HW6.R

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library(FactoMineR)  
library(dplyr)

##   
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':  
##   
## filter, lag

## The following objects are masked from 'package:base':  
##   
## intersect, setdiff, setequal, union

library(tidyverse)

## ── Attaching packages ─────────────────────────────────────── tidyverse 1.3.0 ──

## ✓ ggplot2 3.3.3 ✓ purrr 0.3.4  
## ✓ tibble 3.0.6 ✓ stringr 1.4.0  
## ✓ tidyr 1.1.2 ✓ forcats 0.5.1  
## ✓ readr 1.4.0

## ── Conflicts ────────────────────────────────────────── tidyverse\_conflicts() ──  
## x dplyr::filter() masks stats::filter()  
## x dplyr::lag() masks stats::lag()

library(tidyr)  
library(caret)

## Loading required package: lattice

##   
## Attaching package: 'caret'

## The following object is masked from 'package:purrr':  
##   
## lift

library(rpart)  
library(rpart.plot)  
library(rattle)

## Loading required package: bitops

## Rattle: A free graphical interface for data science with R.  
## Version 5.4.0 Copyright (c) 2006-2020 Togaware Pty Ltd.  
## Type 'rattle()' to shake, rattle, and roll your data.

library(ggplot2)  
library(ggthemes)  
#library(Factoshiny)  
  
setwd("~/Downloads/digit-recognizer")  
filename <-"train.csv"  
DigitTotalDF <- read.csv(filename, header = TRUE, stringsAsFactors = TRUE)   
DigitTotalDF$label<-as.factor(DigitTotalDF$label)  
dim(DigitTotalDF)

## [1] 42000 785

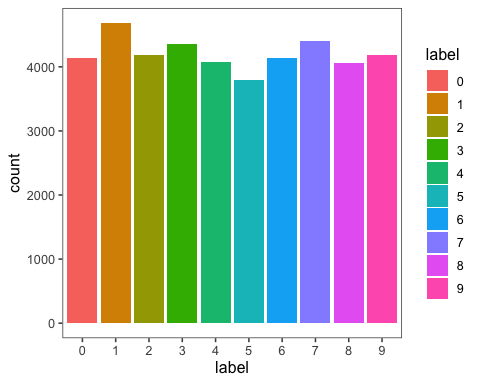
colnames<- names(DigitTotalDF)  
names(DigitTotalDF)<- sub("pixel","",colnames)  
  
  
pixels\_gathered <- DigitTotalDF %>%  
 mutate(instance = row\_number()) %>%  
 gather(pixel, value, -label, -instance) %>%  
 tidyr::extract(pixel, "pixel", "(\\d+)", convert = TRUE) %>%  
 mutate(pixel = pixel - 2,  
 x = pixel %% 28,  
 y = 28 - pixel %/% 28)  
  
pixel\_summary <- pixels\_gathered %>%  
 group\_by(x, y, label) %>%  
 summarize(mean\_value = mean(value)) %>%  
 ungroup()

## `summarise()` has grouped output by 'x', 'y'. You can override using the `.groups` argument.

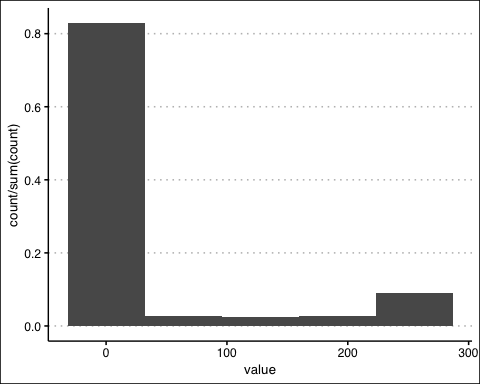
pixels\_joined <- pixels\_gathered %>%  
 inner\_join(pixel\_summary, by = c("label", "x", "y"))  
  
image\_distances <- pixels\_joined %>%  
 group\_by(label, instance) %>%  
 summarize(euclidean\_distance = sqrt(mean((value - mean\_value) ^ 2)))

## `summarise()` has grouped output by 'label'. You can override using the `.groups` argument.

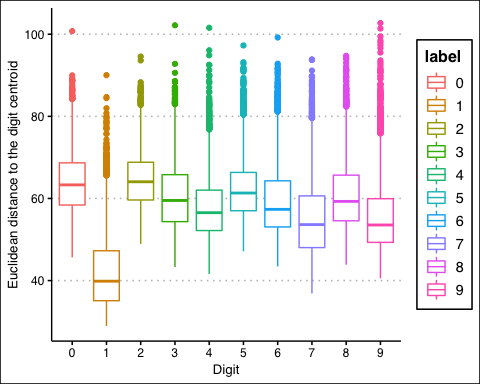
#EDA  
  
ggplot(DigitTotalDF,aes(x=label,fill=label)) + geom\_bar() + theme\_few()



#Pixel by color , percent  
ggplot(pixels\_gathered, aes(value)) +geom\_histogram(aes(y=..count../sum(..count..)),bins=5) + theme\_clean()



ggplot(image\_distances, aes(factor(label), euclidean\_distance,color=label)) +  
 geom\_boxplot() +  
 labs(x = "Digit",  
 y = "Euclidean distance to the digit centroid") + theme\_clean()



# Training  
set.seed(1024)  
  
library(doParallel)

## Loading required package: foreach

##   
## Attaching package: 'foreach'

## The following objects are masked from 'package:purrr':  
##   
## accumulate, when

## Loading required package: iterators

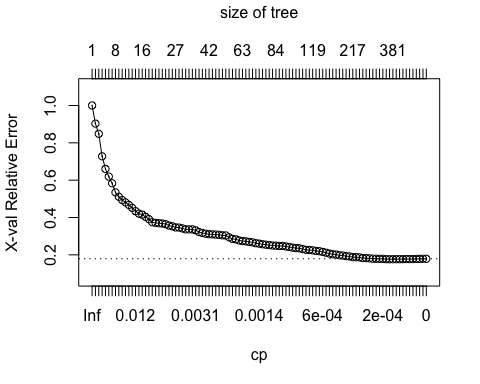
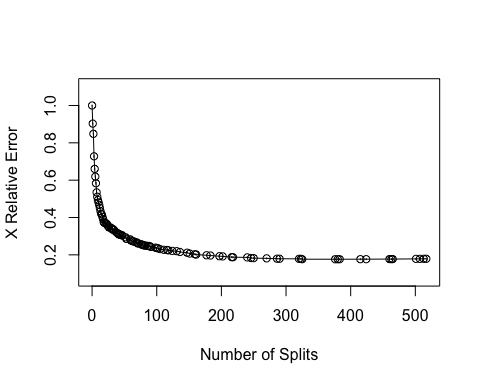
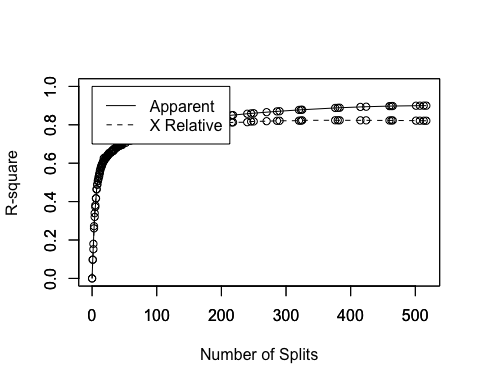
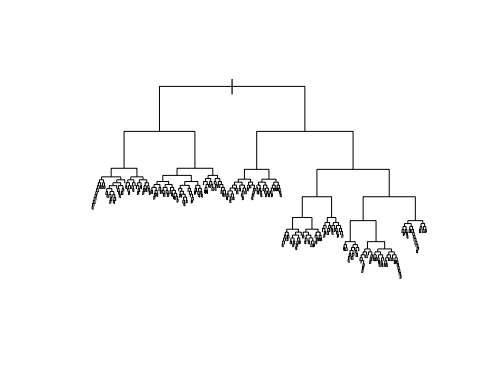
## Loading required package: parallel

cl <- makePSOCKcluster(6)  
registerDoParallel(cl)  
  
plotConfusionMatrix<- function(predicted,actual){  
 table<-(table(Predicted=predicted, TrueDigits=actual))  
 print(table)  
 cf<-confusionMatrix(table)  
 print(cf$overall)  
 table <- table / rowSums(table)  
 confusion\_matrix <- as.data.frame(table)  
 plot<-ggplot(data = confusion\_matrix,  
 aes(x = Predicted,y = TrueDigits)) +  
 geom\_tile(aes(fill = Freq)) +  
 #geom\_text(aes(label = sprintf("%.2f", (Freq/sum(Freq)\*100))), vjust = 1) +  
 geom\_text(aes(label = scales::percent(Freq,accuracy = 2.2))) +  
 scale\_fill\_gradient(low = "white",  
 high = "purple",  
 trans = "log") + theme\_gdocs()  
 print(plot)  
 return(cf)  
}  
  
  
  
#Tree Model  
plotTree<-function(treeModel){  
 #summary(treeModel)  
 #fancyRpartPlot(treeModel,type=1)  
 plot(treeModel)  
 #plot number of splits  
 rsq.rpart(treeModel)  
 plotcp(treeModel)  
 #printcp(ptree)  
 #confusion matrix to find correct and incorrect predictions  
}  
  
  
#Tree models  
  
trainIndex <- createDataPartition(DigitTotalDF$label, p = .6, list = FALSE, times = 1)  
trainDF <- DigitTotalDF[ trainIndex,]  
testDF <- DigitTotalDF[-trainIndex,]  
  
predictTreeModel<-function(tree\_model){  
 summary(tree\_model)  
 plotTree(tree\_model)  
 predicted\_tree= predict(tree\_model, testDF, type="class")   
 plotConfusionMatrix(predicted\_tree,testDF$label)  
 return(tree\_model)  
}  
  
tree\_model\_1<-rpart(label ~., data = trainDF, method="class", control=rpart.control(cp=0))  
predictTreeModel(tree\_model\_1)

