pvec: [3.18893189 6.27124987 2.22112546 1.47919731 0.87348005 2.96821423

6.10530066 3.79836755 6.11363481 5.52379821 1.69065155 5.11802006

5.74336996 4.01688969 5.67435184]

param: [1.08473444 0.29264339 4.82515809]

Prob: 0.5269915621705298

[0.52699156 1.08473444 0.29264339 4.82515809]

target state purity: 0.8800075

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p[i] 0.5269915621705298

p[i] 0.4730084378294702

hsd actual: 0.3968335843567108

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prob: 0.5269915621705298

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.5269915621705298

p[i] 0.4730084378294702

hsd: 0.38845000514654426

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p[i] 0.3819660112501051

p[i] 0.6180339887498949

hsd actual: 0.33667344298648394

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prob: 0.3819660112501051

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.3819660112501051

p[i] 0.6180339887498949

hsd: 0.3758135136559493

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p[i] 0.6180339887498948

p[i] 0.3819660112501052

hsd actual: 0.47614240409335995

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prob: 0.6180339887498948

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.6180339887498948

p[i] 0.3819660112501052

hsd: 0.43749807617664427

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p[i] 0.2360679774997897

p[i] 0.7639320225002103

hsd actual: 0.3642940549854796

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prob: 0.2360679774997897

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.2360679774997897

p[i] 0.7639320225002103

hsd: 0.45899286465855504

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p[i] 0.4399775394146542

p[i] 0.5600224605853459

hsd actual: 0.35058718610026074

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prob: 0.4399775394146542

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.4399775394146542

p[i] 0.5600224605853459

hsd: 0.3718831551159416

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p[i] 0.4293025964148184

p[i] 0.5706974035851816

hsd actual: 0.3498052020688378

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prob: 0.4293025964148184

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.4293025964148184

p[i] 0.5706974035851816

hsd: 0.3718486525066975

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.3496903664292039

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prob: 0.4335623720564886

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3702063059381602

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p[i] 0.4346134017412952

p[i] 0.5653865982587047

hsd actual: 0.3490255771564774

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prob: 0.4346134017412952

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.4346134017412952

p[i] 0.5653865982587047

hsd: 0.371570876236079

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p[i] 0.43204048081873725

p[i] 0.5679595191812628

hsd actual: 0.34868625144731924

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prob: 0.43204048081873725

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.43204048081873725

p[i] 0.5679595191812628

hsd: 0.3738448654482227

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p[i] 0.43298106133084824

p[i] 0.5670189386691518

hsd actual: 0.34841731081037475

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prob: 0.43298106133084824

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.43298106133084824

p[i] 0.5670189386691518

hsd: 0.37238328327846326

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p[i] 0.4339638296728996

p[i] 0.5660361703271004

hsd actual: 0.34976771108995064

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prob: 0.4339638296728996

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.4339638296728996

p[i] 0.5660361703271004

hsd: 0.37196907155392167

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p[i] 0.43334033111731884

p[i] 0.5666596688826812

hsd actual: 0.3488987215814887

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prob: 0.43334033111731884

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.43334033111731884

p[i] 0.5666596688826812

hsd: 0.3752426227239243

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p[i] 0.4337157152209151

p[i] 0.5662842847790849

hsd actual: 0.34932904965988243

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prob: 0.4337157152209151

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.4337157152209151

p[i] 0.5662842847790849

hsd: 0.3769563395558051

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p[i] 0.4334775599646197

p[i] 0.5665224400353803

hsd actual: 0.3497560798037249

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prob: 0.4334775599646197

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.4334775599646197

p[i] 0.5665224400353803

hsd: 0.3762852288898346

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p[i] 0.43362094393335704

p[i] 0.566379056066643

hsd actual: 0.3493508714313711

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prob: 0.43362094393335704

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.43362094393335704

p[i] 0.566379056066643

hsd: 0.3771636959232947

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p[i] 0.4335290373373764

p[i] 0.5664709626626236

hsd actual: 0.34955993882098135

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prob: 0.4335290373373764

param: [1.08473444 0.29264339 4.82515809]

p[i] 0.4335290373373764

p[i] 0.5664709626626236

hsd: 0.37606855873083544

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.3262113087139671

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prob: 0.4335623720564886

param: [2.39996323 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3616890020358021

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.29491918595257305

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prob: 0.4335623720564886

param: [3.88322208 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.33899390833029863

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.30443305427408407

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prob: 0.4335623720564886

param: [4.79992646 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.34034923594034616

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.29753682849354757

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prob: 0.4335623720564886

param: [4.23584007 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.335233538588696

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.297563403544725

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prob: 0.4335623720564886

param: [4.30723286 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.33665530382668707

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2961549258323224

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prob: 0.4335623720564886

param: [4.13346641 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3346355999372044

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2973508031353056

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prob: 0.4335623720564886

param: [4.14859632 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.33447614963013983

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.29631437613938694

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prob: 0.4335623720564886

param: [4.16909816 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.33475518766750256

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2966067017023384

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prob: 0.4335623720564886

param: [4.14880626 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.33543285147252644

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.29739066571207173

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prob: 0.4335623720564886

param: [4.14281721 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.33592448991930834

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.29741724076324916

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prob: 0.4335623720564886

param: [4.1463889 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3331075344945036

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.29644725139527384

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prob: 0.4335623720564886

param: [4.14502464 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.33390478602982565

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2954506869761213

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prob: 0.4335623720564886

param: [4.14657328 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3342236866439545

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.29765641622384575

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prob: 0.4335623720564886

param: [4.14577494 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.33520696353751855

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2960220505764355

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prob: 0.4335623720564886

param: [4.14615439 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3365888661987435

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2962479385114434

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prob: 0.4335623720564886

param: [4.14629932 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.33676160403139654

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2969654648932334

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prob: 0.4335623720564886

param: [4.14645932 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3372931050549448

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2973375156097169

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prob: 0.4335623720564886

param: [4.14635468 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3348083377698574

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.29561013728318564

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prob: 0.4335623720564886

param: [4.14642228 0.29264339 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.33616366537990494

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.3760926797739552

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prob: 0.4335623720564886

param: [4.1463889 2.39996323 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.39788422173942717

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.5011814456659986

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prob: 0.4335623720564886

param: [4.1463889 3.88322208 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.4948167209090102

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2905874526106562

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prob: 0.4335623720564886

param: [4.1463889 1.48325885 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3309815304003112

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2740710583038992

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prob: 0.4335623720564886

param: [4.1463889 0.91670438 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31954097086843847

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2736990075874157

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prob: 0.4335623720564886

param: [4.1463889 0.91628577 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31943467066372877

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2811533094426777

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prob: 0.4335623720564886

param: [4.1463889 0.56629575 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.32412516719654083

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27577186157925304

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prob: 0.4335623720564886

param: [4.1463889 0.75007393 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3186108440772293

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27349969470358504

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prob: 0.4335623720564886

param: [4.1463889 0.83152126 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3169499033786416

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27517392292776166

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3157806011268358

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27481515973686665

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prob: 0.4335623720564886

param: [4.1463889 0.79467398 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.320896298478486

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27460255932744726

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prob: 0.4335623720564886

param: [4.1463889 0.81335033 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31807934305368124

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27376544521535906

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prob: 0.4335623720564886

param: [4.1463889 0.82393946 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3186374191284067

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2748948848903987

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prob: 0.4335623720564886

param: [4.1463889 0.82742474 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31810591810485866

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27432352129008475

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prob: 0.4335623720564886

param: [4.1463889 0.82586001 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31843810624457625

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2744165339692055

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prob: 0.4335623720564886

param: [4.1463889 0.82526234 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31867728170517284

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2742836587133186

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prob: 0.4335623720564886

param: [4.1463889 0.82452875 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.32009904694316393

