\_1000 179

opm 43

the random choice case path in j30 ./rcpsp/j30.sm/j3026\_9.sm case j3026\_9.sm

v5 348 299.67223143577576 s [44, 91] 2.3255813953488373 [0, 0, 11, 0, 16, 10, 7, 11, 23, 10, 20, 16, 20, 27, 20, 35, 33, 23, 23, 32, 23, 35, 29, 30, 36, 35, 28, 37, 41, 41, 37, 44] 0

k\_1000 180

opm 43

the random choice case path in j30 ./rcpsp/j30.sm/j3027\_1.sm case j3027\_1.sm

v5 3 2.5173511505126953 s [43, 58] 0.0 [0, 4, 0, 0, 10, 6, 4, 7, 7, 7, 16, 27, 18, 16, 24, 16, 26, 29, 24, 16, 16, 26, 21, 23, 33, 38, 33, 29, 39, 31, 32, 43] 0

k\_1000 181

opm 62

the random choice case path in j30 ./rcpsp/j30.sm/j3027\_10.sm case j3027\_10.sm

v5 0 0.42234325408935547 s [62, 80] 0.0 [0, 0, 0, 0, 7, 11, 11, 3, 7, 12, 3, 17, 16, 16, 6, 10, 25, 35, 17, 7, 17, 19, 21, 21, 40, 44, 44, 53, 52, 19, 58, 62] 0

k\_1000 182

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3027\_2.sm case j3027\_2.sm

v5 0 0.2548699378967285 s [58, 109] 0.0 [0, 0, 0, 0, 2, 9, 9, 3, 16, 22, 2, 13, 16, 30, 32, 22, 7, 8, 3, 19, 20, 20, 21, 30, 42, 22, 26, 11, 30, 49, 40, 58] 0

k\_1000 183

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3027\_3.sm case j3027\_3.sm

v5 1 1.0855815410614014 s [60, 107] 0.0 [0, 0, 0, 0, 1, 1, 7, 5, 8, 13, 5, 9, 17, 6, 7, 9, 13, 7, 7, 16, 20, 18, 27, 18, 21, 25, 32, 42, 27, 52, 27, 60] 0

k\_1000 184

opm 64

the random choice case path in j30 ./rcpsp/j30.sm/j3027\_4.sm case j3027\_4.sm

v5 4 2.7181174755096436 s [64, 68] 0.0 [0, 0, 0, 5, 5, 13, 14, 15, 13, 16, 22, 15, 22, 22, 16, 39, 30, 43, 30, 37, 30, 38, 38, 43, 52, 57, 5, 39, 59, 46, 37, 64] 0

k\_1000 185

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3027\_5.sm case j3027\_5.sm

v5 4 4.519037246704102 s [49, 52] 0.0 [0, 0, 6, 0, 9, 9, 9, 19, 19, 12, 14, 25, 14, 19, 19, 25, 19, 10, 29, 27, 31, 34, 34, 15, 30, 38, 43, 37, 45, 39, 40, 49] 0

k\_1000 186

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3027\_6.sm case j3027\_6.sm

v5 7 5.4382429122924805 s [59, 62] 0.0 [0, 15, 0, 0, 3, 3, 5, 9, 16, 19, 24, 10, 29, 17, 27, 26, 15, 26, 39, 22, 27, 29, 32, 34, 31, 31, 44, 42, 42, 41, 49, 59] 0

k\_1000 187

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3027\_7.sm case j3027\_7.sm

v5 6 4.817981004714966 s [48, 51] -2.0408163265306123 [0, 0, 0, 0, 9, 7, 7, 10, 12, 7, 17, 20, 15, 20, 18, 8, 24, 17, 31, 18, 26, 27, 32, 27, 32, 37, 41, 17, 33, 41, 47, 48] 0

k\_1000 188

opm 66

the random choice case path in j30 ./rcpsp/j30.sm/j3027\_8.sm case j3027\_8.sm

v5 1 0.8858511447906494 s [66, 66] 0.0 [0, 0, 0, 0, 4, 7, 12, 6, 20, 6, 14, 6, 12, 20, 15, 14, 28, 40, 20, 26, 25, 32, 40, 35, 34, 50, 17, 40, 58, 50, 44, 66] 0

k\_1000 189

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3027\_9.sm case j3027\_9.sm

v5 3 2.3509955406188965 s [55, 86] 0.0 [0, 0, 0, 0, 6, 10, 10, 4, 13, 8, 12, 16, 26, 13, 28, 20, 20, 6, 27, 23, 33, 22, 13, 33, 23, 28, 37, 37, 47, 38, 47, 55] 0

k\_1000 190

opm 69

the random choice case path in j30 ./rcpsp/j30.sm/j3028\_1.sm case j3028\_1.sm

v5 0 0.24252009391784668 s [69, 103] 0.0 [0, 0, 0, 0, 9, 9, 17, 17, 21, 1, 20, 13, 21, 30, 24, 4, 30, 35, 17, 30, 42, 38, 31, 42, 32, 50, 50, 21, 59, 35, 59, 69] 0

k\_1000 191

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3028\_10.sm case j3028\_10.sm

v5 0 0.2630314826965332 s [59, 61] 0.0 [0, 0, 0, 0, 5, 3, 5, 3, 5, 14, 13, 5, 6, 24, 7, 15, 9, 13, 20, 24, 20, 24, 15, 30, 36, 30, 30, 43, 43, 52, 37, 59] 0

k\_1000 192

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3028\_2.sm case j3028\_2.sm

v5 0 0.20287609100341797 s [57, 57] 0.0 [0, 0, 0, 0, 3, 1, 5, 7, 3, 17, 10, 1, 7, 21, 30, 32, 30, 19, 30, 17, 38, 26, 32, 7, 24, 24, 38, 47, 3, 32, 50, 57] 0

k\_1000 193

opm 40

the random choice case path in j30 ./rcpsp/j30.sm/j3028\_3.sm case j3028\_3.sm

v5 0 0.25330114364624023 s [40, 67] 0.0 [0, 0, 0, 0, 8, 9, 2, 12, 17, 8, 2, 2, 11, 17, 19, 11, 18, 19, 17, 12, 17, 27, 18, 27, 24, 31, 27, 35, 37, 12, 19, 40] 0

k\_1000 194

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3028\_4.sm case j3028\_4.sm

v5 0 0.2320871353149414 s [49, 49] 0.0 [0, 0, 0, 0, 8, 6, 14, 8, 8, 20, 22, 8, 14, 22, 14, 6, 26, 26, 22, 15, 18, 18, 29, 32, 26, 26, 32, 40, 35, 44, 36, 49] 0

k\_1000 195

opm 73

the random choice case path in j30 ./rcpsp/j30.sm/j3028\_5.sm case j3028\_5.sm

v5 0 0.32584214210510254 s [73, 96] 0.0 [0, 0, 0, 0, 9, 9, 16, 10, 10, 18, 10, 26, 29, 27, 8, 13, 37, 37, 27, 31, 18, 43, 24, 31, 52, 56, 66, 43, 45, 70, 56, 73] 0

k\_1000 196

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3028\_6.sm case j3028\_6.sm

v5 0 0.1751103401184082 s [55, 55] 0.0 [0, 0, 0, 0, 5, 12, 17, 5, 12, 17, 25, 25, 29, 15, 29, 5, 38, 25, 12, 38, 25, 33, 38, 47, 44, 29, 44, 48, 50, 53, 17, 55] 0

k\_1000 197

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j3028\_7.sm case j3028\_7.sm

v5 0 0.2202913761138916 s [48, 48] 0.0 [0, 0, 0, 0, 8, 9, 9, 11, 13, 13, 13, 7, 13, 19, 21, 21, 9, 21, 22, 15, 14, 24, 28, 29, 23, 25, 29, 33, 33, 42, 37, 48] 0

k\_1000 198

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3028\_8.sm case j3028\_8.sm

v5 0 0.18372631072998047 s [53, 53] 0.0 [0, 0, 0, 0, 7, 2, 11, 2, 11, 21, 21, 2, 11, 18, 27, 7, 2, 31, 9, 34, 23, 31, 20, 9, 32, 31, 35, 40, 37, 42, 47, 53] 0

k\_1000 199

opm 62

the random choice case path in j30 ./rcpsp/j30.sm/j3028\_9.sm case j3028\_9.sm

v5 0 0.19591927528381348 s [62, 62] 0.0 [0, 0, 0, 0, 6, 8, 7, 15, 15, 10, 8, 25, 25, 25, 6, 17, 17, 18, 7, 28, 33, 28, 33, 33, 39, 33, 41, 45, 43, 39, 54, 62] 0

k\_1000 200

opm 85

the random choice case path in j30 ./rcpsp/j30.sm/j3029\_1.sm case j3029\_1.sm

v5 61 301.91041827201843 s [90, 118] 5.88235294117647 [0, 4, 0, 0, 9, 9, 15, 21, 13, 17, 25, 17, 32, 53, 32, 34, 62, 53, 32, 43, 56, 56, 42, 72, 64, 65, 73, 82, 82, 22, 88, 90] 0

k\_1000 201

opm 76

the random choice case path in j30 ./rcpsp/j30.sm/j3029\_10.sm case j3029\_10.sm

v5 1 2.27258563041687 s [73, 103] -3.9473684210526314 [0, 0, 1, 0, 4, 13, 14, 7, 9, 23, 25, 27, 25, 39, 23, 56, 27, 32, 39, 48, 14, 56, 30, 48, 58, 31, 61, 63, 65, 52, 67, 73] 0

k\_1000 202

opm 90

the random choice case path in j30 ./rcpsp/j30.sm/j3029\_2.sm case j3029\_2.sm

v5 61 298.0415279865265 s [91, 153] 1.1111111111111112 [0, 0, 17, 0, 6, 10, 13, 24, 33, 6, 51, 29, 19, 44, 37, 19, 31, 31, 41, 62, 41, 69, 74, 51, 60, 29, 54, 80, 38, 86, 72, 91] 0

k\_1000 203

opm 78

the random choice case path in j30 ./rcpsp/j30.sm/j3029\_3.sm case j3029\_3.sm

v5 16 61.11146306991577 s [78, 111] 0.0 [0, 0, 0, 13, 6, 6, 12, 22, 6, 22, 13, 28, 31, 38, 31, 25, 34, 41, 42, 46, 42, 56, 57, 40, 55, 50, 68, 63, 60, 65, 71, 78] 0

k\_1000 204

opm 103

the random choice case path in j30 ./rcpsp/j30.sm/j3029\_4.sm case j3029\_4.sm

v5 44 230.33869695663452 s [103, 114] 0.0 [0, 0, 10, 0, 20, 34, 40, 20, 30, 31, 33, 52, 41, 48, 40, 58, 30, 45, 57, 36, 67, 70, 75, 48, 75, 81, 79, 67, 93, 89, 89, 103] 0

k\_1000 205

opm 98

the random choice case path in j30 ./rcpsp/j30.sm/j3029\_5.sm case j3029\_5.sm

v5 44 300.4418466091156 s [101, 202] 3.061224489795918 [0, 0, 2, 0, 4, 9, 19, 14, 20, 40, 46, 30, 46, 40, 26, 49, 65, 65, 54, 30, 75, 56, 73, 75, 88, 83, 83, 88, 95, 86, 95, 101] 0

k\_1000 206

opm 92

the random choice case path in j30 ./rcpsp/j30.sm/j3029\_6.sm case j3029\_6.sm

v5 10 31.473999500274658 s [92, 108] 0.0 [0, 26, 0, 7, 16, 16, 34, 26, 34, 7, 19, 43, 57, 74, 43, 33, 42, 47, 51, 51, 48, 69, 74, 59, 76, 78, 64, 83, 84, 90, 83, 92] 0

k\_1000 207

opm 73

the random choice case path in j30 ./rcpsp/j30.sm/j3029\_7.sm case j3029\_7.sm

v5 39 127.74147462844849 s [73, 131] 0.0 [0, 4, 0, 0, 7, 17, 20, 17, 4, 9, 12, 30, 48, 12, 30, 4, 37, 11, 32, 37, 63, 56, 22, 46, 46, 41, 69, 56, 55, 71, 69, 73] 0

k\_1000 208

opm 80

the random choice case path in j30 ./rcpsp/j30.sm/j3029\_8.sm case j3029\_8.sm

v5 60 298.66537976264954 s [84, 208] 5.0 [0, 0, 0, 9, 27, 18, 29, 9, 29, 22, 16, 41, 15, 60, 37, 33, 10, 49, 31, 38, 51, 63, 45, 56, 69, 72, 62, 74, 68, 76, 76, 84] 0

k\_1000 209

opm 97

the random choice case path in j30 ./rcpsp/j30.sm/j3029\_9.sm case j3029\_9.sm

v5 42 298.31404662132263 s [103, 169] 6.185567010309279 [0, 4, 0, 0, 11, 35, 26, 4, 16, 58, 66, 36, 1, 38, 21, 21, 32, 51, 42, 60, 48, 93, 42, 76, 28, 64, 85, 85, 100, 93, 100, 103] 0

k\_1000 210

opm 38

the random choice case path in j30 ./rcpsp/j30.sm/j302\_1.sm case j302\_1.sm

v5 0 0.16461658477783203 s [34, 42] -10.526315789473683 [0, 0, 0, 0, 6, 2, 5, 2, 2, 6, 11, 14, 7, 7, 9, 21, 7, 19, 15, 6, 19, 23, 23, 11, 28, 16, 17, 22, 22, 33, 30, 34] 0

k\_1000 211

opm 43

the random choice case path in j30 ./rcpsp/j30.sm/j302\_10.sm case j302\_10.sm

v5 19 14.574015855789185 s [43, 61] 0.0 [0, 0, 6, 0, 8, 10, 6, 11, 13, 7, 8, 15, 7, 15, 12, 8, 10, 15, 10, 27, 11, 23, 25, 17, 21, 22, 29, 30, 34, 40, 33, 43] 0

k\_1000 212

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j302\_2.sm case j302\_2.sm

v5 0 0.45458340644836426 s [51, 73] 0.0 [0, 0, 0, 0, 5, 12, 3, 3, 5, 11, 13, 12, 13, 11, 7, 8, 5, 12, 15, 19, 22, 13, 19, 31, 23, 17, 31, 32, 22, 41, 34, 51] 0

k\_1000 213

opm 43

the random choice case path in j30 ./rcpsp/j30.sm/j302\_3.sm case j302\_3.sm

v5 0 0.38598132133483887 s [43, 73] 0.0 [0, 0, 0, 0, 9, 4, 9, 14, 19, 4, 19, 14, 20, 14, 11, 15, 32, 6, 14, 24, 24, 29, 21, 19, 36, 25, 15, 28, 40, 33, 25, 43] 0

k\_1000 214

opm 43

the random choice case path in j30 ./rcpsp/j30.sm/j302\_4.sm case j302\_4.sm

v5 0 0.22548699378967285 s [43, 56] 0.0 [0, 0, 0, 0, 2, 9, 16, 16, 8, 22, 9, 8, 2, 12, 14, 9, 22, 9, 16, 20, 9, 27, 14, 24, 19, 29, 15, 20, 34, 34, 42, 43] 0

k\_1000 215

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j302\_5.sm case j302\_5.sm

v5 1 1.2438199520111084 s [51, 51] 0.0 [0, 0, 0, 0, 2, 3, 13, 9, 11, 21, 13, 15, 11, 13, 11, 15, 17, 20, 5, 20, 26, 23, 20, 42, 33, 34, 33, 44, 2, 42, 50, 51] 0

