OUTPUT OF cs.colgen.V2.2\_greaterequal   
FOR cs1.dat

Number of Large Rolls = 2572

x(1)=97

x(2)=610

x(3)=395

x(4)=211

x(5)=150

x(6)=225

x(7)=89

x(8)=795

Z = [0,0,0,0,0,0,0,25]

Number of Large Rolls = 1808.8

x(1)=97

x(2)=610

x(3)=395

x(4)=211

x(5)=150

x(6)=225

x(7)=89

x(8)=0

x(9)=31.8

Z = [0,0,0,0,0,1,20,0]

Number of Large Rolls = 1719.8

x(1)=97

x(2)=610

x(3)=395

x(4)=211

x(5)=150

x(6)=220.55

x(7)=0

x(8)=0

x(9)=31.8

x(10)=4.45

Z = [0,0,0,0,0,15,0,0]

Number of Large Rolls = 1513.95

x(1)=97

x(2)=610

x(3)=395

x(4)=211

x(5)=150

x(6)=0

x(7)=0

x(8)=0

x(9)=31.8

x(10)=4.45

x(11)=14.7033

Z = [0,0,0,0,12,0,0,1]

Number of Large Rolls = 1375.95

x(1)=97

x(2)=610

x(3)=395

x(4)=211

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=31.3

x(10)=4.45

x(11)=14.7033

x(12)=12.5

Z = [0,0,0,10,0,1,0,0]

Number of Large Rolls = 1184.65

x(1)=97

x(2)=610

x(3)=395

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=31.3

x(10)=4.45

x(11)=13.2967

x(12)=12.5

x(13)=21.1

Z = [0,0,4,1,1,0,0,0]

Number of Large Rolls = 871.28

x(1)=97

x(2)=610

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=31.6292

x(10)=4.45

x(11)=13.955

x(12)=4.27083

x(13)=11.225

x(14)=98.75

Z = [0,4,0,0,0,0,0,1]

Number of Large Rolls = 407.68

x(1)=97

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=25.5292

x(10)=4.45

x(11)=13.955

x(12)=4.27083

x(13)=11.225

x(14)=98.75

x(15)=152.5

Z = [3,0,0,1,0,0,0,0]

Number of Large Rolls = 339.996

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=25.5292

x(10)=4.45

x(11)=14.1706

x(12)=4.27083

x(13)=7.99167

x(14)=98.75

x(15)=152.5

x(16)=32.3333

Z = [2,1,0,1,0,1,0,0]

Number of Large Rolls = 339.78

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=26.0142

x(10)=4.45

x(11)=11.045

x(12)=4.27083

x(13)=6.375

x(14)=98.75

x(15)=140.375

x(16)=0

x(17)=48.5

===============

LP:

selected pattern: x(9) = 26.0142 small rolls

selected pattern: x(10) = 4.45 small rolls

selected pattern: x(11) = 11.045 small rolls

selected pattern: x(12) = 4.27083 small rolls

selected pattern: x(13) = 6.375 small rolls

selected pattern: x(14) = 98.75 small rolls

selected pattern: x(15) = 140.375 small rolls

selected pattern: x(17) = 48.5 small rolls

total number of big rolls = 339.78

total waste = 0

Round Up:

selected pattern: x(9) = 27 small rolls

selected pattern: x(10) = 5 small rolls

selected pattern: x(11) = 12 small rolls

selected pattern: x(12) = 5 small rolls

selected pattern: x(13) = 7 small rolls

selected pattern: x(14) = 99 small rolls

selected pattern: x(15) = 141 small rolls

selected pattern: x(17) = 49 small rolls

total number of big rolls = 345

total waste = 0

IP:

selected pattern: x(9) = 26 small rolls

selected pattern: x(10) = 5 small rolls

selected pattern: x(11) = 12 small rolls

selected pattern: x(12) = 5 small rolls

selected pattern: x(13) = 7 small rolls

selected pattern: x(14) = 99 small rolls

selected pattern: x(15) = 144 small rolls

selected pattern: x(16) = 10 small rolls

selected pattern: x(17) = 34 small rolls

total number of big rolls = 342

total waste = 10

FOR cs2.dat

Number of Large Rolls = 601

x(1)=60

x(2)=72

x(3)=81

x(4)=92

x(5)=100

x(6)=98

x(7)=55

x(8)=43

Z = [26,0,0,0,0,0,0,0]

Number of Large Rolls = 543.308

x(1)=0

x(2)=72

x(3)=81

x(4)=92

x(5)=100

x(6)=98

x(7)=55

x(8)=43

x(9)=2.30769

Z = [0,20,0,0,0,0,0,0]