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27528022313247136

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prob: 0.4335623720564886

param: [4.1463889 0.82503405 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3174282542998348

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27357941985711753

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prob: 0.4335623720564886

param: [4.1463889 0.82475384 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31916892015195475

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2740311957271331

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prob: 0.4335623720564886

param: [4.1463889 0.82494685 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3204976727108251

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2737920202665367

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prob: 0.4335623720564886

param: [4.1463889 0.82483982 4.82515809]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3168303156483432

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27397804562477823

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 2.39996323]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.32000603426404317

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2754396734395357

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 3.88322208]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3175212669789558

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2740311957271331

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31680374059716576

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2755725486954228

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 5.39397849]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3181457806816248

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2743899589180281

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.53594678]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3174681168766009

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2746557094298021

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 5.02683414]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31964727107314816

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27375215768977057

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.69909519]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31878358190988254

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2745626967506811

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.88659748]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31928850788225316

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27385845789448005

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.76141234]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3206704105434781

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2739116079968349

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.83303184]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.32001932178963166

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27397804562477823

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.78521538]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3204976727108251

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2744962591227378

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.81257159]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31962069602197074

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27388503294565747

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.79430733]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.32048438518523636

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2746291343786247

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.80475647]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3196605585987369

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2747752971601003

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.79778014]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.32069698559465554

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2748683098392215

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.80177136]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3202983598269946

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2742570836621412

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.79910664]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31997945921286575

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2750011850951084

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.80063115]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31831851851427784

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2748417347880441

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.79961332]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3246699557456776

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27454940922509263

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.80019563]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3190891949984227

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27525364808129393

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.79980685]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31951439581726104

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.27373887016418164

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.80002927]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31806605552809253

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2741109208806656

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.79988077]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.31918220767754346

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p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd actual: 0.2748815973648102

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prob: 0.4335623720564886

param: [4.1463889 0.82489295 4.79996573]

p[i] 0.4335623720564886

p[i] 0.5664376279435114

hsd: 0.3201521970455188

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p[i] 0.34013318194244746

p[i] 0.6598668180575525

hsd actual: 0.616727674796512

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prob: 0.34013318194244746

param: [7.20804336 1.35714252 4.77469483]

p[i] 0.34013318194244746

p[i] 0.6598668180575525

hsd: 0.5931313324512171

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p[i] 0.3819660112501051

p[i] 0.6180339887498949

hsd actual: 0.20478226395735155

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prob: 0.3819660112501051

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.3819660112501051

p[i] 0.6180339887498949

hsd: 0.2875713036665277

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p[i] 0.6180339887498948

p[i] 0.3819660112501052

hsd actual: 0.6099693405379905

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prob: 0.6180339887498948

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.6180339887498948

p[i] 0.3819660112501052

hsd: 0.5305796797048112

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p[i] 0.2360679774997897

p[i] 0.7639320225002103

hsd actual: 0.06721217045924277

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prob: 0.2360679774997897

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.2360679774997897

p[i] 0.7639320225002103

hsd: 0.24494399441088444

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p[i] 0.23332824340269215

p[i] 0.7666717565973078

hsd actual: 0.062279705754350934

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prob: 0.23332824340269215

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.23332824340269215

p[i] 0.7666717565973078

hsd: 0.24996328804753642

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p[i] 0.2987948861310644

p[i] 0.7012051138689356

hsd actual: 0.11506266393054876

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prob: 0.2987948861310644

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.2987948861310644

p[i] 0.7012051138689356

hsd: 0.24882382363061706

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p[i] 0.2600275245877275

p[i] 0.7399724754122725

hsd actual: 0.08094059085432259

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prob: 0.2600275245877275

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.2600275245877275

p[i] 0.7399724754122725

hsd: 0.24628162641337847

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06947123920282583

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prob: 0.24521971013232835

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.23920586831266877

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p[i] 0.24744239913269556

p[i] 0.7525576008673045

hsd actual: 0.07388627130236225

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prob: 0.24744239913269556

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.24744239913269556

p[i] 0.7525576008673045

hsd: 0.24400907124657834

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p[i] 0.24192285828828672

p[i] 0.7580771417117133

hsd actual: 0.06632874356017293

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prob: 0.24192285828828672

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.24192285828828672

p[i] 0.7580771417117133

hsd: 0.24656981933163347

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p[i] 0.24396042478377722

p[i] 0.7560395752162228

hsd actual: 0.0716024933376398

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prob: 0.24396042478377722

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.24396042478377722

p[i] 0.7560395752162228

hsd: 0.2447364540988497

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p[i] 0.24575691336828698

p[i] 0.754243086631713

hsd actual: 0.0692935084751991

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prob: 0.24575691336828698

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.24575691336828698

p[i] 0.754243086631713

hsd: 0.24655178847482917

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p[i] 0.2451863740054219

p[i] 0.7548136259945781

hsd actual: 0.07240343487751777

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prob: 0.2451863740054219

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.2451863740054219

p[i] 0.7548136259945781

hsd: 0.24970275584454504

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p[i] 0.2454249035095981

p[i] 0.7545750964904019

hsd actual: 0.07099156825323272

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prob: 0.2454249035095981

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.2454249035095981

p[i] 0.7545750964904019

hsd: 0.2468011298895041

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p[i] 0.245298087028179

p[i] 0.754701912971821

hsd actual: 0.07008718677105308

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prob: 0.245298087028179

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.245298087028179

p[i] 0.754701912971821

hsd: 0.2522499949284991

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p[i] 0.2452530462592348

p[i] 0.7547469537407652

hsd actual: 0.07138001349254242

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prob: 0.2452530462592348

param: [4.1463889 0.82489295 4.79992646]

p[i] 0.2452530462592348

p[i] 0.7547469537407652

hsd: 0.24888769085910756

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.3419842372452877

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prob: 0.24521971013232835

param: [2.39996323 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.49368042183249905

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07364963595665563

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prob: 0.24521971013232835

param: [3.88322208 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.25755004918314106

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.14616010645299515

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prob: 0.24521971013232835

param: [4.79992646 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.28216182518435806

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06789160140564632

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prob: 0.24521971013232835

param: [4.16840534 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.24205940755918665

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07619743885533259

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prob: 0.24521971013232835

param: [4.23712732 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.24832700268993135

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06977697555066698

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prob: 0.24521971013232835

param: [4.09186458 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.2430785287186572

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07370059201462897

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prob: 0.24521971013232835

param: [4.1393877 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.24379191353028684

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07747134030467073

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prob: 0.24521971013232835

param: [4.1946548 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.24363904535636638

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07217191027542325

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prob: 0.24521971013232835

param: [4.16837201 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.24521868315354567

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07145852546379361

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prob: 0.24521971013232835

param: [4.17843174 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.2556646750381204

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07252860268123795

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prob: 0.24521971013232835

param: [4.17223509 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.2611679292992619

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07329294355084093

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prob: 0.24521971013232835

param: [4.16986817 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.26137175353115616

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.074923537405994

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prob: 0.24521971013232835

param: [4.16896409 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.25092576164658165

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06936932708687871

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prob: 0.24521971013232835

param: [4.16861877 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.2347217352109976

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07217191027542325

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prob: 0.24521971013232835

param: [4.16875067 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.2219317646596406

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07257955873921129

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prob: 0.24521971013232835

param: [4.16883219 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.21561321347092255

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07232477844934371

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prob: 0.24521971013232835

param: [4.16888257 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.21464504836942533

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06977697555066698

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prob: 0.24521971013232835

param: [4.16891591 0.82489295 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.20965135468801877

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.4726865259474031

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prob: 0.24521971013232835

param: [4.16891591 2.39996323 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.5339357076315914

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.9419408638256807

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prob: 0.24521971013232835

param: [4.16891591 3.88322208 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.9290489811583764

