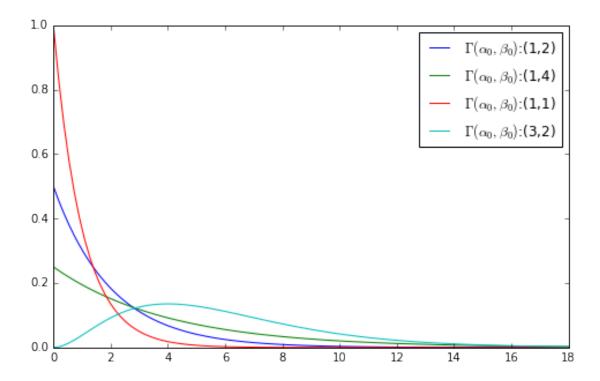
## 3 мая 2016 г.

```
Задача 4
In [127]: %matplotlib inline
         import numpy as np
         import math as mt
         import matplotlib
         import matplotlib.pyplot as plt
         from pylab import *
         from scipy.stats import *
In [128]: data = np.loadtxt('6.csv', delimiter=',', skiprows=3)
         print(len(data))
1000
   Для Exp(\theta) априорное распределение \Gamma(\alpha_0,\beta_0) with mean =\frac{\alpha_0}{\beta_0}. Байесовская оценка для параметра \theta: \theta^* = \frac{\alpha_0 + n}{\beta_0 + \sum_{i=1}^n x_i}.
In [129]: def BayesEst(x, alpha, beta):
            # Байесовская оценка для экспоненциального распределения
            return (alpha + len(x))/(beta + sum(x))
    Задача состоит в том, чтобы верно подобрать параметры \alpha_0 \beta_0.
In [130]: x = linspace(0.18,100)
         params = [(1,2),(1,4),(1,1),(3,2)]
         figure(figsize=(8,5))
         for p in params:
            plot(x,\,gamma.pdf(x,\,p[0],\,scale{=}p[1]),\,\setminus
                label = "\text{Gamma}(\alpha 0, \beta 0)$:({},{})".format(p[0], p[1]))
         legend()
         show()
```

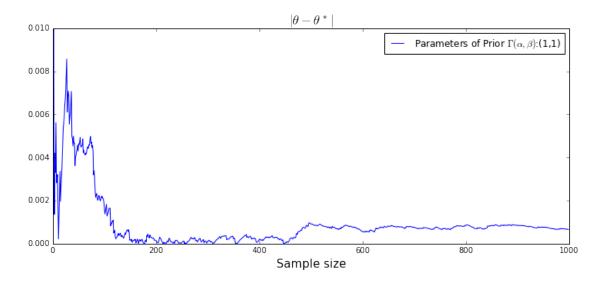


Поскольку в начальный момент времени мы ничего не знаем о "скорости выхода из строя" серверов, то нам не подходят параметры Гамма распределения, при которых образуется явный "горб" над каким-то конкретным числом. Нам следует этого избегать.

Значит, нужно брать параметр  $\alpha_0=1,$  а за параметр  $\beta_0$  можно взять число 2, при котором график плотности выглядит не очень крутым.

```
In [131]: \# Истинное значение theta
       lmd = 1./66.
       t 0 = 200
       t = 70000
       param = (1,1)
       \# Сюда запишу время между i-м моментом выхода из строя сервера и (i+1)-м,
       # то есть delta - график "разности времен"
       delta = []
       for i in range(len(data)-1):
          delta.append(data[i+1] - data[i])
       # Сюда запишу оценки для параметра theta
       est = np.array([BayesEst(delta[:(j+1)], param[0], param[1]) for j in range(len(data))])
       # Строю график модуля разности истинного значения theta и байесовской оценки
       figure(figsize=(12,5))
       y\lim((0,0.01))
       xlabel("Sample size", fontsize=15)
```

```
plot(abs(lmd-est), label="Parameters of Prior $\Gamma(\\alpha,\\beta)$:({},{})"\
.format(param[0], param[1]))
title("$|\\theta - \\theta^*|$", fontsize=17)
legend()
show()
```

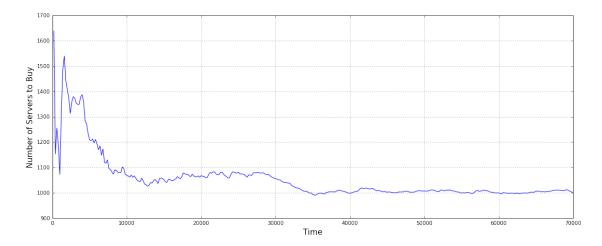


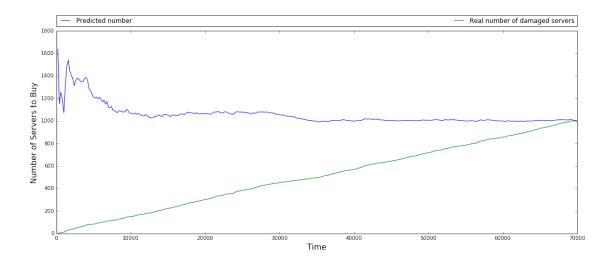
Исправлена задача 6.1 под новые условия.

Теперь вместо  $\lambda$  будет стоять оценка  $\theta^*$  в выражении для предсказанного числа серверов, которые необходимо заменить.

```
In [132]: condition expect = [] # Здесь будут предсказанные значения количества серверов
       time = [] # Сюда записываю время с шагом t 0
       quant = [] # Количество серверов, вышедших из строя, на данный момент
       plt.figure(figsize=(18,7))
       for i in range(t//t 0):
          time.append(t 0*(i+1))
          quant.append(shape(np.where(data <= time[-1]))[1]) # Нахожу это количество подсчетом
                                               # числа записей времени, меньших
                                               # текущего времени
          condition expect.append(((t-time[-1])*est[quant[-1]-1]) + quant[-1]) # Предсказанное значение
       plt.xlabel('Time', fontsize=15)
       plt.ylabel('Number of Servers to Buy', fontsize=15)
       plt.plot(time,condition expect)
       plt.grid()
       plt.show()
       plt.figure(figsize=(18,7))
```

```
plt.xlabel('Time', fontsize=15)
plt.ylabel('Number of Servers to Buy', fontsize=15)
plt.plot(time,condition_expect, label='Predicted number')
plt.plot(time,quant, color='g', label='Real number of damaged servers')
plt.legend(bbox_to_anchor=(0., 1.02, 1., .102), loc=3, ncol=2, \
mode="expand", borderaxespad=0.)
plt.show()
```





```
In [133]: for i in range(len(est)): print("lambda = \{:.4f\}, \, \{:.4f\} \text{ - bayes estimate, } \{\}/\{\}".format(lmd, \, est[i], \, i+1, \, len(est))) lambda = 0.0152, \, 0.2476 \text{ - bayes estimate, } 1/1000 lambda = 0.0152, \, 0.0962 \text{ - bayes estimate, } 2/1000 lambda = 0.0152, \, 0.0234 \text{ - bayes estimate, } 3/1000
```

```
lambda = 0.0152, 0.0165 - bayes estimate, 4/1000
lambda = 0.0152, 0.0193 - bayes estimate, 5/1000
lambda = 0.0152, 0.0185 - bayes estimate, 6/1000
lambda = 0.0152, 0.0208 - bayes estimate, 7/1000
lambda = 0.0152, 0.0180 - bayes estimate, 8/1000
lambda = 0.0152, 0.0180 - bayes estimate, 9/1000
lambda = 0.0152, 0.0184 - bayes estimate, 10/1000
lambda = 0.0152, 0.0170 - bayes estimate, 11/1000
lambda = 0.0152, 0.0154 - bayes estimate, 12/1000
lambda = 0.0152, 0.0164 - bayes estimate, 13/1000
lambda = 0.0152, 0.0175 - bayes estimate, 14/1000
lambda = 0.0152, 0.0185 - bayes estimate, 15/1000
lambda = 0.0152, 0.0171 - bayes estimate, 16/1000
lambda = 0.0152, 0.0179 - bayes estimate, 17/1000
lambda = 0.0152, 0.0183 - bayes estimate, 18/1000
lambda = 0.0152, 0.0188 - bayes estimate, 19/1000
lambda = 0.0152, 0.0196 - bayes estimate, 20/1000
lambda = 0.0152, 0.0204 - bayes estimate, 21/1000
lambda = 0.0152, 0.0207 - bayes estimate, 22/1000
lambda = 0.0152, 0.0210 - bayes estimate, 23/1000
lambda = 0.0152, 0.0215 - bayes estimate, 24/1000
lambda = 0.0152, 0.0218 - bayes estimate, 25/1000
lambda = 0.0152, 0.0223 - bayes estimate, 26/1000
lambda = 0.0152, 0.0229 - bayes estimate, 27/1000
lambda = 0.0152, 0.0237 - bayes estimate, 28/1000
lambda = 0.0152, 0.0213 - bayes estimate, 29/1000
lambda = 0.0152, 0.0219 - bayes estimate, 30/1000
lambda = 0.0152, 0.0222 - bayes estimate, 31/1000
lambda = 0.0152, 0.0220 - bayes estimate, 32/1000
lambda = 0.0152, 0.0207 - bayes estimate, 33/1000
lambda = 0.0152, 0.0210 - bayes estimate, 34/1000
lambda = 0.0152, 0.0212 - bayes estimate, 35/1000
lambda = 0.0152, 0.0217 - bayes estimate, 36/1000
lambda = 0.0152, 0.0222 - bayes estimate, 37/1000
lambda = 0.0152, 0.0201 - bayes estimate, 38/1000
lambda = 0.0152, 0.0200 - bayes estimate, 39/1000
lambda = 0.0152, 0.0197 - bayes estimate, 40/1000
lambda = 0.0152, 0.0201 - bayes estimate, 41/1000
lambda = 0.0152, 0.0198 - bayes estimate, 42/1000
lambda = 0.0152, 0.0198 - bayes estimate, 43/1000
lambda = 0.0152, 0.0188 - bayes estimate, 44/1000
lambda = 0.0152, 0.0192 - bayes estimate, 45/1000
lambda = 0.0152, 0.0192 - bayes estimate, 46/1000
lambda = 0.0152, 0.0195 - bayes estimate, 47/1000
lambda = 0.0152, 0.0195 - bayes estimate, 48/1000
lambda = 0.0152, 0.0197 - bayes estimate, 49/1000
lambda = 0.0152, 0.0194 - bayes estimate, 50/1000
lambda = 0.0152, 0.0198 - bayes estimate, 51/1000
```

```
lambda = 0.0152, 0.0197 - bayes estimate, 52/1000
lambda = 0.0152, 0.0199 - bayes estimate, 53/1000
lambda = 0.0152, 0.0201 - bayes estimate, 54/1000
lambda = 0.0152, 0.0197 - bayes estimate, 55/1000
lambda = 0.0152, 0.0196 - bayes estimate, 56/1000