k\_1000 216

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j302\_6.sm case j302\_6.sm

v5 0 0.2928917407989502 s [47, 69] 0.0 [0, 0, 0, 0, 4, 4, 4, 6, 6, 15, 5, 4, 4, 15, 8, 13, 13, 18, 25, 21, 25, 23, 26, 12, 21, 34, 42, 25, 18, 35, 45, 47] 0

k\_1000 217

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j302\_7.sm case j302\_7.sm

v5 1 1.0792903900146484 s [47, 54] 0.0 [0, 6, 0, 0, 8, 9, 9, 14, 6, 8, 8, 17, 15, 15, 23, 20, 20, 30, 29, 30, 13, 21, 32, 7, 24, 39, 20, 25, 34, 29, 42, 47] 0

k\_1000 218

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j302\_8.sm case j302\_8.sm

v5 1 1.042046308517456 s [54, 60] 0.0 [0, 0, 0, 0, 3, 3, 9, 18, 18, 9, 9, 32, 9, 10, 3, 28, 14, 39, 9, 9, 3, 18, 26, 28, 41, 37, 32, 46, 46, 51, 42, 54] 0

k\_1000 219

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j302\_9.sm case j302\_9.sm

v5 0 0.2835104465484619 s [51, 79] -5.555555555555555 [0, 0, 0, 0, 8, 5, 5, 10, 17, 8, 14, 25, 14, 20, 1, 30, 16, 5, 19, 21, 4, 30, 29, 28, 37, 36, 34, 10, 42, 45, 42, 51] 0

k\_1000 220

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j3030\_1.sm case j3030\_1.sm

v5 264 299.7675812244415 s [48, 62] 2.127659574468085 [0, 0, 0, 0, 11, 15, 15, 5, 22, 10, 2, 15, 24, 6, 16, 3, 25, 10, 30, 25, 25, 24, 30, 34, 26, 30, 39, 35, 44, 41, 36, 48] 0

k\_1000 221

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3030\_10.sm case j3030\_10.sm

v5 96 107.12543106079102 s [53, 347] 0.0 [0, 0, 0, 0, 8, 8, 6, 16, 17, 39, 17, 26, 6, 48, 15, 23, 28, 30, 23, 26, 33, 11, 27, 40, 42, 44, 32, 44, 46, 50, 50, 53] 0

k\_1000 222

opm 68

the random choice case path in j30 ./rcpsp/j30.sm/j3030\_2.sm case j3030\_2.sm

v5 221 300.64892745018005 s [70, 245] 2.941176470588235 [0, 0, 0, 30, 8, 8, 10, 35, 35, 20, 41, 49, 14, 14, 25, 20, 25, 35, 44, 38, 45, 38, 45, 44, 62, 54, 45, 55, 49, 69, 63, 70] 0

k\_1000 223

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3030\_3.sm case j3030\_3.sm

v5 4 6.7821245193481445 s [55, 55] 0.0 [0, 32, 0, 0, 1, 10, 8, 10, 10, 1, 12, 1, 20, 13, 21, 18, 23, 31, 25, 31, 29, 36, 42, 38, 43, 34, 45, 38, 39, 45, 50, 55] 0

k\_1000 224

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3030\_4.sm case j3030\_4.sm

v5 104 153.41081023216248 s [53, 109] 0.0 [0, 0, 0, 0, 7, 7, 18, 14, 27, 22, 14, 16, 17, 17, 7, 31, 22, 16, 10, 23, 17, 35, 27, 28, 36, 41, 35, 40, 46, 46, 46, 53] 0

k\_1000 225

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3030\_5.sm case j3030\_5.sm

v5 260 299.42300486564636 s [55, 65] 1.8518518518518516 [0, 0, 0, 0, 5, 9, 10, 8, 16, 20, 21, 5, 19, 22, 20, 13, 16, 30, 26, 25, 29, 37, 32, 30, 42, 42, 37, 31, 45, 46, 52, 55] 0

k\_1000 226

opm 62

the random choice case path in j30 ./rcpsp/j30.sm/j3030\_6.sm case j3030\_6.sm

v5 0 0.5409684181213379 s [62, 223] 0.0 [0, 0, 0, 0, 5, 5, 23, 1, 9, 1, 14, 29, 14, 17, 18, 29, 24, 11, 34, 13, 46, 35, 38, 38, 38, 46, 53, 47, 56, 53, 55, 62] 0

k\_1000 227

opm 68

the random choice case path in j30 ./rcpsp/j30.sm/j3030\_7.sm case j3030\_7.sm

v5 18 32.75852870941162 s [67, 101] -1.4705882352941175 [0, 0, 0, 0, 6, 10, 14, 10, 24, 15, 15, 25, 45, 34, 31, 34, 14, 25, 22, 43, 44, 35, 53, 57, 50, 44, 50, 54, 53, 57, 61, 67] 0

k\_1000 228

opm 46

the random choice case path in j30 ./rcpsp/j30.sm/j3030\_8.sm case j3030\_8.sm

v5 7 7.304648399353027 s [46, 106] 0.0 [0, 0, 0, 0, 7, 17, 1, 24, 7, 17, 8, 8, 17, 33, 7, 16, 24, 25, 36, 25, 25, 37, 40, 27, 39, 36, 43, 39, 44, 45, 43, 46] 0

k\_1000 229

opm 46

the random choice case path in j30 ./rcpsp/j30.sm/j3030\_9.sm case j3030\_9.sm

v5 285 299.6915235519409 s [47, 65] 2.1739130434782608 [0, 0, 0, 0, 2, 3, 2, 8, 2, 9, 10, 10, 9, 25, 36, 41, 19, 24, 11, 19, 18, 11, 26, 14, 28, 34, 24, 30, 37, 39, 42, 47] 0

k\_1000 230

opm 43

the random choice case path in j30 ./rcpsp/j30.sm/j3031\_1.sm case j3031\_1.sm

v5 0 0.28922605514526367 s [43, 70] 0.0 [0, 0, 0, 0, 1, 7, 1, 14, 7, 1, 11, 13, 5, 6, 17, 19, 8, 18, 8, 21, 21, 17, 21, 22, 26, 31, 28, 11, 31, 37, 25, 43] 0

k\_1000 231

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3031\_10.sm case j3031\_10.sm

v5 236 281.1054196357727 s [55, 72] 0.0 [0, 6, 0, 0, 14, 2, 6, 24, 3, 11, 11, 26, 2, 14, 17, 32, 19, 30, 27, 36, 26, 19, 37, 45, 37, 42, 47, 27, 49, 46, 47, 55] 0

k\_1000 232

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3031\_2.sm case j3031\_2.sm

v5 1 1.0325443744659424 s [63, 63] 0.0 [0, 0, 0, 0, 7, 1, 11, 1, 9, 25, 17, 7, 10, 14, 1, 17, 15, 14, 29, 26, 19, 36, 26, 34, 41, 18, 51, 18, 46, 59, 22, 63] 0

k\_1000 233

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3031\_3.sm case j3031\_3.sm

v5 0 0.40660810470581055 s [58, 65] 0.0 [0, 0, 0, 0, 10, 6, 10, 16, 18, 10, 23, 16, 16, 23, 28, 28, 13, 20, 26, 34, 23, 34, 43, 38, 43, 26, 50, 48, 52, 53, 48, 58] 0

k\_1000 234

opm 50

the random choice case path in j30 ./rcpsp/j30.sm/j3031\_4.sm case j3031\_4.sm

v5 0 0.28545141220092773 s [50, 77] 0.0 [0, 0, 0, 0, 8, 8, 16, 8, 16, 2, 12, 14, 16, 17, 10, 20, 17, 17, 19, 26, 26, 21, 30, 29, 30, 30, 32, 35, 33, 37, 42, 50] 0

k\_1000 235

opm 52

the random choice case path in j30 ./rcpsp/j30.sm/j3031\_5.sm case j3031\_5.sm

v5 176 148.38760948181152 s [52, 91] 0.0 [0, 0, 0, 0, 4, 6, 8, 6, 2, 9, 13, 12, 19, 17, 15, 25, 25, 30, 12, 19, 23, 27, 41, 24, 27, 27, 33, 34, 33, 46, 43, 52] 0

k\_1000 236

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3031\_6.sm case j3031\_6.sm

v5 4 3.3086040019989014 s [53, 73] 0.0 [0, 6, 0, 0, 10, 10, 3, 12, 12, 21, 20, 18, 3, 16, 18, 25, 18, 21, 23, 20, 24, 25, 31, 23, 28, 37, 31, 30, 37, 45, 34, 53] 0

k\_1000 237

opm 61

the random choice case path in j30 ./rcpsp/j30.sm/j3031\_7.sm case j3031\_7.sm

v5 7 8.524333000183105 s [61, 81] 0.0 [0, 8, 0, 0, 27, 8, 17, 5, 21, 9, 18, 27, 37, 23, 17, 23, 31, 30, 22, 36, 9, 32, 45, 48, 40, 36, 32, 48, 52, 54, 55, 61] 0

k\_1000 238

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3031\_8.sm case j3031\_8.sm

v5 1 0.9835696220397949 s [58, 111] 0.0 [0, 0, 0, 0, 4, 12, 21, 24, 7, 21, 7, 24, 33, 27, 37, 17, 31, 12, 37, 42, 21, 33, 46, 44, 40, 36, 40, 51, 52, 49, 56, 58] 0

k\_1000 239

opm 50

the random choice case path in j30 ./rcpsp/j30.sm/j3031\_9.sm case j3031\_9.sm

v5 9 7.583450794219971 s [50, 52] 0.0 [0, 9, 0, 0, 9, 5, 5, 18, 14, 15, 11, 11, 21, 21, 17, 26, 22, 26, 30, 17, 33, 28, 35, 36, 41, 29, 39, 31, 48, 49, 44, 50] 0

k\_1000 240

opm 61

the random choice case path in j30 ./rcpsp/j30.sm/j3032\_1.sm case j3032\_1.sm

v5 0 0.21244406700134277 s [61, 101] 0.0 [0, 0, 0, 0, 5, 5, 14, 9, 14, 9, 22, 22, 9, 22, 28, 28, 12, 22, 22, 32, 29, 32, 33, 32, 41, 33, 44, 41, 53, 21, 53, 61] 0

k\_1000 241

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j3032\_10.sm case j3032\_10.sm

v5 0 0.2044529914855957 s [51, 51] 0.0 [0, 0, 0, 0, 3, 5, 13, 4, 13, 14, 5, 5, 5, 13, 23, 21, 14, 23, 15, 23, 16, 33, 4, 34, 30, 21, 30, 36, 40, 43, 33, 51] 0

k\_1000 242

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3032\_2.sm case j3032\_2.sm

v5 0 0.2024524211883545 s [60, 74] 0.0 [0, 0, 0, 0, 9, 10, 9, 10, 20, 30, 15, 19, 29, 19, 29, 20, 33, 8, 21, 19, 27, 30, 38, 46, 38, 30, 43, 43, 38, 52, 45, 60] 0

k\_1000 243

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3032\_3.sm case j3032\_3.sm

v5 0 0.19743657112121582 s [57, 75] 0.0 [0, 0, 0, 0, 9, 9, 10, 10, 9, 9, 10, 18, 18, 18, 21, 21, 27, 23, 15, 27, 23, 34, 30, 32, 27, 41, 36, 45, 49, 41, 48, 57] 0

k\_1000 244

opm 68

the random choice case path in j30 ./rcpsp/j30.sm/j3032\_4.sm case j3032\_4.sm

v5 0 0.18526911735534668 s [68, 68] 0.0 [0, 0, 0, 0, 10, 20, 20, 29, 36, 36, 42, 10, 42, 44, 10, 20, 45, 29, 29, 36, 46, 46, 56, 29, 54, 46, 46, 56, 57, 62, 63, 68] 0

k\_1000 245

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3032\_5.sm case j3032\_5.sm

v5 0 0.22552013397216797 s [54, 54] 0.0 [0, 0, 0, 0, 10, 6, 11, 9, 16, 11, 21, 10, 21, 16, 20, 16, 21, 29, 15, 29, 30, 19, 20, 33, 37, 23, 42, 32, 52, 39, 47, 54] 0

k\_1000 246

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j3032\_6.sm case j3032\_6.sm

v5 0 0.2222132682800293 s [44, 68] 0.0 [0, 0, 0, 0, 5, 8, 8, 8, 5, 9, 5, 9, 10, 15, 8, 16, 16, 18, 16, 20, 22, 21, 21, 22, 28, 28, 24, 26, 26, 36, 35, 44] 0

k\_1000 247

opm 35

the random choice case path in j30 ./rcpsp/j30.sm/j3032\_7.sm case j3032\_7.sm

v5 0 0.1515500545501709 s [35, 35] 0.0 [0, 0, 0, 0, 1, 3, 3, 3, 2, 7, 7, 1, 2, 9, 12, 12, 15, 20, 20, 1, 23, 7, 12, 12, 18, 21, 21, 29, 31, 21, 24, 35] 0

k\_1000 248

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3032\_8.sm case j3032\_8.sm

v5 0 0.19182133674621582 s [54, 54] 0.0 [0, 0, 0, 0, 9, 10, 10, 12, 19, 19, 9, 15, 15, 19, 18, 28, 19, 29, 24, 18, 19, 30, 32, 33, 28, 34, 34, 40, 50, 33, 43, 54] 0

k\_1000 249

opm 65

the random choice case path in j30 ./rcpsp/j30.sm/j3032\_9.sm case j3032\_9.sm

v5 0 0.23337101936340332 s [65, 75] 0.0 [0, 0, 0, 0, 10, 10, 10, 10, 9, 13, 19, 20, 19, 13, 10, 30, 23, 30, 13, 31, 16, 16, 37, 37, 33, 35, 44, 54, 54, 56, 45, 65] 0

k\_1000 250

opm 65

the random choice case path in j30 ./rcpsp/j30.sm/j3033\_1.sm case j3033\_1.sm

v5 0 0.36770009994506836 s [65, 77] 0.0 [0, 0, 3, 0, 4, 4, 10, 11, 18, 18, 20, 4, 15, 24, 23, 3, 21, 31, 33, 42, 33, 15, 41, 50, 33, 43, 49, 43, 54, 53, 57, 65] 0

k\_1000 251

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3033\_10.sm case j3033\_10.sm

v5 3 2.1976590156555176 s [53, 53] 0.0 [0, 0, 7, 0, 2, 3, 7, 2, 15, 13, 11, 3, 21, 21, 25, 13, 25, 13, 15, 22, 21, 30, 37, 28, 28, 34, 37, 35, 46, 37, 44, 53] 0

k\_1000 252

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3033\_2.sm case j3033\_2.sm

v5 5 4.1975250244140625 s [60, 62] 0.0 [0, 6, 0, 0, 7, 6, 7, 13, 22, 7, 29, 14, 26, 23, 27, 29, 22, 37, 34, 35, 26, 37, 29, 37, 45, 38, 45, 38, 47, 50, 45, 60] 0

k\_1000 253

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3033\_3.sm case j3033\_3.sm

v5 5 4.554524660110474 s [55, 91] 0.0 [0, 0, 0, 0, 9, 16, 2, 17, 17, 2, 9, 17, 2, 24, 22, 22, 9, 24, 30, 24, 22, 30, 34, 30, 37, 37, 37, 47, 44, 44, 51, 55] 0

k\_1000 254

opm 77

the random choice case path in j30 ./rcpsp/j30.sm/j3033\_4.sm case j3033\_4.sm

v5 11 13.811766147613525 s [77, 118] 0.0 [0, 0, 8, 0, 9, 18, 18, 25, 9, 29, 29, 43, 33, 9, 18, 19, 46, 43, 50, 29, 39, 49, 43, 58, 50, 58, 63, 63, 67, 73, 63, 77] 0