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.13041468453917315

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prob: 0.24521971013232835

param: [4.16891591 1.48325885 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.26137175353115616

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06947123920282583

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prob: 0.24521971013232835

param: [4.16891591 0.91670438 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.19512887816556157

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07624839491330593

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prob: 0.24521971013232835

param: [4.16891591 0.71933171 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.19630086749895304

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06870689833322308

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prob: 0.24521971013232835

param: [4.16891591 0.8364787 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.18824981033913435

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07140756940582027

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prob: 0.24521971013232835

param: [4.16891591 0.82181156 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.19482314181772042

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06687248024617576

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prob: 0.24521971013232835

param: [4.16891591 0.86897166 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.1790777199038982

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.0698788876666141

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prob: 0.24521971013232835

param: [4.16891591 0.88720394 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.17581653219359206

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.0707451406521642

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prob: 0.24521971013232835

param: [4.16891591 0.8984721 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.1779566866284803

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07222286633339658

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prob: 0.24521971013232835

param: [4.16891591 0.88524173 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.1688865083091915

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07293625114502622

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prob: 0.24521971013232835

param: [4.16891591 0.87902711 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.17230056419341788

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06773873323172586

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prob: 0.24521971013232835

param: [4.16891591 0.88268476 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.16954893706284735

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07288529508705288

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prob: 0.24521971013232835

param: [4.16891591 0.88559537 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.16226222077263208

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06636291966644037

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prob: 0.24521971013232835

param: [4.16891591 0.88620979 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.12353561671274593

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.0686559422752493

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.12241458343732825

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07054131642027017

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prob: 0.24521971013232835

param: [4.16891591 0.88642408 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.1257776832635813

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06784064534767298

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prob: 0.24521971013232835

param: [4.16891591 0.8868242 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.12598150749547554

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06896167862309066

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prob: 0.24521971013232835

param: [4.16891591 0.88667916 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.12990512395943754

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07176426181163498

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prob: 0.24521971013232835

param: [4.16891591 0.88652633 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.12460569393018983

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06819733775348769

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prob: 0.24521971013232835

param: [4.16891591 0.88662376 4.79992646]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.12812166193036378

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07242669056529083

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 2.39996323]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.13158667387256417

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06977697555066698

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 3.88322208]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.132045278394326

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07018462401445547

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 1.48325885]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.13102615723485544

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.0707451406521642

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.91670438]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.1262872438433167

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06559857879683717

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.56655447]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.12761210135062862

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07150948152176717

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.88438891]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.129089827031861

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06977697555066698

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 1.13310893]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.12888600279996676

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06809542563754056

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.99936356]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.16628774935254098

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07084705276811132

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.94827738]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.15130666830832218

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07064322853621707

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.90436097]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.1560455816998607

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06784064534767298

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.92876419]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.1470773154965186

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07099992094203178

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.91198962]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.14819834877193627

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07038844824634927

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.92131082]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.15151049254021598

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06967506343472007

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.9149035 ]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.15059328349669254

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07298720720299956

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.91846388]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.1459562822211009

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06753490899983139

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.91601651]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.14407090807608025

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.0728343390290791

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.11854192303133937

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07186617392758188

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.91779181]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.12246553949530159

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.07186617392758188

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.91733922]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.12139546227785725

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06824829381146102

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.9175593 ]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.12465664998816361

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06885976650714354

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.91744629]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.1292426952057817

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p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd actual: 0.06992984372458788

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prob: 0.24521971013232835

param: [4.16891591 0.88658952 0.91740984]

p[i] 0.24521971013232835

p[i] 0.7547802898676716

hsd: 0.12567577114763417

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p[i] 0.05687704820816808

p[i] 0.9431229517918319

hsd actual: 0.012147166353911887

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prob: 0.05687704820816808

param: [ 4.19144291 0.94828608 -2.96517355]

p[i] 0.05687704820816808

p[i] 0.9431229517918319

hsd: 0.11238157804922455

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p[i] 0.3819660112501051

p[i] 0.6180339887498949

hsd actual: 0.20331864249685294

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prob: 0.3819660112501051

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.3819660112501051

p[i] 0.6180339887498949

hsd: 0.22701986743783165

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p[i] 0.6180339887498948

p[i] 0.3819660112501052

hsd actual: 0.6127077290769881

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prob: 0.6180339887498948

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.6180339887498948

p[i] 0.3819660112501052

hsd: 0.5865986107655113

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p[i] 0.2360679774997897

p[i] 0.7639320225002103

hsd actual: 0.06483678225674105

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prob: 0.2360679774997897

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.2360679774997897

p[i] 0.7639320225002103

hsd: 0.12247953597078687

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.012981414188910412

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prob: 0.1393750267754098

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09051578343219746

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p[i] 0.0838336456137401

p[i] 0.9161663543862599

hsd actual: 0.0018507460598216063

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prob: 0.0838336456137401

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.0838336456137401

p[i] 0.9161663543862599

hsd: 0.0943229100044487

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p[i] 0.12467702047551223

p[i] 0.8753229795244878

hsd actual: 0.015586136368920034

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prob: 0.12467702047551223

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.12467702047551223

p[i] 0.8753229795244878

hsd: 0.09507954343220648

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p[i] 0.17630844747960417

p[i] 0.8236915525203958

hsd actual: 0.03119201424844542

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prob: 0.17630844747960417

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.17630844747960417

p[i] 0.8236915525203958

hsd: 0.10531737977561617

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p[i] 0.15348233816361298

p[i] 0.846517661836387

hsd actual: 0.019987889628491073

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prob: 0.15348233816361298

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.15348233816361298

p[i] 0.846517661836387

hsd: 0.10065720130400169

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p[i] 0.133760887935709

p[i] 0.8662391120642909

hsd actual: 0.016946693034855853

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prob: 0.133760887935709

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.133760887935709

p[i] 0.8662391120642909

hsd: 0.09546835866143977

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p[i] 0.14476354023582497

p[i] 0.8552364597641751

hsd actual: 0.022807619736244344

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prob: 0.14476354023582497

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.14476354023582497

p[i] 0.8552364597641751

hsd: 0.0961994723235231

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p[i] 0.137230616556205

p[i] 0.8627693834437951

hsd actual: 0.016272702660815597

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prob: 0.137230616556205

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.137230616556205

p[i] 0.8627693834437951

hsd: 0.09434067397792045

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p[i] 0.1414332557684521

p[i] 0.8585667442315479

hsd actual: 0.01682725261704654

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prob: 0.1414332557684521

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.1414332557684521

p[i] 0.8585667442315479

hsd: 0.09736134337145264

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p[i] 0.13855593495749619

p[i] 0.8614440650425038

hsd actual: 0.018233844988631454

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prob: 0.13855593495749619

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.13855593495749619

p[i] 0.8614440650425038

hsd: 0.09659491828984601

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p[i] 0.1401612002941215

p[i] 0.8598387997058785

hsd actual: 0.012064266699953086

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prob: 0.1401612002941215

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.1401612002941215

p[i] 0.8598387997058785

hsd: 0.09835361086942274

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p[i] 0.13906216154087375

p[i] 0.8609378384591262

hsd actual: 0.020251977287238265

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prob: 0.13906216154087375

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.13906216154087375

p[i] 0.8609378384591262

hsd: 0.09352235849444068

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p[i] 0.13967531833850258

p[i] 0.8603246816614974

hsd actual: 0.02150222857045403

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prob: 0.13967531833850258

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.13967531833850258

p[i] 0.8603246816614974

hsd: 0.09414368439341203

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p[i] 0.13934169187214612

p[i] 0.8606583081278538

hsd actual: 0.020184698771511522

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prob: 0.13934169187214612

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.13934169187214612

p[i] 0.8606583081278538

hsd: 0.09520162686210476

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p[i] 0.13940836167867351

p[i] 0.8605916383213265

hsd actual: 0.014361548439351113

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prob: 0.13940836167867351

param: [4.16891591 0.88658952 0.91737645]

p[i] 0.13940836167867351

p[i] 0.8605916383213265

hsd: 0.0993169384278556

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.4204876339326973

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prob: 0.1393750267754098

param: [2.39996323 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.41695350919509666