lambda = 0.0152, 0.0197 - bayes estimate, 57/1000
lambda = 0.0152, 0.0197 - bayes estimate, 58/1000
lambda = 0.0152, 0.0200 - bayes estimate, 59/1000
lambda = 0.0152, 0.0194 - bayes estimate, 60/1000
lambda = 0.0152, 0.0195 - bayes estimate, 61/1000
lambda = 0.0152, 0.0193 - bayes estimate, 62/1000
lambda = 0.0152, 0.0193 - bayes estimate, 63/1000
lambda = 0.0152, 0.0193 - bayes estimate, 64/1000
lambda = 0.0152, 0.0194 - bayes estimate, 65/1000
lambda = 0.0152, 0.0193 - bayes estimate, 66/1000
lambda = 0.0152, 0.0195 - bayes estimate, 67/1000
lambda = 0.0152, 0.0196 - bayes estimate, 68/1000
lambda = 0.0152, 0.0196 - bayes estimate, 69/1000
lambda = 0.0152, 0.0196 - bayes estimate, 70/1000
lambda = 0.0152, 0.0197 - bayes estimate, 71/1000
lambda = 0.0152, 0.0197 - bayes estimate, 72/1000
lambda = 0.0152, 0.0200 - bayes estimate, 73/1000
lambda = 0.0152, 0.0201 - bayes estimate, 74/1000
lambda = 0.0152, 0.0198 - bayes estimate, 75/1000
lambda = 0.0152, 0.0199 - bayes estimate, 76/1000
lambda = 0.0152, 0.0196 - bayes estimate, 77/1000
lambda = 0.0152, 0.0197 - bayes estimate, 78/1000
lambda = 0.0152, 0.0194 - bayes estimate, 79/1000
lambda = 0.0152, 0.0183 - bayes estimate, 80/1000
lambda = 0.0152, 0.0185 - bayes estimate, 81/1000
lambda = 0.0152, 0.0182 - bayes estimate, 82/1000
lambda = 0.0152, 0.0176 - bayes estimate, 83/1000
lambda = 0.0152, 0.0173 - bayes estimate, 84/1000
lambda = 0.0152, 0.0174 - bayes estimate, 85/1000
lambda = 0.0152, 0.0175 - bayes estimate, 86/1000
lambda = 0.0152, 0.0172 - bayes estimate, 87/1000
lambda = 0.0152, 0.0172 - bayes estimate, 88/1000
lambda = 0.0152, 0.0172 - bayes estimate, 89/1000
lambda = 0.0152, 0.0174 - bayes estimate, 90/1000
lambda = 0.0152, 0.0174 - bayes estimate, 91/1000
lambda = 0.0152, 0.0172 - bayes estimate, 92/1000
lambda = 0.0152, 0.0171 - bayes estimate, 93/1000
lambda = 0.0152, 0.0172 - bayes estimate, 94/1000
lambda = 0.0152, 0.0174 - bayes estimate, 95/1000
lambda = 0.0152, 0.0173 - bayes estimate, 96/1000
lambda = 0.0152, 0.0173 - bayes estimate, 97/1000
lambda = 0.0152, 0.0172 - bayes estimate, 98/1000
lambda = 0.0152, 0.0172 - bayes estimate, 99/1000
```

```
lambda = 0.0152, 0.0171 - bayes estimate, 100/1000
lambda = 0.0152, 0.0167 - bayes estimate, 101/1000
lambda = 0.0152, 0.0165 - bayes estimate, 102/1000
lambda = 0.0152, 0.0167 - bayes estimate, 103/1000
lambda = 0.0152, 0.0168 - bayes estimate, 104/1000
lambda = 0.0152, 0.0170 - bayes estimate, 105/1000
lambda = 0.0152, 0.0164 - bayes estimate, 106/1000
lambda = 0.0152, 0.0165 - bayes estimate, 107/1000
lambda = 0.0152, 0.0166 - bayes estimate, 108/1000
lambda = 0.0152, 0.0166 - bayes estimate, 109/1000
lambda = 0.0152, 0.0168 - bayes estimate, 110/1000
lambda = 0.0152, 0.0168 - bayes estimate, 111/1000
lambda = 0.0152, 0.0168 - bayes estimate, 112/1000
lambda = 0.0152, 0.0160 - bayes estimate, 113/1000
lambda = 0.0152, 0.0161 - bayes estimate, 114/1000
lambda = 0.0152, 0.0161 - bayes estimate, 115/1000
lambda = 0.0152, 0.0162 - bayes estimate, 116/1000
lambda = 0.0152, 0.0162 - bayes estimate, 117/1000
lambda = 0.0152, 0.0162 - bayes estimate, 118/1000
lambda = 0.0152, 0.0156 - bayes estimate, 119/1000
lambda = 0.0152, 0.0157 - bayes estimate, 120/1000
lambda = 0.0152, 0.0158 - bayes estimate, 121/1000
lambda = 0.0152, 0.0155 - bayes estimate, 122/1000
lambda = 0.0152, 0.0154 - bayes estimate, 123/1000
lambda = 0.0152, 0.0154 - bayes estimate, 124/1000
lambda = 0.0152, 0.0154 - bayes estimate, 125/1000
lambda = 0.0152, 0.0155 - bayes estimate, 126/1000
lambda = 0.0152, 0.0156 - bayes estimate, 127/1000
lambda = 0.0152, 0.0156 - bayes estimate, 128/1000
lambda = 0.0152, 0.0155 - bayes estimate, 129/1000
lambda = 0.0152, 0.0156 - bayes estimate, 130/1000
lambda = 0.0152, 0.0156 - bayes estimate, 131/1000
lambda = 0.0152, 0.0156 - bayes estimate, 132/1000
lambda = 0.0152, 0.0155 - bayes estimate, 133/1000
lambda = 0.0152, 0.0155 - bayes estimate, 134/1000
lambda = 0.0152, 0.0155 - bayes estimate, 135/1000
lambda = 0.0152, 0.0155 - bayes estimate, 136/1000
lambda = 0.0152, 0.0155 - bayes estimate, 137/1000
lambda = 0.0152, 0.0154 - bayes estimate, 138/1000
lambda = 0.0152, 0.0155 - bayes estimate, 139/1000
lambda = 0.0152, 0.0156 - bayes estimate, 140/1000
lambda = 0.0152, 0.0157 - bayes estimate, 141/1000
lambda = 0.0152, 0.0156 - bayes estimate, 142/1000
lambda = 0.0152, 0.0157 - bayes estimate, 143/1000
lambda = 0.0152, 0.0157 - bayes estimate, 144/1000
lambda = 0.0152, 0.0158 - bayes estimate, 145/1000
lambda = 0.0152, 0.0158 - bayes estimate, 146/1000
lambda = 0.0152, 0.0157 - bayes estimate, 147/1000
```

```
lambda = 0.0152, 0.0158 - bayes estimate, 148/1000
lambda = 0.0152,\, 0.0157 \text{ - bayes estimate},\, 149/1000
lambda = 0.0152, 0.0153 - bayes estimate, 150/1000
lambda = 0.0152, 0.0153 - bayes estimate, 151/1000
lambda = 0.0152, 0.0153 - bayes estimate, 152/1000
lambda = 0.0152, 0.0153 - bayes estimate, 153/1000
lambda = 0.0152, 0.0154 - bayes estimate, 154/1000
lambda = 0.0152, 0.0152 - bayes estimate, 155/1000
lambda = 0.0152, 0.0153 - bayes estimate, 156/1000
lambda = 0.0152, 0.0153 - bayes estimate, 157/1000
lambda = 0.0152, 0.0153 - bayes estimate, 158/1000
lambda = 0.0152, 0.0153 - bayes estimate, 159/1000
lambda = 0.0152, 0.0153 - bayes estimate, 160/1000
lambda = 0.0152, 0.0154 - bayes estimate, 161/1000
lambda = 0.0152, 0.0152 - bayes estimate, 162/1000
lambda = 0.0152, 0.0152 - bayes estimate, 163/1000
lambda = 0.0152, 0.0153 - bayes estimate, 164/1000
lambda = 0.0152, 0.0154 - bayes estimate, 165/1000
lambda = 0.0152, 0.0153 - bayes estimate, 166/1000
lambda = 0.0152, 0.0152 - bayes estimate, 167/1000
lambda = 0.0152, 0.0150 - bayes estimate, 168/1000
lambda = 0.0152, 0.0150 - bayes estimate, 169/1000
lambda = 0.0152, 0.0150 - bayes estimate, 170/1000
lambda = 0.0152, 0.0150 - bayes estimate, 171/1000
lambda = 0.0152, 0.0150 - bayes estimate, 172/1000
lambda = 0.0152, 0.0150 - bayes estimate, 173/1000
lambda = 0.0152, 0.0149 - bayes estimate, 174/1000
lambda = 0.0152, 0.0150 - bayes estimate, 175/1000
lambda = 0.0152, 0.0151 - bayes estimate, 176/1000
lambda = 0.0152, 0.0152 - bayes estimate, 177/1000
lambda = 0.0152, 0.0152 - bayes estimate, 178/1000
lambda = 0.0152, 0.0151 - bayes estimate, 179/1000
lambda = 0.0152, 0.0150 - bayes estimate, 180/1000
lambda = 0.0152, 0.0150 - bayes estimate, 181/1000
lambda = 0.0152, 0.0151 - bayes estimate, 182/1000
lambda = 0.0152, 0.0148 - bayes estimate, 183/1000
lambda = 0.0152, 0.0148 - bayes estimate, 184/1000
lambda = 0.0152, 0.0147 - bayes estimate, 185/1000
lambda = 0.0152, 0.0148 - bayes estimate, 186/1000
lambda = 0.0152, 0.0148 - bayes estimate, 187/1000
lambda = 0.0152, 0.0149 - bayes estimate, 188/1000
lambda = 0.0152, 0.0147 - bayes estimate, 189/1000
lambda = 0.0152, 0.0148 - bayes estimate, 190/1000
lambda = 0.0152, 0.0149 - bayes estimate, 191/1000