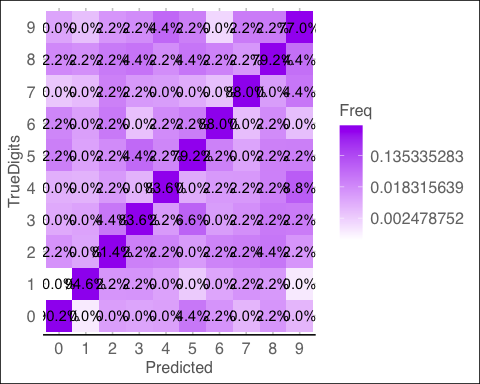
## Call:  
## rpart(formula = label ~ ., data = trainDF, method = "class",   
## control = rpart.control(cp = 0))  
## n= 25205   
##   
## CP nsplit rel error xerror xstd  
## 1 9.779405e-02 0 1.0000000 1.0000000 0.002231625  
## 2 8.256676e-02 1 0.9022059 0.9030097 0.002823465  
## 3 8.020005e-02 2 0.8196392 0.8482183 0.003054854  
## 4 5.956953e-02 3 0.7394391 0.7278289 0.003388807  
## 5 5.193355e-02 4 0.6798696 0.6604001 0.003490960  
## 6 4.572653e-02 5 0.6279361 0.6191391 0.003526886  
## 7 4.505671e-02 6 0.5822095 0.5833705 0.003542340  
## 8 2.545325e-02 7 0.5371528 0.5345628 0.003540265  
## 9 2.138966e-02 8 0.5116996 0.5111190 0.003529761  
## 10 1.866571e-02 9 0.4903099 0.4936144 0.003517858  
## 11 1.576315e-02 10 0.4716442 0.4810217 0.003507127  
## 12 1.549522e-02 11 0.4558810 0.4674466 0.003493505  
## 13 1.330714e-02 12 0.4403858 0.4515942 0.003474869  
## 14 1.107439e-02 13 0.4270787 0.4339109 0.003450553  
## 15 8.350451e-03 14 0.4160043 0.4205144 0.003429611  
## 16 6.966152e-03 15 0.4076538 0.4154684 0.003421149  
## 17 6.117710e-03 16 0.4006877 0.4035009 0.003399810  
## 18 4.822720e-03 17 0.3945700 0.3914888 0.003376564  
## 19 4.778066e-03 18 0.3897473 0.3746986 0.003340930  
## 20 4.733411e-03 19 0.3849692 0.3711262 0.003332866  
## 21 4.688756e-03 21 0.3755024 0.3691614 0.003328358  
## 22 4.644101e-03 22 0.3708136 0.3680004 0.003325669  
## 23 4.420827e-03 23 0.3661695 0.3646066 0.003317706  
## 24 4.286863e-03 24 0.3617487 0.3567920 0.003298769  
## 25 3.929624e-03 25 0.3574618 0.3528624 0.003288927  
## 26 3.795660e-03 26 0.3535322 0.3471019 0.003274107  
## 27 3.751005e-03 29 0.3421452 0.3459409 0.003271064  
## 28 3.483076e-03 30 0.3383942 0.3418326 0.003260139  
## 29 3.393766e-03 31 0.3349111 0.3366080 0.003245895  
## 30 3.349111e-03 32 0.3315174 0.3364741 0.003245524  
## 31 3.304457e-03 33 0.3281683 0.3364741 0.003245524  
## 32 2.857908e-03 34 0.3248638 0.3317406 0.003232267  
## 33 2.835581e-03 37 0.3162901 0.3221845 0.003204489  
## 34 2.634634e-03 39 0.3106189 0.3170492 0.003188992  
## 35 2.589979e-03 40 0.3079843 0.3131196 0.003176860  
## 36 2.545325e-03 41 0.3053943 0.3105296 0.003168733  
## 37 2.500670e-03 42 0.3028490 0.3097705 0.003166331  
## 38 2.456015e-03 43 0.3003483 0.3084755 0.003162213  
## 39 2.389033e-03 44 0.2978923 0.3073145 0.003158498  
## 40 2.366705e-03 46 0.2931142 0.3045012 0.003149408  
## 41 2.277396e-03 47 0.2907475 0.3038314 0.003147225  
## 42 2.054122e-03 52 0.2793159 0.2940073 0.003114378  
## 43 2.009467e-03 53 0.2772618 0.2853889 0.003084253  
## 44 1.830848e-03 59 0.2652050 0.2832009 0.003076405  
## 45 1.696883e-03 60 0.2633741 0.2771278 0.003054191  
## 46 1.674556e-03 62 0.2599804 0.2739573 0.003042339  
## 47 1.629901e-03 64 0.2566312 0.2722604 0.003035923  
## 48 1.607573e-03 66 0.2533714 0.2693579 0.003024828  
## 49 1.473609e-03 69 0.2485487 0.2670358 0.003015843  
## 50 1.406627e-03 70 0.2470751 0.2623024 0.002997223  
## 51 1.384299e-03 72 0.2442619 0.2600697 0.002988297  
## 52 1.294990e-03 76 0.2387247 0.2567652 0.002974915  
## 53 1.250335e-03 77 0.2374297 0.2543092 0.002964835  
## 54 1.161025e-03 79 0.2349290 0.2522997 0.002956502  
## 55 1.116370e-03 81 0.2326069 0.2499330 0.002946587  
## 56 1.094043e-03 83 0.2303742 0.2493079 0.002943950  
## 57 1.071716e-03 86 0.2268911 0.2477896 0.002937514  
## 58 1.027061e-03 88 0.2247477 0.2476110 0.002936754  
## 59 9.824060e-04 90 0.2226936 0.2449317 0.002925275  
## 60 9.377512e-04 91 0.2217112 0.2422077 0.002913459  
## 61 8.930964e-04 98 0.2151469 0.2384567 0.002896943  
## 62 8.707690e-04 100 0.2133607 0.2363580 0.002887576  
## 63 8.484415e-04 102 0.2116192 0.2352416 0.002882556  
## 64 8.037867e-04 105 0.2090739 0.2309547 0.002863039  
## 65 7.591319e-04 111 0.2042511 0.2269358 0.002844387  
## 66 7.368045e-04 116 0.2004555 0.2259534 0.002839775  
## 67 7.144771e-04 118 0.1989819 0.2241672 0.002831335  
## 68 6.698223e-04 124 0.1946950 0.2210860 0.002816611  
## 69 6.251675e-04 131 0.1893811 0.2196571 0.002809711  
## 70 5.805126e-04 136 0.1862552 0.2153702 0.002788733  
## 71 5.358578e-04 147 0.1798696 0.2114852 0.002769358  
## 72 4.912030e-04 151 0.1777262 0.2069304 0.002746191  
## 73 4.688756e-04 159 0.1737966 0.2034027 0.002727905  
## 74 4.465482e-04 161 0.1728588 0.2015718 0.002718294  
## 75 4.242208e-04 177 0.1656247 0.1976422 0.002697385  
## 76 4.018934e-04 183 0.1625882 0.1964365 0.002690892  
## 77 3.795660e-04 197 0.1569617 0.1927302 0.002670696  
## 78 3.572385e-04 202 0.1550415 0.1917031 0.002665037  
## 79 3.349111e-04 216 0.1500402 0.1877289 0.002642873  
## 80 3.125837e-04 218 0.1493704 0.1873270 0.002640608  
## 81 2.976988e-04 240 0.1424489 0.1863892 0.002635307  
## 82 2.902563e-04 246 0.1406627 0.1829508 0.002615661  
## 83 2.679289e-04 250 0.1395017 0.1824149 0.002612570  
## 84 2.456015e-04 270 0.1341431 0.1811646 0.002605326  
## 85 2.344378e-04 286 0.1301688 0.1793338 0.002594640  
## 86 2.232741e-04 290 0.1292310 0.1791551 0.002593592  
## 87 2.083892e-04 320 0.1225328 0.1785746 0.002590181  
## 88 2.009467e-04 323 0.1219077 0.1785746 0.002590181  
## 89 1.786193e-04 325 0.1215058 0.1766991 0.002579093  
## 90 1.562919e-04 376 0.1122622 0.1764312 0.002577501  
## 91 1.488494e-04 380 0.1116370 0.1764758 0.002577766  
## 92 1.339645e-04 383 0.1111905 0.1766545 0.002578828  
## 93 1.116370e-04 415 0.1069036 0.1767438 0.002579358  
## 94 8.930964e-05 424 0.1058319 0.1767884 0.002579623  
## 95 7.442470e-05 460 0.1026168 0.1774136 0.002583329  
## 96 6.698223e-05 463 0.1023935 0.1770564 0.002581213  
## 97 4.465482e-05 465 0.1022595 0.1773243 0.002582800  
## 98 3.721235e-05 501 0.1006520 0.1783960 0.002589129  
## 99 2.232741e-05 507 0.1004287 0.1785746 0.002590181  
## 100 1.116370e-05 513 0.1002947 0.1788872 0.002592019  
## 101 0.000000e+00 517 0.1002501 0.1789319 0.002592281  
##   
## Variable importance  
## 489 517 490 350 461 347 435 514 211 434 462 597 542 378 323 516 351 210 515 543   
## 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   
## 319 486 270 432 346 212 322 541 487 271 596 626 238 598 239 408 407 348 431 568   
## 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   
## 570 485 349 375 436 262 298 433 155 463 657 243 458 299 297 156 234 320 656 658   
## 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   
## 354 154 324 272 353 325 269 240 207 459 488 430 569 296 157 235 206 317 377 381   
## 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   
## 404 290 376   
## 1 1 1   
##   
## Node number 1: 25205 observations, complexity param=0.09779405  
## predicted class=1 expected loss=0.8884745 P(node) =1  
## class counts: 2480 2811 2507 2611 2444 2277 2483 2641 2438 2513  
## probabilities: 0.098 0.112 0.099 0.104 0.097 0.090 0.099 0.105 0.097 0.100   
## left son=2 (9068 obs) right son=3 (16137 obs)  
## Primary splits:  
## 350 < 120.5 to the right, improve=1009.8860, (0 missing)  
## 409 < 0.5 to the left, improve= 999.1138, (0 missing)  
## 461 < 1.5 to the left, improve= 990.1707, (0 missing)  
## 378 < 131.5 to the right, improve= 964.9390, (0 missing)  
## 433 < 0.5 to the left, improve= 956.4358, (0 missing)  
## Surrogate splits:  
## 351 < 192.5 to the right, agree=0.864, adj=0.621, (0 split)  
## 378 < 237.5 to the right, agree=0.860, adj=0.610, (0 split)  
## 323 < 118.5 to the right, agree=0.845, adj=0.570, (0 split)  
## 322 < 40.5 to the right, agree=0.845, adj=0.570, (0 split)  
## 349 < 63.5 to the right, agree=0.844, adj=0.567, (0 split)  
##   
## Node number 2: 9068 observations, complexity param=0.08020005  
## predicted class=1 expected loss=0.7144905 P(node) =0.3597699  
## class counts: 194 2589 485 2113 239 968 512 229 1200 539  
## probabilities: 0.021 0.286 0.053 0.233 0.026 0.107 0.056 0.025 0.132 0.059   
## left son=4 (4400 obs) right son=5 (4668 obs)  
## Primary splits:  
## 489 < 44.5 to the right, improve=1014.6630, (0 missing)  
## 517 < 28.5 to the right, improve= 931.7002, (0 missing)  
## 375 < 0.5 to the left, improve= 930.7003, (0 missing)  
## 461 < 65.5 to the right, improve= 882.2089, (0 missing)  
## 462 < 96.5 to the right, improve= 869.9859, (0 missing)  
## Surrogate splits:  
## 517 < 32.5 to the right, agree=0.904, adj=0.802, (0 split)  
## 461 < 124.5 to the right, agree=0.895, adj=0.785, (0 split)  
## 490 < 32.5 to the right, agree=0.868, adj=0.728, (0 split)  
## 462 < 96.5 to the right, agree=0.867, adj=0.726, (0 split)  
## 516 < 16.5 to the right, agree=0.844, adj=0.679, (0 split)  
##   
## Node number 3: 16137 observations, complexity param=0.08256676  
## predicted class=7 expected loss=0.8505298 P(node) =0.6402301  
## class counts: 2286 222 2022 498 2205 1309 1971 2412 1238 1974  
## probabilities: 0.142 0.014 0.125 0.031 0.137 0.081 0.122 0.149 0.077 0.122   
## left son=6 (4294 obs) right son=7 (11843 obs)  
## Primary splits:  
## 435 < 0.5 to the left, improve=997.0246, (0 missing)  
## 436 < 0.5 to the left, improve=993.5928, (0 missing)  
## 569 < 0.5 to the right, improve=985.1319, (0 missing)  
## 568 < 0.5 to the right, improve=981.9576, (0 missing)  
## 408 < 0.5 to the left, improve=973.5181, (0 missing)  
## Surrogate splits:  
## 436 < 0.5 to the left, agree=0.892, adj=0.594, (0 split)  
## 408 < 0.5 to the left, agree=0.890, adj=0.588, (0 split)  
## 434 < 0.5 to the left, agree=0.888, adj=0.578, (0 split)  
## 463 < 0.5 to the left, agree=0.883, adj=0.559, (0 split)  
## 407 < 0.5 to the left, agree=0.879, adj=0.545, (0 split)  
##   
## Node number 4: 4400 observations, complexity param=0.01866571  
## predicted class=1 expected loss=0.4475 P(node) =0.1745685  
## class counts: 28 2431 337 159 112 105 277 119 674 158  
## probabilities: 0.006 0.552 0.077 0.036 0.025 0.024 0.063 0.027 0.153 0.036   
## left son=8 (3250 obs) right son=9 (1150 obs)  
## Primary splits:  
## 234 < 0.5 to the left, improve=534.2896, (0 missing)  
## 521 < 0.5 to the left, improve=526.6306, (0 missing)  
## 319 < 0.5 to the left, improve=524.5641, (0 missing)  
## 262 < 0.5 to the left, improve=524.1744, (0 missing)  
## 550 < 0.5 to the left, improve=523.3399, (0 missing)  
## Surrogate splits:  
## 206 < 0.5 to the left, agree=0.934, adj=0.747, (0 split)  
## 262 < 1.5 to the left, agree=0.930, adj=0.732, (0 split)  
## 235 < 132.5 to the left, agree=0.930, adj=0.731, (0 split)  
## 207 < 48.5 to the left, agree=0.925, adj=0.715, (0 split)  
## 233 < 1.5 to the left, agree=0.922, adj=0.700, (0 split)  
##   
## Node number 5: 4668 observations, complexity param=0.01549522  
## predicted class=3 expected loss=0.5814053 P(node) =0.1852013  
## class counts: 166 158 148 1954 127 863 235 110 526 381  
## probabilities: 0.036 0.034 0.032 0.419 0.027 0.185 0.050 0.024 0.113 0.082   
## left son=10 (3675 obs) right son=11 (993 obs)  
## Primary splits:  
## 486 < 76.5 to the left, improve=339.3307, (0 missing)  
## 290 < 34.5 to the left, improve=326.0021, (0 missing)  
## 487 < 11.5 to the left, improve=315.4504, (0 missing)  
## 317 < 33.5 to the left, improve=282.8250, (0 missing)  
## 291 < 10.5 to the left, improve=281.4892, (0 missing)  
## Surrogate splits:  
## 487 < 11.5 to the left, agree=0.941, adj=0.722, (0 split)  
## 514 < 141.5 to the left, agree=0.922, adj=0.631, (0 split)  
## 485 < 101.5 to the left, agree=0.911, adj=0.581, (0 split)  
## 459 < 201.5 to the left, agree=0.910, adj=0.577, (0 split)  
## 458 < 202.5 to the left, agree=0.908, adj=0.569, (0 split)  
##   
## Node number 6: 4294 observations, complexity param=0.02138966  
## predicted class=0 expected loss=0.4825338 P(node) =0.170363  
## class counts: 2222 17 282 130 166 368 229 664 37 179  
## probabilities: 0.517 0.004 0.066 0.030 0.039 0.086 0.053 0.155 0.009 0.042   
## left son=12 (2737 obs) right son=13 (1557 obs)  
## Primary splits:  
## 597 < 1.5 to the right, improve=603.7671, (0 missing)  
## 598 < 2.5 to the right, improve=574.3586, (0 missing)  
## 568 < 0.5 to the right, improve=537.4804, (0 missing)  
## 626 < 3.5 to the right, improve=524.5488, (0 missing)  
## 511 < 2.5 to the right, improve=521.8409, (0 missing)  
## Surrogate splits:  
## 598 < 7.5 to the right, agree=0.930, adj=0.808, (0 split)  
## 596 < 0.5 to the right, agree=0.905, adj=0.739, (0 split)  
## 568 < 0.5 to the right, agree=0.898, adj=0.720, (0 split)  
## 626 < 6.5 to the right, agree=0.895, adj=0.712, (0 split)  
## 569 < 1.5 to the right, agree=0.887, adj=0.689, (0 split)  
##   
## Node number 7: 11843 observations, complexity param=0.05956953  
## predicted class=4 expected loss=0.8278308 P(node) =0.4698671  
## class counts: 64 205 1740 368 2039 941 1742 1748 1201 1795  
## probabilities: 0.005 0.017 0.147 0.031 0.172 0.079 0.147 0.148 0.101 0.152   
## left son=14 (5226 obs) right son=15 (6617 obs)  
## Primary splits:  
## 542 < 1.5 to the right, improve=822.1865, (0 missing)  
## 570 < 1.5 to the right, improve=766.1911, (0 missing)  
## 127 < 0.5 to the right, improve=760.7062, (0 missing)  
## 569 < 0.5 to the right, improve=752.4553, (0 missing)  
## 541 < 0.5 to the right, improve=750.0038, (0 missing)  
## Surrogate splits:  
## 541 < 0.5 to the right, agree=0.895, adj=0.762, (0 split)  
## 543 < 48.5 to the right, agree=0.893, adj=0.757, (0 split)  
## 570 < 20.5 to the right, agree=0.880, adj=0.729, (0 split)  
## 515 < 31.5 to the right, agree=0.854, adj=0.670, (0 split)  
## 514 < 1.5 to the right, agree=0.852, adj=0.666, (0 split)  
##   
## Node number 8: 3250 observations, complexity param=0.002277396  
## predicted class=1 expected loss=0.2649231 P(node) =0.1289427  
## class counts: 18 2389 157 56 76 91 158 24 214 67  
## probabilities: 0.006 0.735 0.048 0.017 0.023 0.028 0.049 0.007 0.066 0.021   
## left son=16 (2607 obs) right son=17 (643 obs)  
## Primary splits:  
## 347 < 1.5 to the left, improve=298.0289, (0 missing)  
## 402 < 8 to the left, improve=281.7995, (0 missing)  
## 375 < 48.5 to the left, improve=280.9152, (0 missing)  
## 374 < 0.5 to the left, improve=277.2342, (0 missing)  
## 457 < 1.5 to the left, improve=273.9629, (0 missing)  
## Surrogate splits:  
## 375 < 29.5 to the left, agree=0.943, adj=0.712, (0 split)  
## 319 < 0.5 to the left, agree=0.942, adj=0.709, (0 split)  
## 348 < 170.5 to the left, agree=0.930, adj=0.645, (0 split)  
## 374 < 0.5 to the left, agree=0.925, adj=0.621, (0 split)  
## 346 < 1 to the left, agree=0.923, adj=0.610, (0 split)  
##   
## Node number 9: 1150 observations, complexity param=0.004733411  
## predicted class=8 expected loss=0.6 P(node) =0.04562587  
## class counts: 10 42 180 103 36 14 119 95 460 91  
## probabilities: 0.009 0.037 0.157 0.090 0.031 0.012 0.103 0.083 0.400 0.079   
## left son=18 (434 obs) right son=19 (716 obs)  
## Primary splits:  
## 658 < 13.5 to the left, improve=111.38900, (0 missing)  
## 657 < 1.5 to the left, improve=108.81070, (0 missing)  
## 659 < 1 to the left, improve=108.67210, (0 missing)  
## 656 < 4 to the left, improve= 97.54418, (0 missing)  
## 319 < 6.5 to the left, improve= 79.81577, (0 missing)  
## Surrogate splits:  
## 659 < 1 to the left, agree=0.916, adj=0.776, (0 split)  
## 657 < 5 to the left, agree=0.910, adj=0.763, (0 split)  
## 630 < 66.5 to the left, agree=0.860, adj=0.629, (0 split)  
## 631 < 5 to the left, agree=0.846, adj=0.592, (0 split)  
## 656 < 1.5 to the left, agree=0.819, adj=0.521, (0 split)  
##   
## Node number 10: 3675 observations, complexity param=0.01330714  
## predicted class=3 expected loss=0.4862585 P(node) =0.1458044  
## class counts: 101 138 22 1888 113 810 35 109 113 346  
## probabilities: 0.027 0.038 0.006 0.514 0.031 0.220 0.010 0.030 0.031 0.094   
## left son=20 (2318 obs) right son=21 (1357 obs)  
## Primary splits:  
## 290 < 42.5 to the left, improve=347.9199, (0 missing)  
## 317 < 33.5 to the left, improve=327.6350, (0 missing)  
## 296 < 12.5 to the right, improve=303.0004, (0 missing)  
## 289 < 5.5 to the left, improve=302.9559, (0 missing)  
## 318 < 51.5 to the left, improve=279.4329, (0 missing)  
## Surrogate splits:  
## 289 < 11.5 to the left, agree=0.875, adj=0.660, (0 split)  
## 318 < 138.5 to the left, agree=0.863, adj=0.629, (0 split)  
## 291 < 38.5 to the left, agree=0.861, adj=0.623, (0 split)  
## 317 < 68.5 to the left, agree=0.858, adj=0.615, (0 split)  
## 262 < 68 to the left, agree=0.850, adj=0.593, (0 split)  
##   
## Node number 11: 993 observations, complexity param=0.006966152  
## predicted class=8 expected loss=0.5840886 P(node) =0.03939695  
## class counts: 65 20 126 66 14 53 200 1 413 35  
## probabilities: 0.065 0.020 0.127 0.066 0.014 0.053 0.201 0.001 0.416 0.035   
## left son=22 (423 obs) right son=23 (570 obs)  
## Primary splits:  
## 657 < 5.5 to the left, improve=140.94030, (0 missing)  
## 656 < 1 to the left, improve=138.99620, (0 missing)  
## 658 < 0.5 to the left, improve=123.86500, (0 missing)  
## 655 < 14 to the left, improve=122.38120, (0 missing)  
## 654 < 0.5 to the left, improve= 90.32948, (0 missing)  
## Surrogate splits:  
## 656 < 1 to the left, agree=0.957, adj=0.898, (0 split)  
## 658 < 0.5 to the left, agree=0.934, adj=0.844, (0 split)  
## 655 < 0.5 to the left, agree=0.900, adj=0.766, (0 split)  
## 659 < 0.5 to the left, agree=0.845, adj=0.636, (0 split)  
## 654 < 0.5 to the left, agree=0.830, adj=0.600, (0 split)  
##   
## Node number 12: 2737 observations, complexity param=0.004644101  
## predicted class=0 expected loss=0.2499087 P(node) =0.1085896  
## class counts: 2053 6 230 85 5 220 83 16 30 9  
## probabilities: 0.750 0.002 0.084 0.031 0.002 0.080 0.030 0.006 0.011 0.003   
## left son=24 (2295 obs) right son=25 (442 obs)  
## Primary splits:  
## 489 < 0.5 to the left, improve=243.9992, (0 missing)  
## 461 < 0.5 to the left, improve=224.9709, (0 missing)  
## 488 < 2.5 to the left, improve=222.8567, (0 missing)  
## 372 < 0.5 to the right, improve=215.5484, (0 missing)  
## 400 < 3.5 to the right, improve=215.4347, (0 missing)  
## Surrogate splits:  
## 490 < 33.5 to the left, agree=0.955, adj=0.724, (0 split)  
## 488 < 