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.014712414060388479

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prob: 0.1393750267754098

param: [3.88322208 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.0856834087909879

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.13148278039051076

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prob: 0.1393750267754098

param: [4.79992646 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.21615752410364464

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.014928789044323265

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prob: 0.1393750267754098

param: [3.87450467 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.0836639089409299

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.10501290735582591

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prob: 0.1393750267754098

param: [3.31127996 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.14453740442124086

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.03404191262522649

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prob: 0.1393750267754098

param: [3.68386645 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09844953284313829

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.01774166383547504

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prob: 0.1393750267754098

param: [3.80418663 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.08200503406409698

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.021203663578431176

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prob: 0.1393750267754098

param: [3.83486516 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.08416878390344462

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02509841328925666

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prob: 0.1393750267754098

param: [3.75822841 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.07940853425687977

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.028416163042922937

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prob: 0.1393750267754098

param: [3.72982467 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09614153301450101

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.0225740384766846

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prob: 0.1393750267754098

param: [3.77578289 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.08979453348574817

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.023728038391003237

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prob: 0.1393750267754098

param: [3.74737915 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09073215841613225

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.024737788316032017

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prob: 0.1393750267754098

param: [3.76493363 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09008303346432789

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.030940537855495

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prob: 0.1393750267754098

param: [3.75408436 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.08525065882311811

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02769491309647365

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prob: 0.1393750267754098

param: [3.76078958 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09246315828760987

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02574753824106124

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prob: 0.1393750267754098

param: [3.75664553 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.08820778360355974

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.019616913696242966

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prob: 0.1393750267754098

param: [3.75920669 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.08770290864104568

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.026324538198220226

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prob: 0.1393750267754098

param: [3.7576238 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.08604403376421255

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02834403804827801

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prob: 0.1393750267754098

param: [3.75860208 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.08892903355000925

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.027406413117893935

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prob: 0.1393750267754098

param: [3.75799747 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09707915794488486

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02668516317144487

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prob: 0.1393750267754098

param: [3.75837114 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.1141006566810856

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.028055538069698294

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prob: 0.1393750267754098

param: [3.7581402 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10494078236118098

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.026901538155379656

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prob: 0.1393750267754098

param: [3.75828293 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10739303217910812

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02149216355701067

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prob: 0.1393750267754098

param: [3.75819472 0.88658952 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10061328268248593

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.5827688718837631

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prob: 0.1393750267754098

param: [3.75822841 2.39996323 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.5982757457324204

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 1.2479055724991972

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prob: 0.1393750267754098

param: [3.75822841 3.88322208 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 1.1936675765262188

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.11640865650972287

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prob: 0.1393750267754098

param: [3.75822841 1.48325885 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.169132027595158

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02733428812324923

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prob: 0.1393750267754098

param: [3.75822841 0.91670438 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.0925352832822548

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.025386913267836375

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prob: 0.1393750267754098

param: [3.75822841 0.89882696 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09066003342148732

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.06815703509227289

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prob: 0.1393750267754098

param: [3.75822841 0.55550561 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.1503795289874792

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.026252413203575298

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prob: 0.1393750267754098

param: [3.75822841 0.83982755 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09311228323941445

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02928166297866186

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prob: 0.1393750267754098

param: [3.75822841 0.8802358 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10090178266106564

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.025314788273191446

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prob: 0.1393750267754098

param: [3.75822841 0.89172577 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10025265770926128

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.023728038391003237

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prob: 0.1393750267754098

param: [3.75822841 0.90565553 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10111815764500043

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.024809913310676945

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.08626040874814733

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.021131538583786247

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prob: 0.1393750267754098

param: [3.75822841 0.89443818 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09614153301450101

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02574753824106124

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prob: 0.1393750267754098

param: [3.75822841 0.89715059 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10371465745221742

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.022862538455264314

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prob: 0.1393750267754098

param: [3.75822841 0.89547423 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10530140733440563

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.024737788316032017

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prob: 0.1393750267754098

param: [3.75822841 0.89651028 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.11446128165431024

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.023800163385648165

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prob: 0.1393750267754098

param: [3.75822841 0.89586997 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10508503235047084

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.026468788187510084

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prob: 0.1393750267754098

param: [3.75822841 0.8962657 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10436378240402155

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.026252413203575298

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prob: 0.1393750267754098

param: [3.75822841 0.89602112 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.0982331578592035

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.023872288380293094

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prob: 0.1393750267754098

param: [3.75822841 0.89617228 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.13898377983358223

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.025242663278546518

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prob: 0.1393750267754098

param: [3.75822841 0.89607886 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.12225078107596121

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.028921038005437216

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 2.39996323]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.12773228066897513

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.025963913224995583

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 3.88322208]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.13465628015488718

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.023151038433843807

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 1.48325885]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10450803239331141

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.027550663107183793

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.08979453348574817

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02733428812324923

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.56655447]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09441053314302295

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.024665663321387088

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.89595763]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09462690812695773

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.022213413503459956

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 1.13310893]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.1000362827253265

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.03166178780194451

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.99936356]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09282378326083474

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.020770913610561603

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.94827738]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09707915794488486

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.022718288465974457

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.92876419]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10501290735582591

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02985866293582129

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.90877983]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.1081142821255574

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02668516317144487

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.92131082]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09210253331438567

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.022718288465974457

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.91367747]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10270490752718842

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.025242663278546518

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.91846388]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10205578257538428

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.025242663278546518

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.9155482 ]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10284915751647827

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.024882038305321874

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.91737645]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.10198365758073935

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.022790413460619385

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.91626276]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.1164807815043678

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02401653836958295

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.91696109]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09195828332509581

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.022285538498104884

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.9165357 ]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.0992429077842325

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.0267572881660898

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.91680244]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09614153301450101

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.02430503834816289

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.91663995]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.0958530330359213

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p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd actual: 0.024809913310676945

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prob: 0.1393750267754098

param: [3.75822841 0.89611454 0.91674184]

p[i] 0.1393750267754098

p[i] 0.8606249732245902

hsd: 0.09527603307876209

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p[i] 0.03353034341849126

p[i] 0.9664696565815087

hsd actual: 0.11091949351577979

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prob: 0.03353034341849126

param: [3.34754092 0.90563957 0.91603231]