lambda = 0.0152, 0.0149 - bayes estimate, 192/1000
lambda = 0.0152, 0.0149 - bayes estimate, 193/1000
lambda = 0.0152, 0.0149 - bayes estimate, 194/1000
lambda = 0.0152, 0.0149 - bayes estimate, 195/1000
```

```
lambda = 0.0152, 0.0149 - bayes estimate, 196/1000
lambda = 0.0152, 0.0149 - bayes estimate, 197/1000
lambda = 0.0152, 0.0150 - bayes estimate, 198/1000
lambda = 0.0152, 0.0150 - bayes estimate, 199/1000
lambda = 0.0152, 0.0150 - bayes estimate, 200/1000
lambda = 0.0152, 0.0150 - bayes estimate, 201/1000
lambda = 0.0152, 0.0150 - bayes estimate, 202/1000
lambda = 0.0152, 0.0151 - bayes estimate, 203/1000
lambda = 0.0152, 0.0151 - bayes estimate, 204/1000
lambda = 0.0152, 0.0151 - bayes estimate, 205/1000
lambda = 0.0152, 0.0151 - bayes estimate, 206/1000
lambda = 0.0152, 0.0150 - bayes estimate, 207/1000
lambda = 0.0152, 0.0148 - bayes estimate, 208/1000
lambda = 0.0152, 0.0149 - bayes estimate, 209/1000
lambda = 0.0152, 0.0149 - bayes estimate, 210/1000
lambda = 0.0152, 0.0150 - bayes estimate, 211/1000
lambda = 0.0152, 0.0150 - bayes estimate, 212/1000
lambda = 0.0152, 0.0151 - bayes estimate, 213/1000
lambda = 0.0152, 0.0151 - bayes estimate, 214/1000
lambda = 0.0152, 0.0151 - bayes estimate, 215/1000
lambda = 0.0152, 0.0151 - bayes estimate, 216/1000
lambda = 0.0152, 0.0151 - bayes estimate, 217/1000
lambda = 0.0152, 0.0152 - bayes estimate, 218/1000
lambda = 0.0152, 0.0152 - bayes estimate, 219/1000
lambda = 0.0152, 0.0152 - bayes estimate, 220/1000
lambda = 0.0152, 0.0151 - bayes estimate, 221/1000
lambda = 0.0152, 0.0151 - bayes estimate, 222/1000
lambda = 0.0152, 0.0151 - bayes estimate, 223/1000
lambda = 0.0152, 0.0150 - bayes estimate, 224/1000
lambda = 0.0152, 0.0151 - bayes estimate, 225/1000
lambda = 0.0152, 0.0149 - bayes estimate, 226/1000
lambda = 0.0152, 0.0149 - bayes estimate, 227/1000
lambda = 0.0152, 0.0150 - bayes estimate, 228/1000
lambda = 0.0152, 0.0150 - bayes estimate, 229/1000
lambda = 0.0152, 0.0151 - bayes estimate, 230/1000
lambda = 0.0152, 0.0151 - bayes estimate, 231/1000
lambda = 0.0152, 0.0151 - bayes estimate, 232/1000
lambda = 0.0152, 0.0151 - bayes estimate, 233/1000
lambda = 0.0152, 0.0151 - bayes estimate, 234/1000
lambda = 0.0152, 0.0151 - bayes estimate, 235/1000
lambda = 0.0152, 0.0151 - bayes estimate, 236/1000
lambda = 0.0152, 0.0151 - bayes estimate, 237/1000
lambda = 0.0152, 0.0150 - bayes estimate, 238/1000
lambda = 0.0152, 0.0150 - bayes estimate, 239/1000
lambda = 0.0152, 0.0150 - bayes estimate, 240/1000
lambda = 0.0152, 0.0150 - bayes estimate, 241/1000
lambda = 0.0152, 0.0150 - bayes estimate, 242/1000
lambda = 0.0152, 0.0151 - bayes estimate, 243/1000
```

```
lambda = 0.0152, 0.0151 - bayes estimate, 244/1000
lambda = 0.0152, 0.0151 - bayes estimate, 245/1000
lambda = 0.0152, 0.0152 - bayes estimate, 246/1000
lambda = 0.0152, 0.0151 - bayes estimate, 247/1000
lambda = 0.0152, 0.0151 - bayes estimate, 248/1000
lambda = 0.0152, 0.0151 - bayes estimate, 249/1000
lambda = 0.0152, 0.0152 - bayes estimate, 250/1000
lambda = 0.0152, 0.0152 - bayes estimate, 251/1000
lambda = 0.0152, 0.0152 - bayes estimate, 252/1000
lambda = 0.0152, 0.0152 - bayes estimate, 253/1000
lambda = 0.0152, 0.0153 - bayes estimate, 254/1000
lambda = 0.0152, 0.0153 - bayes estimate, 255/1000
lambda = 0.0152, 0.0151 - bayes estimate, 256/1000
lambda = 0.0152, 0.0151 - bayes estimate, 257/1000
lambda = 0.0152, 0.0151 - bayes estimate, 258/1000
lambda = 0.0152, 0.0151 - bayes estimate, 259/1000
lambda = 0.0152, 0.0152 - bayes estimate, 260/1000
lambda = 0.0152, 0.0152 - bayes estimate, 261/1000
lambda = 0.0152, 0.0152 - bayes estimate, 262/1000
lambda = 0.0152, 0.0152 - bayes estimate, \frac{263}{1000}
lambda = 0.0152, 0.0153 - bayes estimate, 264/1000
lambda = 0.0152, 0.0153 - bayes estimate, 265/1000
lambda = 0.0152, 0.0153 - bayes estimate, 266/1000
lambda = 0.0152, 0.0154 - bayes estimate, 267/1000
lambda = 0.0152, 0.0154 - bayes estimate, 268/1000
lambda = 0.0152, 0.0154 - bayes estimate, 269/1000
lambda = 0.0152, 0.0154 - bayes estimate, 270/1000
lambda = 0.0152, 0.0154 - bayes estimate, 271/1000
lambda = 0.0152, 0.0154 - bayes estimate, 272/1000
lambda = 0.0152, 0.0154 - bayes estimate, 273/1000
lambda = 0.0152, 0.0154 - bayes estimate, 274/1000
lambda = 0.0152, 0.0154 - bayes estimate, 275/1000
lambda = 0.0152, 0.0154 - bayes estimate, 276/1000
lambda = 0.0152, 0.0154 - bayes estimate, 277/1000
lambda = 0.0152, 0.0153 - bayes estimate, 278/1000
lambda = 0.0152, 0.0153 - bayes estimate, \frac{279}{1000}
lambda = 0.0152, 0.0153 - bayes estimate, 280/1000
lambda = 0.0152, 0.0152 - bayes estimate, 281/1000
lambda = 0.0152, 0.0153 - bayes estimate, 282/1000
lambda = 0.0152, 0.0153 - bayes estimate, 283/1000
lambda = 0.0152, 0.0154 - bayes estimate, 284/1000
lambda = 0.0152, 0.0154 - bayes estimate, 285/1000
lambda = 0.0152, 0.0154 - bayes estimate, 286/1000
lambda = 0.0152, 0.0154 - bayes estimate, 287/1000
lambda = 0.0152, 0.0153 - bayes estimate, 288/1000
lambda = 0.0152, 0.0152 - bayes estimate, 289/1000
lambda = 0.0152, 0.0153 - bayes estimate, 290/1000
lambda = 0.0152, 0.0153 - bayes estimate, 291/1000
```

```
lambda = 0.0152, 0.0153 - bayes estimate, 292/1000
lambda = 0.0152, 0.0153 - bayes estimate, 293/1000
lambda = 0.0152, 0.0152 - bayes estimate, 294/1000
lambda = 0.0152, 0.0152 - bayes estimate, 295/1000
lambda = 0.0152, 0.0153 - bayes estimate, 296/1000
lambda = 0.0152, 0.0153 - bayes estimate, 297/1000
lambda = 0.0152, 0.0153 - bayes estimate, 298/1000
lambda = 0.0152, 0.0152 - bayes estimate, 299/1000
lambda = 0.0152, 0.0152 - bayes estimate, 300/1000
lambda = 0.0152, 0.0152 - bayes estimate, 301/1000
lambda = 0.0152, 0.0153 - bayes estimate, 302/1000
lambda = 0.0152, 0.0153 - bayes estimate, 303/1000
lambda = 0.0152, 0.0153 - bayes estimate, 304/1000
lambda = 0.0152, 0.0153 - bayes estimate, 305/1000
lambda = 0.0152, 0.0153 - bayes estimate, 306/1000
lambda = 0.0152, 0.0152 - bayes estimate, 307/1000
lambda = 0.0152,\, 0.0152 \text{ - bayes estimate},\, 308/1000
lambda = 0.0152, 0.0152 - bayes estimate, 309/1000
lambda = 0.0152, 0.0152 - bayes estimate, 310/1000
lambda = 0.0152, 0.0152 - bayes estimate, 311/1000
lambda = 0.0152, 0.0152 - bayes estimate, 312/1000
lambda = 0.0152, 0.0152 - bayes estimate, 313/1000
lambda = 0.0152, 0.0152 - bayes estimate, 314/1000
lambda = 0.0152, 0.0152 - bayes estimate, 315/1000
lambda = 0.0152, 0.0153 - bayes estimate, 316/1000
lambda = 0.0152, 0.0153 - bayes estimate, 317/1000
lambda = 0.0152, 0.0153 - bayes estimate, 318/1000
lambda = 0.0152, 0.0154 - bayes estimate, 319/1000
lambda = 0.0152, 0.0154 - bayes estimate, 320/1000
lambda = 0.0152, 0.0154 - bayes estimate, 321/1000
lambda = 0.0152, 0.0154 - bayes estimate, 322/1000
lambda = 0.0152, 0.0154 - bayes estimate, 323/1000
lambda = 0.0152, 0.0155 - bayes estimate, 324/1000
lambda = 0.0152, 0.0155 - bayes estimate, 325/1000
lambda = 0.0152, 0.0154 - bayes estimate, 326/1000