k\_1000 255

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3033\_5.sm case j3033\_5.sm

v5 1 1.1728885173797607 s [53, 53] 0.0 [0, 0, 0, 7, 15, 4, 7, 12, 15, 11, 4, 20, 15, 20, 27, 16, 23, 27, 16, 30, 20, 42, 35, 27, 27, 20, 35, 42, 31, 46, 46, 53] 0

k\_1000 256

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3033\_6.sm case j3033\_6.sm

v5 0 0.27532529830932617 s [57, 75] -3.389830508474576 [0, 4, 0, 0, 7, 7, 16, 7, 26, 16, 16, 26, 28, 31, 37, 26, 31, 17, 34, 31, 39, 36, 39, 33, 39, 41, 49, 45, 45, 51, 51, 57] 0

k\_1000 257

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3033\_7.sm case j3033\_7.sm

v5 2 1.6375904083251953 s [58, 110] 0.0 [0, 3, 0, 0, 7, 10, 10, 3, 17, 10, 36, 20, 29, 20, 26, 36, 33, 45, 48, 41, 45, 49, 41, 49, 48, 48, 41, 51, 53, 52, 53, 58] 0

k\_1000 258

opm 61

the random choice case path in j30 ./rcpsp/j30.sm/j3033\_8.sm case j3033\_8.sm

v5 16 15.990435600280762 s [61, 90] 0.0 [0, 3, 0, 0, 3, 8, 3, 5, 8, 6, 12, 5, 23, 31, 12, 18, 18, 31, 23, 39, 39, 42, 40, 12, 42, 31, 39, 48, 51, 40, 48, 61] 0

k\_1000 259

opm 65

the random choice case path in j30 ./rcpsp/j30.sm/j3033\_9.sm case j3033\_9.sm

v5 15 18.130857944488525 s [63, 95] -3.076923076923077 [0, 0, 0, 0, 11, 16, 2, 19, 2, 10, 4, 24, 24, 21, 21, 19, 24, 25, 34, 34, 34, 43, 31, 25, 34, 53, 46, 43, 58, 46, 53, 63] 0

k\_1000 260

opm 68

the random choice case path in j30 ./rcpsp/j30.sm/j3034\_1.sm case j3034\_1.sm

v5 0 0.23542094230651855 s [65, 69] -4.411764705882353 [0, 13, 0, 0, 10, 3, 10, 23, 14, 20, 20, 20, 26, 14, 28, 27, 35, 30, 35, 45, 39, 28, 38, 45, 38, 49, 48, 55, 57, 55, 46, 65] 0

k\_1000 261

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j3034\_10.sm case j3034\_10.sm

v5 0 0.1736469268798828 s [47, 79] 0.0 [0, 0, 0, 0, 10, 10, 7, 7, 16, 10, 15, 14, 18, 15, 26, 26, 21, 14, 21, 29, 32, 18, 21, 20, 32, 35, 35, 36, 43, 43, 41, 47] 0

k\_1000 262

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j3034\_2.sm case j3034\_2.sm

v5 1 0.46030092239379883 s [42, 61] -4.545454545454546 [0, 0, 0, 3, 7, 7, 10, 3, 11, 13, 9, 9, 15, 15, 19, 11, 13, 17, 26, 18, 21, 19, 21, 20, 28, 31, 26, 26, 37, 36, 35, 42] 0

k\_1000 263

opm 69

the random choice case path in j30 ./rcpsp/j30.sm/j3034\_3.sm case j3034\_3.sm

v5 0 0.27556514739990234 s [69, 69] 0.0 [0, 0, 0, 0, 3, 10, 16, 16, 7, 23, 3, 24, 12, 16, 29, 29, 36, 37, 53, 45, 45, 45, 45, 16, 54, 53, 53, 54, 63, 55, 60, 69] 0

k\_1000 264

opm 67

the random choice case path in j30 ./rcpsp/j30.sm/j3034\_4.sm case j3034\_4.sm

v5 1 0.8416502475738525 s [67, 112] 0.0 [0, 0, 3, 0, 3, 3, 12, 3, 11, 14, 12, 13, 22, 22, 32, 31, 31, 46, 22, 35, 45, 53, 53, 62, 62, 45, 47, 45, 49, 63, 63, 67] 0

k\_1000 265

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3034\_5.sm case j3034\_5.sm

v5 1 0.8146264553070068 s [63, 96] 0.0 [0, 0, 0, 0, 6, 10, 13, 13, 18, 8, 27, 15, 13, 18, 23, 27, 21, 23, 30, 6, 33, 36, 35, 46, 24, 36, 27, 46, 56, 53, 53, 63] 0

k\_1000 266

opm 52

the random choice case path in j30 ./rcpsp/j30.sm/j3034\_6.sm case j3034\_6.sm

v5 1 0.8863377571105957 s [52, 73] 0.0 [0, 0, 0, 0, 5, 5, 11, 4, 11, 11, 24, 5, 19, 34, 14, 15, 15, 20, 20, 30, 34, 37, 34, 34, 24, 37, 37, 36, 45, 44, 45, 52] 0

k\_1000 267

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3034\_7.sm case j3034\_7.sm

v5 2 1.4223270416259766 s [58, 62] 0.0 [0, 0, 0, 0, 3, 15, 8, 9, 8, 15, 18, 9, 18, 18, 27, 26, 27, 15, 29, 29, 37, 3, 37, 46, 29, 39, 38, 40, 48, 48, 54, 58] 0

k\_1000 268

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3034\_8.sm case j3034\_8.sm

v5 0 0.21335196495056152 s [52, 76] -10.344827586206897 [0, 0, 0, 0, 5, 5, 9, 1, 11, 11, 1, 7, 17, 15, 18, 18, 9, 21, 19, 27, 27, 11, 22, 33, 33, 35, 21, 38, 42, 40, 19, 52] 0

k\_1000 269

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3034\_9.sm case j3034\_9.sm

v5 0 0.196641206741333 s [60, 60] 0.0 [0, 0, 0, 4, 4, 4, 9, 8, 8, 12, 6, 12, 8, 17, 17, 23, 23, 17, 17, 23, 27, 33, 39, 35, 39, 39, 47, 27, 47, 30, 50, 60] 0

k\_1000 270

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3035\_1.sm case j3035\_1.sm

v5 3 1.7069740295410156 s [57, 97] 0.0 [0, 0, 0, 0, 8, 14, 6, 2, 14, 2, 8, 8, 18, 18, 17, 13, 24, 28, 26, 24, 33, 24, 18, 28, 34, 36, 28, 37, 41, 47, 34, 57] 0

k\_1000 271

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3035\_10.sm case j3035\_10.sm

v5 0 0.19689249992370605 s [59, 59] 0.0 [0, 0, 0, 0, 5, 5, 5, 5, 6, 18, 12, 13, 13, 18, 12, 18, 23, 18, 30, 20, 30, 23, 38, 23, 30, 46, 38, 38, 46, 38, 49, 59] 0

k\_1000 272

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3035\_2.sm case j3035\_2.sm

v5 1 0.75209641456604 s [53, 64] 0.0 [0, 0, 0, 0, 4, 1, 7, 14, 19, 10, 4, 7, 9, 19, 21, 19, 20, 27, 20, 31, 29, 27, 31, 31, 26, 36, 36, 29, 36, 46, 46, 53] 0

k\_1000 273

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3035\_3.sm case j3035\_3.sm

v5 1 0.7623252868652344 s [60, 64] 0.0 [0, 0, 0, 0, 2, 9, 13, 7, 7, 12, 20, 20, 30, 12, 7, 26, 16, 30, 20, 30, 39, 30, 39, 51, 31, 39, 42, 51, 57, 37, 53, 60] 0

k\_1000 274

opm 50

the random choice case path in j30 ./rcpsp/j30.sm/j3035\_4.sm case j3035\_4.sm

v5 0 0.3032989501953125 s [49, 59] -2.0 [0, 0, 12, 0, 4, 12, 12, 4, 8, 1, 18, 18, 13, 13, 16, 21, 14, 18, 31, 20, 17, 20, 29, 22, 29, 29, 31, 22, 35, 33, 40, 49] 0

k\_1000 275

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3035\_5.sm case j3035\_5.sm

v5 3 2.2093238830566406 s [60, 66] 0.0 [0, 0, 0, 0, 2, 2, 2, 6, 6, 13, 13, 23, 14, 23, 10, 31, 32, 33, 23, 32, 28, 39, 32, 46, 45, 15, 40, 18, 50, 46, 31, 60] 0

k\_1000 276

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3035\_6.sm case j3035\_6.sm

v5 1 0.7493276596069336 s [56, 100] -3.4482758620689653 [0, 1, 0, 0, 1, 9, 6, 6, 9, 11, 1, 10, 6, 10, 7, 13, 18, 23, 33, 26, 20, 20, 28, 39, 39, 23, 33, 39, 46, 40, 49, 56] 0

k\_1000 277

opm 61

the random choice case path in j30 ./rcpsp/j30.sm/j3035\_7.sm case j3035\_7.sm

v5 2 1.05916166305542 s [61, 82] 0.0 [0, 0, 0, 0, 2, 12, 14, 10, 7, 14, 10, 15, 13, 19, 24, 26, 25, 31, 32, 24, 24, 40, 40, 31, 40, 39, 43, 33, 53, 45, 43, 61] 0

k\_1000 278

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3035\_8.sm case j3035\_8.sm

v5 0 0.33420372009277344 s [63, 89] 0.0 [0, 0, 0, 0, 7, 7, 16, 3, 7, 16, 24, 9, 34, 3, 25, 13, 34, 34, 44, 24, 24, 35, 39, 32, 35, 52, 37, 44, 52, 47, 59, 63] 0

k\_1000 279

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3035\_9.sm case j3035\_9.sm

v5 3 1.82426118850708 s [59, 93] 0.0 [0, 0, 0, 0, 2, 2, 4, 4, 11, 11, 7, 20, 11, 21, 11, 10, 15, 15, 21, 20, 29, 29, 29, 37, 37, 29, 46, 46, 55, 49, 35, 59] 0

k\_1000 280

opm 66

the random choice case path in j30 ./rcpsp/j30.sm/j3036\_1.sm case j3036\_1.sm

v5 0 0.24204802513122559 s [66, 66] 0.0 [0, 0, 0, 0, 3, 3, 13, 3, 6, 13, 9, 5, 16, 23, 13, 21, 16, 29, 18, 23, 29, 31, 31, 32, 42, 32, 23, 48, 34, 48, 57, 66] 0

k\_1000 281

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3036\_10.sm case j3036\_10.sm

v5 0 0.18411898612976074 s [59, 59] 0.0 [0, 0, 0, 0, 10, 4, 3, 10, 10, 18, 3, 17, 19, 18, 18, 21, 19, 28, 27, 27, 27, 34, 19, 28, 43, 43, 34, 48, 39, 56, 46, 59] 0

k\_1000 282

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j3036\_2.sm case j3036\_2.sm

v5 0 0.1609482765197754 s [44, 44] 0.0 [0, 0, 0, 0, 3, 3, 13, 8, 2, 12, 8, 17, 8, 17, 18, 2, 22, 22, 22, 6, 18, 22, 28, 22, 28, 28, 14, 36, 39, 23, 30, 44] 0

k\_1000 283

opm 61

the random choice case path in j30 ./rcpsp/j30.sm/j3036\_3.sm case j3036\_3.sm

v5 0 0.19210290908813477 s [61, 61] 0.0 [0, 0, 0, 0, 6, 6, 7, 4, 6, 14, 12, 24, 4, 34, 11, 7, 20, 15, 16, 15, 21, 34, 34, 24, 21, 38, 47, 38, 47, 24, 54, 61] 0

k\_1000 284

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3036\_4.sm case j3036\_4.sm

v5 0 0.24279093742370605 s [59, 75] 0.0 [0, 0, 0, 0, 6, 6, 6, 15, 4, 15, 4, 23, 12, 23, 30, 15, 23, 19, 39, 39, 39, 46, 30, 30, 36, 43, 43, 48, 55, 38, 51, 59] 0

k\_1000 285

opm 64

the random choice case path in j30 ./rcpsp/j30.sm/j3036\_5.sm case j3036\_5.sm

v5 0 0.2343440055847168 s [64, 64] 0.0 [0, 0, 0, 0, 5, 11, 11, 7, 11, 17, 17, 19, 17, 23, 31, 17, 31, 35, 23, 31, 24, 41, 35, 37, 23, 31, 43, 51, 35, 58, 53, 64] 0

k\_1000 286

opm 46

the random choice case path in j30 ./rcpsp/j30.sm/j3036\_6.sm case j3036\_6.sm

v5 0 0.15343570709228516 s [46, 53] 0.0 [0, 0, 0, 0, 9, 8, 8, 12, 18, 7, 18, 9, 12, 17, 14, 16, 26, 26, 30, 30, 26, 34, 28, 29, 30, 35, 29, 18, 38, 22, 39, 46] 0

k\_1000 287

opm 56

the random choice case path in j30 ./rcpsp/j30.sm/j3036\_7.sm case j3036\_7.sm

v5 0 0.20401382446289062 s [56, 72] 0.0 [0, 0, 0, 0, 7, 13, 10, 14, 19, 13, 4, 14, 22, 22, 21, 13, 18, 28, 10, 28, 21, 31, 34, 26, 21, 42, 34, 38, 32, 48, 43, 56] 0

k\_1000 288

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3036\_8.sm case j3036\_8.sm

v5 0 0.20371174812316895 s [63, 84] 0.0 [0, 0, 0, 0, 7, 10, 14, 7, 14, 17, 10, 25, 10, 25, 19, 19, 27, 25, 31, 31, 41, 31, 39, 17, 41, 39, 45, 51, 55, 7, 51, 63] 0

k\_1000 289

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3036\_9.sm case j3036\_9.sm

v5 0 0.17601966857910156 s [59, 59] 0.0 [0, 0, 0, 0, 10, 10, 20, 2, 20, 16, 25, 16, 16, 26, 25, 23, 26, 10, 36, 21, 26, 33, 36, 33, 33, 36, 42, 46, 42, 42, 56, 59] 0

k\_1000 290

opm 79

the random choice case path in j30 ./rcpsp/j30.sm/j3037\_1.sm case j3037\_1.sm

v5 166 300.13387799263 s [80, 104] 1.2658227848101267 [0, 9, 0, 0, 15, 11, 13, 11, 15, 7, 26, 35, 34, 17, 9, 44, 34, 34, 54, 37, 37, 35, 69, 41, 37, 71, 45, 69, 61, 77, 71, 80] 0

k\_1000 291

opm 81

the random choice case path in j30 ./rcpsp/j30.sm/j3037\_10.sm case j3037\_10.sm

v5 4 6.2270660400390625 s [81, 120] 0.0 [0, 5, 15, 0, 36, 22, 5, 11, 11, 21, 11, 42, 32, 22, 46, 42, 39, 50, 32, 50, 32, 43, 58, 59, 50, 58, 23, 43, 67, 64, 75, 81] 0

k\_1000 292

opm 69

the random choice case path in j30 ./rcpsp/j30.sm/j3037\_2.sm case j3037\_2.sm

v5 2 2.9507572650909424 s [65, 100] -5.797101449275362 [0, 0, 0, 0, 8, 8, 2, 11, 12, 3, 2, 16, 8, 17, 27, 18, 12, 16, 30, 18, 37, 27, 27, 46, 36, 46, 44, 49, 56, 36, 44, 65] 0