p[i] 0.03353034341849126

p[i] 0.9664696565815087

hsd: 0.1770648908190373

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p[i] 0.3819660112501051

p[i] 0.6180339887498949

hsd actual: 0.20610424463135013

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prob: 0.3819660112501051

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.3819660112501051

p[i] 0.6180339887498949

hsd: 0.23145794541482778

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p[i] 0.6180339887498948

p[i] 0.3819660112501052

hsd actual: 0.6098040929537407

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prob: 0.6180339887498948

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.6180339887498948

p[i] 0.3819660112501052

hsd: 0.587023533125011

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p[i] 0.2360679774997897

p[i] 0.7639320225002103

hsd actual: 0.0695347722572448

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prob: 0.2360679774997897

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.2360679774997897

p[i] 0.7639320225002103

hsd: 0.12269068158878693

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p[i] 0.12184918110656313

p[i] 0.8781508188934368

hsd actual: 0.02034887548089981

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prob: 0.12184918110656313

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.12184918110656313

p[i] 0.8781508188934368

hsd: 0.09038240713996393

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p[i] 0.09943928745631188

p[i] 0.9005607125436881

hsd actual: 0.014744768279676412

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prob: 0.09943928745631188

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.09943928745631188

p[i] 0.9005607125436881

hsd: 0.09301433151071348

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p[i] 0.13068671576536467

p[i] 0.8693132842346354

hsd actual: 0.02030617324410855

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prob: 0.13068671576536467

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.13068671576536467

p[i] 0.8693132842346354

hsd: 0.09054955990553615

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p[i] 0.12410082404901873

p[i] 0.8758991759509813

hsd actual: 0.020797627942548136

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prob: 0.12410082404901873

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.12410082404901873

p[i] 0.8758991759509813

hsd: 0.08996307631752853

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p[i] 0.1259643487084768

p[i] 0.8740356512915232

hsd actual: 0.02342857976675017

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prob: 0.1259643487084768

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.1259643487084768

p[i] 0.8740356512915232

hsd: 0.08873520448225003

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p[i] 0.12776813241685517

p[i] 0.8722318675831449

hsd actual: 0.02023190105411099

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prob: 0.12776813241685517

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.12776813241685517

p[i] 0.8722318675831449

hsd: 0.08127792733774664

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p[i] 0.1288829320569863

p[i] 0.8711170679430137

hsd actual: 0.01884903788779324

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prob: 0.1288829320569863

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.1288829320569863

p[i] 0.8711170679430137

hsd: 0.09901032456348413

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p[i] 0.12707914834860795

p[i] 0.872920851651392

hsd actual: 0.019930677676607056

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prob: 0.12707914834860795

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.12707914834860795

p[i] 0.872920851651392

hsd: 0.09287399625961901

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p[i] 0.12819394798873912

p[i] 0.8718060520112609

hsd actual: 0.026127000044509296

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prob: 0.12819394798873912

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.12819394798873912

p[i] 0.8718060520112609

hsd: 0.08829297194079189

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.026208016660197897

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prob: 0.1275049639204919

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.07910231178348814

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p[i] 0.1272895528753147

p[i] 0.8727104471246853

hsd actual: 0.020946042745103366

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prob: 0.1272895528753147

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.1272895528753147

p[i] 0.8727104471246853

hsd: 0.09012110173144494

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p[i] 0.12760548534133448

p[i] 0.8723945146586656

hsd actual: 0.03077183873105538

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prob: 0.12760548534133448

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.12760548534133448

p[i] 0.8723945146586656

hsd: 0.08462008555069844

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p[i] 0.12742268422278635

p[i] 0.8725773157772136

hsd actual: 0.022837981842290578

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prob: 0.12742268422278635

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.12742268422278635

p[i] 0.8725773157772136

hsd: 0.09437282647151557

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p[i] 0.12754335968665634

p[i] 0.8724566403133437

hsd actual: 0.020778016875377503

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prob: 0.12754335968665634

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.12754335968665634

p[i] 0.8724566403133437

hsd: 0.09094884791041147

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p[i] 0.1274716304110971

p[i] 0.8725283695889029

hsd actual: 0.021581839734957642

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prob: 0.1274716304110971

param: [3.75822841 0.89611454 0.91670438]

p[i] 0.1274716304110971

p[i] 0.8725283695889029

hsd: 0.09355432073953351

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.4323021049940774

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prob: 0.1275049639204919

param: [2.39996323 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.426640180445669

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.009743736065483732

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prob: 0.1275049639204919

param: [3.88322208 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08826568967104387

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.12938914165422144

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prob: 0.1275049639204919

param: [4.79992646 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.22512036592665496

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.013915680469574365

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prob: 0.1275049639204919

param: [3.86691582 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08133728199996493

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.10160101196269022

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prob: 0.1275049639204919

param: [3.30658979 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.1460024202633674

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.04110781810337838

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prob: 0.1275049639204919

param: [3.6483363 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.09154364598854348

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.017119137779858074

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prob: 0.1275049639204919

param: [3.76925464 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.09042616088030475

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.01287269436855154

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prob: 0.1275049639204919

param: [3.82832393 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08439174129581684

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.011829708267528716

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prob: 0.1275049639204919

param: [3.85193011 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08156077902161285

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.014213676498437744

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prob: 0.1275049639204919

param: [3.86216345 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08141178100718083

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.015405660613891925

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prob: 0.1275049639204919

param: [3.87314426 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08029429589894232

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.013543185433494642

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prob: 0.1275049639204919

param: [3.87699364 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.076643844545363

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.011159217202585614

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prob: 0.1275049639204919

param: [3.87937269 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08521123037519196

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.009892734079915533

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prob: 0.1275049639204919

param: [3.87552331 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.07895331376905634

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.013319688411846942

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prob: 0.1275049639204919

param: [3.87790236 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08752069959888487

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.009892734079915533

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prob: 0.1275049639204919

param: [3.87643202 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08185877505047645

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.012053205289176416

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prob: 0.1275049639204919

param: [3.87734074 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08282726214428315

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.007210769820143126

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prob: 0.1275049639204919

param: [3.87677912 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.07776132965360172

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.013990179476790265

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prob: 0.1275049639204919

param: [3.87712622 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08051779292059003

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.015778155649971648

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prob: 0.1275049639204919

param: [3.8769117 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08573272342570326

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.011308215217017414

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prob: 0.1275049639204919

param: [3.87704428 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08491323434632836

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.014362674512869544

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prob: 0.1275049639204919

param: [3.87696031 0.89611454 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08468973732468066

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.5906869943350845

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prob: 0.1275049639204919

param: [3.87699364 2.39996323 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.6080452630163895

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 1.295969095648025

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prob: 0.1275049639204919

param: [3.87699364 3.88322208 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 1.242106313430928

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.10979590275643947

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prob: 0.1275049639204919

param: [3.87699364 1.48325885 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.15456980609319637

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.013990179476790265

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prob: 0.1275049639204919

param: [3.87699364 0.91670438 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08528572938240786

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.006838274784063625

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prob: 0.1275049639204919

param: [3.87699364 0.95643572 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08260376512263545

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.014660670541732923

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prob: 0.1275049639204919

param: [3.87699364 1.03025613 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.09199064003183888

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.014958666570596524

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prob: 0.1275049639204919

param: [3.87699364 0.95625822 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.089830168822578

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.01272369635411974

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prob: 0.1275049639204919

param: [3.87699364 0.98463261 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08439174129581684

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.009594738051051932

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prob: 0.1275049639204919

param: [3.87699364 0.96720597 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08729720257723694

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.018087624873664332

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prob: 0.1275049639204919

param: [3.87699364 0.96054959 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08670121051950996

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.012053205289176416

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08111378497831723

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.010116231101563233

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prob: 0.1275049639204919

param: [3.87699364 0.95897823 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08759519860610077

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.01287269436855154

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prob: 0.1275049639204919

param: [3.87699364 0.95740688 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08409374526695323

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.009147744007756309

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prob: 0.1275049639204919

param: [3.87699364 0.95837803 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08796769364218027

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.011382714224233315

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prob: 0.1275049639204919

param: [3.87699364 0.95777782 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.09392761421945228

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.01272369635411974

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prob: 0.1275049639204919

param: [3.87699364 0.95814877 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08789319463496437

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.013394187419062842

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prob: 0.1275049639204919

param: [3.87699364 0.95791951 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08334875519479445

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.015107664585028324

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prob: 0.1275049639204919

param: [3.87699364 0.9580612 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08789319463496437

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.01637414770769885

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prob: 0.1275049639204919

param: [3.87699364 0.95797363 0.91670438]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.0930336261328617

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.014809668556164723

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 2.39996323]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.09966403777507704

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.01272369635411974

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.88322208]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08878718272155517

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.013319688411846942

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 4.79992646]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.10703943948945138

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.01242570032525614

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.46458564]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08677570952672586