lambda = 0.0152, 0.0154 - bayes estimate, 327/1000
lambda = 0.0152, 0.0155 - bayes estimate, 328/1000
lambda = 0.0152, 0.0155 - bayes estimate, 329/1000
lambda = 0.0152, 0.0155 - bayes estimate, 330/1000
lambda = 0.0152, 0.0155 - bayes estimate, 331/1000
lambda = 0.0152, 0.0155 - bayes estimate, 332/1000
lambda = 0.0152, 0.0155 - bayes estimate, 333/1000
lambda = 0.0152, 0.0155 - bayes estimate, 334/1000
lambda = 0.0152, 0.0155 - bayes estimate, 335/1000
lambda = 0.0152, 0.0155 - bayes estimate, 336/1000
lambda = 0.0152, 0.0155 - bayes estimate, 337/1000
lambda = 0.0152, 0.0153 - bayes estimate, 338/1000
lambda = 0.0152, 0.0154 - bayes estimate, 339/1000
```

```
lambda = 0.0152, 0.0154 - bayes estimate, 340/1000
lambda = 0.0152, 0.0154 - bayes estimate, 341/1000
lambda = 0.0152, 0.0154 - bayes estimate, 342/1000
lambda = 0.0152, 0.0154 - bayes estimate, 343/1000
lambda = 0.0152, 0.0154 - bayes estimate, 344/1000
lambda = 0.0152, 0.0154 - bayes estimate, 345/1000
lambda = 0.0152, 0.0155 - bayes estimate, 346/1000
lambda = 0.0152, 0.0155 - bayes estimate, 347/1000
lambda = 0.0152, 0.0155 - bayes estimate, 348/1000
lambda = 0.0152, 0.0155 - bayes estimate, 349/1000
lambda = 0.0152, 0.0155 - bayes estimate, 350/1000
lambda = 0.0152, 0.0154 - bayes estimate, 351/1000
lambda = 0.0152, 0.0154 - bayes estimate, 352/1000
lambda = 0.0152, 0.0154 - bayes estimate, 353/1000
lambda = 0.0152, 0.0152 - bayes estimate, 354/1000
lambda = 0.0152, 0.0152 - bayes estimate, 355/1000
lambda = 0.0152, 0.0152 - bayes estimate, 356/1000
lambda = 0.0152, 0.0152 - bayes estimate, 357/1000
lambda = 0.0152, 0.0152 - bayes estimate, 358/1000
lambda = 0.0152, 0.0152 - bayes estimate, 359/1000
lambda = 0.0152, 0.0152 - bayes estimate, 360/1000
lambda = 0.0152, 0.0152 - bayes estimate, 361/1000
lambda = 0.0152, 0.0153 - bayes estimate, 362/1000
lambda = 0.0152, 0.0153 - bayes estimate, 363/1000
lambda = 0.0152, 0.0153 - bayes estimate, 364/1000
lambda = 0.0152, 0.0154 - bayes estimate, 365/1000
lambda = 0.0152, 0.0154 - bayes estimate, 366/1000
lambda = 0.0152, 0.0154 - bayes estimate, 367/1000
lambda = 0.0152, 0.0154 - bayes estimate, 368/1000
lambda = 0.0152, 0.0154 - bayes estimate, 369/1000
lambda = 0.0152, 0.0155 - bayes estimate, 370/1000
lambda = 0.0152, 0.0155 - bayes estimate, 371/1000
lambda = 0.0152, 0.0155 - bayes estimate, 372/1000
lambda = 0.0152, 0.0155 - bayes estimate, 373/1000
lambda = 0.0152, 0.0155 - bayes estimate, 374/1000
lambda = 0.0152, 0.0156 - bayes estimate, 375/1000
lambda = 0.0152, 0.0156 - bayes estimate, 376/1000
lambda = 0.0152, 0.0155 - bayes estimate, 377/1000
lambda = 0.0152, 0.0155 - bayes estimate, 378/1000
lambda = 0.0152, 0.0155 - bayes estimate, 379/1000
lambda = 0.0152, 0.0154 - bayes estimate, 380/1000
lambda = 0.0152, 0.0154 - bayes estimate, 381/1000
lambda = 0.0152, 0.0155 - bayes estimate, 382/1000
lambda = 0.0152, 0.0155 - bayes estimate, 383/1000
lambda = 0.0152, 0.0155 - bayes estimate, 384/1000
lambda = 0.0152, 0.0154 - bayes estimate, 385/1000
lambda = 0.0152, 0.0154 - bayes estimate, 386/1000
lambda = 0.0152, 0.0154 - bayes estimate, 387/1000
```

```
lambda = 0.0152, 0.0154 - bayes estimate, 388/1000
lambda = 0.0152, 0.0154 - bayes estimate, 389/1000
lambda = 0.0152, 0.0154 - bayes estimate, 390/1000
lambda = 0.0152, 0.0154 - bayes estimate, 391/1000
lambda = 0.0152, 0.0154 - bayes estimate, 392/1000
lambda = 0.0152, 0.0154 - bayes estimate, 393/1000
lambda = 0.0152, 0.0153 - bayes estimate, 394/1000
lambda = 0.0152, 0.0152 - bayes estimate, 395/1000
lambda = 0.0152, 0.0152 - bayes estimate, 396/1000
lambda = 0.0152, 0.0152 - bayes estimate, 397/1000
lambda = 0.0152, 0.0152 - bayes estimate, 398/1000
lambda = 0.0152, 0.0153 - bayes estimate, 399/1000
lambda = 0.0152, 0.0153 - bayes estimate, 400/1000
lambda = 0.0152, 0.0153 - bayes estimate, 401/1000
lambda = 0.0152, 0.0154 - bayes estimate, 402/1000
lambda = 0.0152, 0.0153 - bayes estimate, 403/1000
lambda = 0.0152, 0.0153 - bayes estimate, 404/1000
lambda = 0.0152, 0.0153 - bayes estimate, 405/1000
lambda = 0.0152, 0.0153 - bayes estimate, 406/1000
lambda = 0.0152, 0.0153 - bayes estimate, 407/1000
lambda = 0.0152, 0.0153 - bayes estimate, 408/1000
lambda = 0.0152, 0.0153 - bayes estimate, 409/1000
lambda = 0.0152, 0.0154 - bayes estimate, 410/1000
lambda = 0.0152, 0.0154 - bayes estimate, 411/1000
lambda = 0.0152, 0.0154 - bayes estimate, 412/1000
lambda = 0.0152, 0.0154 - bayes estimate, 413/1000
lambda = 0.0152, 0.0155 - bayes estimate, 414/1000
lambda = 0.0152, 0.0154 - bayes estimate, 415/1000
lambda = 0.0152, 0.0154 - bayes estimate, 416/1000
lambda = 0.0152, 0.0155 - bayes estimate, 417/1000
lambda = 0.0152, 0.0154 - bayes estimate, 418/1000
lambda = 0.0152, 0.0155 - bayes estimate, 419/1000
lambda = 0.0152, 0.0155 - bayes estimate, 420/1000
lambda = 0.0152, 0.0154 - bayes estimate, 421/1000
lambda = 0.0152, 0.0154 - bayes estimate, 422/1000
lambda = 0.0152, 0.0155 - bayes estimate, 423/1000
lambda = 0.0152, 0.0155 - bayes estimate, 424/1000
lambda = 0.0152, 0.0155 - bayes estimate, 425/1000
lambda = 0.0152, 0.0155 - bayes estimate, 426/1000
lambda = 0.0152, 0.0154 - bayes estimate, 427/1000
lambda = 0.0152, 0.0154 - bayes estimate, 428/1000
lambda = 0.0152, 0.0154 - bayes estimate, 429/1000
lambda = 0.0152, 0.0154 - bayes estimate, 430/1000
lambda = 0.0152, 0.0154 - bayes estimate, 431/1000
lambda = 0.0152, 0.0154 - bayes estimate, 432/1000
lambda = 0.0152, 0.0154 - bayes estimate, 433/1000
lambda = 0.0152, 0.0154 - bayes estimate, 434/1000
lambda = 0.0152, 0.0155 - bayes estimate, 435/1000
```

```
lambda = 0.0152, 0.0154 - bayes estimate, 436/1000
lambda = 0.0152, 0.0154 - bayes estimate, 437/1000
lambda = 0.0152, 0.0154 - bayes estimate, 438/1000
lambda = 0.0152, 0.0154 - bayes estimate, 439/1000
lambda = 0.0152, 0.0153 - bayes estimate, 440/1000
lambda = 0.0152, 0.0153 - bayes estimate, 441/1000
lambda = 0.0152, 0.0154 - bayes estimate, 442/1000
lambda = 0.0152, 0.0154 - bayes estimate, 443/1000
lambda = 0.0152, 0.0153 - bayes estimate, 444/1000
lambda = 0.0152, 0.0153 - bayes estimate, 445/1000
lambda = 0.0152, 0.0153 - bayes estimate, 446/1000
lambda = 0.0152, 0.0153 - bayes estimate, 447/1000
lambda = 0.0152, 0.0152 - bayes estimate, 448/1000
lambda = 0.0152, 0.0151 - bayes estimate, 449/1000
lambda = 0.0152, 0.0152 - bayes estimate, 450/1000
lambda = 0.0152, 0.0152 - bayes estimate, 451/1000
lambda = 0.0152,\, 0.0152 \text{ - bayes estimate},\, 452/1000
lambda = 0.0152, 0.0151 - bayes estimate, 453/1000
lambda = 0.0152, 0.0151 - bayes estimate, 454/1000
lambda = 0.0152, 0.0151 - bayes estimate, 455/1000
lambda = 0.0152, 0.0151 - bayes estimate, 456/1000
lambda = 0.0152, 0.0151 - bayes estimate, 457/1000
lambda = 0.0152, 0.0150 - bayes estimate, 458/1000
lambda = 0.0152, 0.0150 - bayes estimate, 459/1000
lambda = 0.0152, 0.0149 - bayes estimate, 460/1000