k\_1000 293

opm 81

the random choice case path in j30 ./rcpsp/j30.sm/j3037\_3.sm case j3037\_3.sm

v5 0 0.5523688793182373 s [73, 82] -9.876543209876543 [0, 0, 0, 0, 4, 23, 5, 32, 11, 17, 23, 36, 11, 46, 33, 5, 17, 40, 46, 52, 41, 52, 60, 60, 65, 48, 54, 60, 67, 66, 64, 73] 0

k\_1000 294

opm 83

the random choice case path in j30 ./rcpsp/j30.sm/j3037\_4.sm case j3037\_4.sm

v5 5 13.74876594543457 s [83, 95] 0.0 [0, 0, 0, 0, 1, 1, 9, 16, 9, 6, 17, 26, 16, 9, 20, 26, 34, 31, 31, 46, 54, 26, 59, 31, 41, 46, 59, 55, 74, 66, 66, 83] 0

k\_1000 295

opm 80

the random choice case path in j30 ./rcpsp/j30.sm/j3037\_5.sm case j3037\_5.sm

v5 2 3.3990566730499268 s [79, 89] -1.25 [0, 8, 0, 20, 18, 18, 8, 20, 17, 27, 30, 37, 45, 30, 30, 45, 55, 45, 45, 40, 64, 54, 64, 64, 73, 65, 55, 68, 78, 68, 76, 79] 0

k\_1000 296

opm 73

the random choice case path in j30 ./rcpsp/j30.sm/j3037\_6.sm case j3037\_6.sm

v5 2 3.25022292137146 s [72, 72] -1.36986301369863 [0, 0, 0, 6, 11, 8, 11, 18, 22, 29, 22, 39, 8, 23, 18, 44, 39, 39, 46, 29, 39, 48, 33, 49, 56, 54, 49, 51, 66, 66, 71, 72] 0

k\_1000 297

opm 92

the random choice case path in j30 ./rcpsp/j30.sm/j3037\_7.sm case j3037\_7.sm

v5 4 11.384622812271118 s [92, 100] 0.0 [0, 0, 12, 0, 17, 25, 35, 6, 35, 35, 6, 36, 37, 36, 45, 45, 55, 41, 37, 63, 55, 17, 63, 55, 64, 73, 69, 73, 69, 76, 84, 92] 0

k\_1000 298

opm 72

the random choice case path in j30 ./rcpsp/j30.sm/j3037\_8.sm case j3037\_8.sm

v5 23 56.15109705924988 s [71, 86] -1.3888888888888888 [0, 0, 0, 0, 4, 3, 10, 30, 10, 20, 20, 39, 30, 41, 47, 10, 41, 40, 40, 20, 46, 42, 45, 58, 56, 65, 56, 58, 59, 65, 66, 71] 0

k\_1000 299

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3037\_9.sm case j3037\_9.sm

v5 8 11.61531114578247 s [57, 123] 0.0 [0, 0, 0, 0, 5, 6, 10, 6, 21, 26, 15, 30, 12, 30, 40, 21, 5, 26, 30, 48, 45, 33, 24, 27, 40, 50, 38, 53, 55, 35, 50, 57] 0

k\_1000 300

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j3038\_1.sm case j3038\_1.sm

v5 4 2.49320387840271 s [47, 47] -2.083333333333333 [0, 6, 0, 0, 1, 1, 1, 13, 6, 11, 6, 6, 13, 8, 13, 12, 15, 15, 18, 10, 20, 22, 30, 22, 33, 37, 33, 30, 38, 42, 38, 47] 0

k\_1000 301

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3038\_10.sm case j3038\_10.sm

v5 1 1.1860754489898682 s [60, 71] 0.0 [0, 0, 0, 0, 3, 7, 11, 20, 20, 11, 7, 7, 26, 11, 30, 13, 30, 30, 40, 30, 36, 38, 20, 36, 38, 46, 46, 47, 54, 45, 53, 60] 0

k\_1000 302

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3038\_2.sm case j3038\_2.sm

v5 1 0.8859410285949707 s [54, 58] 0.0 [0, 0, 0, 0, 4, 3, 4, 3, 6, 4, 6, 5, 8, 5, 25, 14, 17, 16, 4, 33, 27, 31, 38, 16, 42, 33, 40, 38, 48, 31, 47, 54] 0

k\_1000 303

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3038\_3.sm case j3038\_3.sm

v5 2 2.0541043281555176 s [58, 61] -1.694915254237288 [0, 0, 0, 0, 3, 11, 24, 6, 11, 21, 11, 30, 21, 14, 14, 30, 33, 21, 24, 22, 34, 33, 34, 43, 34, 43, 32, 39, 49, 44, 48, 58] 0

k\_1000 304

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3038\_4.sm case j3038\_4.sm

v5 3 2.2476093769073486 s [59, 69] 0.0 [0, 0, 0, 0, 3, 10, 3, 5, 10, 13, 16, 19, 14, 19, 19, 3, 16, 23, 35, 29, 29, 33, 38, 38, 44, 38, 48, 38, 44, 57, 28, 59] 0

k\_1000 305

opm 71

the random choice case path in j30 ./rcpsp/j30.sm/j3038\_5.sm case j3038\_5.sm

v5 2 2.387889862060547 s [69, 101] -2.8169014084507045 [0, 0, 0, 0, 5, 12, 4, 4, 13, 12, 14, 22, 16, 26, 39, 20, 38, 32, 20, 47, 39, 29, 39, 44, 53, 53, 44, 29, 63, 47, 63, 69] 0

k\_1000 306

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3038\_6.sm case j3038\_6.sm

v5 1 0.734612226486206 s [63, 70] 0.0 [0, 3, 0, 0, 10, 7, 20, 1, 3, 22, 20, 22, 24, 24, 6, 15, 34, 20, 34, 40, 40, 48, 49, 26, 55, 27, 42, 55, 34, 62, 49, 63] 0

k\_1000 307

opm 65

the random choice case path in j30 ./rcpsp/j30.sm/j3038\_7.sm case j3038\_7.sm

v5 28 19.77304744720459 s [65, 95] 0.0 [0, 0, 0, 0, 3, 5, 28, 10, 3, 26, 12, 17, 12, 32, 19, 28, 34, 22, 16, 5, 34, 37, 29, 36, 28, 37, 38, 46, 56, 43, 32, 65] 0

k\_1000 308

opm 61

the random choice case path in j30 ./rcpsp/j30.sm/j3038\_8.sm case j3038\_8.sm

v5 17 12.398149251937866 s [61, 85] 0.0 [0, 0, 0, 0, 7, 8, 9, 8, 7, 15, 16, 15, 19, 29, 16, 34, 33, 14, 19, 33, 25, 40, 40, 29, 46, 40, 41, 46, 35, 56, 47, 61] 0

k\_1000 309

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3038\_9.sm case j3038\_9.sm

v5 1 1.2140238285064697 s [60, 79] -4.761904761904762 [0, 0, 0, 0, 7, 7, 15, 9, 9, 15, 7, 23, 18, 13, 23, 11, 24, 32, 27, 34, 39, 41, 32, 42, 39, 23, 39, 32, 51, 51, 46, 60] 0

k\_1000 310

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3039\_1.sm case j3039\_1.sm

v5 3 1.4511959552764893 s [55, 71] 0.0 [0, 0, 0, 0, 3, 5, 5, 3, 12, 6, 7, 22, 12, 5, 24, 26, 30, 15, 27, 15, 32, 35, 26, 20, 30, 40, 36, 40, 40, 49, 43, 55] 0

k\_1000 311

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3039\_10.sm case j3039\_10.sm

v5 0 0.23304343223571777 s [59, 69] -1.6666666666666667 [0, 0, 0, 0, 8, 8, 9, 14, 17, 17, 20, 2, 20, 14, 18, 29, 17, 14, 29, 23, 33, 20, 33, 41, 39, 41, 45, 40, 50, 50, 30, 59] 0

k\_1000 312

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3039\_2.sm case j3039\_2.sm

v5 0 0.40430212020874023 s [54, 54] 0.0 [0, 0, 0, 0, 1, 2, 7, 10, 7, 1, 11, 21, 12, 12, 21, 21, 21, 31, 27, 6, 40, 22, 27, 44, 28, 36, 44, 28, 40, 37, 46, 54] 0

k\_1000 313

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3039\_3.sm case j3039\_3.sm

v5 5 2.184450626373291 s [54, 62] 0.0 [0, 0, 0, 0, 6, 8, 3, 13, 18, 7, 8, 8, 7, 14, 13, 24, 34, 18, 14, 17, 17, 25, 24, 25, 35, 44, 34, 35, 44, 24, 46, 54] 0

k\_1000 314

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3039\_4.sm case j3039\_4.sm

v5 5 3.7205402851104736 s [53, 66] 0.0 [0, 0, 0, 0, 5, 15, 11, 5, 10, 19, 11, 22, 10, 18, 22, 15, 6, 27, 27, 33, 27, 41, 27, 30, 40, 29, 33, 27, 50, 41, 36, 53] 0

k\_1000 315

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3039\_5.sm case j3039\_5.sm

v5 7 3.2122254371643066 s [55, 58] 0.0 [0, 0, 0, 0, 2, 2, 10, 8, 8, 4, 22, 8, 16, 18, 12, 18, 18, 26, 27, 24, 27, 24, 16, 24, 32, 33, 33, 42, 33, 51, 39, 55] 0

k\_1000 316

opm 69

the random choice case path in j30 ./rcpsp/j30.sm/j3039\_6.sm case j3039\_6.sm

v5 1 0.7044787406921387 s [69, 85] 0.0 [0, 0, 0, 10, 19, 10, 12, 19, 21, 19, 28, 12, 29, 18, 29, 33, 33, 28, 38, 44, 44, 10, 38, 52, 59, 44, 59, 36, 67, 54, 38, 69] 0

k\_1000 317

opm 56

the random choice case path in j30 ./rcpsp/j30.sm/j3039\_7.sm case j3039\_7.sm

v5 0 0.2453007698059082 s [56, 56] 0.0 [0, 0, 0, 0, 9, 9, 2, 9, 2, 19, 9, 22, 9, 15, 13, 15, 15, 19, 25, 22, 25, 30, 23, 26, 39, 26, 26, 28, 42, 49, 33, 56] 0

k\_1000 318

opm 67

the random choice case path in j30 ./rcpsp/j30.sm/j3039\_8.sm case j3039\_8.sm

v5 1 0.9630951881408691 s [67, 67] 0.0 [0, 0, 0, 0, 4, 6, 12, 4, 20, 12, 17, 6, 7, 23, 7, 29, 37, 12, 20, 19, 19, 28, 47, 37, 29, 37, 53, 47, 35, 58, 58, 67] 0

k\_1000 319

opm 64

the random choice case path in j30 ./rcpsp/j30.sm/j3039\_9.sm case j3039\_9.sm

v5 0 0.2658555507659912 s [63, 73] -1.5625 [0, 0, 0, 0, 10, 5, 12, 12, 16, 5, 12, 5, 18, 16, 21, 21, 26, 31, 40, 34, 31, 31, 41, 41, 41, 46, 53, 48, 54, 56, 53, 63] 0

k\_1000 320

opm 72

the random choice case path in j30 ./rcpsp/j30.sm/j303\_1.sm case j303\_1.sm

v5 0 0.46254992485046387 s [72, 90] 0.0 [0, 0, 0, 0, 4, 7, 10, 20, 20, 10, 11, 20, 27, 21, 37, 29, 17, 27, 1, 29, 34, 37, 9, 37, 47, 47, 55, 39, 46, 44, 63, 72] 0

k\_1000 321

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j303\_10.sm case j303\_10.sm

v5 0 0.3645906448364258 s [57, 70] -3.389830508474576 [0, 0, 0, 0, 2, 12, 4, 9, 9, 5, 14, 9, 13, 17, 8, 23, 23, 18, 14, 18, 8, 30, 32, 4, 30, 37, 44, 24, 48, 40, 12, 57] 0

k\_1000 322

opm 40

the random choice case path in j30 ./rcpsp/j30.sm/j303\_2.sm case j303\_2.sm

v5 0 0.23249316215515137 s [40, 47] 0.0 [0, 0, 6, 0, 5, 6, 12, 11, 12, 5, 20, 6, 21, 11, 21, 26, 14, 21, 12, 20, 14, 20, 25, 28, 28, 20, 28, 28, 30, 24, 37, 40] 0

k\_1000 323

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j303\_3.sm case j303\_3.sm

v5 0 0.2655489444732666 s [57, 77] 0.0 [0, 0, 0, 0, 14, 6, 20, 6, 1, 7, 20, 21, 6, 14, 13, 3, 20, 24, 20, 1, 16, 26, 7, 36, 45, 13, 36, 28, 40, 47, 45, 57] 0

k\_1000 324

opm 98

the random choice case path in j30 ./rcpsp/j30.sm/j303\_4.sm case j303\_4.sm

v5 0 0.38402819633483887 s [98, 112] 0.0 [0, 0, 0, 0, 3, 13, 7, 13, 18, 28, 36, 45, 36, 36, 28, 52, 45, 7, 52, 45, 18, 61, 41, 18, 36, 71, 78, 81, 51, 53, 89, 98] 0

k\_1000 325

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j303\_5.sm case j303\_5.sm

v5 0 0.3456442356109619 s [53, 82] 0.0 [0, 0, 0, 0, 1, 9, 7, 9, 18, 18, 18, 1, 26, 9, 17, 14, 7, 22, 30, 35, 22, 31, 18, 9, 17, 28, 20, 37, 39, 45, 45, 53] 0

k\_1000 326

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j303\_6.sm case j303\_6.sm

v5 0 0.21234536170959473 s [53, 53] -1.8518518518518516 [0, 0, 0, 0, 1, 1, 2, 4, 2, 2, 10, 14, 10, 14, 24, 14, 25, 13, 20, 24, 2, 30, 24, 14, 2, 30, 39, 37, 18, 43, 34, 53] 0

k\_1000 327

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j303\_7.sm case j303\_7.sm

v5 4 2.6434803009033203 s [48, 59] 0.0 [0, 0, 10, 0, 10, 16, 21, 16, 10, 30, 16, 16, 8, 17, 23, 16, 23, 24, 16, 27, 24, 27, 8, 24, 22, 30, 24, 34, 36, 10, 40, 48] 0

k\_1000 328

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j303\_8.sm case j303\_8.sm

v5 0 0.27273082733154297 s [54, 76] 0.0 [0, 0, 0, 0, 7, 5, 12, 7, 11, 16, 7, 4, 5, 7, 7, 26, 11, 12, 7, 20, 29, 9, 17, 4, 17, 35, 18, 38, 44, 20, 44, 54] 0

k\_1000 329

opm 65

the random choice case path in j30 ./rcpsp/j30.sm/j303\_9.sm case j303\_9.sm

v5 0 0.586505651473999 s [60, 65] -7.6923076923076925 [0, 0, 0, 0, 6, 11, 1, 14, 1, 11, 2, 2, 6, 28, 15, 21, 10, 2, 20, 22, 21, 17, 11, 18, 6, 32, 31, 42, 42, 20, 51, 60] 0

k\_1000 330

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j3040\_1.sm case j3040\_1.sm

v5 0 0.23472070693969727 s [51, 51] 0.0 [0, 0, 0, 0, 1, 7, 2, 7, 7, 1, 17, 17, 24, 1, 24, 17, 26, 26, 33, 30, 38, 38, 46, 17, 33, 40, 30, 38, 35, 49, 46, 51] 0