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.005422793646961299

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.46318701]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.10249500004928103

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.015033165577812424

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.62449053]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.11754379950689331

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.011010219188153814

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.52566387]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.0897556698153621

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.011904207274744616

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.48791545]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.06718247062894367

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.014884167563380624

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.50233406]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.07567535745155674

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.0057952886830408

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.48734419]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.0694919398526368

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.015331161606676025

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.49417163]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.07515386440104521

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.011457213231449215

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.4903051 ]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.0720994051051933

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.010414227130426834

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.48861093]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.07478136936496571

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.010041732094347333

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.4881811 ]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.07537736142269291

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.014362674512869544

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.48769725]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.08103928597110133

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.014735169548948823

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.48801692]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.0717269100691138

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.01287269436855154

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.4878321 ]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.07798482667524942

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.013692183447926443

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.48795421]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.0727698961701364

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p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd actual: 0.014064678484006166

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prob: 0.1275049639204919

param: [3.87699364 0.95800708 3.48788208]

p[i] 0.1275049639204919

p[i] 0.8724950360795081

hsd: 0.07411087830002261

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p[i] 0.115634901065574

p[i] 0.884365098934426

hsd actual: 0.0027647624027098416

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prob: 0.115634901065574

param: [3.99575887 1.01989962 6.05912652]

p[i] 0.115634901065574

p[i] 0.884365098934426

hsd: 0.07171986115154572

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p[i] 0.13252752367706896

p[i] 0.867472476322931

hsd actual: 0.01663048702434544

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prob: 0.13252752367706896

param: [3.82674071 0.9318186 2.39996323]

p[i] 0.13252752367706896

p[i] 0.867472476322931

hsd: 0.07549957773127924

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p[i] 0.12568002057872815

p[i] 0.8743199794212718

hsd actual: 0.011467005654934637

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prob: 0.12568002057872815

param: [3.89525301 0.96752265 3.88322208]

p[i] 0.12568002057872815

p[i] 0.8743199794212718

hsd: 0.06888769049815746

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p[i] 0.1214480309258833

p[i] 0.8785519690741167

hsd actual: 0.013532829533116075

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prob: 0.1214480309258833

param: [3.93759593 0.98958897 4.79992646]

p[i] 0.1214480309258833

p[i] 0.8785519690741167

hsd: 0.07485824852312284

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p[i] 0.1268528405551049

p[i] 0.8731471594448951

hsd actual: 0.015328661184366599

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prob: 0.1268528405551049

param: [3.88351842 0.96140736 3.62917391]

p[i] 0.1268528405551049

p[i] 0.8731471594448951

hsd: 0.0719723999881019

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p[i] 0.12450750856442723

p[i] 0.8754924914355727

hsd actual: 0.014497470017485803

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prob: 0.12450750856442723

param: [3.90698451 0.97363633 4.13720354]

p[i] 0.12450750856442723

p[i] 0.8754924914355727

hsd: 0.07457626864717737

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p[i] 0.1258541885275936

p[i] 0.8741458114724063

hsd actual: 0.012406105988250316

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prob: 0.1258541885275936

param: [3.89351038 0.96661451 3.84549502]

p[i] 0.1258541885275936

p[i] 0.8741458114724063

hsd: 0.07099734006482916

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p[i] 0.1252321608414828

p[i] 0.8747678391585172

hsd actual: 0.012336144087358614

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prob: 0.1252321608414828

param: [3.89973404 0.96985786 3.98023436]

p[i] 0.1252321608414828

p[i] 0.8747678391585172

hsd: 0.07379806970935543

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p[i] 0.12550895338129303

p[i] 0.874491046618707

hsd actual: 0.011576502414253786

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prob: 0.12550895338129303

param: [3.89696461 0.96841462 3.92027747]

p[i] 0.12550895338129303

p[i] 0.874491046618707

hsd: 0.06977241105880094

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p[i] 0.12564613664150523

p[i] 0.8743538633584947

hsd actual: 0.010635435550529149

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prob: 0.12564613664150523

param: [3.89559203 0.96769932 3.89056178]

p[i] 0.12564613664150523

p[i] 0.8743538633584947

hsd: 0.06461726264682399

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p[i] 0.12559719073516304

p[i] 0.8744028092648369

hsd actual: 0.01429293950340127

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prob: 0.12559719073516304

param: [3.89608176 0.96795454 3.90116411]

p[i] 0.12559719073516304

p[i] 0.8744028092648369

hsd: 0.07494619460430463

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p[i] 0.12562744096889267

p[i] 0.8743725590311073

hsd actual: 0.015722453771239486

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prob: 0.12562744096889267

param: [3.89577909 0.96779681 3.89461151]

p[i] 0.12562744096889267

p[i] 0.8743725590311073

hsd: 0.07599643577524762

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p[i] 0.12565907915385172

p[i] 0.8743409208461483

hsd actual: 0.010413911450970925

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prob: 0.12565907915385172

param: [3.89546253 0.96763184 3.88775826]

p[i] 0.12565907915385172

p[i] 0.8743409208461483

hsd: 0.07255450431143196

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p[i] 0.12563899553000976

p[i] 0.8743610044699902

hsd actual: 0.007713720343473174

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prob: 0.12563899553000976

param: [3.89566348 0.96773656 3.89210864]

p[i] 0.12563899553000976

p[i] 0.8743610044699902

hsd: 0.07225355751409923

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p[i] 0.12565108024132177

p[i] 0.8743489197586782

hsd actual: 0.006893122902181581

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prob: 0.12565108024132177

param: [3.89554257 0.96767355 3.88949093]

p[i] 0.12565108024132177

p[i] 0.8743489197586782

hsd: 0.07120626731672264

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p[i] 0.12564340897963142

p[i] 0.8743565910203686

hsd actual: 0.014752708925259261

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prob: 0.12564340897963142

param: [3.89561932 0.96771355 3.89115263]

p[i] 0.12564340897963142

p[i] 0.8743565910203686

hsd: 0.06963338516884554

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p[i] 0.12564802492860835

p[i] 0.8743519750713916

hsd actual: 0.010935366520867795

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prob: 0.12564802492860835

param: [3.89557314 0.96768948 3.89015275]

p[i] 0.12564802492860835

p[i] 0.8743519750713916

hsd: 0.06903479305194749

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p[i] 0.12564509476737923

p[i] 0.8743549052326207

hsd actual: 0.007715219341944524

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prob: 0.12564509476737923

param: [3.89560245 0.96770476 3.89078747]

p[i] 0.12564509476737923

p[i] 0.8743549052326207

hsd: 0.06761200417916391

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p[i] 0.1256468579029981

p[i] 0.8743531420970019

hsd actual: 0.0044962156702683664

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prob: 0.1256468579029981

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.1256468579029981

p[i] 0.8743531420970019

hsd: 0.06102354012691569

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p[i] 0.1256473036671155

p[i] 0.8743526963328845

hsd actual: 0.015951521575240823

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prob: 0.1256473036671155

param: [3.89558035 0.96769324 3.89030899]