Number of Large Rolls = 474.908

x(1)=0

x(2)=0

x(3)=81

x(4)=92

x(5)=100

x(6)=98

x(7)=55

x(8)=43

x(9)=2.30769

x(10)=3.6

Z = [0,0,16,0,0,0,0,0]

Number of Large Rolls = 398.97

x(1)=0

x(2)=0

x(3)=0

x(4)=92

x(5)=100

x(6)=98

x(7)=55

x(8)=43

x(9)=2.30769

x(10)=3.6

x(11)=5.0625

Z = [0,0,0,12,1,0,0,0]

Number of Large Rolls = 306.97

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=92.3333

x(6)=98

x(7)=55

x(8)=43

x(9)=2.30769

x(10)=3.6

x(11)=5.0625

x(12)=7.66667

Z = [1,0,0,0,11,0,0,0]

Number of Large Rolls = 222.708

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=98

x(7)=55

x(8)=43

x(9)=1.98485

x(10)=3.6

x(11)=5.0625

x(12)=7.66667

x(13)=8.39394

Z = [0,0,0,0,0,10,0,0]

Number of Large Rolls = 134.508

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=55

x(8)=43

x(9)=1.98485

x(10)=3.6

x(11)=5.0625

x(12)=7.66667

x(13)=8.39394

x(14)=9.8

Z = [1,0,1,0,0,0,8,0]

Number of Large Rolls = 85.6888

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=43

x(9)=1.72043

x(10)=3.6

x(11)=4.63281

x(12)=7.66667

x(13)=8.39394

x(14)=9.8

x(15)=6.875

Z = [0,0,0,0,0,0,0,8]

Number of Large Rolls = 48.0638

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=1.72043

x(10)=3.6

x(11)=4.63281

x(12)=7.66667

x(13)=8.39394

x(14)=9.8

x(15)=6.875

x(16)=5.375

Z = [25,0,1,0,0,0,0,0]

Number of Large Rolls = 48.0208

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=0

x(10)=3.6

x(11)=4.52098

x(12)=7.66667

x(13)=8.39394

x(14)=9.8

x(15)=6.875

x(16)=5.375

x(17)=1.78924

Z = [1,0,1,12,0,0,0,0]

Number of Large Rolls = 47.925

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=0

x(10)=3.6

x(11)=4.06273

x(12)=0

x(13)=9.09091

x(14)=9.8

x(15)=6.875

x(16)=5.375

x(17)=1.4547

x(18)=7.66667

===============

LP:

selected pattern: x(10) = 3.6 small rolls

selected pattern: x(11) = 4.06273 small rolls

selected pattern: x(13) = 9.09091 small rolls

selected pattern: x(14) = 9.8 small rolls

selected pattern: x(15) = 6.875 small rolls

selected pattern: x(16) = 5.375 small rolls

selected pattern: x(17) = 1.4547 small rolls

selected pattern: x(18) = 7.66667 small rolls

total number of big rolls = 47.925

total waste = 0

Round Up:

selected pattern: x(10) = 4 small rolls

selected pattern: x(11) = 5 small rolls

selected pattern: x(13) = 10 small rolls

selected pattern: x(14) = 10 small rolls

selected pattern: x(15) = 7 small rolls

selected pattern: x(16) = 6 small rolls

selected pattern: x(17) = 2 small rolls

selected pattern: x(18) = 8 small rolls

total number of big rolls = 52

total waste = 0

IP:

selected pattern: x(5) = 1 small rolls

selected pattern: x(10) = 4 small rolls

selected pattern: x(11) = 4 small rolls

selected pattern: x(13) = 9 small rolls

selected pattern: x(14) = 10 small rolls

selected pattern: x(15) = 7 small rolls

selected pattern: x(16) = 6 small rolls

selected pattern: x(17) = 2 small rolls

selected pattern: x(18) = 8 small rolls

total number of big rolls = 51

total waste = 73

FOR cs3.dat

Number of Large Rolls = 137

x(1)=17

x(2)=25

x(3)=40

x(4)=55

x(5)=0

x(6)=0

x(7)=0

x(8)=0

Z = [0,0,0,17,0,0,0,0]

Number of Large Rolls = 85.2353

x(1)=17

x(2)=25

x(3)=40

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=3.23529

Z = [0,0,8,0,0,0,0,0]

Number of Large Rolls = 50.2353

x(1)=17

x(2)=25

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=3.23529

x(10)=5

Z = [0,6,1,0,0,0,0,0]

Number of Large Rolls = 28.8811

x(1)=17

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=3.23529

x(10)=4.47917

x(11)=4.16667

Z = [5,0,0,1,0,0,0,0]