k\_1000 331

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j3040\_10.sm case j3040\_10.sm

v5 0 0.18403029441833496 s [51, 81] 0.0 [0, 0, 0, 0, 5, 9, 9, 15, 16, 4, 5, 10, 16, 10, 18, 16, 16, 18, 22, 23, 22, 28, 34, 25, 37, 31, 34, 39, 40, 32, 45, 51] 0

k\_1000 332

opm 56

the random choice case path in j30 ./rcpsp/j30.sm/j3040\_2.sm case j3040\_2.sm

v5 0 0.23262453079223633 s [56, 56] 0.0 [0, 0, 0, 0, 7, 1, 16, 7, 7, 17, 25, 6, 1, 24, 15, 16, 31, 34, 37, 25, 35, 34, 24, 25, 34, 44, 42, 42, 48, 44, 43, 56] 0

k\_1000 333

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3040\_3.sm case j3040\_3.sm

v5 0 0.26466798782348633 s [57, 57] 0.0 [0, 0, 0, 0, 1, 7, 9, 7, 1, 17, 9, 9, 17, 10, 24, 9, 24, 17, 27, 18, 27, 24, 13, 34, 27, 27, 41, 41, 51, 30, 51, 57] 0

k\_1000 334

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3040\_4.sm case j3040\_4.sm

v5 0 0.24451041221618652 s [57, 77] 0.0 [0, 0, 0, 0, 6, 6, 6, 9, 3, 18, 11, 18, 18, 13, 27, 24, 23, 27, 18, 13, 36, 37, 37, 37, 31, 46, 43, 46, 48, 34, 43, 57] 0

k\_1000 335

opm 65

the random choice case path in j30 ./rcpsp/j30.sm/j3040\_5.sm case j3040\_5.sm

v5 0 0.26271843910217285 s [65, 102] 0.0 [0, 0, 0, 0, 6, 13, 13, 23, 13, 3, 9, 23, 6, 22, 26, 23, 32, 26, 31, 27, 37, 37, 31, 33, 39, 47, 47, 47, 57, 55, 37, 65] 0

k\_1000 336

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3040\_6.sm case j3040\_6.sm

v5 0 0.22310423851013184 s [60, 86] 0.0 [0, 0, 0, 0, 7, 12, 12, 19, 7, 10, 17, 15, 15, 21, 21, 28, 38, 25, 25, 29, 27, 21, 34, 39, 40, 29, 38, 49, 44, 40, 52, 60] 0

k\_1000 337

opm 46

the random choice case path in j30 ./rcpsp/j30.sm/j3040\_7.sm case j3040\_7.sm

v5 0 0.19217777252197266 s [46, 56] 0.0 [0, 0, 0, 0, 5, 1, 1, 11, 5, 15, 11, 11, 17, 14, 11, 20, 20, 25, 23, 17, 26, 32, 31, 31, 23, 32, 35, 26, 41, 37, 32, 46] 0

k\_1000 338

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3040\_8.sm case j3040\_8.sm

v5 0 0.19181585311889648 s [57, 57] 0.0 [0, 0, 0, 0, 10, 5, 10, 5, 20, 10, 20, 12, 5, 20, 20, 12, 26, 24, 30, 30, 22, 35, 24, 35, 36, 33, 41, 40, 33, 41, 51, 57] 0

k\_1000 339

opm 64

the random choice case path in j30 ./rcpsp/j30.sm/j3040\_9.sm case j3040\_9.sm

v5 0 0.22464275360107422 s [64, 74] 0.0 [0, 0, 0, 0, 9, 8, 8, 9, 9, 14, 11, 14, 15, 21, 31, 20, 31, 8, 41, 20, 41, 51, 38, 25, 51, 21, 32, 32, 52, 61, 47, 64] 0

k\_1000 340

opm 86

the random choice case path in j30 ./rcpsp/j30.sm/j3041\_1.sm case j3041\_1.sm

v5 9 18.838950872421265 s [83, 161] -3.488372093023256 [0, 0, 23, 0, 3, 3, 8, 13, 13, 13, 16, 28, 40, 28, 29, 36, 52, 37, 69, 23, 47, 63, 62, 40, 52, 52, 63, 61, 69, 78, 78, 83] 0

k\_1000 341

opm 99

the random choice case path in j30 ./rcpsp/j30.sm/j3041\_10.sm case j3041\_10.sm

v5 2 7.500355243682861 s [91, 114] -8.080808080808081 [0, 0, 0, 0, 2, 9, 19, 9, 36, 28, 24, 44, 26, 58, 32, 32, 54, 36, 45, 26, 54, 64, 41, 71, 64, 45, 58, 66, 83, 75, 75, 91] 0

k\_1000 342

opm 89

the random choice case path in j30 ./rcpsp/j30.sm/j3041\_2.sm case j3041\_2.sm

v5 6 12.55764389038086 s [88, 161] -1.1235955056179776 [0, 2, 0, 10, 10, 19, 27, 30, 15, 25, 21, 33, 19, 33, 30, 45, 38, 45, 55, 55, 60, 70, 60, 60, 70, 67, 67, 77, 81, 78, 86, 88] 0

k\_1000 343

opm 85

the random choice case path in j30 ./rcpsp/j30.sm/j3041\_3.sm case j3041\_3.sm

v5 4 7.371021509170532 s [84, 96] -1.1764705882352942 [0, 0, 0, 42, 10, 20, 10, 25, 52, 7, 61, 28, 20, 52, 41, 38, 62, 62, 58, 65, 59, 71, 71, 42, 71, 59, 62, 76, 82, 76, 73, 84] 0

k\_1000 344

opm 78

the random choice case path in j30 ./rcpsp/j30.sm/j3041\_4.sm case j3041\_4.sm

v5 1 3.2267491817474365 s [76, 139] -2.564102564102564 [0, 0, 0, 0, 6, 7, 8, 11, 9, 18, 21, 25, 29, 4, 34, 35, 39, 25, 35, 41, 48, 36, 41, 41, 55, 39, 55, 65, 57, 67, 57, 76] 0

k\_1000 345

opm 99

the random choice case path in j30 ./rcpsp/j30.sm/j3041\_5.sm case j3041\_5.sm

v5 8 26.44659996032715 s [98, 108] -1.0101010101010102 [0, 0, 21, 0, 10, 31, 18, 10, 31, 18, 18, 43, 51, 56, 56, 25, 41, 62, 39, 72, 58, 78, 51, 68, 77, 85, 80, 77, 85, 95, 85, 98] 0

k\_1000 346

opm 103

the random choice case path in j30 ./rcpsp/j30.sm/j3041\_6.sm case j3041\_6.sm

v5 1 5.838655471801758 s [102, 271] -0.9708737864077669 [0, 0, 0, 9, 9, 20, 24, 20, 9, 24, 44, 48, 25, 54, 16, 62, 61, 33, 40, 80, 81, 63, 71, 78, 48, 78, 54, 82, 91, 80, 96, 102] 0

k\_1000 347

opm 92

the random choice case path in j30 ./rcpsp/j30.sm/j3041\_7.sm case j3041\_7.sm

v5 95 300.5775411128998 s [93, 145] 1.0869565217391304 [0, 0, 0, 4, 18, 13, 28, 28, 36, 49, 18, 56, 32, 38, 28, 34, 48, 57, 38, 48, 63, 66, 76, 75, 66, 62, 70, 79, 79, 81, 89, 93] 0

k\_1000 348

opm 88

the random choice case path in j30 ./rcpsp/j30.sm/j3041\_8.sm case j3041\_8.sm

v5 14 37.0770103931427 s [87, 144] -1.1363636363636365 [0, 0, 0, 0, 9, 35, 30, 11, 44, 9, 19, 10, 18, 20, 21, 26, 21, 52, 30, 35, 52, 53, 62, 44, 60, 67, 76, 62, 79, 62, 71, 87] 0

k\_1000 349

opm 92

the random choice case path in j30 ./rcpsp/j30.sm/j3041\_9.sm case j3041\_9.sm

v5 3 10.030925750732422 s [92, 129] 0.0 [0, 0, 9, 23, 22, 37, 9, 31, 19, 23, 19, 23, 31, 34, 32, 41, 49, 36, 36, 47, 55, 49, 65, 39, 75, 68, 65, 68, 57, 76, 84, 92] 0

k\_1000 350

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3042\_1.sm case j3042\_1.sm

v5 41 39.16185450553894 s [58, 118] 0.0 [0, 0, 0, 0, 9, 25, 9, 9, 10, 19, 25, 18, 17, 10, 28, 28, 28, 18, 36, 37, 30, 37, 41, 44, 46, 44, 32, 45, 52, 37, 50, 58] 0

k\_1000 351

opm 75

the random choice case path in j30 ./rcpsp/j30.sm/j3042\_10.sm case j3042\_10.sm

v5 1 1.24485182762146 s [75, 78] 0.0 [0, 14, 0, 0, 9, 9, 9, 17, 25, 14, 25, 26, 34, 24, 38, 32, 41, 41, 34, 40, 41, 50, 56, 50, 46, 58, 59, 38, 59, 69, 66, 75] 0

k\_1000 352

opm 50

the random choice case path in j30 ./rcpsp/j30.sm/j3042\_2.sm case j3042\_2.sm

v5 0 0.4276161193847656 s [50, 74] 0.0 [0, 0, 0, 0, 6, 12, 8, 2, 20, 12, 20, 24, 24, 11, 8, 28, 19, 28, 30, 37, 30, 26, 18, 29, 30, 38, 26, 38, 40, 42, 33, 50] 0

k\_1000 353

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3042\_3.sm case j3042\_3.sm

v5 118 129.306494474411 s [60, 62] 0.0 [0, 1, 0, 0, 8, 10, 1, 20, 20, 10, 16, 26, 30, 22, 32, 26, 36, 10, 36, 16, 36, 45, 34, 44, 45, 49, 44, 42, 56, 49, 52, 60] 0

k\_1000 354

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3042\_4.sm case j3042\_4.sm

v5 11 9.03227424621582 s [49, 64] 0.0 [0, 0, 0, 0, 12, 3, 14, 15, 18, 9, 16, 14, 16, 9, 23, 33, 23, 25, 15, 23, 29, 39, 16, 22, 31, 39, 33, 34, 43, 47, 43, 49] 0

k\_1000 355

opm 52

the random choice case path in j30 ./rcpsp/j30.sm/j3042\_5.sm case j3042\_5.sm

v5 3 4.341445207595825 s [52, 83] 0.0 [0, 0, 0, 0, 4, 4, 9, 5, 4, 8, 17, 5, 9, 20, 12, 17, 30, 7, 30, 8, 13, 23, 11, 26, 35, 37, 35, 40, 43, 43, 42, 52] 0

k\_1000 356

opm 66

the random choice case path in j30 ./rcpsp/j30.sm/j3042\_6.sm case j3042\_6.sm

v5 0 0.4447340965270996 s [64, 64] -3.0303030303030303 [0, 0, 0, 0, 7, 6, 13, 23, 14, 13, 29, 7, 23, 12, 33, 42, 19, 32, 33, 23, 37, 42, 33, 42, 47, 42, 49, 52, 59, 42, 53, 64] 0

k\_1000 357

opm 66

the random choice case path in j30 ./rcpsp/j30.sm/j3042\_7.sm case j3042\_7.sm

v5 1 1.2969145774841309 s [66, 91] 0.0 [0, 0, 0, 0, 10, 6, 19, 19, 13, 19, 13, 21, 29, 38, 48, 29, 51, 39, 29, 24, 21, 32, 39, 51, 57, 42, 32, 56, 56, 57, 60, 66] 0

k\_1000 358

opm 82

the random choice case path in j30 ./rcpsp/j30.sm/j3042\_8.sm case j3042\_8.sm

v5 0 0.43114447593688965 s [74, 82] -9.75609756097561 [0, 0, 0, 3, 13, 13, 19, 7, 28, 15, 30, 22, 22, 30, 25, 25, 36, 36, 40, 40, 32, 39, 35, 48, 43, 44, 54, 58, 59, 53, 67, 74] 0

k\_1000 359

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3042\_9.sm case j3042\_9.sm

v5 14 19.064838647842407 s [59, 77] -1.6666666666666667 [0, 0, 0, 6, 2, 16, 11, 10, 2, 25, 19, 32, 20, 19, 20, 31, 33, 31, 33, 30, 40, 40, 31, 45, 37, 39, 44, 47, 47, 55, 51, 59] 0

k\_1000 360

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3043\_1.sm case j3043\_1.sm

v5 314 299.62875413894653 s [56, 68] 1.8181818181818181 [0, 0, 2, 0, 6, 6, 6, 12, 10, 10, 20, 25, 25, 20, 3, 10, 33, 21, 28, 28, 33, 42, 37, 46, 41, 33, 42, 34, 49, 49, 54, 56] 0

k\_1000 361

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3043\_10.sm case j3043\_10.sm

v5 0 0.3067617416381836 s [60, 74] 0.0 [0, 0, 0, 0, 9, 6, 1, 18, 6, 25, 7, 25, 7, 18, 12, 18, 27, 12, 27, 28, 34, 42, 36, 48, 36, 48, 34, 45, 53, 42, 54, 60] 0

k\_1000 362

opm 43

the random choice case path in j30 ./rcpsp/j30.sm/j3043\_2.sm case j3043\_2.sm

v5 6 3.513307571411133 s [43, 51] 0.0 [0, 0, 5, 0, 1, 5, 1, 2, 6, 9, 9, 10, 18, 16, 24, 11, 25, 25, 28, 19, 16, 34, 25, 19, 33, 24, 34, 28, 37, 37, 37, 43] 0

k\_1000 363

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3043\_3.sm case j3043\_3.sm

v5 8 5.463703155517578 s [57, 76] 0.0 [0, 0, 0, 0, 9, 16, 5, 5, 16, 5, 14, 16, 26, 18, 16, 35, 10, 23, 30, 30, 26, 36, 26, 36, 43, 41, 44, 41, 48, 44, 41, 57] 0

k\_1000 364

opm 67

the random choice case path in j30 ./rcpsp/j30.sm/j3043\_4.sm case j3043\_4.sm

v5 1 1.1089072227478027 s [67, 78] 0.0 [0, 0, 0, 0, 10, 10, 1, 12, 7, 17, 14, 1, 17, 25, 27, 25, 39, 11, 35, 17, 35, 42, 44, 44, 42, 51, 48, 51, 61, 61, 56, 67] 0

k\_1000 365

opm 64

the random choice case path in j30 ./rcpsp/j30.sm/j3043\_5.sm case j3043\_5.sm

v5 26 21.82527184486389 s [64, 156] 0.0 [0, 0, 0, 0, 1, 8, 4, 4, 16, 8, 1, 1, 8, 21, 13, 14, 20, 20, 28, 46, 27, 22, 29, 22, 39, 37, 48, 35, 28, 55, 29, 64] 0

k\_1000 366

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3043\_6.sm case j3043\_6.sm

v5 3 1.750227689743042 s [58, 60] 0.0 [0, 0, 0, 0, 9, 2, 9, 2, 17, 14, 21, 4, 12, 22, 18, 14, 18, 20, 24, 30, 30, 35, 18, 35, 32, 32, 39, 39, 49, 39, 49, 58] 0

k\_1000 367

opm 52

the random choice case path in j30 ./rcpsp/j30.sm/j3043\_7.sm case j3043\_7.sm

v5 3 2.7927329540252686 s [52, 63] 0.0 [0, 0, 0, 0, 8, 1, 1, 11, 8, 18, 5, 8, 12, 11, 13, 20, 15, 33, 17, 24, 22, 27, 27, 27, 34, 34, 41, 36, 36, 44, 43, 52] 0