lambda = 0.0152, 0.0149 - bayes estimate, 461/1000
lambda = 0.0152, 0.0149 - bayes estimate, 462/1000
lambda = 0.0152, 0.0149 - bayes estimate, 463/1000
lambda = 0.0152, 0.0149 - bayes estimate, 464/1000
lambda = 0.0152, 0.0149 - bayes estimate, 465/1000
lambda = 0.0152, 0.0149 - bayes estimate, 466/1000
lambda = 0.0152, 0.0149 - bayes estimate, 467/1000
lambda = 0.0152, 0.0149 - bayes estimate, 468/1000
lambda = 0.0152, 0.0149 - bayes estimate, 469/1000
lambda = 0.0152, 0.0149 - bayes estimate, 470/1000
lambda = 0.0152, 0.0149 - bayes estimate, 471/1000
lambda = 0.0152, 0.0148 - bayes estimate, 472/1000
lambda = 0.0152, 0.0147 - bayes estimate, 473/1000
lambda = 0.0152, 0.0147 - bayes estimate, 474/1000
lambda = 0.0152, 0.0147 - bayes estimate, 475/1000
lambda = 0.0152, 0.0146 - bayes estimate, 476/1000
lambda = 0.0152, 0.0146 - bayes estimate, 477/1000
lambda = 0.0152, 0.0146 - bayes estimate, 478/1000
lambda = 0.0152, 0.0146 - bayes estimate, 479/1000
lambda = 0.0152, 0.0146 - bayes estimate, 480/1000
lambda = 0.0152, 0.0145 - bayes estimate, 481/1000
lambda = 0.0152, 0.0145 - bayes estimate, 482/1000
lambda = 0.0152, 0.0145 - bayes estimate, 483/1000
```

```
lambda = 0.0152, 0.0144 - bayes estimate, 484/1000
lambda = 0.0152, 0.0144 - bayes estimate, 485/1000
lambda = 0.0152, 0.0144 - bayes estimate, 486/1000
lambda = 0.0152, 0.0144 - bayes estimate, 487/1000
lambda = 0.0152, 0.0144 - bayes estimate, 488/1000
lambda = 0.0152, 0.0144 - bayes estimate, 489/1000
lambda = 0.0152, 0.0144 - bayes estimate, 490/1000
lambda = 0.0152, 0.0144 - bayes estimate, 491/1000
lambda = 0.0152, 0.0143 - bayes estimate, 492/1000
lambda = 0.0152, 0.0143 - bayes estimate, 493/1000
lambda = 0.0152, 0.0143 - bayes estimate, 494/1000
lambda = 0.0152, 0.0144 - bayes estimate, 495/1000
lambda = 0.0152, 0.0143 - bayes estimate, 496/1000
lambda = 0.0152, 0.0142 - bayes estimate, 497/1000
lambda = 0.0152, 0.0142 - bayes estimate, 498/1000
lambda = 0.0152, 0.0142 - bayes estimate, 499/1000
lambda = 0.0152, 0.0142 - bayes estimate, 500/1000
lambda = 0.0152, 0.0142 - bayes estimate, 501/1000
lambda = 0.0152, 0.0142 - bayes estimate, 502/1000
lambda = 0.0152, 0.0142 - bayes estimate, 503/1000
lambda = 0.0152, 0.0142 - bayes estimate, 504/1000
lambda = 0.0152, 0.0143 - bayes estimate, 505/1000
lambda = 0.0152, 0.0143 - bayes estimate, 506/1000
lambda = 0.0152, 0.0143 - bayes estimate, 507/1000
lambda = 0.0152, 0.0143 - bayes estimate, 508/1000
lambda = 0.0152, 0.0143 - bayes estimate, 509/1000
lambda = 0.0152, 0.0143 - bayes estimate, 510/1000
lambda = 0.0152, 0.0143 - bayes estimate, 511/1000
lambda = 0.0152, 0.0143 - bayes estimate, 512/1000
lambda = 0.0152, 0.0143 - bayes estimate, 513/1000
lambda = 0.0152, 0.0143 - bayes estimate, 514/1000
lambda = 0.0152, 0.0143 - bayes estimate, 515/1000
lambda = 0.0152, 0.0143 - bayes estimate, 516/1000
lambda = 0.0152, 0.0143 - bayes estimate, 517/1000
lambda = 0.0152, 0.0142 - bayes estimate, 518/1000
lambda = 0.0152, 0.0142 - bayes estimate, 519/1000
lambda = 0.0152, 0.0143 - bayes estimate, 520/1000
lambda = 0.0152, 0.0143 - bayes estimate, 521/1000
lambda = 0.0152, 0.0143 - bayes estimate, 522/1000
lambda = 0.0152, 0.0143 - bayes estimate, 523/1000
lambda = 0.0152, 0.0143 - bayes estimate, 524/1000
lambda = 0.0152, 0.0143 - bayes estimate, 525/1000
lambda = 0.0152, 0.0143 - bayes estimate, 526/1000
lambda = 0.0152, 0.0143 - bayes estimate, 527/1000
lambda = 0.0152, 0.0144 - bayes estimate, 528/1000
lambda = 0.0152, 0.0144 - bayes estimate, 529/1000
lambda = 0.0152, 0.0144 - bayes estimate, 530/1000
lambda = 0.0152, 0.0144 - bayes estimate, 531/1000
```

```
lambda = 0.0152, 0.0144 - bayes estimate, 532/1000
lambda = 0.0152, 0.0144 - bayes estimate, 533/1000
lambda = 0.0152, 0.0144 - bayes estimate, 534/1000
lambda = 0.0152, 0.0144 - bayes estimate, 535/1000
lambda = 0.0152, 0.0144 - bayes estimate, 536/1000
lambda = 0.0152, 0.0144 - bayes estimate, 537/1000
lambda = 0.0152, 0.0144 - bayes estimate, 538/1000
lambda = 0.0152, 0.0144 - bayes estimate, 539/1000
lambda = 0.0152, 0.0144 - bayes estimate, 540/1000
lambda = 0.0152, 0.0144 - bayes estimate, 541/1000
lambda = 0.0152, 0.0143 - bayes estimate, 542/1000
lambda = 0.0152, 0.0144 - bayes estimate, 543/1000
lambda = 0.0152, 0.0144 - bayes estimate, 544/1000
lambda = 0.0152, 0.0144 - bayes estimate, 545/1000
lambda = 0.0152, 0.0144 - bayes estimate, 546/1000
lambda = 0.0152, 0.0144 - bayes estimate, 547/1000
lambda = 0.0152, 0.0144 - bayes estimate, 548/1000
lambda = 0.0152, 0.0144 - bayes estimate, 549/1000
lambda = 0.0152, 0.0145 - bayes estimate, 550/1000
lambda = 0.0152, 0.0145 - bayes estimate, 551/1000
lambda = 0.0152, 0.0145 - bayes estimate, 552/1000
lambda = 0.0152, 0.0145 - bayes estimate, 553/1000
lambda = 0.0152, 0.0145 - bayes estimate, 554/1000
lambda = 0.0152, 0.0145 - bayes estimate, 555/1000
lambda = 0.0152, 0.0145 - bayes estimate, 556/1000
lambda = 0.0152, 0.0144 - bayes estimate, 557/1000
lambda = 0.0152, 0.0144 - bayes estimate, 558/1000
lambda = 0.0152, 0.0145 - bayes estimate, 559/1000
lambda = 0.0152, 0.0144 - bayes estimate, 560/1000
lambda = 0.0152, 0.0144 - bayes estimate, 561/1000
lambda = 0.0152, 0.0144 - bayes estimate, 562/1000
lambda = 0.0152, 0.0144 - bayes estimate, 563/1000
lambda = 0.0152, 0.0144 - bayes estimate, 564/1000
lambda = 0.0152, 0.0143 - bayes estimate, 565/1000
lambda = 0.0152, 0.0143 - bayes estimate, 566/1000
lambda = 0.0152, 0.0143 - bayes estimate, 567/1000
lambda = 0.0152, 0.0143 - bayes estimate, 568/1000
lambda = 0.0152, 0.0143 - bayes estimate, 569/1000
lambda = 0.0152, 0.0143 - bayes estimate, 570/1000
lambda = 0.0152, 0.0143 - bayes estimate, 571/1000
lambda = 0.0152, 0.0143 - bayes estimate, 572/1000
lambda = 0.0152, 0.0143 - bayes estimate, 573/1000
lambda = 0.0152, 0.0143 - bayes estimate, 574/1000
lambda = 0.0152, 0.0144 - bayes estimate, 575/1000
lambda = 0.0152, 0.0144 - bayes estimate, 576/1000
lambda = 0.0152, 0.0143 - bayes estimate, 577/1000
lambda = 0.0152, 0.0143 - bayes estimate, 578/1000
lambda = 0.0152, 0.0143 - bayes estimate, 579/1000
```

```
lambda = 0.0152, 0.0144 - bayes estimate, 580/1000
lambda = 0.0152, 0.0144 - bayes estimate, 581/1000
lambda = 0.0152, 0.0144 - bayes estimate, 582/1000
lambda = 0.0152, 0.0144 - bayes estimate, 583/1000
lambda = 0.0152, 0.0144 - bayes estimate, 584/1000
lambda = 0.0152, 0.0144 - bayes estimate, 585/1000
lambda = 0.0152, 0.0144 - bayes estimate, 586/1000
lambda = 0.0152, 0.0144 - bayes estimate, 587/1000
lambda = 0.0152, 0.0144 - bayes estimate, 588/1000
lambda = 0.0152, 0.0144 - bayes estimate, 589/1000
lambda = 0.0152, 0.0145 - bayes estimate, 590/1000
lambda = 0.0152, 0.0144 - bayes estimate, 591/1000
lambda = 0.0152, 0.0145 - bayes estimate, 592/1000
lambda = 0.0152, 0.0145 - bayes estimate, 593/1000
lambda = 0.0152, 0.0145 - bayes estimate, 594/1000
lambda = 0.0152, 0.0145 - bayes estimate, 595/1000