Number of Large Rolls = 15.0811

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=3.03529

x(10)=4.47917

x(11)=4.16667

x(12)=3.4

Z = [4,0,0,5,0,0,0,0]

Number of Large Rolls = 14.8811

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=1.98529

x(10)=4.47917

x(11)=4.16667

x(12)=0

x(13)=4.25

Z = [0,1,1,13,0,0,0,0]

Number of Large Rolls = 14.7889

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=0

x(10)=4.20873

x(11)=3.73397

x(12)=0

x(13)=4.25

x(14)=2.59615

Z = [0,5,0,5,0,0,0,0]

Number of Large Rolls = 14.7422

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=0

x(10)=4.90885

x(11)=0

x(12)=0

x(13)=4.25

x(14)=0.729167

x(15)=4.85417

Z = [0,1,6,2,0,0,0,0]

Number of Large Rolls = 14.7007

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=0

x(10)=0

x(11)=0

x(12)=0

x(13)=4.25

x(14)=0.176056

x(15)=3.63732

x(16)=6.63732

Z = [0,0,4,9,0,0,0,0]

Number of Large Rolls = 14.7

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=0

x(10)=0

x(11)=0

x(12)=0

x(13)=4.25

x(14)=0

x(15)=3.7

x(16)=6.5

x(17)=0.25

===============

LP:

selected pattern: x(13) = 4.25 small rolls

selected pattern: x(15) = 3.7 small rolls

selected pattern: x(16) = 6.5 small rolls

selected pattern: x(17) = 0.25 small rolls

total number of big rolls = 14.7

total waste = -1.13687e-13

Round Up:

selected pattern: x(13) = 5 small rolls

selected pattern: x(15) = 4 small rolls

selected pattern: x(16) = 7 small rolls

selected pattern: x(17) = 1 small rolls

total number of big rolls = 17

total waste = 0

IP:

selected pattern: x(10) = 1 small rolls

selected pattern: x(11) = 2 small rolls

selected pattern: x(12) = 2 small rolls

selected pattern: x(13) = 2 small rolls

selected pattern: x(15) = 2 small rolls

selected pattern: x(16) = 3 small rolls

selected pattern: x(17) = 3 small rolls

total number of big rolls = 15

total waste = 30

FOR kant1.dat

Number of Large Rolls = 115

x(1)=25

x(2)=50

x(3)=10

x(4)=30

x(5)=0

x(6)=0

x(7)=0

x(8)=0

Z = [15,0,0,0,0,0,0,0]

Number of Large Rolls = 91.6667

x(1)=0

x(2)=50

x(3)=10

x(4)=30

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=1.66667

Z = [0,7,0,0,0,0,0,0]

Number of Large Rolls = 48.8095

x(1)=0

x(2)=0

x(3)=10

x(4)=30

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=1.66667

x(10)=7.14286

Z = [0,1,3,1,0,0,0,0]

Number of Large Rolls = 34.5238

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=1.66667

x(10)=2.85714

x(11)=30

Z = [0,0,0,4,0,0,0,0]

Number of Large Rolls = 18.3333

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=1.66667

x(10)=6.66667

x(11)=3.33333

x(12)=6.66667

Z = [0,2,0,3,0,0,0,0]

Number of Large Rolls = 18.0159

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=1.66667

x(10)=4.12698

x(11)=3.33333

x(12)=0

x(13)=8.88889

Z = [1,5,0,1,0,0,0,0]

Number of Large Rolls = 17.8889

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=1.22222

x(10)=0

x(11)=3.33333

x(12)=0

x(13)=6.66667

x(14)=6.66667

Z = [0,4,1,1,0,0,0,0]

Number of Large Rolls = 17.8736

x(1)=0

x(2)=0

x(3)=0

x(4)=0

x(5)=0

x(6)=0

x(7)=0

x(8)=0

x(9)=1.66667

x(10)=0

x(11)=0.344828

x(12)=0

x(13)=6.89655

x(14)=0

x(15)=8.96552

===============

LP:

selected pattern: x(9) = 1.66667 small rolls

selected pattern: x(11) = 0.344828 small rolls

selected pattern: x(13) = 6.89655 small rolls

selected pattern: x(15) = 8.96552 small rolls

total number of big rolls = 17.8736

total waste = 7.24138

Round Up:

selected pattern: x(9) = 2 small rolls

selected pattern: x(11) = 1 small rolls

selected pattern: x(13) = 7 small rolls

selected pattern: x(15) = 9 small rolls

total number of big rolls = 19

total waste = 8

IP:

selected pattern: x(9) = 2 small rolls

selected pattern: x(11) = 1 small rolls

selected pattern: x(13) = 7 small rolls

selected pattern: x(15) = 9 small rolls

total number of big rolls = 19

total waste = 8