k\_1000 368

opm 62

the random choice case path in j30 ./rcpsp/j30.sm/j3043\_8.sm case j3043\_8.sm

v5 45 44.32820224761963 s [62, 73] 0.0 [0, 0, 0, 3, 11, 8, 6, 8, 12, 14, 24, 24, 6, 37, 30, 33, 18, 30, 31, 42, 8, 37, 40, 45, 42, 52, 56, 50, 57, 50, 55, 62] 0

k\_1000 369

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3043\_9.sm case j3043\_9.sm

v5 50 30.12163496017456 s [56, 61] -1.7543859649122806 [0, 0, 0, 0, 10, 5, 10, 5, 19, 14, 20, 17, 19, 28, 14, 29, 20, 30, 29, 36, 30, 30, 37, 33, 32, 32, 34, 45, 46, 44, 37, 56] 0

k\_1000 370

opm 50

the random choice case path in j30 ./rcpsp/j30.sm/j3044\_1.sm case j3044\_1.sm

v5 0 0.2030620574951172 s [50, 57] 0.0 [0, 0, 0, 0, 3, 8, 9, 12, 12, 12, 9, 9, 15, 17, 24, 7, 17, 29, 15, 24, 3, 14, 13, 19, 37, 25, 30, 19, 30, 35, 40, 50] 0

k\_1000 371

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3044\_10.sm case j3044\_10.sm

v5 0 0.33148908615112305 s [63, 63] 0.0 [0, 0, 0, 0, 10, 10, 14, 9, 12, 22, 12, 29, 22, 19, 22, 29, 9, 29, 30, 31, 30, 33, 31, 35, 36, 39, 45, 45, 40, 53, 45, 63] 0

k\_1000 372

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3044\_2.sm case j3044\_2.sm

v5 0 0.2405261993408203 s [54, 76] 0.0 [0, 0, 0, 0, 8, 10, 11, 10, 20, 2, 20, 20, 24, 30, 24, 30, 30, 11, 31, 38, 29, 36, 38, 35, 26, 36, 42, 42, 46, 52, 40, 54] 0

k\_1000 373

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j3044\_3.sm case j3044\_3.sm

v5 0 0.16365814208984375 s [51, 51] 0.0 [0, 0, 0, 0, 9, 9, 2, 2, 2, 9, 14, 9, 12, 22, 18, 30, 24, 9, 22, 18, 30, 18, 30, 22, 28, 28, 35, 43, 40, 25, 50, 51] 0

k\_1000 374

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3044\_4.sm case j3044\_4.sm

v5 0 0.17264628410339355 s [57, 57] 0.0 [0, 0, 0, 0, 10, 8, 10, 20, 13, 19, 23, 10, 23, 20, 23, 23, 22, 27, 29, 28, 35, 29, 33, 40, 38, 46, 38, 45, 45, 55, 54, 57] 0

k\_1000 375

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3044\_5.sm case j3044\_5.sm

v5 0 0.3112010955810547 s [55, 86] 0.0 [0, 0, 0, 0, 9, 5, 9, 1, 9, 19, 27, 13, 10, 10, 17, 19, 26, 26, 27, 34, 38, 36, 34, 13, 19, 19, 23, 41, 48, 41, 44, 55] 0

k\_1000 376

opm 56

the random choice case path in j30 ./rcpsp/j30.sm/j3044\_6.sm case j3044\_6.sm

v5 0 0.17372536659240723 s [56, 73] 0.0 [0, 0, 0, 0, 2, 8, 2, 2, 11, 11, 12, 8, 17, 22, 14, 4, 14, 17, 27, 24, 27, 33, 24, 37, 32, 42, 31, 42, 50, 50, 42, 56] 0

k\_1000 377

opm 42

the random choice case path in j30 ./rcpsp/j30.sm/j3044\_7.sm case j3044\_7.sm

v5 0 0.14308667182922363 s [42, 42] 0.0 [0, 0, 0, 0, 8, 12, 8, 4, 15, 15, 15, 8, 10, 13, 12, 20, 16, 23, 20, 20, 30, 20, 30, 24, 28, 28, 32, 30, 40, 34, 36, 42] 0

k\_1000 378

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3044\_8.sm case j3044\_8.sm

v5 0 0.23241949081420898 s [49, 89] 0.0 [0, 0, 0, 0, 1, 3, 4, 13, 4, 7, 2, 14, 13, 22, 7, 22, 28, 6, 22, 12, 31, 17, 34, 28, 35, 15, 35, 40, 36, 44, 20, 49] 0

k\_1000 379

opm 64

the random choice case path in j30 ./rcpsp/j30.sm/j3044\_9.sm case j3044\_9.sm

v5 0 0.21431994438171387 s [64, 83] 0.0 [0, 0, 0, 0, 10, 10, 18, 9, 10, 17, 18, 23, 18, 23, 27, 37, 37, 39, 40, 37, 44, 44, 23, 40, 44, 33, 40, 54, 46, 59, 54, 64] 0

k\_1000 380

opm 82

the random choice case path in j30 ./rcpsp/j30.sm/j3045\_1.sm case j3045\_1.sm

v5 19 76.59146523475647 s [82, 123] 0.0 [0, 0, 13, 0, 2, 11, 3, 17, 30, 4, 21, 20, 23, 17, 27, 64, 41, 30, 32, 32, 52, 41, 47, 56, 60, 73, 52, 69, 64, 76, 76, 82] 0

k\_1000 381

opm 90

the random choice case path in j30 ./rcpsp/j30.sm/j3045\_10.sm case j3045\_10.sm

v5 3 8.27197527885437 s [87, 452] -3.3333333333333335 [0, 0, 5, 2, 28, 8, 17, 8, 16, 41, 14, 19, 42, 58, 19, 33, 33, 28, 51, 55, 62, 67, 51, 55, 73, 75, 67, 76, 78, 75, 79, 87] 0

k\_1000 382

opm 125

the random choice case path in j30 ./rcpsp/j30.sm/j3045\_2.sm case j3045\_2.sm

v5 0 2.374401330947876 s [124, 217] -0.8 [0, 0, 0, 8, 8, 18, 20, 29, 28, 20, 36, 49, 11, 36, 64, 44, 59, 64, 72, 90, 82, 90, 99, 100, 106, 99, 108, 118, 109, 122, 108, 124] 0

k\_1000 383

opm 92

the random choice case path in j30 ./rcpsp/j30.sm/j3045\_3.sm case j3045\_3.sm

v5 77 298.61342191696167 s [96, 113] 4.3478260869565215 [0, 0, 3, 0, 9, 10, 15, 20, 9, 6, 16, 45, 64, 29, 37, 15, 29, 58, 37, 20, 47, 57, 35, 68, 68, 64, 77, 70, 94, 85, 47, 96] 0

k\_1000 384

opm 84

the random choice case path in j30 ./rcpsp/j30.sm/j3045\_4.sm case j3045\_4.sm

v5 6 16.4844708442688 s [84, 110] 0.0 [0, 0, 6, 0, 6, 13, 12, 15, 24, 18, 25, 32, 14, 21, 34, 31, 38, 50, 40, 40, 71, 56, 40, 49, 70, 61, 62, 53, 74, 74, 76, 84] 0

k\_1000 385

opm 86

the random choice case path in j30 ./rcpsp/j30.sm/j3045\_5.sm case j3045\_5.sm

v5 47 119.26372051239014 s [86, 114] 0.0 [0, 10, 0, 0, 10, 21, 14, 10, 14, 16, 36, 49, 56, 29, 30, 46, 21, 63, 50, 50, 51, 51, 57, 62, 59, 62, 66, 67, 77, 76, 77, 86] 0

k\_1000 386

opm 129

the random choice case path in j30 ./rcpsp/j30.sm/j3045\_6.sm case j3045\_6.sm

v5 4 25.56612467765808 s [129, 140] 0.0 [0, 0, 0, 7, 9, 19, 12, 30, 14, 29, 19, 34, 47, 57, 64, 82, 34, 44, 101, 69, 76, 36, 53, 69, 70, 78, 91, 44, 101, 120, 111, 129] 0

k\_1000 387

opm 101

the random choice case path in j30 ./rcpsp/j30.sm/j3045\_7.sm case j3045\_7.sm

v5 5 22.345149993896484 s [98, 105] -2.9702970297029703 [0, 0, 0, 10, 12, 20, 21, 22, 30, 12, 30, 38, 46, 55, 57, 48, 87, 69, 57, 70, 38, 62, 47, 78, 92, 64, 69, 78, 85, 80, 96, 98] 0

k\_1000 388

opm 94

the random choice case path in j30 ./rcpsp/j30.sm/j3045\_8.sm case j3045\_8.sm

v5 2 4.460170030593872 s [93, 97] -1.0638297872340425 [0, 0, 10, 10, 19, 22, 24, 33, 19, 26, 39, 33, 63, 42, 49, 24, 23, 65, 51, 49, 55, 55, 68, 73, 84, 63, 70, 42, 82, 92, 56, 93] 0

k\_1000 389

opm 82

the random choice case path in j30 ./rcpsp/j30.sm/j3045\_9.sm case j3045\_9.sm

v5 86 299.1861062049866 s [84, 99] 2.4390243902439024 [0, 0, 0, 0, 12, 7, 34, 9, 20, 6, 20, 18, 1, 18, 43, 28, 30, 18, 39, 20, 19, 28, 52, 58, 60, 41, 60, 68, 77, 68, 52, 84] 0

k\_1000 390

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3046\_1.sm case j3046\_1.sm

v5 280 300.33973813056946 s [60, 76] 1.694915254237288 [0, 2, 0, 0, 7, 6, 7, 18, 13, 21, 24, 14, 23, 24, 33, 36, 24, 34, 26, 24, 34, 14, 34, 42, 43, 42, 48, 51, 57, 42, 34, 60] 0

k\_1000 391

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3046\_10.sm case j3046\_10.sm

v5 0 0.34787964820861816 s [55, 233] 0.0 [0, 0, 0, 0, 9, 18, 15, 18, 9, 28, 15, 24, 28, 18, 32, 28, 34, 28, 30, 44, 34, 38, 47, 34, 37, 45, 47, 47, 48, 54, 51, 55] 0

k\_1000 392

opm 67

the random choice case path in j30 ./rcpsp/j30.sm/j3046\_2.sm case j3046\_2.sm

v5 5 6.667434215545654 s [67, 95] 0.0 [0, 0, 0, 0, 9, 9, 14, 16, 24, 8, 28, 21, 31, 24, 16, 38, 39, 36, 47, 50, 32, 44, 44, 54, 53, 55, 54, 57, 56, 60, 65, 67] 0

k\_1000 393

opm 65

the random choice case path in j30 ./rcpsp/j30.sm/j3046\_3.sm case j3046\_3.sm

v5 15 22.35678720474243 s [65, 180] 0.0 [0, 0, 0, 0, 2, 7, 3, 10, 4, 16, 16, 22, 20, 2, 39, 25, 16, 30, 32, 39, 38, 27, 44, 44, 32, 53, 38, 45, 63, 58, 53, 65] 0

k\_1000 394

opm 64

the random choice case path in j30 ./rcpsp/j30.sm/j3046\_4.sm case j3046\_4.sm

v5 276 300.19895601272583 s [66, 67] 3.125 [0, 0, 5, 0, 3, 14, 3, 5, 3, 17, 13, 23, 23, 13, 15, 32, 25, 28, 38, 32, 33, 38, 36, 43, 53, 36, 46, 46, 61, 59, 54, 66] 0

k\_1000 395

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3046\_5.sm case j3046\_5.sm

v5 188 158.61224102973938 s [57, 67] 0.0 [0, 0, 0, 0, 9, 9, 13, 6, 12, 16, 9, 17, 39, 3, 12, 24, 20, 29, 20, 31, 29, 27, 36, 39, 27, 40, 44, 43, 48, 48, 45, 57] 0

k\_1000 396

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3046\_6.sm case j3046\_6.sm

v5 2 2.3528101444244385 s [59, 98] 0.0 [0, 0, 7, 0, 5, 5, 7, 25, 11, 17, 5, 8, 10, 19, 19, 16, 25, 33, 30, 31, 28, 28, 37, 34, 38, 38, 45, 37, 55, 52, 46, 59] 0

k\_1000 397

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3046\_7.sm case j3046\_7.sm

v5 31 37.87860131263733 s [59, 75] 0.0 [0, 18, 0, 0, 4, 10, 9, 25, 18, 4, 19, 20, 19, 27, 20, 32, 27, 36, 40, 38, 42, 27, 41, 36, 42, 44, 50, 31, 53, 55, 49, 59] 0

k\_1000 398

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3046\_8.sm case j3046\_8.sm

v5 288 299.6651756763458 s [59, 69] 1.7241379310344827 [0, 0, 0, 0, 7, 12, 1, 7, 20, 8, 12, 33, 17, 12, 15, 25, 27, 33, 31, 29, 34, 17, 36, 43, 41, 44, 39, 41, 54, 50, 50, 59] 0

k\_1000 399

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3046\_9.sm case j3046\_9.sm

v5 357 300.1445815563202 s [50, 68] 2.0408163265306123 [0, 0, 0, 4, 4, 13, 2, 2, 8, 7, 13, 22, 19, 5, 8, 26, 17, 26, 27, 19, 35, 29, 35, 38, 23, 43, 38, 39, 43, 48, 44, 50] 0

k\_1000 400

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3047\_1.sm case j3047\_1.sm

v5 13 9.356757640838623 s [58, 71] 0.0 [0, 0, 0, 0, 8, 8, 17, 21, 17, 14, 31, 21, 7, 33, 14, 23, 31, 37, 34, 37, 37, 40, 44, 41, 51, 48, 42, 51, 56, 48, 51, 58] 0

k\_1000 401

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j3047\_10.sm case j3047\_10.sm

v5 5 5.701857566833496 s [60, 90] 0.0 [0, 0, 0, 0, 4, 5, 5, 12, 4, 16, 12, 12, 20, 27, 16, 10, 22, 33, 27, 26, 34, 43, 30, 41, 48, 31, 41, 44, 50, 54, 50, 60] 0

k\_1000 402

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3047\_2.sm case j3047\_2.sm

v5 3 2.112713098526001 s [59, 81] 0.0 [0, 0, 0, 0, 6, 6, 9, 12, 12, 8, 9, 13, 9, 19, 18, 20, 26, 31, 26, 26, 37, 31, 18, 32, 32, 31, 38, 47, 46, 55, 38, 59] 0

k\_1000 403

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3047\_3.sm case j3047\_3.sm

v5 1 0.8645737171173096 s [55, 69] 0.0 [0, 0, 0, 0, 7, 7, 11, 9, 7, 9, 13, 9, 13, 15, 13, 21, 28, 19, 19, 24, 21, 42, 21, 38, 31, 31, 27, 38, 47, 37, 52, 55] 0

k\_1000 404

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j3047\_4.sm case j3047\_4.sm

v5 89 58.266204595565796 s [49, 87] 0.0 [0, 0, 0, 4, 4, 4, 7, 9, 10, 10, 10, 17, 16, 13, 25, 13, 5, 15, 33, 25, 18, 18, 25, 34, 22, 35, 27, 36, 42, 45, 43, 49] 0

k\_1000 405

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j3047\_5.sm case j3047\_5.sm

v5 0 0.202392578125 s [47, 47] 0.0 [0, 0, 0, 0, 7, 7, 14, 11, 12, 15, 11, 14, 22, 7, 9, 15, 14, 23, 23, 22, 30, 30, 33, 24, 35, 35, 24, 33, 26, 40, 45, 47] 0