p[i] 0.1256473036671155

p[i] 0.8743526963328845

hsd: 0.06903473391524373

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p[i] 0.3819660112501051

p[i] 0.6180339887498949

hsd actual: 0.20346028328335275

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prob: 0.3819660112501051

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.3819660112501051

p[i] 0.6180339887498949

hsd: 0.22463558086508373

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p[i] 0.6180339887498948

p[i] 0.3819660112501052

hsd actual: 0.6117162435714889

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prob: 0.6180339887498948

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.6180339887498948

p[i] 0.3819660112501052

hsd: 0.5950262375622539

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p[i] 0.23606797749978967

p[i] 0.7639320225002103

hsd actual: 0.06288368529023947

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prob: 0.23606797749978967

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.23606797749978967

p[i] 0.7639320225002103

hsd: 0.10532395450827314

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p[i] 0.10111556723241591

p[i] 0.8988844327675841

hsd actual: 0.007756128287946806

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prob: 0.10111556723241591

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.10111556723241591

p[i] 0.8988844327675841

hsd: 0.07205629885008125

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p[i] 0.10799453853600342

p[i] 0.8920054614639966

hsd actual: 0.009488219671658804

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prob: 0.10799453853600342

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.10799453853600342

p[i] 0.8920054614639966

hsd: 0.06915145090647923

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p[i] 0.14498815009787885

p[i] 0.8550118499021211

hsd actual: 0.014992729641985614

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prob: 0.14498815009787885

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.14498815009787885

p[i] 0.8550118499021211

hsd: 0.07037457822671644

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p[i] 0.12212484078602875

p[i] 0.8778751592139713

hsd actual: 0.008235144933343763

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prob: 0.12212484078602875

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.12212484078602875

p[i] 0.8778751592139713

hsd: 0.07043339613996347

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p[i] 0.11339183372420399

p[i] 0.886608166275796

hsd actual: 0.0026842440126444433

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prob: 0.11339183372420399

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.11339183372420399

p[i] 0.886608166275796

hsd: 0.0708046029104401

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p[i] 0.10536700530566817

p[i] 0.8946329946943319

hsd actual: 0.009078526577394497

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prob: 0.10536700530566817

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.10536700530566817

p[i] 0.8946329946943319

hsd: 0.07285121851999832

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p[i] 0.11005612185057978

p[i] 0.8899438781494202

hsd actual: 0.007099394969396489

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prob: 0.11005612185057978

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.11005612185057978

p[i] 0.8899438781494202

hsd: 0.0854781144774297

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p[i] 0.10699091014858517

p[i] 0.8930090898514148

hsd actual: 0.0045337603444211005

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prob: 0.10699091014858517

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.10699091014858517

p[i] 0.8930090898514148

hsd: 0.08549363285381273

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p[i] 0.10878199329153193

p[i] 0.8912180067084681

hsd actual: 0.010790034365736334

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prob: 0.10878199329153193

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.10878199329153193

p[i] 0.8912180067084681

hsd: 0.0884859304980381

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p[i] 0.10761118660408389

p[i] 0.8923888133959161

hsd actual: 0.0028345935672406952

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prob: 0.10761118660408389

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.10761118660408389

p[i] 0.8923888133959161

hsd: 0.08272495597464902

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p[i] 0.10829531948801258

p[i] 0.8917046805119875

hsd actual: 0.004523060018114311

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prob: 0.10829531948801258

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.10829531948801258

p[i] 0.8917046805119875

hsd: 0.09579025057740731

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p[i] 0.1078481111276631

p[i] 0.8921518888723369

hsd actual: 0.011660712231923664

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prob: 0.1078481111276631

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.1078481111276631

p[i] 0.8921518888723369

hsd: 0.0870323052731865

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p[i] 0.10810942663650237

p[i] 0.8918905733634976

hsd actual: 0.00574461401789228

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prob: 0.10810942663650237

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.10810942663650237

p[i] 0.8918905733634976

hsd: 0.08764974385086344

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p[i] 0.10793860824290198

p[i] 0.892061391757098

hsd actual: 0.006734781444351912

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prob: 0.10793860824290198

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.10793860824290198

p[i] 0.892061391757098

hsd: 0.07409092854822119

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.007927450247965595

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prob: 0.1080384218854911

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.06342920970897992

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p[i] 0.10807175547999975

p[i] 0.8919282445200003

hsd actual: 0.0029946684220418796

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prob: 0.10807175547999975

param: [3.89558481 0.96769556 3.89040555]

p[i] 0.10807175547999975

p[i] 0.8919282445200003

hsd: 0.08224255946398595

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.4733426281011335

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prob: 0.1080384218854911

param: [2.39996323 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.44057464017076065

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.011141535188504692

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prob: 0.1080384218854911

param: [3.88322208 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.08365442713968863

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.1331983706133626

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prob: 0.1080384218854911

param: [4.79992646 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.2345596347137746

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.008319411826080092

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prob: 0.1080384218854911

param: [3.85412774 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10521231393598685

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.017961666647697383

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prob: 0.1080384218854911

param: [4.25561043 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10254697520480804

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.0047917576230496195

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prob: 0.1080384218854911

param: [4.02546177 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.08647655050211345

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.007221919407359723

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prob: 0.1080384218854911

param: [3.88043658 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.08914188923329203

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.00847619645732589

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prob: 0.1080384218854911

param: [3.95361891 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.0925911511206996

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.0068299578292447816

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prob: 0.1080384218854911

param: [3.91011127 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.08780921986770274

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.010827965926013094

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prob: 0.1080384218854911

param: [3.89349284 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.09455095901127208

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.010671181294767296

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prob: 0.1080384218854911

param: [3.88714516 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.09235597417383112

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.009024942666686409

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prob: 0.1080384218854911

param: [3.88472056 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.09752986700494226

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.004634972991803821

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prob: 0.1080384218854911

param: [3.88215811 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.0932966819613057

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.014904366338404085

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prob: 0.1080384218854911

param: [3.88379445 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.0903177739676353

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.008319411826080092

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prob: 0.1080384218854911

param: [3.88281568 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.0932182896456828

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.009965650454161201

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prob: 0.1080384218854911

param: [3.8834407 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.094786135958141

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.011533496766618967

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prob: 0.1080384218854911

param: [3.88306685 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10168465973295615

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.008554588772949012

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prob: 0.1080384218854911

param: [3.88330559 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10121430583921875

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.009416904244800683

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prob: 0.1080384218854911

param: [3.88316278 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.08208658082723086

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.008789765719817488

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prob: 0.1080384218854911

param: [3.88312614 0.96769556 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.0893770661801605

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.606374387713198

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prob: 0.1080384218854911

param: [3.88316278 2.39996323 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.6193875121065997

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 1.356588848224368

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prob: 0.1080384218854911

param: [3.88316278 3.88322208 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 1.2721603242985027

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.10623141403908454

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prob: 0.1080384218854911

param: [3.88316278 1.48325885 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.16706385096245646

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.006281211619884708

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prob: 0.1080384218854911

param: [3.88316278 0.91670438 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.0961188053237303

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.016393820335239173

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prob: 0.1080384218854911

param: [3.88316278 0.94776047 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.09768665163618806

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.021254143903859157

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prob: 0.1080384218854911

param: [3.88316278 0.75137101 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.11720633822629067

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.010906358241635772

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prob: 0.1080384218854911

param: [3.88316278 0.90438712 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10560427551410134

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.006359603935507607

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prob: 0.1080384218854911

param: [3.88316278 0.9308982 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10317411372979124

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.003302303626214531

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prob: 0.1080384218854911

param: [3.88316278 0.92212594 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10380125225477466

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.007143527091736601

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prob: 0.1080384218854911

param: [3.88316278 0.91199961 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10944549897962341

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.010357612032275698

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prob: 0.1080384218854911

param: [3.88316278 0.91877523 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.09894092868615467

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.010592788979144174

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prob: 0.1080384218854911

param: [3.88316278 0.91490732 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.09196401259571618

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.007065134776113924

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prob: 0.1080384218854911

param: [3.88316278 0.91379667 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10121430583921875

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.0076138809854739975

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prob: 0.1080384218854911

param: [3.88316278 0.91559373 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10309572141416856

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.012552596869716659

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prob: 0.1080384218854911

param: [3.88316278 0.91448309 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.11352189939201418

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.004870149938672297

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prob: 0.1080384218854911

param: [3.88316278 0.91516951 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10035199036736708

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.003851049835574827

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prob: 0.1080384218854911

param: [3.88316278 0.91474528 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.1074856910890507