0.5 to the left, agree=0.950, adj=0.688, (0 split)  
## 517 < 140.5 to the left, agree=0.936, adj=0.606, (0 split)  
## 462 < 1.5 to the left, agree=0.932, adj=0.581, (0 split)  
## 461 < 0.5 to the left, agree=0.931, adj=0.570, (0 split)  
##   
## Node number 13: 1557 observations, complexity param=0.004778066  
## predicted class=7 expected loss=0.583815 P(node) =0.06177346  
## class counts: 169 11 52 45 161 148 146 648 7 170  
## probabilities: 0.109 0.007 0.033 0.029 0.103 0.095 0.094 0.416 0.004 0.109   
## left son=26 (603 obs) right son=27 (954 obs)  
## Primary splits:  
## 486 < 0.5 to the right, improve=171.6117, (0 missing)  
## 458 < 0.5 to the right, improve=170.5544, (0 missing)  
## 487 < 0.5 to the right, improve=170.2561, (0 missing)  
## 515 < 1 to the right, improve=162.3623, (0 missing)  
## 459 < 1 to the right, improve=157.7163, (0 missing)  
## Surrogate splits:  
## 487 < 0.5 to the right, agree=0.920, adj=0.793, (0 split)  
## 485 < 1 to the right, agree=0.903, adj=0.750, (0 split)  
## 514 < 0.5 to the right, agree=0.903, adj=0.750, (0 split)  
## 515 < 2.5 to the right, agree=0.900, adj=0.743, (0 split)  
## 458 < 0.5 to the right, agree=0.891, adj=0.718, (0 split)  
##   
## Node number 14: 5226 observations, complexity param=0.04505671  
## predicted class=6 expected loss=0.6928817 P(node) =0.2073398  
## class counts: 49 131 1467 40 271 235 1605 284 948 196  
## probabilities: 0.009 0.025 0.281 0.008 0.052 0.045 0.307 0.054 0.181 0.038   
## left son=28 (2838 obs) right son=29 (2388 obs)  
## Primary splits:  
## 271 < 0.5 to the right, improve=604.5449, (0 missing)  
## 270 < 0.5 to the right, improve=599.7244, (0 missing)  
## 243 < 0.5 to the right, improve=593.0277, (0 missing)  
## 347 < 0.5 to the left, improve=575.8547, (0 missing)  
## 242 < 0.5 to the right, improve=568.0370, (0 missing)  
## Surrogate splits:  
## 243 < 0.5 to the right, agree=0.910, adj=0.803, (0 split)  
## 299 < 0.5 to the right, agree=0.906, adj=0.794, (0 split)  
## 270 < 0.5 to the right, agree=0.857, adj=0.686, (0 split)  
## 298 < 3.5 to the right, agree=0.854, adj=0.680, (0 split)  
## 272 < 0.5 to the right, agree=0.853, adj=0.678, (0 split)  
##   
## Node number 15: 6617 observations, complexity param=0.05193355  
## predicted class=4 expected loss=0.7328094 P(node) =0.2625273  
## class counts: 15 74 273 328 1768 706 137 1464 253 1599  
## probabilities: 0.002 0.011 0.041 0.050 0.267 0.107 0.021 0.221 0.038 0.242   
## left son=30 (4489 obs) right son=31 (2128 obs)  
## Primary splits:  
## 432 < 0.5 to the right, improve=696.1747, (0 missing)  
## 431 < 0.5 to the right, improve=662.3729, (0 missing)  
## 433 < 2.5 to the right, improve=658.4506, (0 missing)  
## 430 < 0.5 to the right, improve=646.2347, (0 missing)  
## 239 < 0.5 to the left, improve=617.7026, (0 missing)  
## Surrogate splits:  
## 431 < 0.5 to the right, agree=0.935, adj=0.798, (0 split)  
## 433 < 29.5 to the right, agree=0.922, adj=0.758, (0 split)  
## 430 < 0.5 to the right, agree=0.864, adj=0.577, (0 split)  
## 434 < 80.5 to the right, agree=0.823, adj=0.451, (0 split)  
## 460 < 0.5 to the right, agree=0.821, adj=0.444, (0 split)  
##   
## Node number 16: 2607 observations, complexity param=0.002277396  
## predicted class=1 expected loss=0.1258151 P(node) =0.1034319  
## class counts: 1 2279 123 20 14 24 30 9 100 7  
## probabilities: 0.000 0.874 0.047 0.008 0.005 0.009 0.012 0.003 0.038 0.003   
## left son=32 (2456 obs) right son=33 (151 obs)  
## Primary splits:  
## 550 < 0.5 to the left, improve=155.3068, (0 missing)  
## 580 < 0.5 to the left, improve=151.2452, (0 missing)  
## 551 < 6.5 to the left, improve=149.7522, (0 missing)  
## 579 < 1.5 to the left, improve=147.4893, (0 missing)  
## 149 < 5 to the left, improve=146.3479, (0 missing)  
## Surrogate splits:  
## 551 < 0.5 to the left, agree=0.986, adj=0.755, (0 split)  
## 578 < 44 to the left, agree=0.979, adj=0.642, (0 split)  
## 549 < 160 to the left, agree=0.979, adj=0.636, (0 split)  
## 522 < 2.5 to the left, agree=0.978, adj=0.623, (0 split)  
## 552 < 6 to the left, agree=0.977, adj=0.609, (0 split)  
##   
## Node number 17: 643 observations, complexity param=0.002277396  
## predicted class=6 expected loss=0.8009331 P(node) =0.02551081  
## class counts: 17 110 34 36 62 67 128 15 114 60  
## probabilities: 0.026 0.171 0.053 0.056 0.096 0.104 0.199 0.023 0.177 0.093   
## left son=34 (564 obs) right son=35 (79 obs)  
## Primary splits:  
## 103 < 1.5 to the left, improve=49.62266, (0 missing)  
## 102 < 4.5 to the left, improve=45.81023, (0 missing)  
## 657 < 1.5 to the left, improve=44.98221, (0 missing)  
## 467 < 2.5 to the right, improve=44.65403, (0 missing)  
## 522 < 37 to the left, improve=43.85053, (0 missing)  
## Surrogate splits:  
## 104 < 5.5 to the left, agree=0.955, adj=0.633, (0 split)  
## 102 < 11.5 to the left, agree=0.953, adj=0.620, (0 split)  
## 131 < 213.5 to the left, agree=0.941, adj=0.519, (0 split)  
## 130 < 227.5 to the left, agree=0.935, adj=0.468, (0 split)  
## 132 < 228 to the left, agree=0.922, adj=0.367, (0 split)  
##   
## Node number 18: 434 observations, complexity param=0.004286863  
## predicted class=2 expected loss=0.6705069 P(node) =0.01721881  
## class counts: 5 19 143 15 13 6 114 28 37 54  
## probabilities: 0.012 0.044 0.329 0.035 0.030 0.014 0.263 0.065 0.085 0.124   
## left son=36 (228 obs) right son=37 (206 obs)  
## Primary splits:  
## 345 < 18 to the left, improve=60.79050, (0 missing)  
## 384 < 7.5 to the left, improve=48.60646, (0 missing)  
## 373 < 32.5 to the left, improve=47.71478, (0 missing)  
## 318 < 36.5 to the left, improve=46.92627, (0 missing)  
## 317 < 8.5 to the left, improve=46.85354, (0 missing)  
## Surrogate splits:  
## 317 < 18.5 to the left, agree=0.924, adj=0.840, (0 split)  
## 373 < 21 to the left, agree=0.924, adj=0.840, (0 split)  
## 344 < 0.5 to the left, agree=0.901, adj=0.791, (0 split)  
## 346 < 11.5 to the left, agree=0.878, adj=0.743, (0 split)  
## 372 < 0.5 to the left, agree=0.869, adj=0.723, (0 split)  
##   
## Node number 19: 716 observations, complexity param=0.001094043  
## predicted class=8 expected loss=0.4092179 P(node) =0.02840706  
## class counts: 5 23 37 88 23 8 5 67 423 37  
## probabilities: 0.007 0.032 0.052 0.123 0.032 0.011 0.007 0.094 0.591 0.052   
## left son=38 (218 obs) right son=39 (498 obs)  
## Primary splits:  
## 319 < 2 to the left, improve=57.35732, (0 missing)  
## 543 < 10.5 to the left, improve=55.94126, (0 missing)  
## 515 < 66.5 to the left, improve=54.57325, (0 missing)  
## 516 < 50 to the left, improve=50.41320, (0 missing)  
## 318 < 1.5 to the left, improve=46.75767, (0 missing)  
## Surrogate splits:  
## 318 < 0.5 to the left, agree=0.873, adj=0.583, (0 split)  
## 320 < 0.5 to the left, agree=0.865, adj=0.555, (0 split)  
## 347 < 7 to the left, agree=0.856, adj=0.528, (0 split)  
## 291 < 79 to the left, agree=0.855, adj=0.523, (0 split)  
## 290 < 2 to the left, agree=0.837, adj=0.463, (0 split)  
##   
## Node number 20: 2318 observations, complexity param=0.002009467  
## predicted class=3 expected loss=0.2868852 P(node) =0.09196588  
## class counts: 34 132 19 1653 36 277 19 30 53 65  
## probabilities: 0.015 0.057 0.008 0.713 0.016 0.119 0.008 0.013 0.023 0.028   
## left son=40 (1626 obs) right son=41 (692 obs)  
## Primary splits:  
## 179 < 1.5 to the right, improve=136.4540, (0 missing)  
## 296 < 12.5 to the right, improve=131.9266, (0 missing)  
## 655 < 3.5 to the right, improve=131.1460, (0 missing)  
## 152 < 0.5 to the right, improve=130.7408, (0 missing)  
## 490 < 104.5 to the right, improve=128.5077, (0 missing)  
## Surrogate splits:  
## 180 < 9.5 to the right, agree=0.910, adj=0.698, (0 split)  
## 178 < 0.5 to the right, agree=0.902, adj=0.672, (0 split)  
## 151 < 0.5 to the right, agree=0.837, adj=0.455, (0 split)  
## 181 < 17.5 to the right, agree=0.830, adj=0.432, (0 split)  
## 207 < 0.5 to the right, agree=0.825, adj=0.415, (0 split)  
##   
## Node number 21: 1357 observations, complexity param=0.008350451  
## predicted class=5 expected loss=0.6072218 P(node) =0.05383852  
## class counts: 67 6 3 235 77 533 16 79 60 281  
## probabilities: 0.049 0.004 0.002 0.173 0.057 0.393 0.012 0.058 0.044 0.207   
## left son=42 (836 obs) right son=43 (521 obs)  
## Primary splits:  
## 626 < 10.5 to the right, improve=148.5743, (0 missing)  
## 297 < 13.5 to the left, improve=148.4859, (0 missing)  
## 625 < 0.5 to the right, improve=140.2124, (0 missing)  
## 296 < 10.5 to the left, improve=134.0005, (0 missing)  
## 627 < 1 to the right, improve=130.5689, (0 missing)  
## Surrogate splits:  
## 625 < 0.5 to the right, agree=0.935, adj=0.831, (0 split)  
## 627 < 34.5 to the right, agree=0.931, adj=0.821, (0 split)  
## 598 < 1 to the right, agree=0.887, adj=0.704, (0 split)  
## 597 < 1 to the right, agree=0.878, adj=0.683, (0 split)  
## 654 < 0.5 to the right, agree=0.866, adj=0.651, (0 split)  
##   
## Node number 22: 423 observations, complexity param=0.002456015  
## predicted class=6 expected loss=0.5626478 P(node) =0.01678238  
## class counts: 13 20 98 15 14 23 185 0 29 26  
## probabilities: 0.031 0.047 0.232 0.035 0.033 0.054 0.437 0.000 0.069 0.061   
## left son=44 (173 obs) right son=45 (250 obs)  
## Primary splits:  
## 270 < 51.5 to the right, improve=48.04790, (0 missing)  
## 242 < 2.5 to the right, improve=48.02302, (0 missing)  
## 269 < 129.5 to the right, improve=46.32373, (0 missing)  
## 243 < 28.5 to the right, improve=39.71868, (0 missing)  
## 241 < 63.5 to the right, improve=39.07740, (0 missing)  
## Surrogate splits:  
## 297 < 149 to the right, agree=0.898, adj=0.751, (0 split)  
## 271 < 1.5 to the right, agree=0.884, adj=0.717, (0 split)  
## 269 < 152.5 to the right, agree=0.882, adj=0.711, (0 split)  
## 243 < 4.5 to the right, agree=0.879, adj=0.705, (0 split)  
## 242 < 83 to the right, agree=0.877, adj=0.699, (0 split)  
##   
## Node number 23: 570 observations, complexity param=0.001027061  
## predicted class=8 expected loss=0.3263158 P(node) =0.02261456  
## class counts: 52 0 28 51 0 30 15 1 384 9  
## probabilities: 0.091 0.000 0.049 0.089 0.000 0.053 0.026 0.002 0.674 0.016   
## left son=46 (97 obs) right son=47 (473 obs)  
## Primary splits:  
## 407 < 1.5 to the left, improve=41.25076, (0 missing)  
## 412 < 57.5 to the right, improve=40.94860, (0 missing)  
## 435 < 44.5 to the left, improve=40.48067, (0 missing)  
## 436 < 7 to the left, improve=39.70404, (0 missing)  
## 440 < 51 to the right, improve=37.08431, (0 missing)  
## Surrogate splits:  
## 406 < 59 to the left, agree=0.921, adj=0.536, (0 split)  
## 379 < 106.5 to the left, agree=0.907, adj=0.454, (0 split)  
## 378 < 118 to the left, agree=0.902, adj=0.423, (0 split)  
## 405 < 39.5 to the left, agree=0.870, adj=0.237, (0 split)  
## 351 < 39.5 to the left, agree=0.858, adj=0.165, (0 split)  
##   
## Node number 24: 2295 observations, complexity param=0.001384299  
## predicted class=0 expected loss=0.1389978 P(node) =0.09105336  
## class counts: 1976 1 49 75 2 121 47 12 6 6  
## probabilities: 0.861 0.000 0.021 0.033 0.001 0.053 0.020 0.005 0.003 0.003   
## left son=48 (2072 obs) right son=49 (223 obs)  
## Primary splits:  
## 380 < 1.5 to the left, improve=136.9082, (0 missing)  
## 351 < 5.5 to the left, improve=120.5561, (0 missing)  
## 379 < 1.5 to the left, improve=111.7483, (0 missing)  
## 352 < 5.5 to the left, improve=107.7130, (0 missing)  
## 378 < 46.5 to the left, improve=106.0854, (0 missing)  
## Surrogate splits:  
## 379 < 0.5 to the left, agree=0.959, adj=0.574, (0 split)  
## 352 < 122.5 to the left, agree=0.953, adj=0.511, (0 split)  
## 381 < 181.5 to the left, agree=0.953, adj=0.511, (0 split)  
## 408 < 24.5 to the left, agree=0.952, adj=0.507, (0 split)  
## 407 < 4 to the left, agree=0.949, adj=0.471, (0 split)  
##   
## Node number 25: 442 observations, complexity param=0.003483076  
## predicted class=2 expected loss=0.5904977 P(node) =0.0175362  
## class counts: 77 5 181 10 3 99 36 4 24 3  
## probabilities: 0.174 0.011 0.410 0.023 0.007 0.224 0.081 0.009 0.054 0.007   
## left son=50 (218 obs) right son=51 (224 obs)  
## Primary splits:  
## 347 < 2.5 to the left, improve=82.75933, (0 missing)  
## 319 < 2 to the left, improve=82.43492, (0 missing)  
## 320 < 1 to the left, improve=78.95617, (0 missing)  
## 374 < 4.5 to the left, improve=77.95075, (0 missing)  
## 346 < 5.5 to the left, improve=73.21611, (0 missing)  
## Surrogate splits:  
## 319 < 10.5 to the left, agree=0.930, adj=0.858, (0 split)  
## 320 < 14.5 to the left, agree=0.928, adj=0.853, (0 split)  
## 375 < 1 to the left, agree=0.912, adj=0.821, (0 split)  
## 348 < 1 to the left, agree=0.907, adj=0.812, (0 split)  
## 346 < 5.5 to the left, agree=0.882, adj=0.761, (0 split)  
##   
## Node number 26: 603 observations, complexity param=0.004733411  
## predicted class=6 expected loss=0.7794362 P(node) =0.02392382  
## class counts: 108 1 44 11 125 60 133 26 5 90  
## probabilities: 0.179 0.002 0.073 0.018 0.207 0.100 0.221 0.043 0.008 0.149   
## left son=52 (309 obs) right son=53 (294 obs)  
## Primary splits:  
## 572 < 5.5 to the right, improve=60.75282, (0 missing)  
## 571 < 94.5 to the right, improve=60.30347, (0 missing)  
## 600 < 21.5 to the right, improve=54.55946, (0 missing)  
## 99 < 1.5 to the left, improve=54.37963, (0 missing)  
## 298 < 1.5 to the right, improve=50.66128, (0 missing)  
## Surrogate splits:  
## 571 < 0.5 to the right, agree=0.927, adj=0.850, (0 split)  
## 573 < 22 to the right, agree=0.894, adj=0.782, (0 split)  
## 543 < 148 to the right, agree=0.856, adj=0.704, (0 split)  
## 600 < 19 to the right, agree=0.846, adj=0.684, (0 split)  
## 601 < 13.5 to the right, agree=0.839, adj=0.670, (0 split)  
##   
## Node number 27: 954 observations, complexity param=0.00250067  
## predicted class=7 expected loss=0.3480084 P(node) =0.03784963  
## class counts: 61 10 8 34 36 88 13 622 2 80  
## probabilities: 0.064 0.010 0.008 0.036 0.038 0.092 0.014 0.652 0.002 0.084   
## left son=54 (208 obs) right son=55 (746 obs)  
## Primary splits:  
## 404 < 1 to the right, improve=127.8033, (0 missing)  
## 403 < 4 to the right, improve=126.7987, (0 missing)  
## 432 < 2 to the right, improve=117.4801, (0 missing)  
## 405 < 3 to the right, improve=115.9155, (0 missing)  
## 376 < 0.5 to the right, improve=106.3250, (0 missing)  
## Surrogate splits:  
## 405 < 3 to the right, agree=0.954, adj=0.788, (0 split)  
## 403 < 45 to the right, agree=0.953, adj=0.784, (0 split)  
## 377 < 1.5 to the right, agree=0.939, adj=0.721, (0 split)  
## 376 < 5.5 to the right, agree=0.935, adj=0.702, (0 split)  
## 406 < 1 to the right, agree=0.922, adj=0.644, (0 split)  
##   
## Node number 28: 2838 observations, complexity param=0.02545325  
## predicted class=2 expected loss=0.6169838 P(node) =0.1125967  
## class counts: 41 102 1087 28 217 131 78 249 742 163  
## probabilities: 0.014 0.036 0.383 0.010 0.076 0.046 0.027 0.088 0.261 0.057   
## left son=56 (1644 obs) right son=57 (1194 obs)  
## Primary splits:  
## 347 < 1.5 to the left, improve=389.0371, (0 missing)  
## 127 < 1.5 to the right, improve=367.2948, (0 missing)  
## 126 < 0.5 to the right, improve=359.3462, (0 missing)  
## 684 < 0.5 to the left, improve=345.3252, (0 missing)  
## 319 < 1.5 to the left, improve=335.1514, (0 missing)  
## Surrogate splits:  
## 348 < 0.5 to the left, agree=0.898, adj=0.757, (0 split)  
## 319 < 10.5 to the left, agree=0.894, adj=0.748, (0 split)  
## 346 < 7.5 to the left, agree=0.893, adj=0.745, (0 split)  
## 375 < 0.5 to the left, agree=0.880, adj=0.714, (0 split)  
## 320 < 0.5 to the left, agree=0.857, adj=0.660, (0 split)  
##   
## Node number 29: 2388 observations, complexity param=0.01107439  
## predicted class=6 expected loss=0.3605528 P(node) =0.09474311  
## class counts: 8 29 380 12 54 104 1527 35 206 33  
## probabilities: 0.003 0.012 0.159 0.005 0.023 0.044 0.639 0.015 0.086 0.014   
## left son=58 (447 obs) right son=59 (1941 obs)  
## Primary splits:  
## 297 < 53.5 to the right, improve=306.1271, (0 missing)  
## 296 < 66.5 to the right, improve=303.9832, (0 missing)  
## 269 < 15.5 to the right, improve=285.7534, (0 missing)  
## 324 < 96.5 to the right, improve=271.0391, (0 missing)  
## 241 < 53.5 to the right, improve=215.7059, (0 missing)  
## Surrogate splits:  
## 269 < 82 to the right, agree=0.953, adj=0.749, (0 split)  
## 296 < 61 to the right, agree=0.951, adj=0.740, (0 split)  
## 324 < 113.5 to the right, agree=0.948, adj=0.723, (0 split)  
## 325 < 141.5 to the right, agree=0.934, adj=0.647, (0 split)  
## 270 < 0.5 to the right, agree=0.918, adj=0.562, (0 split)  
##   
## Node number 30: 4489 observations, complexity param=0.04572653  
## predicted class=4 expected loss=0.6437959 P(node) =0.1780996  
## class counts: 7 8 201 259 1599 587 100 132 217 1379  
## probabilities: 0.002 0.002 0.045 0.058 0.356 0.131 0.022 0.029 0.048 0.307   
## left son=60 (1830 obs) right son=61 (2659 obs)  
## Primary splits:  
## 211 < 31.5 to the left, improve=645.5260, (0 missing)  
## 210 < 4.5 to the left, improve=585.5882, (0 missing)  
## 238 < 5.5 to the left, improve=521.4250, (0 missing)  
## 239 < 0.5 to the left, improve=517.7189, (0 missing)  
## 212 < 10.5 to the left, improve=496.3398, (0 missing)  
## Surrogate splits:  
## 210 < 0.5 to the left, agree=0.892, adj=0.734, (0 split)  
## 212 < 10.5 to the left, agree=0.887, adj=0.723, (0 split)  
## 239 < 0.5 to the left, agree=0.871, adj=0.683, (0 split)  
## 238 < 1.5 to the left, agree=0.841, adj=0.609, (0 split)  
## 240 < 0.5 to the left, agree=0.798, adj=0.505, (0 split)  
##   
## Node number 31: 2128 observations, complexity param=0.00611771  
## predicted class=7 expected loss=0.3740602 P(node) =0.08442769  
## class counts: 8 66 72 69 169 119 37 1332 36 220  
## probabilities: 0.004 0.031 0.034 0.032 0.079 0.056 0.017 0.626 0.017 0.103   
## left son=62 (1766 obs) right son=63 (362 obs)  