k\_1000 406

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j3047\_6.sm case j3047\_6.sm

v5 258 299.5861442089081 s [54, 93] 1.8867924528301887 [0, 0, 0, 15, 4, 5, 5, 12, 16, 11, 15, 9, 9, 13, 16, 22, 22, 19, 30, 43, 26, 38, 33, 33, 32, 26, 35, 46, 45, 48, 43, 54] 0

k\_1000 407

opm 66

the random choice case path in j30 ./rcpsp/j30.sm/j3047\_7.sm case j3047\_7.sm

v5 0 0.3158388137817383 s [64, 66] -3.0303030303030303 [0, 0, 0, 0, 9, 5, 5, 12, 5, 11, 16, 9, 12, 17, 19, 18, 27, 11, 22, 36, 27, 24, 24, 36, 40, 37, 42, 47, 42, 48, 55, 64] 0

k\_1000 408

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j3047\_8.sm case j3047\_8.sm

v5 1 0.8726820945739746 s [48, 63] 0.0 [0, 0, 0, 0, 1, 1, 4, 7, 12, 4, 4, 7, 10, 12, 12, 17, 19, 19, 29, 26, 19, 29, 26, 17, 32, 36, 27, 36, 38, 34, 46, 48] 0

k\_1000 409

opm 65

the random choice case path in j30 ./rcpsp/j30.sm/j3047\_9.sm case j3047\_9.sm

v5 2 2.037689447402954 s [65, 89] 0.0 [0, 0, 0, 0, 9, 10, 19, 10, 4, 9, 10, 16, 27, 23, 33, 19, 19, 28, 29, 35, 44, 43, 19, 44, 31, 52, 54, 54, 48, 60, 59, 65] 0

k\_1000 410

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j3048\_1.sm case j3048\_1.sm

v5 0 0.2738959789276123 s [63, 63] 0.0 [0, 0, 0, 0, 10, 5, 5, 10, 9, 13, 18, 18, 20, 26, 9, 5, 17, 24, 36, 26, 36, 17, 46, 36, 19, 47, 45, 51, 9, 59, 59, 63] 0

k\_1000 411

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3048\_10.sm case j3048\_10.sm

v5 0 0.20109272003173828 s [54, 65] 0.0 [0, 0, 0, 0, 7, 13, 10, 21, 13, 13, 14, 20, 26, 26, 11, 30, 31, 29, 21, 21, 11, 27, 35, 37, 37, 37, 35, 37, 39, 47, 46, 54] 0

k\_1000 412

opm 54

the random choice case path in j30 ./rcpsp/j30.sm/j3048\_2.sm case j3048\_2.sm

v5 0 0.17590928077697754 s [54, 54] 0.0 [0, 0, 0, 0, 6, 9, 1, 9, 2, 9, 11, 16, 6, 13, 16, 16, 20, 6, 20, 25, 25, 20, 26, 26, 26, 34, 41, 43, 41, 47, 13, 54] 0

k\_1000 413

opm 50

the random choice case path in j30 ./rcpsp/j30.sm/j3048\_3.sm case j3048\_3.sm

v5 0 0.174210786819458 s [50, 50] 0.0 [0, 0, 0, 0, 4, 7, 14, 8, 8, 8, 14, 9, 14, 4, 13, 22, 23, 13, 23, 23, 29, 17, 23, 23, 26, 31, 23, 34, 41, 27, 41, 50] 0

k\_1000 414

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j3048\_4.sm case j3048\_4.sm

v5 0 0.19533467292785645 s [57, 67] 0.0 [0, 0, 0, 0, 8, 5, 8, 10, 10, 16, 16, 12, 21, 2, 21, 20, 16, 11, 20, 27, 30, 30, 20, 40, 30, 27, 40, 40, 49, 41, 49, 57] 0

k\_1000 415

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3048\_5.sm case j3048\_5.sm

v5 0 0.3014533519744873 s [58, 67] 0.0 [0, 0, 0, 0, 9, 10, 10, 19, 13, 23, 19, 10, 29, 19, 13, 23, 23, 29, 28, 28, 29, 38, 34, 39, 28, 39, 33, 33, 48, 47, 38, 58] 0

k\_1000 416

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j3048\_6.sm case j3048\_6.sm

v5 0 0.3135526180267334 s [58, 58] 0.0 [0, 0, 0, 0, 5, 6, 5, 10, 18, 9, 10, 14, 17, 17, 5, 27, 18, 14, 27, 37, 47, 18, 23, 23, 22, 32, 31, 47, 31, 42, 48, 58] 0

k\_1000 417

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j3048\_7.sm case j3048\_7.sm

v5 0 0.17214536666870117 s [55, 55] 0.0 [0, 0, 0, 0, 6, 12, 16, 6, 1, 10, 12, 24, 13, 30, 8, 16, 18, 24, 16, 30, 35, 35, 20, 38, 36, 45, 45, 30, 48, 45, 53, 55] 0

k\_1000 418

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j3048\_8.sm case j3048\_8.sm

v5 0 0.16162443161010742 s [44, 68] 0.0 [0, 0, 0, 0, 3, 5, 11, 12, 9, 11, 11, 9, 17, 20, 16, 19, 26, 26, 9, 19, 35, 19, 25, 23, 32, 36, 36, 34, 36, 42, 42, 44] 0

k\_1000 419

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j3048\_9.sm case j3048\_9.sm

v5 0 0.2923901081085205 s [59, 73] 0.0 [0, 0, 0, 0, 6, 6, 5, 13, 15, 5, 5, 16, 22, 22, 22, 18, 17, 31, 18, 28, 28, 37, 37, 40, 40, 46, 22, 30, 49, 49, 49, 59] 0

k\_1000 420

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j304\_1.sm case j304\_1.sm

v5 0 0.2111217975616455 s [49, 84] 0.0 [0, 0, 0, 0, 7, 4, 4, 6, 4, 7, 8, 6, 17, 6, 20, 9, 23, 17, 13, 23, 15, 7, 18, 17, 28, 36, 28, 33, 37, 18, 41, 49] 0

k\_1000 421

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j304\_10.sm case j304\_10.sm

v5 0 0.17187833786010742 s [48, 48] 0.0 [0, 0, 0, 0, 9, 3, 2, 3, 11, 6, 15, 22, 11, 19, 32, 9, 2, 4, 11, 19, 15, 8, 17, 26, 20, 9, 29, 40, 29, 41, 32, 48] 0

k\_1000 422

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j304\_2.sm case j304\_2.sm

v5 0 0.21171307563781738 s [60, 75] 0.0 [0, 0, 0, 0, 5, 8, 5, 8, 13, 8, 5, 6, 13, 21, 6, 28, 8, 28, 20, 34, 37, 47, 13, 21, 29, 47, 36, 41, 52, 51, 34, 60] 0

k\_1000 423

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j304\_3.sm case j304\_3.sm

v5 0 0.16336274147033691 s [47, 47] 0.0 [0, 0, 0, 0, 6, 13, 6, 8, 13, 6, 10, 17, 13, 19, 15, 21, 21, 25, 9, 18, 10, 25, 19, 23, 13, 25, 28, 32, 15, 28, 41, 47] 0

k\_1000 424

opm 57

the random choice case path in j30 ./rcpsp/j30.sm/j304\_4.sm case j304\_4.sm

v5 0 0.32420969009399414 s [57, 110] 0.0 [0, 0, 0, 0, 1, 1, 1, 5, 4, 8, 4, 12, 6, 14, 12, 6, 18, 15, 7, 8, 17, 16, 24, 21, 30, 40, 25, 40, 41, 49, 41, 57] 0

k\_1000 425

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j304\_5.sm case j304\_5.sm

v5 0 0.2716195583343506 s [59, 74] 0.0 [0, 0, 0, 0, 10, 4, 10, 19, 6, 9, 23, 4, 23, 19, 9, 25, 19, 27, 17, 25, 35, 6, 25, 28, 35, 35, 41, 45, 53, 21, 42, 59] 0

k\_1000 426

opm 45

the random choice case path in j30 ./rcpsp/j30.sm/j304\_6.sm case j304\_6.sm

v5 0 0.18991351127624512 s [45, 79] 0.0 [0, 0, 0, 0, 9, 5, 9, 19, 8, 29, 18, 8, 9, 22, 5, 23, 5, 31, 33, 6, 34, 34, 19, 34, 23, 18, 36, 34, 44, 35, 39, 45] 0

k\_1000 427

opm 56

the random choice case path in j30 ./rcpsp/j30.sm/j304\_7.sm case j304\_7.sm

v5 0 0.20311927795410156 s [56, 56] 0.0 [0, 0, 0, 0, 3, 4, 3, 12, 3, 18, 5, 24, 13, 18, 13, 20, 16, 28, 4, 5, 26, 29, 20, 38, 45, 13, 21, 25, 29, 49, 32, 56] 0

k\_1000 428

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j304\_8.sm case j304\_8.sm

v5 0 0.2040691375732422 s [55, 55] 0.0 [0, 0, 0, 0, 8, 6, 9, 15, 9, 8, 11, 10, 15, 25, 6, 11, 11, 17, 26, 10, 34, 20, 18, 37, 26, 25, 34, 39, 46, 28, 39, 55] 0

k\_1000 429

opm 38

the random choice case path in j30 ./rcpsp/j30.sm/j304\_9.sm case j304\_9.sm

v5 0 0.14540958404541016 s [38, 38] 0.0 [0, 0, 0, 0, 4, 4, 10, 4, 8, 8, 12, 8, 12, 12, 8, 6, 20, 6, 13, 16, 7, 29, 10, 6, 19, 19, 22, 21, 24, 28, 35, 38] 0

k\_1000 430

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j305\_1.sm case j305\_1.sm

v5 41 98.1606707572937 s [53, 88] 0.0 [0, 5, 1, 0, 5, 1, 8, 5, 18, 15, 6, 22, 22, 29, 32, 9, 29, 32, 6, 33, 19, 21, 29, 35, 35, 36, 43, 40, 47, 22, 47, 53] 0

k\_1000 431

opm 70

the random choice case path in j30 ./rcpsp/j30.sm/j305\_10.sm case j305\_10.sm

v5 2 6.604803562164307 s [70, 102] 0.0 [0, 0, 0, 0, 3, 18, 27, 22, 27, 13, 45, 35, 52, 4, 41, 13, 36, 41, 50, 25, 18, 54, 13, 50, 54, 3, 35, 27, 63, 53, 56, 70] 0

k\_1000 432

opm 82

the random choice case path in j30 ./rcpsp/j30.sm/j305\_2.sm case j305\_2.sm

v5 1 3.0610811710357666 s [80, 101] -2.4390243902439024 [0, 15, 0, 5, 24, 40, 32, 5, 14, 15, 24, 32, 35, 35, 46, 36, 40, 47, 23, 35, 14, 47, 47, 55, 25, 62, 48, 55, 72, 41, 60, 80] 0

k\_1000 433

opm 76

the random choice case path in j30 ./rcpsp/j30.sm/j305\_3.sm case j305\_3.sm

v5 3 9.908326864242554 s [73, 85] -3.9473684210526314 [0, 6, 0, 0, 6, 4, 14, 25, 24, 16, 24, 33, 23, 38, 16, 25, 39, 4, 38, 32, 43, 46, 47, 51, 47, 32, 49, 55, 46, 49, 64, 73] 0

k\_1000 434

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j305\_4.sm case j305\_4.sm

v5 55 192.82879781723022 s [62, 188] -1.5873015873015872 [0, 0, 0, 6, 31, 16, 15, 22, 10, 34, 22, 15, 19, 15, 43, 25, 16, 48, 25, 31, 29, 25, 29, 39, 38, 44, 48, 46, 53, 53, 55, 62] 0

k\_1000 435

opm 76

the random choice case path in j30 ./rcpsp/j30.sm/j305\_5.sm case j305\_5.sm

v5 110 233.95315861701965 s [76, 114] 0.0 [0, 0, 0, 0, 13, 4, 4, 23, 13, 3, 27, 23, 39, 34, 23, 27, 27, 40, 34, 28, 34, 9, 40, 46, 56, 46, 60, 69, 60, 75, 46, 76] 0

k\_1000 436

opm 64

the random choice case path in j30 ./rcpsp/j30.sm/j305\_6.sm case j305\_6.sm

v5 78 301.3622462749481 s [66, 98] 3.125 [0, 13, 0, 0, 12, 8, 8, 21, 24, 12, 14, 34, 22, 32, 12, 13, 44, 22, 24, 31, 24, 42, 47, 38, 32, 34, 33, 46, 55, 46, 56, 66] 0

k\_1000 437

opm 76

the random choice case path in j30 ./rcpsp/j30.sm/j305\_7.sm case j305\_7.sm

v5 0 1.0149915218353271 s [67, 67] -11.842105263157894 [0, 0, 0, 0, 12, 12, 32, 6, 17, 40, 31, 10, 25, 47, 6, 18, 9, 24, 18, 40, 50, 14, 18, 14, 24, 33, 40, 50, 58, 58, 57, 67] 0

k\_1000 438

opm 67

the random choice case path in j30 ./rcpsp/j30.sm/j305\_8.sm case j305\_8.sm

v5 3 13.345248937606812 s [65, 85] -2.9850746268656714 [0, 0, 0, 0, 1, 9, 1, 1, 9, 9, 18, 19, 18, 9, 29, 37, 40, 29, 26, 44, 34, 51, 51, 51, 38, 37, 38, 44, 54, 61, 55, 65] 0

k\_1000 439

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j305\_9.sm case j305\_9.sm

v5 142 300.58678221702576 s [50, 61] 2.0408163265306123 [0, 0, 0, 0, 4, 11, 10, 14, 1, 14, 32, 10, 23, 4, 11, 17, 39, 27, 27, 17, 23, 11, 11, 30, 14, 32, 27, 40, 40, 32, 48, 50] 0

k\_1000 440

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j306\_1.sm case j306\_1.sm

v5 29 41.666475772857666 s [59, 64] 0.0 [0, 0, 0, 0, 15, 10, 10, 24, 26, 17, 29, 34, 24, 15, 17, 41, 19, 33, 40, 24, 50, 32, 45, 34, 22, 24, 40, 40, 49, 49, 56, 59] 0

k\_1000 441

opm 61

the random choice case path in j30 ./rcpsp/j30.sm/j306\_10.sm case j306\_10.sm

v5 37 60.561466217041016 s [60, 83] -1.639344262295082 [0, 0, 0, 0, 5, 10, 4, 12, 15, 20, 10, 15, 6, 20, 15, 20, 26, 22, 36, 5, 28, 28, 44, 31, 22, 29, 39, 38, 39, 51, 25, 60] 0

k\_1000 442

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j306\_2.sm case j306\_2.sm

v5 4 9.122403144836426 s [51, 61] 0.0 [0, 0, 7, 0, 1, 4, 13, 4, 13, 13, 15, 32, 21, 16, 23, 13, 28, 29, 7, 24, 29, 24, 32, 17, 43, 35, 39, 44, 46, 39, 49, 51] 0

k\_1000 443

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j306\_3.sm case j306\_3.sm

v5 0 0.5257444381713867 s [48, 57] 0.0 [0, 15, 0, 0, 6, 3, 13, 14, 14, 14, 3, 20, 6, 15, 21, 31, 21, 24, 13, 38, 26, 30, 22, 21, 41, 20, 28, 38, 42, 41, 31, 48] 0