lambda = 0.0152, 0.0145 - bayes estimate, 596/1000
lambda = 0.0152, 0.0145 - bayes estimate, 597/1000
lambda = 0.0152, 0.0145 - bayes estimate, 598/1000
lambda = 0.0152, 0.0146 - bayes estimate, 599/1000
lambda = 0.0152, 0.0146 - bayes estimate, 600/1000
lambda = 0.0152, 0.0146 - bayes estimate, 601/1000
lambda = 0.0152, 0.0146 - bayes estimate, 602/1000
lambda = 0.0152, 0.0146 - bayes estimate, 603/1000
lambda = 0.0152, 0.0146 - bayes estimate, 604/1000
lambda = 0.0152, 0.0146 - bayes estimate, 605/1000
lambda = 0.0152, 0.0146 - bayes estimate, 606/1000
lambda = 0.0152, 0.0146 - bayes estimate, 607/1000
lambda = 0.0152, 0.0146 - bayes estimate, 608/1000
lambda = 0.0152, 0.0146 - bayes estimate, 609/1000
lambda = 0.0152, 0.0146 - bayes estimate, 610/1000
lambda = 0.0152, 0.0146 - bayes estimate, 611/1000
lambda = 0.0152, 0.0146 - bayes estimate, 612/1000
lambda = 0.0152, 0.0146 - bayes estimate, 613/1000
lambda = 0.0152, 0.0146 - bayes estimate, 614/1000
lambda = 0.0152, 0.0145 - bayes estimate, 615/1000
lambda = 0.0152, 0.0145 - bayes estimate, 616/1000
lambda = 0.0152, 0.0145 - bayes estimate, 617/1000
lambda = 0.0152, 0.0145 - bayes estimate, 618/1000
lambda = 0.0152, 0.0145 - bayes estimate, 619/1000
lambda = 0.0152, 0.0146 - bayes estimate, 620/1000
lambda = 0.0152, 0.0146 - bayes estimate, 621/1000
lambda = 0.0152, 0.0146 - bayes estimate, 622/1000
lambda = 0.0152, 0.0146 - bayes estimate, 623/1000
lambda = 0.0152, 0.0146 - bayes estimate, 624/1000
lambda = 0.0152, 0.0145 - bayes estimate, 625/1000
lambda = 0.0152, 0.0145 - bayes estimate, 626/1000
lambda = 0.0152, 0.0144 - bayes estimate, 627/1000
```

```
lambda = 0.0152, 0.0145 - bayes estimate, 628/1000
lambda = 0.0152, 0.0145 - bayes estimate, 629/1000
lambda = 0.0152, 0.0145 - bayes estimate, 630/1000
lambda = 0.0152, 0.0144 - bayes estimate, 631/1000
lambda = 0.0152, 0.0144 - bayes estimate, 632/1000
lambda = 0.0152, 0.0144 - bayes estimate, 633/1000
lambda = 0.0152, 0.0144 - bayes estimate, 634/1000
lambda = 0.0152, 0.0144 - bayes estimate, 635/1000
lambda = 0.0152, 0.0144 - bayes estimate, 636/1000
lambda = 0.0152, 0.0144 - bayes estimate, 637/1000
lambda = 0.0152, 0.0144 - bayes estimate, 638/1000
lambda = 0.0152, 0.0144 - bayes estimate, 639/1000
lambda = 0.0152, 0.0144 - bayes estimate, 640/1000
lambda = 0.0152, 0.0144 - bayes estimate, 641/1000
lambda = 0.0152, 0.0144 - bayes estimate, 642/1000
lambda = 0.0152, 0.0143 - bayes estimate, 643/1000
lambda = 0.0152, 0.0143 - bayes estimate, 644/1000
lambda = 0.0152, 0.0144 - bayes estimate, 645/1000
lambda = 0.0152, 0.0144 - bayes estimate, 646/1000
lambda = 0.0152, 0.0144 - bayes estimate, 647/1000
lambda = 0.0152, 0.0144 - bayes estimate, 648/1000
lambda = 0.0152, 0.0144 - bayes estimate, 649/1000
lambda = 0.0152, 0.0143 - bayes estimate, 650/1000
lambda = 0.0152, 0.0143 - bayes estimate, 651/1000
lambda = 0.0152, 0.0143 - bayes estimate, 652/1000
lambda = 0.0152, 0.0143 - bayes estimate, 653/1000
lambda = 0.0152, 0.0143 - bayes estimate, 654/1000
lambda = 0.0152, 0.0143 - bayes estimate, 655/1000
lambda = 0.0152, 0.0143 - bayes estimate, 656/1000
lambda = 0.0152, 0.0143 - bayes estimate, 657/1000
lambda = 0.0152, 0.0143 - bayes estimate, 658/1000
lambda = 0.0152, 0.0143 - bayes estimate, 659/1000
lambda = 0.0152, 0.0143 - bayes estimate, 660/1000
lambda = 0.0152, 0.0144 - bayes estimate, 661/1000
lambda = 0.0152, 0.0144 - bayes estimate, 662/1000
lambda = 0.0152, 0.0143 - bayes estimate, 663/1000
lambda = 0.0152, 0.0143 - bayes estimate, 664/1000
lambda = 0.0152, 0.0144 - bayes estimate, 665/1000
lambda = 0.0152, 0.0144 - bayes estimate, 666/1000
lambda = 0.0152, 0.0144 - bayes estimate, 667/1000
lambda = 0.0152, 0.0144 - bayes estimate, 668/1000
lambda = 0.0152, 0.0144 - bayes estimate, 669/1000
lambda = 0.0152, 0.0144 - bayes estimate, 670/1000
lambda = 0.0152, 0.0144 - bayes estimate, 671/1000
lambda = 0.0152, 0.0144 - bayes estimate, 672/1000
lambda = 0.0152, 0.0144 - bayes estimate, 673/1000
lambda = 0.0152, 0.0144 - bayes estimate, 674/1000
lambda = 0.0152, 0.0144 - bayes estimate, 675/1000
```

```
lambda = 0.0152, 0.0144 - bayes estimate, 676/1000
lambda = 0.0152, 0.0144 - bayes estimate, 677/1000
lambda = 0.0152, 0.0144 - bayes estimate, 678/1000
lambda = 0.0152, 0.0144 - bayes estimate, 679/1000
lambda = 0.0152, 0.0144 - bayes estimate, 680/1000
lambda = 0.0152, 0.0144 - bayes estimate, 681/1000
lambda = 0.0152, 0.0144 - bayes estimate, 682/1000
lambda = 0.0152, 0.0144 - bayes estimate, 683/1000
lambda = 0.0152, 0.0144 - bayes estimate, 684/1000
lambda = 0.0152, 0.0144 - bayes estimate, 685/1000
lambda = 0.0152, 0.0144 - bayes estimate, 686/1000
lambda = 0.0152, 0.0143 - bayes estimate, 687/1000
lambda = 0.0152, 0.0144 - bayes estimate, 688/1000
lambda = 0.0152, 0.0144 - bayes estimate, 689/1000
lambda = 0.0152, 0.0144 - bayes estimate, 690/1000
lambda = 0.0152, 0.0144 - bayes estimate, 691/1000
lambda = 0.0152, 0.0143 - bayes estimate, 692/1000
lambda = 0.0152, 0.0144 - bayes estimate, 693/1000
lambda = 0.0152, 0.0144 - bayes estimate, 694/1000
lambda = 0.0152, 0.0144 - bayes estimate, 695/1000
lambda = 0.0152, 0.0144 - bayes estimate, 696/1000
lambda = 0.0152, 0.0144 - bayes estimate, 697/1000
lambda = 0.0152, 0.0144 - bayes estimate, 698/1000
lambda = 0.0152, 0.0144 - bayes estimate, 699/1000
lambda = 0.0152, 0.0144 - bayes estimate, 700/1000
lambda = 0.0152, 0.0144 - bayes estimate, 701/1000
lambda = 0.0152, 0.0144 - bayes estimate, 702/1000
lambda = 0.0152, 0.0144 - bayes estimate, 703/1000
lambda = 0.0152, 0.0144 - bayes estimate, 704/1000
lambda = 0.0152, 0.0144 - bayes estimate, 705/1000
lambda = 0.0152, 0.0144 - bayes estimate, 706/1000
lambda = 0.0152, 0.0145 - bayes estimate, 707/1000
lambda = 0.0152, 0.0144 - bayes estimate, 708/1000
lambda = 0.0152, 0.0145 - bayes estimate, 709/1000
lambda = 0.0152, 0.0144 - bayes estimate, 710/1000
lambda = 0.0152, 0.0144 - bayes estimate, 711/1000
lambda = 0.0152, 0.0144 - bayes estimate, 712/1000
lambda = 0.0152, 0.0144 - bayes estimate, 713/1000
lambda = 0.0152, 0.0144 - bayes estimate, 714/1000
lambda = 0.0152, 0.0144 - bayes estimate, 715/1000
lambda = 0.0152, 0.0144 - bayes estimate, 716/1000
lambda = 0.0152, 0.0144 - bayes estimate, 717/1000
lambda = 0.0152, 0.0144 - bayes estimate, 718/1000
lambda = 0.0152, 0.0144 - bayes estimate, 719/1000
lambda = 0.0152, 0.0144 - bayes estimate, 720/1000
lambda = 0.0152, 0.0144 - bayes estimate, 721/1000
lambda = 0.0152, 0.0144 - bayes estimate, 722/1000
lambda = 0.0152, 0.0144 - bayes estimate, 723/1000
```

```
lambda = 0.0152, 0.0144 - bayes estimate, 724/1000
lambda = 0.0152, 0.0144 - bayes estimate, 725/1000
lambda = 0.0152, 0.0144 - bayes estimate, 726/1000
lambda = 0.0152, 0.0144 - bayes estimate, 727/1000
lambda = 0.0152, 0.0144 - bayes estimate, 728/1000
lambda = 0.0152, 0.0144 - bayes estimate, 729/1000
lambda = 0.0152, 0.0145 - bayes estimate, 730/1000