## Primary splits:  
## 487 < 75.5 to the left, improve=227.9958, (0 missing)  
## 486 < 63.5 to the left, improve=223.1893, (0 missing)  
## 458 < 47.5 to the left, improve=211.7383, (0 missing)  
## 488 < 105.5 to the right, improve=209.6276, (0 missing)  
## 459 < 1 to the left, improve=205.0181, (0 missing)  
## Surrogate splits:  
## 486 < 40 to the left, agree=0.992, adj=0.950, (0 split)  
## 459 < 1 to the left, agree=0.981, adj=0.887, (0 split)  
## 488 < 162 to the left, agree=0.971, adj=0.831, (0 split)  
## 458 < 26.5 to the left, agree=0.971, adj=0.829, (0 split)  
## 485 < 0.5 to the left, agree=0.961, adj=0.771, (0 split)  
##   
## Node number 32: 2456 observations, complexity param=0.001384299  
## predicted class=1 expected loss=0.0769544 P(node) =0.09744098  
## class counts: 0 2267 31 12 10 24 8 8 90 6  
## probabilities: 0.000 0.923 0.013 0.005 0.004 0.010 0.003 0.003 0.037 0.002   
## left son=64 (2312 obs) right son=65 (144 obs)  
## Primary splits:  
## 300 < 21.5 to the left, improve=78.16071, (0 missing)  
## 355 < 32.5 to the left, improve=76.54136, (0 missing)  
## 484 < 5.5 to the left, improve=75.24698, (0 missing)  
## 301 < 2.5 to the left, improve=74.91437, (0 missing)  
## 511 < 6.5 to the left, improve=72.98386, (0 missing)  
## Surrogate splits:  
## 327 < 81 to the left, agree=0.982, adj=0.694, (0 split)  
## 299 < 192 to the left, agree=0.981, adj=0.681, (0 split)  
## 272 < 98.5 to the left, agree=0.980, adj=0.667, (0 split)  
## 273 < 1 to the left, agree=0.979, adj=0.639, (0 split)  
## 301 < 5.5 to the left, agree=0.975, adj=0.569, (0 split)  
##   
## Node number 33: 151 observations, complexity param=0.0005805126  
## predicted class=2 expected loss=0.3907285 P(node) =0.005990875  
## class counts: 1 12 92 8 4 0 22 1 10 1  
## probabilities: 0.007 0.079 0.609 0.053 0.026 0.000 0.146 0.007 0.066 0.007   
## left son=66 (108 obs) right son=67 (43 obs)  
## Primary splits:  
## 152 < 12 to the right, improve=18.06109, (0 missing)  
## 153 < 10.5 to the right, improve=17.30327, (0 missing)  
## 154 < 12.5 to the right, improve=17.30274, (0 missing)  
## 125 < 20.5 to the right, improve=17.24011, (0 missing)  
## 386 < 43 to the left, improve=16.81243, (0 missing)  
## Surrogate splits:  
## 153 < 20 to the right, agree=0.954, adj=0.837, (0 split)  
## 154 < 12.5 to the right, agree=0.914, adj=0.698, (0 split)  
## 180 < 5 to the right, agree=0.894, adj=0.628, (0 split)  
## 125 < 6 to the right, agree=0.881, adj=0.581, (0 split)  
## 151 < 5 to the right, agree=0.881, adj=0.581, (0 split)  
##   
## Node number 34: 564 observations, complexity param=0.002277396  
## predicted class=8 expected loss=0.7996454 P(node) =0.02237651  
## class counts: 16 109 33 33 61 66 58 15 113 60  
## probabilities: 0.028 0.193 0.059 0.059 0.108 0.117 0.103 0.027 0.200 0.106   
## left son=68 (286 obs) right son=69 (278 obs)  
## Primary splits:  
## 657 < 1.5 to the left, improve=30.51536, (0 missing)  
## 374 < 37.5 to the left, improve=28.44060, (0 missing)  
## 294 < 190 to the right, improve=27.20103, (0 missing)  
## 322 < 245.5 to the right, improve=26.74014, (0 missing)  
## 658 < 0.5 to the left, improve=26.27535, (0 missing)  
## Surrogate splits:  
## 658 < 0.5 to the left, agree=0.888, adj=0.773, (0 split)  
## 629 < 108.5 to the left, agree=0.872, adj=0.741, (0 split)  
## 656 < 10.5 to the left, agree=0.860, adj=0.716, (0 split)  
## 630 < 4 to the left, agree=0.826, adj=0.647, (0 split)  
## 685 < 1 to the left, agree=0.766, adj=0.525, (0 split)  
##   
## Node number 35: 79 observations, complexity param=4.465482e-05  
## predicted class=6 expected loss=0.1139241 P(node) =0.003134299  
## class counts: 1 1 1 3 1 1 70 0 1 0  
## probabilities: 0.013 0.013 0.013 0.038 0.013 0.013 0.886 0.000 0.013 0.000   
## left son=70 (7 obs) right son=71 (72 obs)  
## Primary splits:  
## 271 < 74.5 to the right, improve=5.237191, (0 missing)  
## 297 < 191.5 to the right, improve=5.237191, (0 missing)  
## 298 < 142.5 to the right, improve=5.237191, (0 missing)  
## 623 < 36.5 to the right, improve=5.237191, (0 missing)  
## 458 < 100.5 to the left, improve=4.953824, (0 missing)  
## Surrogate splits:  
## 298 < 142.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 244 < 112 to the right, agree=0.987, adj=0.857, (0 split)  
## 270 < 217.5 to the right, agree=0.987, adj=0.857, (0 split)  
## 272 < 11 to the right, agree=0.987, adj=0.857, (0 split)  
## 243 < 247 to the right, agree=0.975, adj=0.714, (0 split)  
##   
## Node number 36: 228 observations, complexity param=0.0004242208  
## predicted class=2 expected loss=0.4122807 P(node) =0.009045824  
## class counts: 0 17 134 15 1 1 9 21 20 10  
## probabilities: 0.000 0.075 0.588 0.066 0.004 0.004 0.039 0.092 0.088 0.044   
## left son=72 (142 obs) right son=73 (86 obs)  
## Primary splits:  
## 541 < 1.5 to the right, improve=29.54094, (0 missing)  
## 514 < 218.5 to the right, improve=27.51901, (0 missing)  
## 515 < 26 to the right, improve=26.83889, (0 missing)  
## 513 < 61.5 to the right, improve=25.40063, (0 missing)  
## 542 < 4.5 to the right, improve=24.69672, (0 missing)  
## Surrogate splits:  
## 513 < 8 to the right, agree=0.925, adj=0.802, (0 split)  
## 542 < 115.5 to the right, agree=0.925, adj=0.802, (0 split)  
## 540 < 0.5 to the right, agree=0.904, adj=0.744, (0 split)  
## 514 < 165.5 to the right, agree=0.895, adj=0.721, (0 split)  
## 569 < 3 to the right, agree=0.882, adj=0.686, (0 split)  
##   
## Node number 37: 206 observations, complexity param=0.001696883  
## predicted class=6 expected loss=0.4902913 P(node) =0.008172982  
## class counts: 5 2 9 0 12 5 105 7 17 44  
## probabilities: 0.024 0.010 0.044 0.000 0.058 0.024 0.510 0.034 0.083 0.214   
## left son=74 (144 obs) right son=75 (62 obs)  
## Primary splits:  
## 575 < 51.5 to the right, improve=38.30019, (0 missing)  
## 576 < 149 to the right, improve=34.00853, (0 missing)  
## 574 < 201 to the right, improve=33.23562, (0 missing)  
## 603 < 94.5 to the right, improve=33.02369, (0 missing)  
## 602 < 58 to the right, improve=32.25226, (0 missing)  
## Surrogate splits:  
## 574 < 201 to the right, agree=0.913, adj=0.710, (0 split)  
## 603 < 2.5 to the right, agree=0.898, adj=0.661, (0 split)  
## 576 < 1 to the right, agree=0.888, adj=0.629, (0 split)  
## 602 < 33.5 to the right, agree=0.879, adj=0.597, (0 split)  
## 547 < 74.5 to the right, agree=0.864, adj=0.548, (0 split)  
##   
## Node number 38: 218 observations, complexity param=0.001094043  
## predicted class=3 expected loss=0.706422 P(node) =0.008649078  
## class counts: 1 9 34 64 5 1 3 44 50 7  
## probabilities: 0.005 0.041 0.156 0.294 0.023 0.005 0.014 0.202 0.229 0.032   
## left son=76 (162 obs) right son=77 (56 obs)  
## Primary splits:  
## 344 < 24 to the left, improve=24.57021, (0 missing)  
## 345 < 8 to the left, improve=23.04704, (0 missing)  
## 373 < 85.5 to the left, improve=23.00540, (0 missing)  
## 544 < 57.5 to the left, improve=21.22790, (0 missing)  
## 543 < 138 to the left, improve=20.97228, (0 missing)  
## Surrogate splits:  
## 345 < 8 to the left, agree=0.954, adj=0.821, (0 split)  
## 316 < 36.5 to the left, agree=0.950, adj=0.804, (0 split)  
## 372 < 0.5 to the left, agree=0.945, adj=0.786, (0 split)  
## 317 < 52.5 to the left, agree=0.936, adj=0.750, (0 split)  
## 373 < 85.5 to the left, agree=0.936, adj=0.750, (0 split)  
##   
## Node number 39: 498 observations, complexity param=0.000379566  
## predicted class=8 expected loss=0.251004 P(node) =0.01975798  
## class counts: 4 14 3 24 18 7 2 23 373 30  
## probabilities: 0.008 0.028 0.006 0.048 0.036 0.014 0.004 0.046 0.749 0.060   
## left son=78 (124 obs) right son=79 (374 obs)  
## Primary splits:  
## 543 < 9.5 to the left, improve=31.25450, (0 missing)  
## 515 < 13 to the left, improve=29.28271, (0 missing)  
## 518 < 248.5 to the right, improve=27.08767, (0 missing)  
## 155 < 4.5 to the left, improve=27.00839, (0 missing)  
## 516 < 46.5 to the left, improve=25.72759, (0 missing)  
## Surrogate splits:  
## 515 < 13 to the left, agree=0.918, adj=0.669, (0 split)  
## 571 < 6 to the left, agree=0.892, adj=0.565, (0 split)  
## 516 < 45.5 to the left, agree=0.853, adj=0.411, (0 split)  
## 488 < 88.5 to the left, agree=0.851, adj=0.403, (0 split)  
## 487 < 1 to the left, agree=0.833, adj=0.331, (0 split)  
##   
## Node number 40: 1626 observations, complexity param=0.002009467  
## predicted class=3 expected loss=0.1439114 P(node) =0.06451101  
## class counts: 3 41 13 1392 5 105 2 7 31 27  
## probabilities: 0.002 0.025 0.008 0.856 0.003 0.065 0.001 0.004 0.019 0.017   
## left son=80 (1502 obs) right son=81 (124 obs)  
## Primary splits:  
## 315 < 84.5 to the left, improve=101.33530, (0 missing)  
## 316 < 163.5 to the left, improve= 93.73302, (0 missing)  
## 288 < 120 to the left, improve= 87.80485, (0 missing)  
## 343 < 129 to the left, improve= 83.76342, (0 missing)  
## 296 < 2.5 to the right, improve= 75.56257, (0 missing)  
## Surrogate splits:  
## 343 < 129 to the left, agree=0.972, adj=0.637, (0 split)  
## 316 < 72.5 to the left, agree=0.972, adj=0.629, (0 split)  
## 287 < 151.5 to the left, agree=0.971, adj=0.621, (0 split)  
## 314 < 3.5 to the left, agree=0.967, adj=0.573, (0 split)  
## 342 < 31.5 to the left, agree=0.964, adj=0.532, (0 split)  
##   
## Node number 41: 692 observations, complexity param=0.002009467  
## predicted class=3 expected loss=0.6228324 P(node) =0.02745487  
## class counts: 31 91 6 261 31 172 17 23 22 38  
## probabilities: 0.045 0.132 0.009 0.377 0.045 0.249 0.025 0.033 0.032 0.055   
## left son=82 (417 obs) right son=83 (275 obs)  
## Primary splits:  
## 626 < 19.5 to the right, improve=58.69160, (0 missing)  
## 627 < 36.5 to the right, improve=57.79988, (0 missing)  
## 628 < 23 to the left, improve=56.53345, (0 missing)  
## 625 < 1.5 to the right, improve=56.23608, (0 missing)  
## 490 < 127.5 to the right, improve=53.88951, (0 missing)  
## Surrogate splits:  
## 627 < 13.5 to the right, agree=0.952, adj=0.880, (0 split)  
## 625 < 1.5 to the right, agree=0.945, adj=0.862, (0 split)  
## 628 < 3 to the right, agree=0.910, adj=0.775, (0 split)  
## 624 < 0.5 to the right, agree=0.871, adj=0.676, (0 split)  
## 598 < 1 to the right, agree=0.835, adj=0.585, (0 split)  
##   
## Node number 42: 836 observations, complexity param=0.003393766  
## predicted class=5 expected loss=0.430622 P(node) =0.03316802  
## class counts: 59 1 1 198 1 476 9 5 49 37  
## probabilities: 0.071 0.001 0.001 0.237 0.001 0.569 0.011 0.006 0.059 0.044   
## left son=84 (324 obs) right son=85 (512 obs)  
## Primary splits:  
## 297 < 29.5 to the right, improve=94.16206, (0 missing)  
## 298 < 0.5 to the right, improve=89.46983, (0 missing)  
## 296 < 54.5 to the right, improve=89.39417, (0 missing)  
## 269 < 0.5 to the right, improve=76.41152, (0 missing)  
## 270 < 9.5 to the right, improve=73.21487, (0 missing)  
## Surrogate splits:  
## 298 < 0.5 to the right, agree=0.916, adj=0.784, (0 split)  
## 296 < 111.5 to the right, agree=0.879, adj=0.688, (0 split)  
## 270 < 85 to the right, agree=0.854, adj=0.623, (0 split)  
## 269 < 191.5 to the right, agree=0.848, adj=0.608, (0 split)  
## 325 < 210 to the right, agree=0.842, adj=0.593, (0 split)  
##   
## Node number 43: 521 observations, complexity param=0.002389033  
## predicted class=9 expected loss=0.5316699 P(node) =0.0206705  
## class counts: 8 5 2 37 76 57 7 74 11 244  
## probabilities: 0.015 0.010 0.004 0.071 0.146 0.109 0.013 0.142 0.021 0.468   
## left son=86 (164 obs) right son=87 (357 obs)  
## Primary splits:  
## 210 < 1 to the left, improve=63.94359, (0 missing)  
## 211 < 1.5 to the left, improve=56.21769, (0 missing)  
## 209 < 18.5 to the left, improve=53.53197, (0 missing)  
## 321 < 234 to the right, improve=45.42103, (0 missing)  
## 238 < 9.5 to the left, improve=42.78869, (0 missing)  
## Surrogate splits:  
## 211 < 1.5 to the left, agree=0.933, adj=0.787, (0 split)  
## 209 < 18.5 to the left, agree=0.925, adj=0.762, (0 split)  
## 238 < 1 to the left, agree=0.850, adj=0.524, (0 split)  
## 237 < 1 to the left, agree=0.839, adj=0.488, (0 split)  
## 212 < 1 to the left, agree=0.829, adj=0.457, (0 split)  
##   
## Node number 44: 173 observations, complexity param=0.0004465482  
## predicted class=2 expected loss=0.6011561 P(node) =0.006863718  
## class counts: 9 15 69 8 9 7 14 0 23 19  
## probabilities: 0.052 0.087 0.399 0.046 0.052 0.040 0.081 0.000 0.133 0.110   
## left son=88 (73 obs) right son=89 (100 obs)  
## Primary splits:  
## 126 < 10 to the right, improve=21.98748, (0 missing)  
## 154 < 11.5 to the right, improve=21.90812, (0 missing)  
## 156 < 5.5 to the right, improve=21.04590, (0 missing)  
## 155 < 59.5 to the right, improve=20.71615, (0 missing)  
## 573 < 94.5 to the right, improve=20.26070, (0 missing)  
## Surrogate splits:  
## 125 < 5.5 to the right, agree=0.942, adj=0.863, (0 split)  
## 127 < 6.5 to the right, agree=0.936, adj=0.849, (0 split)  
## 153 < 24 to the right, agree=0.908, adj=0.781, (0 split)  
## 154 < 129.5 to the right, agree=0.908, adj=0.781, (0 split)  
## 128 < 5 to the right, agree=0.896, adj=0.753, (0 split)  
##   
## Node number 45: 250 observations, complexity param=0.0003349111  
## predicted class=6 expected loss=0.316 P(node) =0.009918667  
## class counts: 4 5 29 7 5 16 171 0 6 7  
## probabilities: 0.016 0.020 0.116 0.028 0.020 0.064 0.684 0.000 0.024 0.028   
## left son=90 (41 obs) right son=91 (209 obs)  
## Primary splits:  
## 601 < 36.5 to the left, improve=19.64868, (0 missing)  
## 295 < 174 to the right, improve=19.07010, (0 missing)  
## 380 < 25 to the left, improve=17.06546, (0 missing)  
## 381 < 1 to the left, improve=16.91467, (0 missing)  
## 600 < 2.5 to the left, improve=16.78673, (0 missing)  
## Surrogate splits:  
## 600 < 2.5 to the left, agree=0.980, adj=0.878, (0 split)  
## 602 < 0.5 to the left, agree=0.956, adj=0.732, (0 split)  
## 599 < 2 to the left, agree=0.944, adj=0.659, (0 split)  
## 573 < 1.5 to the left, agree=0.920, adj=0.512, (0 split)  
## 572 < 1.5 to the left, agree=0.916, adj=0.488, (0 split)  
##   
## Node number 46: 97 observations, complexity param=0.0005805126  
## predicted class=0 expected loss=0.5463918 P(node) =0.003848443  
## class counts: 44 0 8 6 0 15 3 0 21 0  
## probabilities: 0.454 0.000 0.082 0.062 0.000 0.155 0.031 0.000 0.216 0.000   
## left son=92 (41 obs) right son=93 (56 obs)  
## Primary splits:  
## 329 < 11 to the right, improve=18.37385, (0 missing)  
## 328 < 120.5 to the right, improve=18.09793, (0 missing)  
## 301 < 18.5 to the right, improve=17.28437, (0 missing)  
## 300 < 67 to the right, improve=17.01085, (0 missing)  
## 266 < 240.5 to the right, improve=16.89891, (0 missing)  
## Surrogate splits:  
## 301 < 26 to the right, agree=0.938, adj=0.854, (0 split)  
## 357 < 8.5 to the right, agree=0.938, adj=0.854, (0 split)  
## 300 < 67 to the right, agree=0.928, adj=0.829, (0 split)  
## 328 < 85.5 to the right, agree=0.928, adj=0.829, (0 split)  
## 356 < 232.5 to the right, agree=0.887, adj=0.732, (0 split)  
##   
## Node number 47: 473 observations, complexity param=0.0004688756  
## predicted class=8 expected loss=0.2325581 P(node) =0.01876612  
## class counts: 8 0 20 45 0 15 12 1 363 9  
## probabilities: 0.017 0.000 0.042 0.095 0.000 0.032 0.025 0.002 0.767 0.019   
## left son=94 (43 obs) right son=95 (430 obs)  
## Primary splits:  
## 514 < 1 to the left, improve=18.95645, (0 missing)  
## 439 < 250.5 to the right, improve=18.87687, (0 missing)  
## 440 < 60 to the right, improve=17.81530, (0 missing)  
## 541 < 1 to the left, improve=16.73971, (0 missing)  
## 401 < 230.5 to the right, improve=15.72282, (0 missing)  
## Surrogate splits:  
## 712 < 169 to the right, agree=0.918, adj=0.093, (0 split)  
## 507 < 32 to the right, agree=0.915, adj=0.070, (0 split)  
## 509 < 28 to the right, agree=0.915, adj=0.070, (0 split)  
## 535 < 12 to the right, agree=0.915, adj=0.070, (0 split)  
## 537 < 118.5 to the right, agree=0.915, adj=0.070, (0 split)  
##   
## Node number 48: 2072 observations, complexity param=0.0004242208  
## predicted class=0 expected loss=0.06853282 P(node) =0.08220591  
## class counts: 1930 0 32 31 1 44 21 10 1 2  
## probabilities: 0.931 0.000 0.015 0.015 0.000 0.021 0.010 0.005 0.000 0.001   
## left son=96 (1973 obs) right son=97 (99 obs)  
## Primary splits:  
## 324 < 172 to the left, improve=34.63603, (0 missing)  
## 455 < 1 to the right, improve=31.48402, (0 missing)  
## 323 < 147.5 to the left, improve=31.37636, (0 missing)  
## 427 < 0.5 to the right, improve=30.52109, (0 missing)  
## 428 < 0.5 to the right, improve=28.05817, (0 missing)  
## Surrogate splits:  
## 352 < 15.5 to the left, agree=0.977, adj=0.525, (0 split)  
## 323 < 216.5 to the left, agree=0.971, adj=0.394, (0 split)  
## 325 < 241 to the left, agree=0.967, adj=0.303, (0 split)  
## 351 < 10 to the left, agree=0.965, adj=0.273, (0 split)  
## 353 < 218.5 to the left, agree=0.959, adj=0.152, (0 split)  
##   
## Node number 49: 223 observations, complexity param=0.001250335  
## predicted class=5 expected loss=0.6547085 P(node) =0.008847451  
## class counts: 46 1 17 44 1 77 26 2 5 4  
## probabilities: 0.206 0.004 0.076 0.197 0.004 0.345 0.117 0.009 0.022 0.018   
## left son=98 (84 obs) right son=99 (139 obs)  
## Primary splits:  
## 484 < 42 to the right, improve=22.09355, (0 missing)  
## 485 < 63 to the right, improve=21.30952, (0 missing)  
## 513 < 105.5 to the right, improve=20.88248, (0 missing)  
## 298 < 127 to the right, improve=20.27173, (0 missing)  
## 456 < 13.5 to the right, improve=19.78078, (0 missing)  
## Surrogate splits:  
## 456 < 7.5 to the right, agree=0.928, adj=0.810, (0 split)  
## 512 < 35 to the right, agree=0.892, adj=0.714, (0 split)  
## 457 < 29.5 to the right, agree=0.843, adj=0.583, (0 split)  
## 485 < 33.5 to the right, agree=0.839, adj=0.571, (0 split)  
## 513 < 105.5 to the right, agree=0.834, adj=0.560, (0 