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.010436004347898375

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prob: 0.1080384218854911

param: [3.88316278 0.91500746 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.09486452827376368

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.00847619645732589

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prob: 0.1080384218854911

param: [3.88316278 0.91484542 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10482035235787213

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p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd actual: 0.0065947808823763054

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prob: 0.1080384218854911

param: [3.88316278 0.91494557 3.89040555]

p[i] 0.1080384218854911

p[i] 0.8919615781145089

hsd: 0.10921032203275471

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p[i] 0.11491908765956198

p[i] 0.8850809123404381

hsd actual: 0.013087706135313848

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prob: 0.11491908765956198

param: [3.81431868 0.87903035 2.39996323]

p[i] 0.11491908765956198

p[i] 0.8850809123404381

hsd: 0.10350470435284853

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p[i] 0.10807158456122115

p[i] 0.8919284154387789

hsd actual: 0.004170423230000386

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prob: 0.10807158456122115

param: [3.88283098 0.9147344 3.88322208]

p[i] 0.10807158456122115

p[i] 0.8919284154387789

hsd: 0.10732598217348688

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p[i] 0.11915107731240683

p[i] 0.8808489226875932

hsd actual: 0.025626756852655364

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prob: 0.11915107731240683

param: [3.77197575 0.85696403 1.48325885]

p[i] 0.11915107731240683

p[i] 0.8808489226875932

hsd: 0.11345051842441478

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p[i] 0.11255835561992007

p[i] 0.8874416443800799

hsd actual: 0.018169273683199982

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prob: 0.11255835561992007

param: [3.83793885 0.89133961 2.91132871]

p[i] 0.11255835561992007

p[i] 0.8874416443800799

hsd: 0.10053936727840496

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p[i] 0.11218542320712303

p[i] 0.887814576792877

hsd actual: 0.010819329078702422

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prob: 0.11218542320712303

param: [3.8416702 0.89328414 2.99211075]

p[i] 0.11218542320712303

p[i] 0.887814576792877

hsd: 0.10940179449945164

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p[i] 0.11255841762382877

p[i] 0.8874415823761712

hsd actual: 0.00972305704810128

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prob: 0.11255841762382877

param: [3.83793823 0.89133929 2.91131528]

p[i] 0.11255841762382877

p[i] 0.8874415823761712

hsd: 0.10852066055402454

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p[i] 0.11241590811373811

p[i] 0.8875840918862619

hsd actual: 0.010860079423890667

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prob: 0.11241590811373811

param: [3.8393641 0.89208236 2.9421847 ]

p[i] 0.11241590811373811

p[i] 0.8875840918862619

hsd: 0.09930676919233572

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p[i] 0.112327870713305

p[i] 0.887672129286695

hsd actual: 0.014023400555816634

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prob: 0.112327870713305

param: [3.84024495 0.8925414 2.96125476]

p[i] 0.112327870713305

p[i] 0.887672129286695

hsd: 0.10574662634504861

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p[i] 0.11247031821948696

p[i] 0.8875296817805131

hsd actual: 0.011489777768645792

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prob: 0.11247031821948696

param: [3.8388197 0.89179865 2.93039876]

p[i] 0.11247031821948696

p[i] 0.8875296817805131

hsd: 0.10868222195919874

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p[i] 0.11238228081905384

p[i] 0.8876177191809461

hsd actual: 0.011164214964419994

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prob: 0.11238228081905384

param: [3.83970055 0.89225769 2.94946881]

p[i] 0.11238228081905384

p[i] 0.8876177191809461

hsd: 0.0958974483773749

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p[i] 0.11236149800798927

p[i] 0.8876385019920108

hsd actual: 0.014339186929750447

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prob: 0.11236149800798927

param: [3.8399085 0.89236606 2.95397064]

p[i] 0.11236149800798927

p[i] 0.8876385019920108

hsd: 0.10651962270345061

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p[i] 0.11239512530267352

p[i] 0.8876048746973265

hsd actual: 0.011709126975492978

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prob: 0.11239512530267352

param: [3.83957204 0.89219072 2.94668653]

p[i] 0.11239512530267352

p[i] 0.8876048746973265

hsd: 0.10140089498045457

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p[i] 0.11237434249160894

p[i] 0.8876256575083911

hsd actual: 0.011085290200633535

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prob: 0.11237434249160894

param: [3.83977998 0.89229909 2.95118836]

p[i] 0.11237434249160894

p[i] 0.8876256575083911

hsd: 0.10271999563561729

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p[i] 0.11238718697522862

p[i] 0.8876128130247714

hsd actual: 0.009692151421283546

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prob: 0.11238718697522862

param: [3.83965147 0.89223211 2.94840608]

p[i] 0.11238718697522862

p[i] 0.8876128130247714

hsd: 0.10450224548714271

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p[i] 0.11237924864778372

p[i] 0.8876207513522163

hsd actual: 0.01534998443730995

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prob: 0.11237924864778372

param: [3.83973089 0.8922735 2.95012562]

p[i] 0.11237924864778372

p[i] 0.8876207513522163

hsd: 0.10954182701589898

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p[i] 0.1123841548039585

p[i] 0.8876158451960415

hsd actual: 0.012637485621303624

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prob: 0.1123841548039585

param: [3.8396818 0.89224792 2.94906288]

p[i] 0.1123841548039585

p[i] 0.8876158451960415

hsd: 0.1096189700893535

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p[i] 0.11238112263268837

p[i] 0.8876188773673116

hsd actual: 0.014652580641421942

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prob: 0.11238112263268837

param: [3.83971214 0.89226373 2.94971969]

p[i] 0.11238112263268837

p[i] 0.8876188773673116

hsd: 0.11078206222851539

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p[i] 0.11238299661759302

p[i] 0.887617003382407

hsd actual: 0.01628088562622132

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prob: 0.11238299661759302

param: [3.83969339 0.89225396 2.94931376]

p[i] 0.11238299661759302

p[i] 0.887617003382407

hsd: 0.10768097502379304

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p[i] 0.11238183843122754

p[i] 0.8876181615687725

hsd actual: 0.0075980498725209955

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prob: 0.11238183843122754

param: [3.83970498 0.89226 2.94956464]

p[i] 0.11238183843122754

p[i] 0.8876181615687725

hsd: 0.0989984123704375

----------------------------------------------

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p[i] 0.11238255422976672

p[i] 0.8876174457702333

hsd actual: 0.01116426317484076

----------------------------------------------

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prob: 0.11238255422976672

param: [3.83969782 0.89225627 2.94940959]

p[i] 0.11238255422976672

p[i] 0.8876174457702333

hsd: 0.1059754904102399

----------------------------------------------

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p[i] 0.11238211184194041

p[i] 0.8876178881580596

hsd actual: 0.011861897367575258

----------------------------------------------

----------------------------------------------

prob: 0.11238211184194041

param: [3.83970225 0.89225858 2.94950542]

p[i] 0.11238211184194041

p[i] 0.8876178881580596

hsd: 0.10380486043866721

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p[i] 0.11238238525265327

p[i] 0.8876176147473467

hsd actual: 0.010776615764379605

----------------------------------------------

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prob: 0.11238238525265327

param: [3.83969951 0.89225715 2.94944619]

p[i] 0.11238238525265327

p[i] 0.8876176147473467

hsd: 0.11861183618709115

----------------------------------------------

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p[i] 0.11238221627553983

p[i] 0.8876177837244602

hsd actual: 0.008218308427221377

----------------------------------------------

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prob: 0.11238221627553983

param: [3.8397012 0.89225803 2.9494828 ]

p[i] 0.11238221627553983

p[i] 0.8876177837244602

hsd: 0.11481319895144781

----------------------------------------------

Optimization terminated successfully.

Current function value: 0.095897

Iterations: 5

Function evaluations: 422