lambda = 0.0152, 0.0145 - bayes estimate, 731/1000
lambda = 0.0152, 0.0145 - bayes estimate, 732/1000
lambda = 0.0152, 0.0145 - bayes estimate, 733/1000
lambda = 0.0152, 0.0145 - bayes estimate, 734/1000
lambda = 0.0152, 0.0145 - bayes estimate, 735/1000
lambda = 0.0152, 0.0145 - bayes estimate, 736/1000
lambda = 0.0152, 0.0145 - bayes estimate, 737/1000
lambda = 0.0152, 0.0145 - bayes estimate, 738/1000
lambda = 0.0152, 0.0145 - bayes estimate, 739/1000
lambda = 0.0152, 0.0144 - bayes estimate, 740/1000
lambda = 0.0152, 0.0144 - bayes estimate, 741/1000
lambda = 0.0152, 0.0144 - bayes estimate, 742/1000
lambda = 0.0152, 0.0144 - bayes estimate, 743/1000
lambda = 0.0152, 0.0144 - bayes estimate, 744/1000
lambda = 0.0152, 0.0144 - bayes estimate, 745/1000
lambda = 0.0152, 0.0144 - bayes estimate, 746/1000
lambda = 0.0152, 0.0144 - bayes estimate, 747/1000
lambda = 0.0152, 0.0144 - bayes estimate, 748/1000
lambda = 0.0152, 0.0144 - bayes estimate, 749/1000
lambda = 0.0152, 0.0144 - bayes estimate, 750/1000
lambda = 0.0152, 0.0145 - bayes estimate, 751/1000
lambda = 0.0152, 0.0145 - bayes estimate, 752/1000
lambda = 0.0152, 0.0145 - bayes estimate, 753/1000
lambda = 0.0152, 0.0145 - bayes estimate, 754/1000
lambda = 0.0152, 0.0145 - bayes estimate, 755/1000
lambda = 0.0152, 0.0145 - bayes estimate, 756/1000
lambda = 0.0152, 0.0144 - bayes estimate, 757/1000
lambda = 0.0152, 0.0145 - bayes estimate, 758/1000
lambda = 0.0152, 0.0145 - bayes estimate, 759/1000
lambda = 0.0152, 0.0144 - bayes estimate, 760/1000
lambda = 0.0152, 0.0144 - bayes estimate, 761/1000
lambda = 0.0152, 0.0145 - bayes estimate, 762/1000
lambda = 0.0152, 0.0145 - bayes estimate, 763/1000
lambda = 0.0152, 0.0145 - bayes estimate, 764/1000
lambda = 0.0152, 0.0145 - bayes estimate, 765/1000
lambda = 0.0152, 0.0145 - bayes estimate, 766/1000
lambda = 0.0152, 0.0145 - bayes estimate, 767/1000
lambda = 0.0152, 0.0145 - bayes estimate, 768/1000
lambda = 0.0152, 0.0145 - bayes estimate, 769/1000
lambda = 0.0152, 0.0145 - bayes estimate, 770/1000
lambda = 0.0152, 0.0145 - bayes estimate, 771/1000
```

```
lambda = 0.0152, 0.0144 - bayes estimate, 772/1000
lambda = 0.0152, 0.0144 - bayes estimate, 773/1000
lambda = 0.0152, 0.0144 - bayes estimate, 774/1000
lambda = 0.0152, 0.0144 - bayes estimate, 775/1000
lambda = 0.0152, 0.0144 - bayes estimate, 776/1000
lambda = 0.0152, 0.0144 - bayes estimate, 777/1000
lambda = 0.0152, 0.0144 - bayes estimate, 778/1000
lambda = 0.0152, 0.0144 - bayes estimate, 779/1000
lambda = 0.0152, 0.0144 - bayes estimate, 780/1000
lambda = 0.0152, 0.0144 - bayes estimate, 781/1000
lambda = 0.0152, 0.0144 - bayes estimate, 782/1000
lambda = 0.0152, 0.0143 - bayes estimate, 783/1000
lambda = 0.0152, 0.0143 - bayes estimate, 784/1000
lambda = 0.0152, 0.0143 - bayes estimate, 785/1000
lambda = 0.0152, 0.0143 - bayes estimate, 786/1000
lambda = 0.0152, 0.0143 - bayes estimate, 787/1000
lambda = 0.0152, 0.0143 - bayes estimate, 788/1000
lambda = 0.0152, 0.0143 - bayes estimate, 789/1000
lambda = 0.0152, 0.0143 - bayes estimate, 790/1000
lambda = 0.0152, 0.0143 - bayes estimate, 791/1000
lambda = 0.0152, 0.0143 - bayes estimate, 792/1000
lambda = 0.0152, 0.0143 - bayes estimate, 793/1000
lambda = 0.0152, 0.0143 - bayes estimate, 794/1000
lambda = 0.0152, 0.0144 - bayes estimate, 795/1000
lambda = 0.0152, 0.0144 - bayes estimate, 796/1000
lambda = 0.0152, 0.0144 - bayes estimate, 797/1000
lambda = 0.0152, 0.0143 - bayes estimate, 798/1000
lambda = 0.0152, 0.0143 - bayes estimate, 799/1000
lambda = 0.0152, 0.0143 - bayes estimate, 800/1000
lambda = 0.0152, 0.0143 - bayes estimate, 801/1000
lambda = 0.0152, 0.0143 - bayes estimate, 802/1000
lambda = 0.0152, 0.0143 - bayes estimate, 803/1000
lambda = 0.0152, 0.0143 - bayes estimate, 804/1000
lambda = 0.0152, 0.0143 - bayes estimate, 805/1000
lambda = 0.0152, 0.0143 - bayes estimate, 806/1000
lambda = 0.0152, 0.0143 - bayes estimate, 807/1000
lambda = 0.0152, 0.0143 - bayes estimate, 808/1000
lambda = 0.0152, 0.0143 - bayes estimate, 809/1000
lambda = 0.0152, 0.0143 - bayes estimate, 810/1000
lambda = 0.0152, 0.0144 - bayes estimate, 811/1000
lambda = 0.0152, 0.0144 - bayes estimate, 812/1000
lambda = 0.0152, 0.0144 - bayes estimate, 813/1000
lambda = 0.0152, 0.0144 - bayes estimate, 814/1000
lambda = 0.0152, 0.0144 - bayes estimate, 815/1000
lambda = 0.0152, 0.0144 - bayes estimate, 816/1000
lambda = 0.0152, 0.0144 - bayes estimate, 817/1000
lambda = 0.0152, 0.0144 - bayes estimate, 818/1000
lambda = 0.0152, 0.0144 - bayes estimate, 819/1000
```

```
lambda = 0.0152, 0.0144 - bayes estimate, 820/1000
lambda = 0.0152, 0.0144 - bayes estimate, 821/1000
lambda = 0.0152, 0.0145 - bayes estimate, 822/1000
lambda = 0.0152, 0.0145 - bayes estimate, 823/1000
lambda = 0.0152, 0.0144 - bayes estimate, 824/1000
lambda = 0.0152, 0.0144 - bayes estimate, 825/1000
lambda = 0.0152, 0.0144 - bayes estimate, 826/1000
lambda = 0.0152, 0.0144 - bayes estimate, 827/1000
lambda = 0.0152, 0.0144 - bayes estimate, 828/1000
lambda = 0.0152, 0.0144 - bayes estimate, 829/1000
lambda = 0.0152, 0.0144 - bayes estimate, 830/1000
lambda = 0.0152, 0.0144 - bayes estimate, 831/1000
lambda = 0.0152, 0.0144 - bayes estimate, 832/1000
lambda = 0.0152, 0.0145 - bayes estimate, 833/1000
lambda = 0.0152, 0.0145 - bayes estimate, 834/1000
lambda = 0.0152, 0.0145 - bayes estimate, 835/1000
lambda = 0.0152, 0.0145 - bayes estimate, 836/1000
lambda = 0.0152, 0.0145 - bayes estimate, 837/1000
lambda = 0.0152, 0.0144 - bayes estimate, 838/1000
lambda = 0.0152, 0.0144 - bayes estimate, 839/1000
lambda = 0.0152, 0.0144 - bayes estimate, 840/1000
lambda = 0.0152, 0.0144 - bayes estimate, 841/1000
lambda = 0.0152, 0.0144 - bayes estimate, 842/1000
lambda = 0.0152, 0.0143 - bayes estimate, 843/1000
lambda = 0.0152, 0.0143 - bayes estimate, 844/1000
lambda = 0.0152, 0.0143 - bayes estimate, 845/1000
lambda = 0.0152, 0.0143 - bayes estimate, 846/1000
lambda = 0.0152, 0.0143 - bayes estimate, 847/1000
lambda = 0.0152, 0.0143 - bayes estimate, 848/1000
lambda = 0.0152, 0.0143 - bayes estimate, 849/1000
lambda = 0.0152, 0.0143 - bayes estimate, 850/1000
lambda = 0.0152, 0.0143 - bayes estimate, 851/1000
lambda = 0.0152, 0.0143 - bayes estimate, 852/1000
lambda = 0.0152, 0.0143 - bayes estimate, 853/1000
lambda = 0.0152, 0.0143 - bayes estimate, 854/1000
lambda = 0.0152, 0.0143 - bayes estimate, 855/1000
lambda = 0.0152, 0.0143 - bayes estimate, 856/1000
lambda = 0.0152, 0.0143 - bayes estimate, 857/1000
lambda = 0.0152, 0.0143 - bayes estimate, 858/1000
lambda = 0.0152, 0.0143 - bayes estimate, 859/1000
lambda = 0.0152, 0.0143 - bayes estimate, 860/1000
lambda = 0.0152, 0.0143 - bayes estimate, 861/1000
lambda = 0.0152, 0.0143 - bayes estimate, 862/1000
lambda = 0.0152, 0.0143 - bayes estimate, 863/1000
lambda = 0.0152, 0.0143 - bayes estimate, 864/1000
lambda = 0.0152, 0.0143 - bayes estimate, 865/1000