split)  
##   
## Node number 50: 218 observations, complexity param=0.0003125837  
## predicted class=2 expected loss=0.2201835 P(node) =0.008649078  
## class counts: 7 5 170 6 2 10 7 3 6 2  
## probabilities: 0.032 0.023 0.780 0.028 0.009 0.046 0.032 0.014 0.028 0.009   
## left son=100 (192 obs) right son=101 (26 obs)  
## Primary splits:  
## 344 < 154.5 to the left, improve=21.28125, (0 missing)  
## 372 < 32 to the left, improve=20.41915, (0 missing)  
## 345 < 33.5 to the left, improve=19.99551, (0 missing)  
## 371 < 16 to the left, improve=19.79440, (0 missing)  
## 465 < 5 to the right, improve=18.42076, (0 missing)  
## Surrogate splits:  
## 372 < 32 to the left, agree=0.982, adj=0.846, (0 split)  
## 371 < 3 to the left, agree=0.972, adj=0.769, (0 split)  
## 317 < 167.5 to the left, agree=0.968, adj=0.731, (0 split)  
## 345 < 33.5 to the left, agree=0.968, adj=0.731, (0 split)  
## 316 < 93.5 to the left, agree=0.959, adj=0.654, (0 split)  
##   
## Node number 51: 224 observations, complexity param=0.002857908  
## predicted class=5 expected loss=0.6026786 P(node) =0.008887126  
## class counts: 70 0 11 4 1 89 29 1 18 1  
## probabilities: 0.312 0.000 0.049 0.018 0.004 0.397 0.129 0.004 0.080 0.004   
## left son=102 (73 obs) right son=103 (151 obs)  
## Primary splits:  
## 386 < 3.5 to the right, improve=52.64302, (0 missing)  
## 358 < 6.5 to the right, improve=52.12740, (0 missing)  
## 413 < 36 to the right, improve=51.92639, (0 missing)  
## 357 < 26.5 to the right, improve=51.87439, (0 missing)  
## 385 < 43 to the right, improve=51.27013, (0 missing)  
## Surrogate splits:  
## 358 < 13.5 to the right, agree=0.973, adj=0.918, (0 split)  
## 385 < 108 to the right, agree=0.964, adj=0.890, (0 split)  
## 413 < 36 to the right, agree=0.960, adj=0.877, (0 split)  
## 414 < 6.5 to the right, agree=0.960, adj=0.877, (0 split)  
## 441 < 19.5 to the right, agree=0.942, adj=0.822, (0 split)  
##   
## Node number 52: 309 observations, complexity param=0.00379566  
## predicted class=6 expected loss=0.6019417 P(node) =0.01225947  
## class counts: 99 1 30 6 9 19 123 3 3 16  
## probabilities: 0.320 0.003 0.097 0.019 0.029 0.061 0.398 0.010 0.010 0.052   
## left son=104 (151 obs) right son=105 (158 obs)  
## Primary splits:  
## 241 < 12 to the right, improve=62.80933, (0 missing)  
## 270 < 2 to the right, improve=62.15147, (0 missing)  
## 242 < 2 to the right, improve=59.06631, (0 missing)  
## 269 < 1 to the right, improve=56.39711, (0 missing)  
## 298 < 1.5 to the right, improve=55.86574, (0 missing)  
## Surrogate splits:  
## 269 < 1 to the right, agree=0.942, adj=0.881, (0 split)  
## 242 < 2 to the right, agree=0.926, adj=0.848, (0 split)  
## 270 < 2 to the right, agree=0.922, adj=0.841, (0 split)  
## 240 < 0.5 to the right, agree=0.890, adj=0.775, (0 split)  
## 298 < 1.5 to the right, agree=0.887, adj=0.768, (0 split)  
##   
## Node number 53: 294 observations, complexity param=0.002009467  
## predicted class=4 expected loss=0.6054422 P(node) =0.01166435  
## class counts: 9 0 14 5 116 41 10 23 2 74  
## probabilities: 0.031 0.000 0.048 0.017 0.395 0.139 0.034 0.078 0.007 0.252   
## left son=106 (119 obs) right son=107 (175 obs)  
## Primary splits:  
## 211 < 8 to the left, improve=40.32227, (0 missing)  
## 210 < 9 to the left, improve=40.02085, (0 missing)  
## 238 < 1 to the left, improve=34.44240, (0 missing)  
## 239 < 0.5 to the left, improve=31.73947, (0 missing)  
## 465 < 34 to the left, improve=31.34210, (0 missing)  
## Surrogate splits:  
## 210 < 6.5 to the left, agree=0.895, adj=0.739, (0 split)  
## 212 < 0.5 to the left, agree=0.881, adj=0.706, (0 split)  
## 239 < 0.5 to the left, agree=0.874, adj=0.689, (0 split)  
## 238 < 4 to the left, agree=0.850, adj=0.630, (0 split)  
## 240 < 1 to the left, agree=0.844, adj=0.613, (0 split)  
##   
## Node number 54: 208 observations, complexity param=0.002366705  
## predicted class=9 expected loss=0.6875 P(node) =0.008252331  
## class counts: 4 7 3 25 22 62 9 9 2 65  
## probabilities: 0.019 0.034 0.014 0.120 0.106 0.298 0.043 0.043 0.010 0.312   
## left son=108 (106 obs) right son=109 (102 obs)  
## Primary splits:  
## 354 < 26 to the left, improve=31.37672, (0 missing)  
## 353 < 22.5 to the left, improve=28.44115, (0 missing)  
## 355 < 2 to the left, improve=24.04168, (0 missing)  
## 465 < 80 to the left, improve=23.43269, (0 missing)  
## 382 < 35.5 to the left, improve=21.14973, (0 missing)  
## Surrogate splits:  
## 353 < 22.5 to the left, agree=0.909, adj=0.814, (0 split)  
## 355 < 2 to the left, agree=0.875, adj=0.745, (0 split)  
## 326 < 2 to the left, agree=0.870, adj=0.735, (0 split)  
## 382 < 146 to the left, agree=0.856, adj=0.706, (0 split)  
## 465 < 80 to the left, agree=0.817, adj=0.627, (0 split)  
##   
## Node number 55: 746 observations, complexity param=0.002009467  
## predicted class=7 expected loss=0.1782842 P(node) =0.0295973  
## class counts: 57 3 5 9 14 26 4 613 0 15  
## probabilities: 0.076 0.004 0.007 0.012 0.019 0.035 0.005 0.822 0.000 0.020   
## left son=110 (68 obs) right son=111 (678 obs)  
## Primary splits:  
## 538 < 1 to the right, improve=75.36373, (0 missing)  
## 510 < 10.5 to the right, improve=71.88152, (0 missing)  
## 539 < 2 to the right, improve=68.65317, (0 missing)  
## 623 < 3 to the right, improve=67.04377, (0 missing)  
## 566 < 7 to the right, improve=66.62073, (0 missing)  
## Surrogate splits:  
## 510 < 121.5 to the right, agree=0.981, adj=0.794, (0 split)  
## 566 < 1.5 to the right, agree=0.976, adj=0.735, (0 split)  
## 567 < 1 to the right, agree=0.971, adj=0.676, (0 split)  
## 539 < 56 to the right, agree=0.968, adj=0.647, (0 split)  
## 537 < 2 to the right, agree=0.962, adj=0.588, (0 split)  
##   
## Node number 56: 1644 observations, complexity param=0.003304457  
## predicted class=2 expected loss=0.386253 P(node) =0.06522515  
## class counts: 5 102 1009 23 65 12 50 193 94 91  
## probabilities: 0.003 0.062 0.614 0.014 0.040 0.007 0.030 0.117 0.057 0.055   
## left son=112 (1021 obs) right son=113 (623 obs)  
## Primary splits:  
## 155 < 1 to the right, improve=246.8804, (0 missing)  
## 156 < 0.5 to the right, improve=246.5524, (0 missing)  
## 154 < 0.5 to the right, improve=235.2572, (0 missing)  
## 127 < 1.5 to the right, improve=212.1310, (0 missing)  
## 157 < 2.5 to the right, improve=208.6518, (0 missing)  
## Surrogate splits:  
## 156 < 0.5 to the right, agree=0.969, adj=0.918, (0 split)  
## 154 < 0.5 to the right, agree=0.956, adj=0.884, (0 split)  
## 157 < 2.5 to the right, agree=0.917, adj=0.782, (0 split)  
## 153 < 0.5 to the right, agree=0.901, adj=0.738, (0 split)  
## 152 < 1 to the right, agree=0.826, adj=0.541, (0 split)  
##   
## Node number 57: 1194 observations, complexity param=0.00379566  
## predicted class=8 expected loss=0.4572864 P(node) =0.04737155  
## class counts: 36 0 78 5 152 119 28 56 648 72  
## probabilities: 0.030 0.000 0.065 0.004 0.127 0.100 0.023 0.047 0.543 0.060   
## left son=114 (485 obs) right son=115 (709 obs)  
## Primary splits:  
## 657 < 15 to the left, improve=192.8540, (0 missing)  
## 656 < 22.5 to the left, improve=182.8277, (0 missing)  
## 658 < 3.5 to the left, improve=168.9296, (0 missing)  
## 655 < 20 to the left, improve=143.8821, (0 missing)  
## 684 < 0.5 to the left, improve=142.4054, (0 missing)  
## Surrogate splits:  
## 658 < 0.5 to the left, agree=0.934, adj=0.837, (0 split)  
## 656 < 59 to the left, agree=0.931, adj=0.831, (0 split)  
## 630 < 7.5 to the left, agree=0.879, adj=0.703, (0 split)  
## 629 < 4 to the left, agree=0.848, adj=0.627, (0 split)  
## 631 < 0.5 to the left, agree=0.843, adj=0.612, (0 split)  
##   
## Node number 58: 447 observations, complexity param=0.0009377512  
## predicted class=2 expected loss=0.3959732 P(node) =0.01773458  
## class counts: 5 26 270 4 34 1 22 31 37 17  
## probabilities: 0.011 0.058 0.604 0.009 0.076 0.002 0.049 0.069 0.083 0.038   
## left son=116 (344 obs) right son=117 (103 obs)  
## Primary splits:  
## 346 < 7.5 to the left, improve=47.61144, (0 missing)  
## 347 < 0.5 to the left, improve=43.59109, (0 missing)  
## 348 < 2 to the left, improve=38.53257, (0 missing)  
## 124 < 3 to the right, improve=38.15032, (0 missing)  
## 345 < 5.5 to the left, improve=37.90400, (0 missing)  
## Surrogate splits:  
## 347 < 0.5 to the left, agree=0.937, adj=0.728, (0 split)  
## 318 < 24.5 to the left, agree=0.933, adj=0.709, (0 split)  
## 345 < 2.5 to the left, agree=0.915, adj=0.631, (0 split)  
## 374 < 4.5 to the left, agree=0.915, adj=0.631, (0 split)  
## 319 < 41 to the left, agree=0.904, adj=0.583, (0 split)  
##   
## Node number 59: 1941 observations, complexity param=0.004688756  
## predicted class=6 expected loss=0.2246265 P(node) =0.07700853  
## class counts: 3 3 110 8 20 103 1505 4 169 16  
## probabilities: 0.002 0.002 0.057 0.004 0.010 0.053 0.775 0.002 0.087 0.008   
## left son=118 (241 obs) right son=119 (1700 obs)  
## Primary splits:  
## 274 < 2.5 to the right, improve=208.2075, (0 missing)  
## 655 < 1.5 to the left, improve=206.0021, (0 missing)  
## 654 < 0.5 to the left, improve=202.5597, (0 missing)  
## 246 < 5.5 to the right, improve=198.0558, (0 missing)  
## 656 < 2 to the left, improve=195.6095, (0 missing)  
## Surrogate splits:  
## 273 < 3 to the right, agree=0.982, adj=0.855, (0 split)  
## 246 < 24 to the right, agree=0.973, adj=0.780, (0 split)  
## 301 < 137.5 to the right, agree=0.965, adj=0.722, (0 split)  
## 302 < 39 to the right, agree=0.961, adj=0.689, (0 split)  
## 245 < 14.5 to the right, agree=0.958, adj=0.660, (0 split)  
##   
## Node number 60: 1830 observations, complexity param=0.003751005  
## predicted class=4 expected loss=0.2836066 P(node) =0.07260464  
## class counts: 0 6 111 44 1311 123 68 44 56 67  
## probabilities: 0.000 0.003 0.061 0.024 0.716 0.067 0.037 0.024 0.031 0.037   
## left son=120 (221 obs) right son=121 (1609 obs)  
## Primary splits:  
## 596 < 1.5 to the right, improve=177.3933, (0 missing)  
## 597 < 13 to the right, improve=171.0007, (0 missing)  
## 595 < 0.5 to the right, improve=167.7112, (0 missing)  
## 624 < 2.5 to the right, improve=167.5858, (0 missing)  
## 625 < 35 to the right, improve=163.3194, (0 missing)  
## Surrogate splits:  
## 597 < 44 to the right, agree=0.981, adj=0.846, (0 split)  
## 595 < 0.5 to the right, agree=0.978, adj=0.819, (0 split)  
## 624 < 0.5 to the right, agree=0.973, adj=0.778, (0 split)  
## 568 < 0.5 to the right, agree=0.967, adj=0.729, (0 split)  
## 567 < 15.5 to the right, agree=0.964, adj=0.701, (0 split)  
##   
## Node number 61: 2659 observations, complexity param=0.01576315  
## predicted class=9 expected loss=0.5065814 P(node) =0.1054949  
## class counts: 7 2 90 215 288 464 32 88 161 1312  
## probabilities: 0.003 0.001 0.034 0.081 0.108 0.175 0.012 0.033 0.061 0.493   
## left son=122 (808 obs) right son=123 (1851 obs)  
## Primary splits:  
## 354 < 2.5 to the left, improve=332.8322, (0 missing)  
## 353 < 1.5 to the left, improve=318.0870, (0 missing)  
## 326 < 0.5 to the left, improve=309.1417, (0 missing)  
## 381 < 9.5 to the left, improve=293.6687, (0 missing)  
## 382 < 1.5 to the left, improve=277.3368, (0 missing)  
## Surrogate splits:  
## 326 < 0.5 to the left, agree=0.920, adj=0.736, (0 split)  
## 382 < 1.5 to the left, agree=0.914, adj=0.715, (0 split)  
## 381 < 91.5 to the left, agree=0.896, adj=0.658, (0 split)  
## 353 < 0.5 to the left, agree=0.881, adj=0.608, (0 split)  
## 327 < 1 to the left, agree=0.837, adj=0.464, (0 split)  
##   
## Node number 62: 1766 observations, complexity param=0.00482272  
## predicted class=7 expected loss=0.2587769 P(node) =0.07006546  
## class counts: 7 65 53 68 34 118 21 1309 31 60  
## probabilities: 0.004 0.037 0.030 0.039 0.019 0.067 0.012 0.741 0.018 0.034   
## left son=124 (313 obs) right son=125 (1453 obs)  
## Primary splits:  
## 377 < 6.5 to the right, improve=248.0977, (0 missing)  
## 405 < 23.5 to the right, improve=243.4815, (0 missing)  
## 376 < 73.5 to the right, improve=211.9655, (0 missing)  
## 378 < 100.5 to the right, improve=210.6609, (0 missing)  
## 404 < 4 to the right, improve=196.8469, (0 missing)  
## Surrogate splits:  
## 405 < 39.5 to the right, agree=0.971, adj=0.834, (0 split)  
## 376 < 73.5 to the right, agree=0.967, adj=0.815, (0 split)  
## 404 < 2.5 to the right, agree=0.959, adj=0.767, (0 split)  
## 378 < 157.5 to the right, agree=0.935, adj=0.636, (0 split)  
## 406 < 202.5 to the right, agree=0.914, adj=0.514, (0 split)  
##   
## Node number 63: 362 observations, complexity param=0.004420827  
## predicted class=9 expected loss=0.558011 P(node) =0.01436223  
## class counts: 1 1 19 1 135 1 16 23 5 160  
## probabilities: 0.003 0.003 0.052 0.003 0.373 0.003 0.044 0.064 0.014 0.442   
## left son=126 (144 obs) right son=127 (218 obs)  
## Primary splits:  
## 211 < 5.5 to the left, improve=70.33103, (0 missing)  
## 210 < 9 to the left, improve=65.94942, (0 missing)  
## 212 < 9.5 to the left, improve=60.68276, (0 missing)  
## 209 < 12.5 to the left, improve=56.75568, (0 missing)  
## 239 < 4.5 to the left, improve=44.24857, (0 missing)  
## Surrogate splits:  
## 210 < 6.5 to the left, agree=0.903, adj=0.757, (0 split)  
## 212 < 9.5 to the left, agree=0.890, adj=0.722, (0 split)  
## 239 < 0.5 to the left, agree=0.862, adj=0.653, (0 split)  
## 209 < 11.5 to the left, agree=0.859, adj=0.646, (0 split)  
## 183 < 6 to the left, agree=0.823, adj=0.556, (0 split)  
##   
## Node number 64: 2312 observations, complexity param=0.0007144771  
## predicted class=1 expected loss=0.04152249 P(node) =0.09172783  
## class counts: 0 2216 30 7 7 10 8 8 24 2  
## probabilities: 0.000 0.958 0.013 0.003 0.003 0.004 0.003 0.003 0.010 0.001   
## left son=128 (2291 obs) right son=129 (21 obs)  
## Primary splits:  
## 608 < 6 to the left, improve=30.93996, (0 missing)  
## 177 < 36.5 to the left, improve=30.91269, (0 missing)  
## 607 < 114.5 to the left, improve=30.66493, (0 missing)  
## 176 < 63.5 to the left, improve=28.78651, (0 missing)  
## 609 < 21 to the left, improve=28.63209, (0 missing)  
## Surrogate splits:  
## 607 < 114.5 to the left, agree=0.999, adj=0.905, (0 split)  
## 636 < 87.5 to the left, agree=0.999, adj=0.857, (0 split)  
## 609 < 21 to the left, agree=0.998, adj=0.762, (0 split)  
## 637 < 8.5 to the left, agree=0.998, adj=0.762, (0 split)  
## 580 < 37 to the left, agree=0.997, adj=0.714, (0 split)  
##   
## Node number 65: 144 observations, complexity param=0.001384299  
## predicted class=8 expected loss=0.5416667 P(node) =0.005713152  
## class counts: 0 51 1 5 3 14 0 0 66 4  
## probabilities: 0.000 0.354 0.007 0.035 0.021 0.097 0.000 0.000 0.458 0.028   
## left son=130 (72 obs) right son=131 (72 obs)  
## Primary splits:  
## 265 < 1.5 to the left, improve=42.55556, (0 missing)  
## 293 < 8 to the left, improve=41.14472, (0 missing)  
## 183 < 27 to the left, improve=40.63166, (0 missing)  
## 211 < 33.5 to the left, improve=40.50671, (0 missing)  
## 266 < 2.5 to the left, improve=40.02092, (0 missing)  
## Surrogate splits:  
## 293 < 62 to the left, agree=0.965, adj=0.931, (0 split)  
## 237 < 2 to the left, agree=0.938, adj=0.875, (0 split)  
## 210 < 12 to the left, agree=0.903, adj=0.806, (0 split)  
## 211 < 11.5 to the left, agree=0.903, adj=0.806, (0 split)  
## 238 < 5.5 to the left, agree=0.903, adj=0.806, (0 split)  
##   
## Node number 66: 108 observations, complexity param=0.0003572385  
## predicted class=2 expected loss=0.2314815 P(node) =0.004284864  
## class counts: 0 11 83 5 1 0 0 0 8 0  
## probabilities: 0.000 0.102 0.769 0.046 0.009 0.000 0.000 0.000 0.074 0.000   
## left son=132 (91 obs) right son=133 (17 obs)  
## Primary splits:  
## 292 < 58.5 to the left, improve=15.51201, (0 missing)  
## 321 < 246.5 to the left, improve=15.02522, (0 missing)  
## 515 < 26.5 to the right, improve=14.98427, (0 missing)  
## 543 < 24.5 to the right, improve=14.48043, (0 missing)  
## 264 < 69 to the left, improve=14.32744, (0 missing)  
## Surrogate splits:  
## 320 < 21.5 to the left, agree=0.981, adj=0.882, (0 split)  
## 321 < 243 to the left, agree=0.981, adj=0.882, (0 split)  
## 264 < 69 to the left, agree=0.972, adj=0.824, (0 split)  
## 293 < 171.5 to the left, agree=0.963, adj=0.765, (0 split)  
## 236 < 217.5 to the left, agree=0.954, adj=0.706, (0 split)  
##   
## Node number 67: 43 observations, complexity param=0.0001786193  
## predicted class=6 expected loss=0.4883721 P(node) =0.001706011  
## class counts: 1 1 9 3 3 0 22 1 2 1  
## probabilities: 0.023 0.023 0.209 0.070 0.070 0.000 0.512 0.023 0.047 0.023   
## left son=134 (24 obs) right son=135 (19 obs)  
## Primary splits:  
## 212 < 22 to the right, improve=6.321603, (0 missing)  
## 176 < 131.5 to the left, improve=6.219615, (0 missing)  
## 204 < 236.5 to the left, improve=6.152366, (0 missing)  
## 211 < 23.5 to the right, improve=6.013390, (0 missing)  
## 232 < 8.5 to the left, improve=5.575989, (0 missing)  
## Surrogate splits:  
## 120 < 5.5 to the left, agree=0.930, adj=0.842, (0 split)  
## 239 < 9.5 to the right, agree=0.930, adj=0.842, (0 split)  
## 148 < 7 to the left, agree=0.907, adj=0.789, (0 split)  
## 176 < 8 to the left, agree=0.907, adj=0.789, (0 split)  
## 232 < 8.5 to the left, agree=0.907, adj=0.789, (0 split)  
##   
## Node number 68: 286 observations, complexity param=0.001406627  
## predicted class=5 expected loss=0.8111888 P(node) =0.01134695  
## class counts: 12 33 31 14 42 54 54 8 8 30  
## probabilities: 0.042 0.115 0.108 0.049 0.147 0.189 0.189 0.028 0.028 0.105   
## left son=136 (252 obs) right son=137 (34 obs)  
## Primary splits:  
## 276 < 44.5 to the left, improve=21.85412, (0 missing)  
## 574 < 233 to the right, improve=21.35074, (0 missing)  
## 247 < 1 to the left, improve=21.33641, (0 missing)  
## 539 < 85.5 to the right, improve=20.30011, (0 missing)  
## 275 < 23.5 to the left, improve=20.14673, (0 missing)  
## Surrogate splits:  
## 275 < 209.5 to the