k\_1000 444

opm 42

the random choice case path in j30 ./rcpsp/j30.sm/j306\_4.sm case j306\_4.sm

v5 1 1.5231914520263672 s [42, 57] 0.0 [0, 0, 0, 0, 1, 1, 1, 8, 7, 14, 5, 22, 16, 23, 14, 15, 28, 22, 21, 14, 5, 24, 30, 30, 24, 34, 31, 30, 35, 35, 34, 42] 0

k\_1000 445

opm 67

the random choice case path in j30 ./rcpsp/j30.sm/j306\_5.sm case j306\_5.sm

v5 0 0.6596677303314209 s [58, 61] -13.432835820895523 [0, 0, 0, 0, 9, 4, 19, 9, 9, 26, 14, 4, 13, 22, 14, 14, 25, 13, 33, 1, 26, 34, 41, 26, 34, 48, 43, 34, 57, 42, 53, 58] 0

k\_1000 446

opm 37

the random choice case path in j30 ./rcpsp/j30.sm/j306\_6.sm case j306\_6.sm

v5 65 56.37932109832764 s [37, 41] 0.0 [0, 0, 0, 0, 1, 8, 12, 5, 4, 19, 8, 16, 1, 12, 15, 12, 2, 22, 19, 2, 4, 8, 15, 27, 16, 22, 27, 28, 29, 34, 30, 37] 0

k\_1000 447

opm 46

the random choice case path in j30 ./rcpsp/j30.sm/j306\_7.sm case j306\_7.sm

v5 8 8.233865976333618 s [46, 46] 0.0 [0, 0, 0, 0, 7, 7, 20, 8, 11, 11, 26, 11, 20, 8, 13, 13, 31, 37, 19, 26, 22, 31, 31, 31, 38, 35, 38, 2, 42, 41, 43, 46] 0

k\_1000 448

opm 39

the random choice case path in j30 ./rcpsp/j30.sm/j306\_8.sm case j306\_8.sm

v5 32 40.77354693412781 s [39, 61] 0.0 [0, 0, 0, 0, 5, 2, 7, 12, 13, 5, 26, 16, 2, 10, 7, 23, 17, 13, 12, 22, 26, 16, 22, 17, 26, 22, 31, 22, 37, 33, 37, 39] 0

k\_1000 449

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j306\_9.sm case j306\_9.sm

v5 1 1.3466260433197021 s [48, 81] -5.88235294117647 [0, 0, 0, 0, 9, 10, 6, 13, 6, 17, 17, 19, 17, 20, 16, 13, 24, 10, 22, 9, 24, 17, 31, 32, 13, 22, 35, 24, 40, 30, 32, 48] 0

k\_1000 450

opm 55

the random choice case path in j30 ./rcpsp/j30.sm/j307\_1.sm case j307\_1.sm

v5 0 0.2643771171569824 s [55, 79] 0.0 [0, 0, 0, 0, 8, 6, 12, 8, 10, 16, 12, 13, 20, 14, 14, 26, 2, 29, 23, 16, 13, 14, 26, 29, 24, 35, 35, 6, 24, 30, 45, 55] 0

k\_1000 451

opm 49

the random choice case path in j30 ./rcpsp/j30.sm/j307\_10.sm case j307\_10.sm

v5 0 0.2525827884674072 s [49, 54] 0.0 [0, 0, 0, 0, 4, 10, 17, 10, 15, 17, 10, 10, 20, 10, 18, 15, 21, 29, 18, 18, 32, 17, 26, 40, 29, 34, 42, 45, 41, 47, 21, 49] 0

k\_1000 452

opm 42

the random choice case path in j30 ./rcpsp/j30.sm/j307\_2.sm case j307\_2.sm

v5 1 0.8634731769561768 s [42, 46] 0.0 [0, 0, 0, 0, 7, 16, 8, 14, 7, 3, 9, 17, 16, 7, 20, 14, 3, 19, 14, 19, 19, 25, 17, 27, 31, 12, 8, 25, 31, 28, 41, 42] 0

k\_1000 453

opm 42

the random choice case path in j30 ./rcpsp/j30.sm/j307\_3.sm case j307\_3.sm

v5 3 2.581465005874634 s [42, 66] 0.0 [0, 0, 4, 0, 4, 12, 4, 9, 14, 11, 14, 13, 14, 20, 13, 16, 24, 4, 26, 17, 30, 32, 25, 20, 26, 30, 30, 35, 36, 35, 36, 42] 0

k\_1000 454

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j307\_4.sm case j307\_4.sm

v5 1 1.2038743495941162 s [44, 44] 0.0 [0, 0, 0, 0, 5, 9, 11, 11, 7, 16, 7, 14, 14, 7, 17, 18, 22, 11, 18, 27, 21, 22, 23, 24, 18, 26, 27, 31, 37, 31, 33, 44] 0

k\_1000 455

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j307\_5.sm case j307\_5.sm

v5 0 0.40273141860961914 s [44, 58] 0.0 [0, 0, 0, 0, 1, 11, 1, 1, 9, 6, 9, 3, 13, 9, 14, 13, 3, 16, 17, 23, 14, 30, 20, 9, 26, 26, 26, 34, 32, 35, 39, 44] 0

k\_1000 456

opm 35

the random choice case path in j30 ./rcpsp/j30.sm/j307\_6.sm case j307\_6.sm

v5 0 0.3469691276550293 s [35, 43] 0.0 [0, 0, 0, 0, 5, 3, 8, 8, 10, 1, 10, 6, 11, 1, 8, 6, 11, 6, 13, 10, 10, 10, 18, 13, 13, 13, 18, 23, 20, 28, 21, 35] 0

k\_1000 457

opm 50

the random choice case path in j30 ./rcpsp/j30.sm/j307\_7.sm case j307\_7.sm

v5 2 1.4212288856506348 s [50, 57] 0.0 [0, 0, 0, 0, 1, 4, 14, 1, 5, 14, 5, 22, 31, 15, 8, 24, 34, 32, 38, 24, 2, 6, 19, 34, 35, 16, 39, 34, 38, 41, 46, 50] 0

k\_1000 458

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j307\_8.sm case j307\_8.sm

v5 0 0.2765622138977051 s [43, 72] -2.272727272727273 [0, 0, 0, 0, 8, 3, 7, 14, 3, 14, 22, 8, 26, 7, 3, 31, 17, 35, 19, 15, 31, 31, 37, 31, 7, 27, 7, 19, 35, 38, 42, 43] 0

k\_1000 459

opm 60

the random choice case path in j30 ./rcpsp/j30.sm/j307\_9.sm case j307\_9.sm

v5 0 0.4579432010650635 s [60, 60] 0.0 [0, 0, 0, 0, 9, 9, 2, 9, 12, 14, 12, 10, 18, 24, 11, 24, 27, 2, 37, 18, 13, 18, 19, 24, 32, 11, 46, 19, 22, 37, 56, 60] 0

k\_1000 460

opm 44

the random choice case path in j30 ./rcpsp/j30.sm/j308\_1.sm case j308\_1.sm

v5 0 0.2429063320159912 s [44, 62] 0.0 [0, 0, 0, 0, 7, 7, 6, 9, 9, 11, 8, 9, 9, 10, 8, 16, 9, 7, 10, 11, 16, 16, 18, 16, 25, 18, 23, 19, 27, 25, 34, 44] 0

k\_1000 461

opm 67

the random choice case path in j30 ./rcpsp/j30.sm/j308\_10.sm case j308\_10.sm

v5 0 0.18224000930786133 s [67, 67] 0.0 [0, 0, 0, 0, 2, 9, 9, 7, 16, 22, 29, 36, 16, 16, 9, 29, 39, 25, 36, 22, 40, 29, 35, 39, 45, 42, 41, 51, 43, 22, 60, 67] 0

k\_1000 462

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j308\_2.sm case j308\_2.sm

v5 0 0.20641493797302246 s [51, 67] 0.0 [0, 0, 0, 0, 6, 9, 17, 6, 5, 13, 5, 15, 13, 14, 14, 21, 21, 23, 19, 5, 23, 19, 13, 30, 14, 36, 44, 30, 23, 50, 35, 51] 0

k\_1000 463

opm 53

the random choice case path in j30 ./rcpsp/j30.sm/j308\_3.sm case j308\_3.sm

v5 0 0.17369699478149414 s [53, 53] 0.0 [0, 0, 0, 0, 9, 16, 5, 5, 9, 4, 17, 14, 4, 17, 23, 14, 17, 14, 9, 20, 19, 29, 35, 14, 27, 29, 42, 20, 45, 36, 23, 53] 0

k\_1000 464

opm 48

the random choice case path in j30 ./rcpsp/j30.sm/j308\_4.sm case j308\_4.sm

v5 0 0.21607184410095215 s [48, 48] 0.0 [0, 0, 0, 0, 2, 6, 2, 10, 12, 8, 5, 12, 5, 15, 10, 2, 14, 22, 19, 12, 6, 14, 12, 22, 26, 29, 15, 36, 38, 19, 44, 48] 0

k\_1000 465

opm 58

the random choice case path in j30 ./rcpsp/j30.sm/j308\_5.sm case j308\_5.sm

v5 0 0.23242473602294922 s [58, 58] 0.0 [0, 0, 0, 0, 3, 1, 5, 1, 9, 15, 5, 6, 3, 5, 9, 13, 18, 26, 26, 11, 1, 30, 17, 15, 30, 34, 43, 23, 32, 17, 52, 58] 0

k\_1000 466

opm 47

the random choice case path in j30 ./rcpsp/j30.sm/j308\_6.sm case j308\_6.sm

v5 0 0.1820530891418457 s [47, 58] 0.0 [0, 0, 0, 0, 4, 1, 4, 5, 6, 11, 11, 19, 19, 1, 13, 4, 13, 13, 27, 19, 10, 27, 23, 29, 30, 34, 5, 15, 25, 21, 44, 47] 0

k\_1000 467

opm 41

the random choice case path in j30 ./rcpsp/j30.sm/j308\_7.sm case j308\_7.sm

v5 0 0.2736477851867676 s [41, 61] 0.0 [0, 0, 0, 0, 7, 4, 12, 4, 4, 7, 4, 10, 18, 13, 6, 21, 14, 4, 18, 12, 12, 11, 14, 18, 22, 23, 19, 29, 26, 17, 31, 41] 0

k\_1000 468

opm 51

the random choice case path in j30 ./rcpsp/j30.sm/j308\_8.sm case j308\_8.sm

v5 0 0.17339706420898438 s [51, 51] 0.0 [0, 0, 0, 0, 3, 3, 4, 13, 9, 13, 3, 18, 18, 9, 13, 25, 32, 25, 18, 4, 19, 30, 10, 18, 21, 29, 36, 36, 40, 46, 30, 51] 0

k\_1000 469

opm 39

the random choice case path in j30 ./rcpsp/j30.sm/j308\_9.sm case j308\_9.sm

v5 0 0.16373348236083984 s [39, 39] 0.0 [0, 0, 0, 0, 6, 4, 1, 4, 14, 11, 11, 1, 5, 6, 6, 14, 10, 14, 20, 15, 20, 10, 23, 1, 14, 15, 23, 30, 23, 21, 31, 39] 0

k\_1000 470

opm 83

the random choice case path in j30 ./rcpsp/j30.sm/j309\_1.sm case j309\_1.sm

v5 3 15.858815670013428 s [83, 87] 0.0 [0, 0, 0, 0, 26, 44, 8, 9, 10, 15, 6, 15, 21, 21, 31, 38, 37, 9, 54, 31, 58, 67, 42, 14, 25, 49, 30, 10, 75, 75, 58, 83] 0

k\_1000 471

opm 88

the random choice case path in j30 ./rcpsp/j30.sm/j309\_10.sm case j309\_10.sm

v5 12 124.42745518684387 s [88, 103] 0.0 [0, 0, 0, 18, 12, 18, 7, 20, 9, 25, 35, 29, 13, 44, 52, 44, 35, 59, 75, 21, 60, 52, 39, 69, 60, 29, 75, 76, 86, 76, 84, 88] 0

k\_1000 472

opm 92

the random choice case path in j30 ./rcpsp/j30.sm/j309\_2.sm case j309\_2.sm

v5 0 0.9737403392791748 s [92, 190] 0.0 [0, 0, 6, 15, 22, 22, 28, 13, 37, 43, 13, 37, 41, 54, 60, 43, 51, 13, 66, 51, 29, 75, 66, 66, 83, 87, 74, 22, 88, 29, 75, 92] 0

k\_1000 473

opm 68

the random choice case path in j30 ./rcpsp/j30.sm/j309\_3.sm case j309\_3.sm

v5 63 298.94903087615967 s [74, 101] 8.823529411764707 [0, 11, 0, 51, 21, 8, 25, 25, 35, 8, 11, 12, 28, 12, 21, 27, 59, 66, 32, 42, 45, 59, 51, 38, 38, 61, 45, 61, 61, 66, 68, 74] 0

k\_1000 474

opm 71

the random choice case path in j30 ./rcpsp/j30.sm/j309\_4.sm case j309\_4.sm

v5 59 268.17500615119934 s [71, 114] 0.0 [0, 0, 5, 0, 21, 19, 10, 19, 5, 19, 23, 19, 10, 45, 31, 24, 52, 62, 24, 34, 25, 45, 13, 63, 35, 36, 54, 29, 27, 70, 63, 71] 0

k\_1000 475

opm 70

the random choice case path in j30 ./rcpsp/j30.sm/j309\_5.sm case j309\_5.sm

v5 9 20.122248649597168 s [70, 126] 0.0 [0, 1, 1, 0, 10, 23, 10, 18, 14, 17, 31, 36, 21, 30, 31, 38, 36, 36, 14, 18, 45, 55, 33, 61, 36, 65, 44, 61, 66, 50, 68, 70] 0

k\_1000 476

opm 59

the random choice case path in j30 ./rcpsp/j30.sm/j309\_6.sm case j309\_6.sm

v5 9 32.75030207633972 s [59, 99] 0.0 [0, 0, 1, 19, 11, 12, 1, 37, 15, 34, 10, 44, 11, 1, 26, 32, 11, 25, 48, 36, 26, 39, 26, 55, 19, 28, 44, 48, 57, 54, 58, 59] 0

k\_1000 477

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j309\_7.sm case j309\_7.sm

v5 88 301.34596371650696 s [65, 178] 3.1746031746031744 [0, 0, 12, 4, 4, 13, 16, 20, 4, 38, 23, 28, 13, 16, 12, 38, 21, 56, 49, 41, 41, 47, 36, 26, 56, 60, 46, 48, 49, 56, 62, 65] 0

k\_1000 478

opm 91

the random choice case path in j30 ./rcpsp/j30.sm/j309\_8.sm case j309\_8.sm

v5 8 53.4700391292572 s [91, 104] 0.0 [0, 0, 6, 0, 10, 16, 16, 39, 26, 30, 16, 33, 50, 6, 30, 40, 24, 50, 58, 68, 68, 74, 80, 10, 80, 58, 68, 40, 86, 76, 90, 91] 0

k\_1000 479

opm 63

the random choice case path in j30 ./rcpsp/j30.sm/j309\_9.sm case j309\_9.sm

v5 28 63.802321672439575 s [60, 86] -4.761904761904762 [0, 7, 7, 0, 22, 12, 7, 40, 12, 30, 11, 25, 25, 29, 27, 14, 25, 37, 40, 21, 31, 37, 40, 42, 56, 45, 51, 52, 56, 47, 58, 60] 0

aver\_result\_480\_time 41.52800423055887

aver\_result\_480\_deviation -0.28903519102529884

Process finished with exit code 0