lambda = 0.0152, 0.0143 - bayes estimate, 866/1000
lambda = 0.0152, 0.0143 - bayes estimate, 867/1000
```

```
lambda = 0.0152, 0.0143 - bayes estimate, 868/1000
lambda = 0.0152, 0.0143 - bayes estimate, 869/1000
lambda = 0.0152, 0.0143 - bayes estimate, 870/1000
lambda = 0.0152, 0.0143 - bayes estimate, 871/1000
lambda = 0.0152, 0.0143 - bayes estimate, 872/1000
lambda = 0.0152, 0.0143 - bayes estimate, 873/1000
lambda = 0.0152, 0.0143 - bayes estimate, 874/1000
lambda = 0.0152, 0.0143 - bayes estimate, 875/1000
lambda = 0.0152, 0.0143 - bayes estimate, 876/1000
lambda = 0.0152, 0.0143 - bayes estimate, 877/1000
lambda = 0.0152, 0.0143 - bayes estimate, 878/1000
lambda = 0.0152, 0.0143 - bayes estimate, 879/1000
lambda = 0.0152, 0.0143 - bayes estimate, 880/1000
lambda = 0.0152, 0.0143 - bayes estimate, 881/1000
lambda = 0.0152, 0.0143 - bayes estimate, 882/1000
lambda = 0.0152, 0.0143 - bayes estimate, 883/1000
lambda = 0.0152, 0.0143 - bayes estimate, 884/1000
lambda = 0.0152, 0.0143 - bayes estimate, 885/1000
lambda = 0.0152, 0.0143 - bayes estimate, 886/1000
lambda = 0.0152, 0.0143 - bayes estimate, 887/1000
lambda = 0.0152, 0.0143 - bayes estimate, 888/1000
lambda = 0.0152, 0.0143 - bayes estimate, 889/1000
lambda = 0.0152, 0.0143 - bayes estimate, 890/1000
lambda = 0.0152, 0.0143 - bayes estimate, 891/1000
lambda = 0.0152, 0.0143 - bayes estimate, 892/1000
lambda = 0.0152, 0.0143 - bayes estimate, 893/1000
lambda = 0.0152, 0.0143 - bayes estimate, 894/1000
lambda = 0.0152, 0.0143 - bayes estimate, 895/1000
lambda = 0.0152, 0.0143 - bayes estimate, 896/1000
lambda = 0.0152, 0.0143 - bayes estimate, 897/1000
lambda = 0.0152, 0.0143 - bayes estimate, 898/1000
lambda = 0.0152, 0.0143 - bayes estimate, 899/1000
lambda = 0.0152, 0.0143 - bayes estimate, 900/1000
lambda = 0.0152, 0.0143 - bayes estimate, 901/1000
lambda = 0.0152, 0.0143 - bayes estimate, 902/1000
lambda = 0.0152, 0.0143 - bayes estimate, 903/1000
lambda = 0.0152, 0.0143 - bayes estimate, 904/1000
lambda = 0.0152, 0.0143 - bayes estimate, 905/1000
lambda = 0.0152, 0.0143 - bayes estimate, 906/1000
lambda = 0.0152, 0.0143 - bayes estimate, 907/1000
lambda = 0.0152, 0.0143 - bayes estimate, 908/1000
lambda = 0.0152, 0.0143 - bayes estimate, 909/1000
lambda = 0.0152, 0.0143 - bayes estimate, 910/1000
lambda = 0.0152, 0.0143 - bayes estimate, 911/1000
lambda = 0.0152, 0.0143 - bayes estimate, 912/1000
lambda = 0.0152, 0.0143 - bayes estimate, 913/1000
lambda = 0.0152, 0.0143 - bayes estimate, 914/1000
lambda = 0.0152, 0.0143 - bayes estimate, 915/1000
```

```
lambda = 0.0152, 0.0143 - bayes estimate, 916/1000
lambda = 0.0152, 0.0143 - bayes estimate, 917/1000
lambda = 0.0152, 0.0143 - bayes estimate, 918/1000
lambda = 0.0152, 0.0143 - bayes estimate, 919/1000
lambda = 0.0152, 0.0144 - bayes estimate, 920/1000
lambda = 0.0152, 0.0144 - bayes estimate, 921/1000
lambda = 0.0152, 0.0144 - bayes estimate, 922/1000
lambda = 0.0152, 0.0144 - bayes estimate, 923/1000
lambda = 0.0152, 0.0143 - bayes estimate, 924/1000
lambda = 0.0152, 0.0143 - bayes estimate, 925/1000
lambda = 0.0152, 0.0144 - bayes estimate, 926/1000
lambda = 0.0152, 0.0144 - bayes estimate, 927/1000
lambda = 0.0152, 0.0144 - bayes estimate, 928/1000
lambda = 0.0152, 0.0144 - bayes estimate, 929/1000
lambda = 0.0152, 0.0144 - bayes estimate, 930/1000
lambda = 0.0152, 0.0144 - bayes estimate, 931/1000
lambda = 0.0152, 0.0144 - bayes estimate, 932/1000
lambda = 0.0152, 0.0144 - bayes estimate, 933/1000
lambda = 0.0152, 0.0144 - bayes estimate, 934/1000
lambda = 0.0152, 0.0144 - bayes estimate, 935/1000
lambda = 0.0152, 0.0144 - bayes estimate, 936/1000
lambda = 0.0152, 0.0144 - bayes estimate, 937/1000
lambda = 0.0152, 0.0144 - bayes estimate, 938/1000
lambda = 0.0152, 0.0144 - bayes estimate, 939/1000
lambda = 0.0152, 0.0144 - bayes estimate, 940/1000
lambda = 0.0152, 0.0144 - bayes estimate, 941/1000
lambda = 0.0152, 0.0144 - bayes estimate, 942/1000
lambda = 0.0152, 0.0144 - bayes estimate, 943/1000
lambda = 0.0152, 0.0144 - bayes estimate, 944/1000
lambda = 0.0152, 0.0144 - bayes estimate, 945/1000
lambda = 0.0152, 0.0144 - bayes estimate, 946/1000
lambda = 0.0152, 0.0144 - bayes estimate, 947/1000
lambda = 0.0152, 0.0144 - bayes estimate, 948/1000
lambda = 0.0152, 0.0144 - bayes estimate, 949/1000
lambda = 0.0152, 0.0144 - bayes estimate, 950/1000
lambda = 0.0152, 0.0144 - bayes estimate, 951/1000
lambda = 0.0152, 0.0144 - bayes estimate, 952/1000
lambda = 0.0152, 0.0144 - bayes estimate, 953/1000
lambda = 0.0152, 0.0144 - bayes estimate, 954/1000
lambda = 0.0152, 0.0144 - bayes estimate, 955/1000
lambda = 0.0152, 0.0144 - bayes estimate, 956/1000
lambda = 0.0152, 0.0144 - bayes estimate, 957/1000
lambda = 0.0152, 0.0144 - bayes estimate, 958/1000
lambda = 0.0152, 0.0144 - bayes estimate, 959/1000
lambda = 0.0152, 0.0144 - bayes estimate, 960/1000
lambda = 0.0152, 0.0144 - bayes estimate, 961/1000
lambda = 0.0152, 0.0144 - bayes estimate, 962/1000
lambda = 0.0152, 0.0144 - bayes estimate, 963/1000
```

```
lambda = 0.0152, 0.0144 - bayes estimate, 964/1000
lambda = 0.0152, 0.0144 - bayes estimate, 965/1000
lambda = 0.0152, 0.0145 - bayes estimate, 966/1000
lambda = 0.0152, 0.0145 - bayes estimate, 967/1000
lambda = 0.0152, 0.0144 - bayes estimate, 968/1000
lambda = 0.0152, 0.0145 - bayes estimate, 969/1000
lambda = 0.0152, 0.0145 - bayes estimate, 970/1000
lambda = 0.0152, 0.0145 - bayes estimate, 971/1000
lambda = 0.0152, 0.0145 - bayes estimate, 972/1000
lambda = 0.0152, 0.0145 - bayes estimate, 973/1000
lambda = 0.0152, 0.0145 - bayes estimate, 974/1000
lambda = 0.0152, 0.0145 - bayes estimate, 975/1000
lambda = 0.0152, 0.0145 - bayes estimate, 976/1000
lambda = 0.0152, 0.0145 - bayes estimate, 977/1000
lambda = 0.0152, 0.0145 - bayes estimate, 978/1000
lambda = 0.0152, 0.0145 - bayes estimate, 979/1000
lambda = 0.0152, 0.0145 - bayes estimate, 980/1000
lambda = 0.0152, 0.0145 - bayes estimate, 981/1000
lambda = 0.0152, 0.0145 - bayes estimate, 982/1000
lambda = 0.0152, 0.0145 - bayes estimate, 983/1000
lambda = 0.0152, 0.0144 - bayes estimate, 984/1000
lambda = 0.0152, 0.0145 - bayes estimate, 985/1000
lambda = 0.0152, 0.0145 - bayes estimate, 986/1000
lambda = 0.0152, 0.0145 - bayes estimate, 987/1000
lambda = 0.0152, 0.0145 - bayes estimate, 988/1000
lambda = 0.0152, 0.0145 - bayes estimate, 989/1000
lambda = 0.0152, 0.0145 - bayes estimate, 990/1000
lambda = 0.0152, 0.0145 - bayes estimate, 991/1000
lambda = 0.0152, 0.0145 - bayes estimate, 992/1000
lambda = 0.0152, 0.0145 - bayes estimate, 993/1000
lambda = 0.0152, 0.0145 - bayes estimate, 994/1000
lambda = 0.0152, 0.0145 - bayes estimate, 995/1000
lambda = 0.0152, 0.0145 - bayes estimate, 996/1000
lambda = 0.0152, 0.0145 - bayes estimate, 997/1000
lambda = 0.0152, 0.0145 - bayes estimate, 998/1000
lambda = 0.0152, 0.0145 - bayes estimate, 999/1000
lambda = 0.0152, 0.0145 - bayes estimate, 1000/1000
```