left, agree=0.965, adj=0.706, (0 split)  
## 277 < 0.5 to the left, agree=0.962, adj=0.676, (0 split)  
## 248 < 120.5 to the left, agree=0.955, adj=0.618, (0 split)  
## 304 < 67.5 to the left, agree=0.951, adj=0.588, (0 split)  
## 249 < 17 to the left, agree=0.941, adj=0.500, (0 split)  
##   
## Node number 69: 278 observations, complexity param=0.002277396  
## predicted class=8 expected loss=0.6223022 P(node) =0.01102956  
## class counts: 4 76 2 19 19 12 4 7 105 30  
## probabilities: 0.014 0.273 0.007 0.068 0.068 0.043 0.014 0.025 0.378 0.108   
## left son=138 (134 obs) right son=139 (144 obs)  
## Primary splits:  
## 294 < 216 to the right, improve=37.22654, (0 missing)  
## 322 < 237 to the right, improve=33.89610, (0 missing)  
## 295 < 249.5 to the right, improve=30.28190, (0 missing)  
## 215 < 1 to the left, improve=28.16814, (0 missing)  
## 267 < 185.5 to the right, improve=27.96281, (0 missing)  
## Surrogate splits:  
## 267 < 174.5 to the right, agree=0.892, adj=0.776, (0 split)  
## 266 < 245.5 to the right, agree=0.878, adj=0.746, (0 split)  
## 322 < 237 to the right, agree=0.878, adj=0.746, (0 split)  
## 295 < 249.5 to the right, agree=0.849, adj=0.687, (0 split)  
## 239 < 248.5 to the right, agree=0.784, adj=0.552, (0 split)  
##   
## Node number 70: 7 observations  
## predicted class=3 expected loss=0.7142857 P(node) =0.0002777227  
## class counts: 1 0 1 2 1 0 1 0 1 0  
## probabilities: 0.143 0.000 0.143 0.286 0.143 0.000 0.143 0.000 0.143 0.000   
##   
## Node number 71: 72 observations  
## predicted class=6 expected loss=0.04166667 P(node) =0.002856576  
## class counts: 0 1 0 1 0 1 69 0 0 0  
## probabilities: 0.000 0.014 0.000 0.014 0.000 0.014 0.958 0.000 0.000 0.000   
##   
## Node number 72: 142 observations, complexity param=0.0003125837  
## predicted class=2 expected loss=0.1619718 P(node) =0.005633803  
## class counts: 0 0 119 2 0 1 6 2 11 1  
## probabilities: 0.000 0.000 0.838 0.014 0.000 0.007 0.042 0.014 0.077 0.007   
## left son=144 (122 obs) right son=145 (20 obs)  
## Primary splits:  
## 301 < 3.5 to the left, improve=16.25925, (0 missing)  
## 274 < 1 to the left, improve=15.01724, (0 missing)  
## 356 < 37 to the left, improve=13.89224, (0 missing)  
## 302 < 12 to the left, improve=13.24347, (0 missing)  
## 273 < 36.5 to the left, improve=12.83977, (0 missing)  
## Surrogate splits:  
## 329 < 17 to the left, agree=0.972, adj=0.80, (0 split)  
## 273 < 36.5 to the left, agree=0.965, adj=0.75, (0 split)  
## 300 < 117.5 to the left, agree=0.965, adj=0.75, (0 split)  
## 302 < 12 to the left, agree=0.965, adj=0.75, (0 split)  
## 328 < 149.5 to the left, agree=0.965, adj=0.75, (0 split)  
##   
## Node number 73: 86 observations, complexity param=0.0004242208  
## predicted class=7 expected loss=0.7790698 P(node) =0.003412021  
## class counts: 0 17 15 13 1 0 3 19 9 9  
## probabilities: 0.000 0.198 0.174 0.151 0.012 0.000 0.035 0.221 0.105 0.105   
## left son=146 (57 obs) right son=147 (29 obs)  
## Primary splits:  
## 683 < 18 to the left, improve=10.087930, (0 missing)  
## 516 < 37.5 to the left, improve= 9.245802, (0 missing)  
## 684 < 36 to the left, improve= 9.195264, (0 missing)  
## 515 < 5.5 to the left, improve= 9.040953, (0 missing)  
## 488 < 168.5 to the left, improve= 8.756569, (0 missing)  
## Surrogate splits:  
## 682 < 1.5 to the left, agree=0.930, adj=0.793, (0 split)  
## 684 < 4.5 to the left, agree=0.907, adj=0.724, (0 split)  
## 710 < 8 to the left, agree=0.907, adj=0.724, (0 split)  
## 711 < 12.5 to the left, agree=0.907, adj=0.724, (0 split)  
## 242 < 126 to the left, agree=0.895, adj=0.690, (0 split)  
##   
## Node number 74: 144 observations, complexity param=0.0002232741  
## predicted class=6 expected loss=0.2708333 P(node) =0.005713152  
## class counts: 5 2 3 0 3 5 105 5 10 6  
## probabilities: 0.035 0.014 0.021 0.000 0.021 0.035 0.729 0.035 0.069 0.042   
## left son=148 (112 obs) right son=149 (32 obs)  
## Primary splits:  
## 213 < 25.5 to the left, improve=15.76587, (0 missing)  
## 240 < 105 to the left, improve=15.25453, (0 missing)  
## 239 < 43 to the right, improve=15.19769, (0 missing)  
## 241 < 12 to the left, improve=14.80026, (0 missing)  
## 212 < 21.5 to the left, improve=13.19373, (0 missing)  
## Surrogate splits:  
## 214 < 13 to the left, agree=0.944, adj=0.750, (0 split)  
## 186 < 2.5 to the left, agree=0.938, adj=0.719, (0 split)  
## 212 < 21.5 to the left, agree=0.924, adj=0.656, (0 split)  
## 185 < 51.5 to the left, agree=0.917, adj=0.625, (0 split)  
## 241 < 29 to the left, agree=0.910, adj=0.594, (0 split)  
##   
## Node number 75: 62 observations, complexity param=0.0002679289  
## predicted class=9 expected loss=0.3870968 P(node) =0.002459829  
## class counts: 0 0 6 0 9 0 0 2 7 38  
## probabilities: 0.000 0.000 0.097 0.000 0.145 0.000 0.000 0.032 0.113 0.613   
## left son=150 (19 obs) right son=151 (43 obs)  
## Primary splits:  
## 210 < 21.5 to the left, improve=8.797607, (0 missing)  
## 209 < 131.5 to the left, improve=7.533531, (0 missing)  
## 238 < 68.5 to the left, improve=6.490469, (0 missing)  
## 154 < 161.5 to the right, improve=5.666443, (0 missing)  
## 239 < 9.5 to the left, improve=5.648694, (0 missing)  
## Surrogate splits:  
## 211 < 33.5 to the left, agree=0.919, adj=0.737, (0 split)  
## 239 < 9.5 to the left, agree=0.887, adj=0.632, (0 split)  
## 209 < 2 to the left, agree=0.871, adj=0.579, (0 split)  
## 238 < 21 to the left, agree=0.871, adj=0.579, (0 split)  
## 182 < 4 to the left, agree=0.839, adj=0.474, (0 split)  
##   
## Node number 76: 162 observations, complexity param=0.001094043  
## predicted class=3 expected loss=0.617284 P(node) =0.006427296  
## class counts: 0 9 33 62 0 0 0 44 13 1  
## probabilities: 0.000 0.056 0.204 0.383 0.000 0.000 0.000 0.272 0.080 0.006   
## left son=152 (59 obs) right son=153 (103 obs)  
## Primary splits:  
## 404 < 228 to the right, improve=25.18382, (0 missing)  
## 376 < 65 to the right, improve=25.02485, (0 missing)  
## 403 < 59.5 to the right, improve=22.72821, (0 missing)  
## 578 < 20.5 to the right, improve=21.57795, (0 missing)  
## 606 < 2 to the right, improve=21.43827, (0 missing)  
## Surrogate splits:  
## 376 < 48 to the right, agree=0.932, adj=0.814, (0 split)  
## 403 < 29 to the right, agree=0.932, adj=0.814, (0 split)  
## 375 < 2.5 to the right, agree=0.926, adj=0.797, (0 split)  
## 377 < 230.5 to the right, agree=0.889, adj=0.695, (0 split)  
## 431 < 157.5 to the right, agree=0.870, adj=0.644, (0 split)  
##   
## Node number 77: 56 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.3392857 P(node) =0.002221781  
## class counts: 1 0 1 2 5 1 3 0 37 6  
## probabilities: 0.018 0.000 0.018 0.036 0.089 0.018 0.054 0.000 0.661 0.107   
## left son=154 (14 obs) right son=155 (42 obs)  
## Primary splits:  
## 516 < 53 to the left, improve=8.369048, (0 missing)  
## 634 < 33.5 to the left, improve=8.243088, (0 missing)  
## 606 < 9 to the left, improve=7.903571, (0 missing)  
## 662 < 13 to the left, improve=7.322161, (0 missing)  
## 661 < 56 to the left, improve=6.989683, (0 missing)  
## Surrogate splits:  
## 544 < 2 to the left, agree=0.964, adj=0.857, (0 split)  
## 543 < 1.5 to the left, agree=0.911, adj=0.643, (0 split)  
## 488 < 84.5 to the left, agree=0.875, adj=0.500, (0 split)  
## 515 < 10 to the left, agree=0.875, adj=0.500, (0 split)  
## 433 < 192 to the left, agree=0.857, adj=0.429, (0 split)  
##   
## Node number 78: 124 observations, complexity param=0.000379566  
## predicted class=8 expected loss=0.6370968 P(node) =0.004919659  
## class counts: 1 13 1 16 7 2 0 12 45 27  
## probabilities: 0.008 0.105 0.008 0.129 0.056 0.016 0.000 0.097 0.363 0.218   
## left son=156 (80 obs) right son=157 (44 obs)  
## Primary splits:  
## 401 < 173 to the left, improve=11.080790, (0 missing)  
## 180 < 115.5 to the right, improve=10.839260, (0 missing)  
## 179 < 4.5 to the right, improve=10.102630, (0 missing)  
## 207 < 207.5 to the right, improve= 9.505904, (0 missing)  
## 713 < 26.5 to the left, improve= 9.334151, (0 missing)  
## Surrogate splits:  
## 400 < 1.5 to the left, agree=0.919, adj=0.773, (0 split)  
## 402 < 248.5 to the left, agree=0.887, adj=0.682, (0 split)  
## 373 < 178 to the left, agree=0.879, adj=0.659, (0 split)  
## 428 < 9.5 to the left, agree=0.879, adj=0.659, (0 split)  
## 429 < 17.5 to the left, agree=0.839, adj=0.545, (0 split)  
##   
## Node number 79: 374 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.1229947 P(node) =0.01483833  
## class counts: 3 1 2 8 11 5 2 11 328 3  
## probabilities: 0.008 0.003 0.005 0.021 0.029 0.013 0.005 0.029 0.877 0.008   
## left son=158 (19 obs) right son=159 (355 obs)  
## Primary splits:  
## 470 < 156.5 to the right, improve=14.94440, (0 missing)  
## 471 < 5.5 to the right, improve=14.26268, (0 missing)  
## 440 < 65 to the right, improve=13.47169, (0 missing)  
## 441 < 204.5 to the right, improve=13.26268, (0 missing)  
## 469 < 54.5 to the right, improve=13.15042, (0 missing)  
## Surrogate splits:  
## 471 < 5.5 to the right, agree=0.997, adj=0.947, (0 split)  
## 442 < 80 to the right, agree=0.989, adj=0.789, (0 split)  
## 498 < 164 to the right, agree=0.989, adj=0.789, (0 split)  
## 499 < 2 to the right, agree=0.989, adj=0.789, (0 split)  
## 443 < 3.5 to the right, agree=0.984, adj=0.684, (0 split)  
##   
## Node number 80: 1502 observations, complexity param=0.0007368045  
## predicted class=3 expected loss=0.08521971 P(node) =0.05959135  
## class counts: 0 41 13 1374 0 39 0 7 23 5  
## probabilities: 0.000 0.027 0.009 0.915 0.000 0.026 0.000 0.005 0.015 0.003   
## left son=160 (64 obs) right son=161 (1438 obs)  
## Primary splits:  
## 490 < 139.5 to the right, improve=40.67295, (0 missing)  
## 264 < 147.5 to the left, improve=39.08559, (0 missing)  
## 491 < 251.5 to the right, improve=35.00766, (0 missing)  
## 296 < 2.5 to the right, improve=33.06601, (0 missing)  
## 519 < 248.5 to the right, improve=28.93667, (0 missing)  
## Surrogate splits:  
## 491 < 251.5 to the right, agree=0.971, adj=0.328, (0 split)  
## 518 < 204 to the right, agree=0.970, adj=0.297, (0 split)  
## 519 < 252.5 to the right, agree=0.963, adj=0.141, (0 split)  
## 462 < 240.5 to the right, agree=0.961, adj=0.078, (0 split)  
## 489 < 17.5 to the right, agree=0.960, adj=0.062, (0 split)  
##   
## Node number 81: 124 observations, complexity param=0.0005358578  
## predicted class=5 expected loss=0.4677419 P(node) =0.004919659  
## class counts: 3 0 0 18 5 66 2 0 8 22  
## probabilities: 0.024 0.000 0.000 0.145 0.040 0.532 0.016 0.000 0.065 0.177   
## left son=162 (78 obs) right son=163 (46 obs)  
## Primary splits:  
## 296 < 54 to the left, improve=18.35723, (0 missing)  
## 297 < 8.5 to the left, improve=13.84682, (0 missing)  
## 295 < 190.5 to the left, improve=13.33559, (0 missing)  
## 493 < 1 to the left, improve=13.15037, (0 missing)  
## 269 < 0.5 to the left, improve=13.05200, (0 missing)  
## Surrogate splits:  
## 297 < 2 to the left, agree=0.895, adj=0.717, (0 split)  
## 295 < 36.5 to the left, agree=0.863, adj=0.630, (0 split)  
## 324 < 234 to the left, agree=0.855, adj=0.609, (0 split)  
## 269 < 0.5 to the left, agree=0.847, adj=0.587, (0 split)  
## 323 < 228.5 to the left, agree=0.831, adj=0.543, (0 split)  
##   
## Node number 82: 417 observations, complexity param=0.002009467  
## predicted class=3 expected loss=0.4364508 P(node) =0.01654434  
## class counts: 26 4 5 235 0 119 8 4 12 4  
## probabilities: 0.062 0.010 0.012 0.564 0.000 0.285 0.019 0.010 0.029 0.010   
## left son=164 (261 obs) right son=165 (156 obs)  
## Primary splits:  
## 265 < 148 to the left, improve=68.75340, (0 missing)  
## 292 < 98.5 to the left, improve=56.56522, (0 missing)  
## 293 < 119 to the left, improve=50.53075, (0 missing)  
## 266 < 218 to the left, improve=49.22403, (0 missing)  
## 238 < 178.5 to the left, improve=43.42265, (0 missing)  
## Surrogate splits:  
## 264 < 17.5 to the left, agree=0.873, adj=0.660, (0 split)  
## 238 < 201.5 to the left, agree=0.868, adj=0.647, (0 split)  
## 292 < 124.5 to the left, agree=0.859, adj=0.622, (0 split)  
## 266 < 167 to the left, agree=0.842, adj=0.577, (0 split)  
## 237 < 83 to the left, agree=0.825, adj=0.532, (0 split)  
##   
## Node number 83: 275 observations, complexity param=0.001830848  
## predicted class=1 expected loss=0.6836364 P(node) =0.01091053  
## class counts: 5 87 1 26 31 53 9 19 10 34  
## probabilities: 0.018 0.316 0.004 0.095 0.113 0.193 0.033 0.069 0.036 0.124   
## left son=166 (104 obs) right son=167 (171 obs)  
## Primary splits:  
## 376 < 20 to the left, improve=41.76481, (0 missing)  
## 462 < 138.5 to the right, improve=39.92496, (0 missing)  
## 375 < 1 to the left, improve=39.04379, (0 missing)  
## 154 < 2.5 to the right, improve=38.93607, (0 missing)  
## 153 < 2.5 to the right, improve=38.78834, (0 missing)  
## Surrogate splits:  
## 375 < 1 to the left, agree=0.938, adj=0.837, (0 split)  
## 348 < 7.5 to the left, agree=0.884, adj=0.692, (0 split)  
## 403 < 1.5 to the left, agree=0.880, adj=0.683, (0 split)  
## 374 < 2 to the left, agree=0.869, adj=0.654, (0 split)  
## 404 < 2.5 to the left, agree=0.869, adj=0.654, (0 split)  
##   
## Node number 84: 324 observations, complexity param=0.001250335  
## predicted class=3 expected loss=0.5524691 P(node) =0.01285459  
## class counts: 33 1 1 145 0 69 3 5 38 29  
## probabilities: 0.102 0.003 0.003 0.448 0.000 0.213 0.009 0.015 0.117 0.090   
## left son=168 (32 obs) right son=169 (292 obs)  
## Primary splits:  
## 359 < 77 to the right, improve=30.59009, (0 missing)  
## 330 < 172.5 to the right, improve=30.52172, (0 missing)  
## 331 < 6 to the right, improve=29.98537, (0 missing)  
## 427 < 214.5 to the right, improve=29.80651, (0 missing)  
## 454 < 162.5 to the right, improve=29.57523, (0 missing)  
## Surrogate splits:  
## 330 < 186.5 to the right, agree=0.981, adj=0.813, (0 split)  
## 358 < 237 to the right, agree=0.981, adj=0.813, (0 split)  
## 387 < 64 to the right, agree=0.981, adj=0.813, (0 split)  
## 331 < 79.5 to the right, agree=0.978, adj=0.781, (0 split)  
## 360 < 7 to the right, agree=0.963, adj=0.625, (0 split)  
##   
## Node number 85: 512 observations, complexity param=0.001027061  
## predicted class=5 expected loss=0.2050781 P(node) =0.02031343  
## class counts: 26 0 0 53 1 407 6 0 11 8  
## probabilities: 0.051 0.000 0.000 0.104 0.002 0.795 0.012 0.000 0.021 0.016   
## left son=170 (39 obs) right son=171 (473 obs)  
## Primary splits:  
## 301 < 74 to the right, improve=39.51550, (0 missing)  
## 330 < 1.5 to the right, improve=37.61420, (0 missing)  
## 302 < 35 to the right, improve=36.12414, (0 missing)  
## 329 < 2 to the right, improve=35.30698, (0 missing)  
## 300 < 70.5 to the right, improve=34.88390, (0 missing)  
## Surrogate splits:  
## 329 < 14 to the right, agree=0.992, adj=0.897, (0 split)  
## 302 < 8 to the right, agree=0.986, adj=0.821, (0 split)  
## 330 < 1.5 to the right, agree=0.984, adj=0.795, (0 split)  
## 273 < 211.5 to the right, agree=0.980, adj=0.744, (0 split)  
## 300 < 70.5 to the right, agree=0.975, adj=0.667, (0 split)  
##   
## Node number 86: 164 observations, complexity param=0.002389033  
## predicted class=7 expected loss=0.6219512 P(node) =0.006506646  
## class counts: 4 3 0 9 58 11 4 62 3 10  
## probabilities: 0.024 0.018 0.000 0.055 0.354 0.067 0.024 0.378 0.018 0.061   
## left son=172 (85 obs) right son=173 (79 obs)  
## Primary splits:  
## 321 < 202 to the left, improve=40.30244, (0 missing)  
## 322 < 200 to the left, improve=37.31707, (0 missing)  
## 405 < 6.5 to the right, improve=36.44269, (0 missing)  
## 378 < 201.5 to the right, improve=35.36654, (0 missing)  
## 404 < 59 to the right, improve=33.65017, (0 missing)  
## Surrogate splits:  
## 322 < 207.5 to the left, agree=0.939, adj=0.873, (0 split)  
## 320 < 214.5 to the left, agree=0.902, adj=0.797, (0 split)  
## 293 < 63.5 to the left, agree=0.896, adj=0.785, (0 split)  
## 294 < 99.5 to the left, agree=0.872, adj=0.734, (0 split)  
## 323 < 233.5 to the left, agree=0.860, adj=0.709, (0 split)  
##   
## Node number 87: 357 observations, complexity param=0.001071716  
## predicted class=9 expected loss=0.3445378 P(node) =0.01416386  
## class counts: 4 2 2 28 18 46 3 12 8 234  
## probabilities: 0.011 0.006 0.006 0.078 0.050 0.129 0.008 0.034 0.022 0.655   
## left son=174 (100 obs) right son=175 (257 obs)  
## Primary splits:  
## 297 < 5.5 to the left, improve=43.67962, (0 missing)  
## 325 < 12.5 to the left, improve=38.79364, (0 missing)  
## 296 < 7.5 to the left, improve=34.24751, (0 missing)  
## 464 < 36 to the left, improve=33.64649, (0 missing)  
## 492 < 29 to the left, improve=33.25300, (0 missing)  
## Surrogate splits:  
## 269 < 2.5 to the left, agree=0.908, adj=0.67, (0 split)  
## 325 < 73.5 to the left, agree=0.894, adj=0.62, (0 split)  
## 296 < 7.5 to the left, agree=0.863, adj=0.51, (0 split)  
## 324 < 188.5 to the left, agree=0.863, adj=0.51, (0 split)  
## 298 < 3 to the left, agree=0.818, adj=0.35, (0 split)  
##   
## Node number 88: 73 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.2191781 P(node) =0.002896251  
## class counts: 0 1 57 5 0 0 4 0 6 0  
## probabilities: 0.000 0.014 0.781 0.068 0.000 0.000 0.055 0.000 0.082 0.000   
## left son=176 (60 obs) right son=177 (13 obs)  
## Primary splits:  
## 466 < 39.5 to the left, improve=9.068247, (0 missing)  
## 412 < 17.5 to the left, improve=8.709380, (0 missing)  
## 440 < 124.5 to the left, improve=8.709380, (0 missing)  
## 439 < 184.5 to the left, improve=8.646880, (0 missing)  
## 411 < 12 to the left, improve=8.380669, (0 missing)  
## Surrogate splits:  
## 465 < 5 to the left, agree=0.959, adj=0.769, (0 split)  
## 494 < 184.5 to the left, agree=0.959, adj=0.769, (0 split)  
## 493 < 128 to the left, agree=0.945, adj=0.692, (0 split)  
## 436 < 58 to the left, agree=0.932, adj=0.615, (0 split)  
## 437 < 118 to the left, agree=0.932, adj=0.615, (0 split)  
##   
## Node number 89: 100 observations, complexity param=0.0004465482  
## predicted class=9 expected loss=0.81 P(node) =0.003967467  
## class counts: 9 14 12 3 9 7 10 0 17 19  
## probabilities: 0.090 0.140 0.120 0.030 0.090 0.070 0.100 0.000 0.170 0.190   
## left son=178 (83 obs) right son=179 (17 obs)  
## Primary splits:  
## 717 < 5 to the left, improve=13.162230, (0 missing)  
## 572 < 25.5 to the right, improve= 9.874790, (0 missing)  
## 573 < 12 to the right, improve= 9.765385, (0 missing)  
## 600 < 5 to the right, improve= 9.620000, (0 missing)  
## 541 < 20 to the right, improve= 9.477250, (0 missing)  
## Surrogate splits:  
## 716 < 2 to the left, agree=0.95, adj=0.706, (0 split)  
## 689 < 166 to the left, agree=0.94, adj=0.647, (0 split)  
## 688 < 164 to the left, agree=0.92, adj=0.529, (0 split)  
## 718 < 3.5 to the left, agree=0.90, adj=0.412, (0 split)  
## 745 < 1 to the left, agree=0.90, adj=0.412, (0 split)  
##   
## Node number 90: 41 observations, complexity param=0.0003125837  
## predicted class=2 expected loss=0.7804878 P(node) =0.001626661  
## class counts: 2 5 9 3 5 4 4 0 2 7  
## probabilities: 0.049 0.122 0.220 0.073 0.122 0.098 0.098 0.000 0.049 0.171   
## left son=180 (18 obs) right son=181 (23 obs)  
## Primary splits:  
## 380 < 19.5 to the left, improve=5.028161, (0 missing)  
## 400 < 63.5 to the left, improve=4.392656, (0 missing)  
## 352 < 43.5 to the left, improve=4.284634, (0 missing)  
## 409 < 68.5 to the left, improve=4.035147, (0 missing)  
## 408 < 125 to the left, improve=3.949634, (0 missing)  
## Surrogate splits:  
## 381 < 8 to the left, agree=0.902, adj=0.778, (0 split)  
## 408 < 14 to the left, agree=0.878, adj=0.722, (0 split)  
## 352 < 43.5 to the left, agree=0.854, adj=0.667, (0 split)  
## 409 < 21 to the left, agree=0.854, adj=0.667, (0 split)  
## 262 < 68.5 to the left, agree=0.805, adj=0.556, (0 split)  
##   
## Node number 91: 209 observations, complexity param=0.0003349111  
## predicted class=6 expected loss=0.2009569 P(node) =0.008292006  
## class counts: 2 0 20 4 0 12 167 0 4 0  
## probabilities: 0.010 0.000 0.096 0.019 0.000 0.057 0.799 0.000 0.019 0.000   
## left son=182 (16 obs) right son=183 (193 obs)  
## Primary splits:  
## 584 < 8 to the right, improve=15.45373, (0 missing)  
## 583 < 102.5 to the right, improve=13.91228, (0 missing)  
## 582 < 26.5 to the right, improve=13.34968, (0 missing)  
## 556 < 3.5 to the right, improve=13.25837, (0 missing)  
## 581 < 81 to the right, improve=12.23165, (0 missing)  
## Surrogate splits:  
## 583 < 120.5 to the right, agree=0.995, adj=0.937, (0 split)  
## 556 < 51.5 to the right, agree=0.986, adj=0.813, (0 split)  
## 555 < 149 to the right, agree=0.976, adj=0.687, (0 split)  
## 557 < 11 to the right, agree=0.976, adj=0.687, (0 split)  
## 611 < 35 to the right, agree=0.976, adj=0.687, (0 split)  
##   
## Node number 92: 41 observations  
## predicted class=0 expected loss=0.09756098 P(node) =0.001626661  
## class counts: 37 0 0 1 0 2 0 0 1 0  
## probabilities: 0.902 0.000 0.000 0.024 0.000 0.049 0.000 0.000 0.024 0.000   
##   
## Node number 93: 56 observations, complexity param=0.0002083892  
## predicted class=8 expected loss=0.6428571 P(node) =0.002221781  
## class counts: 7 0 8 5 0 13 3 0 20 0  
## probabilities: 0.125 0.000 0.143 0.089 0.000 0.232 0.054 0.000 0.357 0.000   
## left son=186 (40 obs) right son=187 (16 obs)  
## Primary splits:  
## 347 < 0.5 to the right, improve=5.114286, (0 missing)  
## 431 < 11.5 to the left, improve=5.062771, (0 missing)  
## 269 < 10.5 to the right, improve=4.992063, (0 missing)  
## 297 < 178 to the left, improve=4.928571, (0 missing)  
## 346 < 22.5 to the left, improve=4.674179, (0 missing)  
## Surrogate splits:  
## 320 < 14.5 to the right, agree=0.929, adj=0.750, (0 split)  
## 319 < 5 to the right, agree=0.893, adj=0.625, (0 split)  
## 348 < 110.5 to the right, agree=0.893, adj=0.625, (0 split)  
## 318 < 6 to the right, agree=0.839, adj=0.438, (0 split)  
## 354 < 1 to the right, agree=0.839, adj=0.438, (0 split)  
##   
## Node number 94: 43 observations, complexity param=0.0004688756  
## predicted class=3 expected loss=0.4883721 P(node) =0.001706011  
## class counts: 0 0 1 22 0 2 0 0 13 5  
## probabilities: 0.000 0.000 0.023 0.512 0.000 0.047 0.000 0.000 0.302 0.116   
## left son=188 (27 obs) right son=189 (16 obs)  
## Primary splits:  
## 512 < 70.5 to the left, improve=12.16258, (0 missing)  
## 513 < 8.5 to the left, improve=12.16258, (0 missing)  
## 539 < 195.5 to the left, improve=10.96037, (0 missing)  
## 485 < 207.5 to the left, improve=10.87067, (0 missing)  
## 511 < 67.5 to the left, improve=10.63056, (0 missing)  
## Surrogate splits:  
## 511 < 67.5 to the left, agree=0.977, adj=0.937, (0 split)  
## 484 < 163.5 to the left, agree=0.953, adj=0.875, (0 split)  
## 513 < 8.5 to the left, agree=0.953, adj=0.875, (0 split)  
## 483 < 76 to the left, agree=0.930, adj=0.812, (0 split)  
## 268 < 9.5 to the right, agree=0.907, adj=0.750, (0 split)  
##   
## Node number 95: 430 observations, complexity param=0.0002344378  
## predicted class=8 expected loss=0.1860465 P(node) =0.01706011  
## class counts: 8 0 19 23 0 13 12 1 350 4  
## probabilities: 0.019 0.000 0.044 0.053 0.000 0.030 0.028 0.002 0.814 0.009   
## left son=190 (28 obs) right son=191 (402 obs)  
## Primary splits:  
## 432 < 1 to the left, improve=15.89285, (0 missing)  
## 459 < 16.5 to the left, improve=15.80018, (0 missing)  
## 435 < 44.5 to the left, improve=14.50146, (0 missing)  
## 439 < 250.5 to the right, improve=13.62454, (0 missing)  
## 436 < 7 to the left, improve=13.55462, (0 missing)  
## Surrogate splits:  
## 405 < 5 to the left, agree=0.967, adj=0.500, (0 split)  
## 431 < 1 to the left, agree=0.956, adj=0.321, (0 split)  
## 459 < 0.5 to the left, agree=0.956, adj=0.321, (0 split)  
## 385 < 241 to the right, agree=0.944, adj=0.143, (0 split)  
## 413 < 250 to the right, agree=0.944, adj=0.143, (0 split)  
##   
## Node number 96: 1973 observations, complexity param=0.0001786193  
## predicted class=0 expected loss=0.04460213 P(node) =0.07827812  
## class counts: 1885 0 30 7 1 19 18 10 1 2  
## probabilities: 0.955 0.000 0.015 0.004 0.001 0.010 0.009 0.005 0.001 0.001   
## left son=192 (1955 obs) right son=193 (18 obs)  
## Primary splits:  
## 463 < 80 to the left, improve=14.57930, (0 missing)  
## 707 < 3.5 to the left, improve=13.36910, (0 missing)  
## 708 < 43 to the left, improve=13.36910, (0 missing)  
## 427 < 0.5 to the right, improve=12.97644, (0 missing)  
## 464 < 193 to the left, improve=12.69634, (0 missing)  
## Surrogate splits:  
## 464 < 242 to the left, agree=0.993, adj=0.278, (0 split)  
## 491 < 239.5 to the left, agree=0.993, adj=0.278, (0 split)  
## 490 < 131.5 to the left, agree=0.993, adj=0.222, (0 split)  
## 707 < 39 to the left, agree=0.993, adj=0.222, (0 split)  
## 706 < 3.5 to the left, agree=0.992, adj=0.167, (0 split)  
##   
## Node number 97: 99 observations, complexity param=0.0004242208  
## predicted class=0 expected loss=0.5454545 P(node) =0.003927792  
## class counts: 45 0 2 24 0 25 3 0 0 0  
## probabilities: 0.455 0.000 0.020 0.242 0.000 0.253 0.030 0.000 0.000 0.000   
## left son=194 (42 obs) right son=195 (57 obs)  
## Primary splits:  
## 427 < 40 to the right, improve=25.47832, (0 missing)  
## 455 < 3 to the right, improve=23.30820, (0 missing)  
## 399 < 73.5 to the right, improve=23.26249, (0 missing)  
## 428 < 103.5 to the right, improve=19.27411, (0 missing)  
## 271 < 118 to the right, improve=18.54264, (0 missing)  
## Surrogate splits:  
## 399 < 65.5 to the right, agree=0.960, adj=0.905, (0 split)  
## 455 < 51 to the right, agree=0.949, adj=0.881, (0 split)  
## 426 < 1.5 to the right, agree=0.919, adj=0.810, (0 split)  
## 454 < 6.5 to the right, agree=0.909, adj=0.786, (0 split)  
## 371 < 21 to the right, agree=0.879, adj=0.714, (0 split)  
##   
## Node number 98: 84 observations, complexity param=0.0008484415  
## predicted class=0 expected loss=0.5357143 P(node) =0.003332672  
## class counts: 39 0 6 2 1 11 22 0 2 1  
## probabilities: 0.464 0.000 0.071 0.024 0.012 0.131 0.262 0.000 0.024 0.012   
## left son=196 (45 obs) right son=197 (39 obs)  
## Primary splits:  
## 270 < 21.5 to the right, improve=18.41636, (0 missing)  
## 378 < 41 to the left, improve=16.00212, (0 missing)  
## 269 < 72 to the right, improve=15.83202, (0 missing)  
## 405 < 64 to the left, improve=15.81935, (0 missing)  
## 406 < 70 to the left, improve=15.81935, (0 missing)  
## Surrogate splits:  
## 269 < 72 to the right, agree=0.881, adj=0.744, (0 split)  
## 241 < 15.5 to the right, agree=0.869, adj=0.718, (0 split)  
## 242 < 78 to the right, agree=0.857, adj=0.692, (0 split)  
## 271 < 45.5 to the right, agree=0.857, adj=0.692, (0 split)  
## 298 < 37 to the right, agree=0.845, adj=0.667, (0 split)  
##   
## Node number 99: 139 observations, complexity param=0.0007591319  
## predicted class=5 expected loss=0.5251799 P(node) =0.005514779  
## class counts: 7 1 11 42 0 66 4 2 3 3  
## probabilities: 0.050 0.007 0.079 0.302 0.000 0.475 0.029 0.014 0.022 0.022   
## left son=198 (65 obs) right son=199 (74 obs)  
## Primary splits:  
## 375 < 95 to the left, improve=12.76991, (0 missing)  
## 346 < 2 to the left, improve=12.54354, (0 missing)  
## 374 < 104 to the left, improve=11.65058, (0 missing)  
## 402 < 4.5 to the left, improve=11.49828, (0 missing)  
## 324 < 2.5 to the right, improve=11.04272, (0 missing)  
## Surrogate splits:  
## 376 < 11.5 to the left, agree=0.921, adj=0.831, (0 split)  
## 374 < 19.5 to the left, agree=0.871, adj=0.723, (0 split)  
## 402 < 4.5 to the left, agree=0.856, adj=0.692, (0 split)  
## 403 < 35 to the left, agree=0.856, adj=0.692, (0 split)  
## 377 < 2 to the left, agree=0.827, adj=0.631, (0 split)  
##   
## Node number 100: 192 observations, complexity param=8.930964e-05  
## predicted class=2 expected loss=0.1197917 P(node) =0.007617536  
## class counts: 0 5 169 6 1 2 1 3 5 0  
## probabilities: 0.000 0.026 0.880 0.031 0.005 0.010 0.005 0.016 0.026 0.000   
## left son=200 (169 obs) right son=201 (23 obs)  
## Primary splits:  
## 520 < 34 to the right, improve=11.271360, (0 missing)  
## 492 < 46.5 to the right, improve=10.474310, (0 missing)  
## 406 < 15.5 to the left, improve= 9.946657, (0 missing)  
## 493 < 115.5 to the right, improve= 9.783002, (0 missing)  
## 379 < 1 to the left, improve= 9.014460, (0 missing)  
## Surrogate splits:  
## 406 < 15.5 to the left, agree=0.974, adj=0.783, (0 split)  
## 492 < 5 to the right, agree=0.974, adj=0.783, (0 split)  
## 379 < 1 to the left, agree=0.969, adj=0.739, (0 split)  
## 378 < 12.5 to the left, agree=0.964, adj=0.696, (0 split)  
## 466 < 1.5 to the right, agree=0.964, adj=0.696, (0 split)  
##   
## Node number 101: 26 observations, complexity param=0.0003125837  
## predicted class=5 expected loss=0.6923077 P(node) =0.001031541  
## class counts: 7 0 1 0 1 8 6 0 1 2  
## probabilities: 0.269 0.000 0.038 0.000 0.038 0.308 0.231 0.000 0.038 0.077   
## left son=202 (17 obs) right son=203 (9 obs)  
## Primary splits:  
## 512 < 14.5 to the right, improve=5.986928, (0 missing)  
## 440 < 170.5 to the right, improve=5.947712, (0 missing)  
## 540 < 19 to the right, improve=5.894737, (0 missing)  
## 511 < 0.5 to the right, improve=5.869281, (0 missing)  
## 412 < 185.5 to the right, improve=5.775000, (0 missing)  
## Surrogate splits:  
## 523 < 31 to the right, agree=0.962, adj=0.889, (0 split)  
## 541 < 13.5 to the right, agree=0.962, adj=0.889, (0 split)  
## 355 < 9.5 to the right, agree=0.923, adj=0.778, (0 split)  
## 431 < 42.5 to the left, agree=0.923, adj=0.778, (0 split)  
## 495 < 3 to the right, agree=0.923, adj=0.778, (0 split)  
##   
## Node number 102: 73 observations, complexity param=8.930964e-05  
## predicted class=0 expected loss=0.1232877 P(node) =0.002896251  
## class counts: 64 0 1 0 0 0 5 1 1 1  
## probabilities: 0.877 0.000 0.014 0.000 0.000 0.000 0.068 0.014 0.014 0.014   
## left son=204 (64 obs) right son=205 (9 obs)  
## Primary splits:  
## 243 < 2 to the right, improve=5.569540, (0 missing)  
## 244 < 24 to the right, improve=4.883627, (0 missing)  
## 214 < 18 to the right, improve=4.796181, (0 missing)  
## 399 < 39.5 to the right, improve=4.439305, (0 missing)  
## 245 < 19 to the right, improve=4.361206, (0 missing)  
## Surrogate splits:  
## 244 < 4.5 to the right, agree=0.945, adj=0.556, (0 split)  
## 214 < 4 to the right, agree=0.932, adj=0.444, (0 split)  
## 215 < 3.5 to the right, agree=0.932, adj=0.444, (0 split)  
## 272 < 1.5 to the right, agree=0.932, adj=0.444, (0 split)  
## 273 < 13.5 to the right, agree=0.932, adj=0.444, (0 split)  
##   
## Node number 103: 151 observations, complexity param=0.0005805126  
## predicted class=5 expected loss=0.410596 P(node) =0.005990875  
## class counts: 6 0 10 4 1 89 24 0 17 0  
## probabilities: 0.040 0.000 0.066 0.026 0.007 0.589 0.159 0.000 0.113 0.000   
## left son=206 (64 obs) right son=207 (87 obs)  
## Primary splits:  
## 513 < 12.5 to the right, improve=26.85880, (0 missing)  
## 157 < 47 to the left, improve=22.88604, (0 missing)  
## 156 < 74.5 to the left, improve=21.54192, (0 missing)  
## 514 < 3.5 to the left, improve=21.01624, (0 missing)  
## 131 < 89 to the left, improve=20.69583, (0 missing)  
## Surrogate splits:  
## 514 < 3.5 to the right, agree=0.887, adj=0.734, (0 split)  
## 485 < 108 to the right, agree=0.874, adj=0.703, (0 split)  
## 541 < 46 to the right, agree=0.854, adj=0.656, (0 split)  
## 512 < 55.5 to the right, agree=0.834, adj=0.609, (0 split)  
## 486 < 140.5 to the right, agree=0.828, adj=0.594, (0 split)  
##   
## Node number 104: 151 observations, complexity param=0.0004018934  
## predicted class=0 expected loss=0.4039735 P(node) =0.005990875  
## class counts: 90 0 16 3 3 14 5 3 2 15  
## probabilities: 0.596 0.000 0.106 0.020 0.020 0.093 0.033 0.020 0.013 0.099   
## left son=208 (93 obs) right son=209 (58 obs)  
## Primary splits:  
## 518 < 102 to the left, improve=21.05911, (0 missing)  
## 519 < 110.5 to the left, improve=15.24324, (0 missing)  
## 571 < 118 to the right, improve=15.17687, (0 missing)  
## 517 < 167.5 to the left, improve=15.05487, (0 missing)  
## 489 < 46.5 to the left, improve=14.75032, (0 missing)  
## Surrogate splits:  
## 517 < 80 to the left, agree=0.901, adj=0.741, (0 split)  
## 490 < 1 to the left, agree=0.894, adj=0.724, (0 split)  
## 519 < 110.5 to the left, agree=0.894, adj=0.724, (0 split)  
## 489 < 1.5 to the left, agree=0.848, adj=0.603, (0 split)  
## 546 < 224.5 to the left, agree=0.834, adj=0.569, (0 split)  
##   
## Node number 105: 158 observations, complexity param=0.0002679289  
## predicted class=6 expected loss=0.2531646 P(node) =0.006268598  
## class counts: 9 1 14 3 6 5 118 0 1 1  
## probabilities: 0.057 0.006 0.089 0.019 0.038 0.032 0.747 0.000 0.006 0.006   
## left son=210 (15 obs) right son=211 (143 obs)  
## Primary splits:  
## 215 < 15 to the right, improve=10.949600, (0 missing)  
## 99 < 1.5 to the left, improve=10.621320, (0 missing)  
## 244 < 5 to the right, improve=10.141330, (0 missing)  
## 657 < 4.5 to the right, improve= 9.843735, (0 missing)  
## 243 < 3 to the right, improve= 9.691958, (0 missing)  
## Surrogate splits:  
## 243 < 3 to the right, agree=0.994, adj=0.933, (0 split)  
## 216 < 20.5 to the right, agree=0.981, adj=0.800, (0 split)  
## 187 < 22.5 to the right, agree=0.968, adj=0.667, (0 split)  
## 214 < 5 to the right, agree=0.968, adj=0.667, (0 split)  
## 242 < 3 to the right, agree=0.968, adj=0.667, (0 split)  
##   
## Node number 106: 119 observations, complexity param=0.0002679289  
## predicted class=4 expected loss=0.2268908 P(node) =0.004721285  
## class counts: 2 0 6 0 92 3 5 6 0 5  
## probabilities: 0.017 0.000 0.050 0.000 0.773 0.025 0.042 0.050 0.000 0.042   
## left son=212 (103 obs) right son=213 (16 obs)  
## Primary splits:  
## 294 < 30.5 to the left, improve=14.29289, (0 missing)  
## 266 < 44.5 to the left, improve=13.49975, (0 missing)  
## 295 < 15 to the left, improve=12.17027, (0 missing)  
## 267 < 10.5 to the left, improve=11.11692, (0 missing)  
## 322 < 2.5 to the left, improve=10.30024, (0 missing)  
## Surrogate splits:  
## 266 < 44.5 to the left, agree=0.975, adj=0.812, (0 split)  
## 295 < 15 to the left, agree=0.958, adj=0.688, (0 split)  
## 265 < 211 to the left, agree=0.950, adj=0.625, (0 split)  
## 267 < 10.5 to the left, agree=0.950, adj=0.625, (0 split)  
## 322 < 2.5 to the left, agree=0.950, adj=0.625, (0 split)  
##   
## Node number 107: 175 observations, complexity param=0.001473609  
## predicted class=9 expected loss=0.6057143 P(node) =0.006943067  
## class counts: 7 0 8 5 24 38 5 17 2 69  
## probabilities: 0.040 0.000 0.046 0.029 0.137 0.217 0.029 0.097 0.011 0.394   
## left son=214 (69 obs) right son=215 (106 obs)  
## Primary splits:  
## 465 < 104 to the left, improve=27.01432, (0 missing)  
## 466 < 0.5 to the left, improve=25.30958, (0 missing)  
## 437 < 11.5 to the left, improve=25.03619, (0 missing)  
## 438 < 16 to the left, improve=24.84611, (0 missing)  
## 218 < 1.5 to the right, improve=24.44695, (0 missing)  
## Surrogate splits:  
## 437 < 1 to the left, agree=0.943, adj=0.855, (0 split)  
## 464 < 10.5 to the left, agree=0.903, adj=0.754, (0 split)  
## 409 < 1 to the left, agree=0.880, adj=0.696, (0 split)  
## 438 < 52 to the left, agree=0.880, adj=0.696, (0 split)  
## 493 < 55.5 to the left, agree=0.880, adj=0.696, (0 split)  
##   
## Node number 108: 106 observations, complexity param=0.0002456015  
## predicted class=5 expected loss=0.4433962 P(node) =0.004205515  
## class counts: 2 7 0 17 2 59 9 2 2 6  
## probabilities: 0.019 0.066 0.000 0.160 0.019 0.557 0.085 0.019 0.019 0.057   
## left son=216 (53 obs) right son=217 (53 obs)  
## Primary splits:  
## 290 < 0.5 to the left, improve=9.660377, (0 missing)  
## 263 < 3.5 to the left, improve=9.106793, (0 missing)  
## 203 < 5 to the right, improve=8.230857, (0 missing)  
## 205 < 12 to the right, improve=7.251435, (0 missing)  
## 291 < 46 to the left, improve=7.251267, (0 missing)  
## Surrogate splits:  
## 318 < 55 to the left, agree=0.887, adj=0.774, (0 split)  
## 263 < 28 to the left, agree=0.830, adj=0.660, (0 split)  
## 317 < 3 to the left, agree=0.830, adj=0.660, (0 split)  
## 262 < 17.5 to the left, agree=0.821, adj=0.642, (0 split)  
## 289 < 13 to the left, agree=0.811, adj=0.623, (0 split)  
##   
## Node number 109: 102 observations, complexity param=0.0007144771  
## predicted class=9 expected loss=0.4215686 P(node) =0.004046816  
## class counts: 2 0 3 8 20 3 0 7 0 59  
## probabilities: 0.020 0.000 0.029 0.078 0.196 0.029 0.000 0.069 0.000 0.578   
## left son=218 (31 obs) right son=219 (71 obs)  
## Primary splits:  
## 239 < 1.5 to the left, improve=18.23672, (0 missing)  
## 238 < 17.5 to the left, improve=17.47031, (0 missing)  
## 210 < 2 to the left, improve=16.29280, (0 missing)  
## 211 < 4 to the left, improve=15.30392, (0 missing)  
## 237 < 69.5 to the left, improve=14.14787, (0 missing)  
## Surrogate splits:  
## 238 < 2 to the left, agree=0.941, adj=0.806, (0 split)  
## 211 < 28.5 to the left, agree=0.922, adj=0.742, (0 split)  
## 240 < 3.5 to the left, agree=0.922, adj=0.742, (0 split)  
## 210 < 2 to the left, agree=0.902, adj=0.677, (0 split)  
## 237 < 8.5 to the left, agree=0.892, adj=0.645, (0 split)  
##   
## Node number 110: 68 observations, complexity param=0.0002679289  
## predicted class=0 expected loss=0.2794118 P(node) =0.002697877  
## class counts: 49 0 0 1 2 9 0 4 0 3  
## probabilities: 0.721 0.000 0.000 0.015 0.029 0.132 0.000 0.059 0.000 0.044   
## left son=220 (59 obs) right son=221 (9 obs)  
## Primary splits:  
## 323 < 203 to the left, improve=8.749972, (0 missing)  
## 353 < 45.5 to the left, improve=8.666479, (0 missing)  
## 322 < 102.5 to the left, improve=8.395886, (0 missing)  
## 237 < 24 to the right, improve=8.231900, (0 missing)  
## 358 < 3.5 to the right, improve=7.987677, (0 missing)  
## Surrogate splits:  
## 322 < 197.5 to the left, agree=0.971, adj=0.778, (0 split)  
## 321 < 229 to the left, agree=0.956, adj=0.667, (0 split)  
## 352 < 59.5 to the left, agree=0.956, adj=0.667, (0 split)  
## 353 < 75 to the left, agree=0.956, adj=0.667, (0 split)  
## 324 < 232.5 to the left, agree=0.941, adj=0.556, (0 split)  
##   
## Node number 111: 678 observations, complexity param=0.0003572385  
## predicted class=7 expected loss=0.1017699 P(node) =0.02689942  
## class counts: 8 3 5 8 12 17 4 609 0 12  
## probabilities: 0.012 0.004 0.007 0.012 0.018 0.025 0.006 0.898 0.000 0.018   
## left son=222 (30 obs) right son=223 (648 obs)  
## Primary splits:  
## 460 < 13 to the right, improve=27.51554, (0 missing)  
## 488 < 2 to the right, improve=27.47981, (0 missing)  
## 461 < 5.5 to the right, improve=26.12030, (0 missing)  
## 432 < 13.5 to the right, improve=25.79541, (0 missing)  
## 459 < 17.5 to the right, improve=25.38516, (0 missing)  
## Surrogate splits:  
## 459 < 33.5 to the right, agree=0.994, adj=0.867, (0 split)  
## 461 < 5.5 to the right, agree=0.993, adj=0.833, (0 split)  
## 431 < 75.5 to the right, agree=0.991, adj=0.800, (0 split)  
## 432 < 13.5 to the right, agree=0.991, adj=0.800, (0 split)  
## 433 < 1.5 to the right, agree=0.985, adj=0.667, (0 split)  
##   
## Node number 112: 1021 observations, complexity param=0.0009377512  
## predicted class=2 expected loss=0.1165524 P(node) =0.04050784  
## class counts: 3 0 902 16 2 2 2 12 66 16  
## probabilities: 0.003 0.000 0.883 0.016 0.002 0.002 0.002 0.012 0.065 0.016   
## left son=224 (936 obs) right son=225 (85 obs)  
## Primary splits:  
## 344 < 82 to the left, improve=57.73321, (0 missing)  
## 372 < 94.5 to the left, improve=57.50269, (0 missing)  
## 373 < 134 to the left, improve=55.79061, (0 missing)  
## 345 < 6.5 to the left, improve=54.35326, (0 missing)  
## 343 < 27.5 to the left, improve=48.16892, (0 missing)  
## Surrogate splits:  
## 345 < 6.5 to the left, agree=0.976, adj=0.706, (0 split)  
## 343 < 4.5 to the left, agree=0.975, adj=0.694, (0 split)  
## 316 < 141 to the left, agree=0.966, adj=0.588, (0 split)  
## 372 < 94.5 to the left, agree=0.966, adj=0.588, (0 split)  
## 317 < 137 to the left, agree=0.955, adj=0.459, (0 split)  
##   
## Node number 113: 623 observations, complexity param=0.002857908  
## predicted class=7 expected loss=0.7094703 P(node) =0.02471732  
## class counts: 2 102 107 7 63 10 48 181 28 75  
## probabilities: 0.003 0.164 0.172 0.011 0.101 0.016 0.077 0.291 0.045 0.120   
## left son=226 (487 obs) right son=227 (136 obs)  
## Primary splits:  
## 709 < 1.5 to the left, improve=80.54117, (0 missing)  
## 708 < 0.5 to the left, improve=78.89815, (0 missing)  
## 238 < 1 to the left, improve=74.85138, (0 missing)  
## 237 < 1 to the left, improve=71.72020, (0 missing)  
## 239 < 7.5 to the left, improve=70.12118, (0 missing)  
## Surrogate splits:  
## 708 < 0.5 to the left, agree=0.949, adj=0.765, (0 split)  
## 681 < 204.5 to the left, agree=0.929, adj=0.676, (0 split)  
## 710 < 8 to the left, agree=0.912, adj=0.596, (0 split)  
## 680 < 92.5 to the left, agree=0.891, adj=0.500, (0 split)  
## 682 < 17.5 to the left, agree=0.884, adj=0.471, (0 split)  
##   
## Node number 114: 485 observations, complexity param=0.00379566  
## predicted class=4 expected loss=0.7360825 P(node) =0.01924221  
## class counts: 19 0 73 0 128 96 19 48 49 53  
## probabilities: 0.039 0.000 0.151 0.000 0.264 0.198 0.039 0.099 0.101 0.109   
## left son=228 (121 obs) right son=229 (364 obs)  
## Primary splits:  
## 354 < 1 to the left, improve=68.34460, (0 missing)  
## 353 < 10.5 to the left, improve=55.12702, (0 missing)  
## 382 < 0.5 to the right, improve=51.97462, (0 missing)  
## 381 < 13.5 to the left, improve=51.07833, (0 missing)  
## 488 < 0.5 to the left, improve=50.20387, (0 missing)  
## Surrogate splits:  
## 381 < 13.5 to the left, agree=0.924, adj=0.694, (0 split)  
## 353 < 2.5 to the left, agree=0.920, adj=0.678, (0 split)  
## 382 < 0.5 to the left, agree=0.907, adj=0.628, (0 split)  
## 326 < 16 to the left, agree=0.905, adj=0.620, (0 split)  
## 327 < 1 to the left, agree=0.889, adj=0.554, (0 split)  
##   
## Node number 115: 709 observations, complexity param=0.0004465482  
## predicted class=8 expected loss=0.1551481 P(node) =0.02812934  
## class counts: 17 0 5 5 24 23 9 8 599 19  
## probabilities: 0.024 0.000 0.007 0.007 0.034 0.032 0.013 0.011 0.845 0.027   
## left son=230 (74 obs) right son=231 (635 obs)  
## Primary splits:  
## 428 < 111.5 to the right, improve=43.00775, (0 missing)  
## 456 < 224 to the right, improve=39.61953, (0 missing)  
## 427 < 3 to the right, improve=39.06051, (0 missing)  
## 400 < 57.5 to the right, improve=38.75969, (0 missing)  
## 455 < 23.5 to the right, improve=35.15894, (0 missing)  
## Surrogate splits:  
## 456 < 204 to the right, agree=0.976, adj=0.770, (0 split)  
## 427 < 9 to the right, agree=0.969, adj=0.703, (0 split)  
## 455 < 9 to the right, agree=0.968, adj=0.689, (0 split)  
## 429 < 247.5 to the right, agree=0.962, adj=0.635, (0 split)  
## 400 < 164.5 to the right, agree=0.952, adj=0.541, (0 split)  
##   
## Node number 116: 344 observations, complexity param=0.0008037867  
## predicted class=2 expected loss=0.244186 P(node) =0.01364809  
## class counts: 3 25 260 4 10 0 3 27 6 6  
## probabilities: 0.009 0.073 0.756 0.012 0.029 0.000 0.009 0.078 0.017 0.017   
## left son=232 (318 obs) right son=233 (26 obs)  
## Primary splits:  
## 686 < 2.5 to the left, improve=27.13588, (0 missing)  
## 153 < 2 to the right, improve=25.48856, (0 missing)  
## 152 < 1 to the right, improve=25.38425, (0 missing)  
## 159 < 0.5 to the right, improve=24.04874, (0 missing)  
## 187 < 16.5 to the right, improve=23.73987, (0 missing)  
## Surrogate splits:  
## 687 < 7 to the left, agree=0.983, adj=0.769, (0 split)  
## 714 < 2.5 to the left, agree=0.968, adj=0.577, (0 split)  
## 659 < 165.5 to the left, agree=0.962, adj=0.500, (0 split)  
## 685 < 32 to the left, agree=0.962, adj=0.500, (0 split)  
## 688 < 9 to the left, agree=0.959, adj=0.462, (0 split)  
##   
## Node number 117: 103 observations, complexity param=0.0008930964  
## predicted class=8 expected loss=0.6990291 P(node) =0.004086491  
## class counts: 2 1 10 0 24 1 19 4 31 11  
## probabilities: 0.019 0.010 0.097 0.000 0.233 0.010 0.184 0.039 0.301 0.107   
## left son=234 (73 obs) right son=235 (30 obs)  
## Primary splits:  
## 656 < 105 to the left, improve=19.74875, (0 missing)  
## 655 < 6.5 to the left, improve=18.45919, (0 missing)  
## 627 < 4 to the left, improve=15.76298, (0 missing)  
## 657 < 18 to the left, improve=15.70104, (0 missing)  
## 626 < 0.5 to the left, improve=15.06336, (0 missing)  
## Surrogate splits:  
## 655 < 123 to the left, agree=0.971, adj=0.900, (0 split)  
## 657 < 108.5 to the left, agree=0.942, adj=0.800, (0 split)  
## 627 < 183.5 to the left, agree=0.913, adj=0.700, (0 split)  
## 654 < 2 to the left, agree=0.883, adj=0.600, (0 split)  
## 628 < 140 to the left, agree=0.874, adj=0.567, (0 split)  
##   
## Node number 118: 241 observations, complexity param=0.002545325  
## predicted class=8 expected loss=0.5062241 P(node) =0.009561595  
## class counts: 3 1 78 3 15 1 14 2 119 5  
## probabilities: 0.012 0.004 0.324 0.012 0.062 0.004 0.058 0.008 0.494 0.021   
## left son=236 (127 obs) right son=237 (114 obs)  
## Primary splits:  
## 655 < 30.5 to the left, improve=54.95627, (0 missing)  
## 654 < 6 to the left, improve=52.10515, (0 missing)  
## 537 < 131.5 to the right, improve=50.14114, (0 missing)  
## 656 < 6 to the left, improve=49.56066, (0 missing)  
## 509 < 3.5 to the right, improve=48.44629, (0 missing)  
## Surrogate splits:  
## 654 < 6 to the left, agree=0.946, adj=0.886, (0 split)  
## 656 < 1.5 to the left, agree=0.942, adj=0.877, (0 split)  
## 629 < 2 to the left, agree=0.884, adj=0.754, (0 split)  
## 628 < 1 to the left, agree=0.880, adj=0.746, (0 split)  
## 627 < 86.5 to the left, agree=0.867, adj=0.719, (0 split)  
##   
## Node number 119: 1700 observations, complexity param=0.001696883  
## predicted class=6 expected loss=0.1229412 P(node) =0.06744694  
## class counts: 0 2 32 5 5 102 1491 2 50 11  
## probabilities: 0.000 0.001 0.019 0.003 0.003 0.060 0.877 0.001 0.029 0.006   
## left son=238 (1537 obs) right son=239 (163 obs)  
## Primary splits:  
## 658 < 1.5 to the left, improve=113.14630, (0 missing)  
## 657 < 6 to the left, improve=110.56940, (0 missing)  
## 656 < 11 to the left, improve=107.75830, (0 missing)  
## 655 < 1.5 to the right, improve=100.02240, (0 missing)  
## 659 < 6.5 to the right, improve= 98.06006, (0 missing)  
## Surrogate splits:  
## 657 < 2.5 to the left, agree=0.993, adj=0.926, (0 split)  
## 659 < 3 to the left, agree=0.985, adj=0.847, (0 split)  
## 656 < 0.5 to the left, agree=0.979, adj=0.785, (0 split)  
## 660 < 3.5 to the left, agree=0.971, adj=0.699, (0 split)  
## 655 < 1.5 to the left, agree=0.962, adj=0.607, (0 split)  
##   
## Node number 120: 221 observations, complexity param=0.003349111  
## predicted class=2 expected loss=0.60181 P(node) =0.008768102  
## class counts: 0 0 88 24 4 81 2 0 22 0  
## probabilities: 0.000 0.000 0.398 0.109 0.018 0.367 0.009 0.000 0.100 0.000   
## left son=240 (109 obs) right son=241 (112 obs)  
## Primary splits:  
## 346 < 3 to the left, improve=56.90477, (0 missing)  
## 319 < 5 to the left, improve=52.80342, (0 missing)  
## 127 < 31.5 to the right, improve=49.12228, (0 missing)  
## 347 < 9 to the left, improve=48.68827, (0 missing)  
## 157 < 2 to the right, improve=47.95154, (0 missing)  
## Surrogate splits:  
## 319 < 26 to the left, agree=0.914, adj=0.826, (0 split)  
## 347 < 9 to the left, agree=0.905, adj=0.807, (0 split)  
## 374 < 58 to the left, agree=0.905, adj=0.807, (0 split)  
## 318 < 1 to the left, agree=0.882, adj=0.761, (0 split)  
## 345 < 1.5 to the left, agree=0.882, adj=0.761, (0 split)  
##   
## Node number 121: 1609 observations, complexity param=0.001629901  
## predicted class=4 expected loss=0.1876942 P(node) =0.06383654  
## class counts: 0 6 23 20 1307 42 66 44 34 67  
## probabilities: 0.000 0.004 0.014 0.012 0.812 0.026 0.041 0.027 0.021 0.042   
## left son=242 (1469 obs) right son=243 (140 obs)  
## Primary splits:  
## 267 < 139 to the left, improve=86.21374, (0 missing)  
## 98 < 3 to the left, improve=81.05098, (0 missing)  
## 97 < 1 to the left, improve=69.20911, (0 missing)  
## 266 < 173.5 to the left, improve=69.13510, (0 missing)  
## 400 < 6.5 to the right, improve=63.19168, (0 missing)  
## Surrogate splits:  
## 239 < 74.5 to the left, agree=0.965, adj=0.600, (0 split)  
## 266 < 191.5 to the left, agree=0.959, adj=0.529, (0 split)  
## 295 < 176.5 to the left, agree=0.947, adj=0.386, (0 split)  
## 294 < 132 to the left, agree=0.937, adj=0.271, (0 split)  
## 268 < 250.5 to the left, agree=0.927, adj=0.164, (0 split)  
##   
## Node number 122: 808 observations, complexity param=0.003929624  
## predicted class=5 expected loss=0.4492574 P(node) =0.03205713  
## class counts: 3 2 19 55 94 445 28 33 37 92  
## probabilities: 0.004 0.002 0.024 0.068 0.116 0.551 0.035 0.041 0.046 0.114   
## left son=244 (581 obs) right son=245 (227 obs)  
## Primary splits:  
## 352 < 55 to the left, improve=128.5179, (0 missing)  
## 324 < 30.5 to the left, improve=120.9151, (0 missing)  
## 351 < 42.5 to the left, improve=107.8040, (0 missing)  
## 353 < 1.5 to the left, improve=105.0853, (0 missing)  
## 325 < 1 to the left, improve=103.3771, (0 missing)  
## Surrogate splits:  
## 324 < 129.5 to the left, agree=0.972, adj=0.899, (0 split)  
## 351 < 42.5 to the left, agree=0.968, adj=0.885, (0 split)  
## 353 < 1.5 to the left, agree=0.955, adj=0.841, (0 split)  
## 325 < 6.5 to the left, agree=0.941, adj=0.789, (0 split)  
## 323 < 0.5 to the left, agree=0.906, adj=0.665, (0 split)  
##   
## Node number 123: 1851 observations, complexity param=0.002835581  
## predicted class=9 expected loss=0.3408968 P(node) =0.07343781  
## class counts: 4 0 71 160 194 19 4 55 124 1220  
## probabilities: 0.002 0.000 0.038 0.086 0.105 0.010 0.002 0.030 0.067 0.659   
## left son=246 (406 obs) right son=247 (1445 obs)  
## Primary splits:  
## 156 < 0.5 to the right, improve=177.7674, (0 missing)  
## 155 < 0.5 to the right, improve=172.9101, (0 missing)  
## 154 < 1 to the right, improve=137.4916, (0 missing)  
## 157 < 0.5 to the right, improve=135.3175, (0 missing)  
## 623 < 1 to the right, improve=128.5714, (0 missing)  
## Surrogate splits:  
## 155 < 0.5 to the right, agree=0.960, adj=0.818, (0 split)  
## 157 < 0.5 to the right, agree=0.949, adj=0.768, (0 split)  
## 154 < 1 to the right, agree=0.910, adj=0.589, (0 split)  
## 158 < 0.5 to the right, agree=0.900, adj=0.544, (0 split)  
## 153 < 0.5 to the right, agree=0.880, adj=0.451, (0 split)  
##   
## Node number 124: 313 observations, complexity param=0.002054122  
## predicted class=5 expected loss=0.629393 P(node) =0.01241817  
## class counts: 1 12 8 57 30 116 2 8 30 49  
## probabilities: 0.003 0.038 0.026 0.182 0.096 0.371 0.006 0.026 0.096 0.157   
## left son=248 (175 obs) right son=249 (138 obs)  
## Primary splits:  
## 353 < 1 to the left, improve=47.76335, (0 missing)  
## 352 < 12 to the left, improve=44.04212, (0 missing)  
## 325 < 2.5 to the left, improve=34.45115, (0 missing)  
## 381 < 141.5 to the left, improve=32.65698, (0 missing)  
## 354 < 2.5 to the left, improve=31.10189, (0 missing)  
## Surrogate splits:  
## 352 < 18 to the left, agree=0.920, adj=0.819, (0 split)  
## 325 < 23.5 to the left, agree=0.911, adj=0.797, (0 split)  
## 354 < 2.5 to the left, agree=0.872, adj=0.710, (0 split)  
## 326 < 0.5 to the left, agree=0.869, adj=0.703, (0 split)  
## 381 < 79.5 to the left, agree=0.856, adj=0.674, (0 split)  
##   
## Node number 125: 1453 observations, complexity param=0.001607573  
## predicted class=7 expected loss=0.1046111 P(node) =0.05764729  
## class counts: 6 53 45 11 4 2 19 1301 1 11  
## probabilities: 0.004 0.036 0.031 0.008 0.003 0.001 0.013 0.895 0.001 0.008   
## left son=250 (93 obs) right son=251 (1360 obs)  
## Primary splits:  
## 156 < 0.5 to the right, improve=93.49668, (0 missing)  
## 155 < 3.5 to the right, improve=84.86421, (0 missing)  
## 157 < 0.5 to the right, improve=83.35302, (0 missing)  
## 154 < 7 to the right, improve=71.99319, (0 missing)  
## 153 < 2 to the right, improve=65.40702, (0 missing)  
## Surrogate splits:  
## 155 < 3.5 to the right, agree=0.983, adj=0.742, (0 split)  
## 157 < 0.5 to the right, agree=0.982, adj=0.720, (0 split)  
## 154 < 10.5 to the right, agree=0.966, adj=0.473, (0 split)  
## 128 < 6.5 to the right, agree=0.962, adj=0.409, (0 split)  
## 158 < 1.5 to the right, agree=0.960, adj=0.376, (0 split)  
##   
## Node number 126: 144 observations, complexity param=0.0004018934  
## predicted class=4 expected loss=0.2638889 P(node) =0.005713152  
## class counts: 1 1 11 0 106 1 15 1 1 7  
## probabilities: 0.007 0.007 0.076 0.000 0.736 0.007 0.104 0.007 0.007 0.049   
## left son=252 (132 obs) right son=253 (12 obs)  
## Primary splits:  
## 95 < 6.5 to the left, improve=12.98232, (0 missing)  
## 96 < 2 to the left, improve=12.87266, (0 missing)  
## 97 < 4.5 to the right, improve=12.59550, (0 missing)  
## 597 < 35.5 to the right, improve=11.90941, (0 missing)  
## 567 < 164.5 to the right, improve=11.77222, (0 missing)  
## Surrogate splits:  
## 94 < 4 to the left, agree=0.972, adj=0.667, (0 split)  
## 122 < 64 to the left, agree=0.972, adj=0.667, (0 split)  
## 67 < 4 to the left, agree=0.965, adj=0.583, (0 split)  
## 96 < 36 to the left, agree=0.965, adj=0.583, (0 split)  
## 123 < 100.5 to the left, agree=0.958, adj=0.500, (0 split)  
##   
## Node number 127: 218 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.2981651 P(node) =0.008649078  
## class counts: 0 0 8 1 29 0 1 22 4 153  
## probabilities: 0.000 0.000 0.037 0.005 0.133 0.000 0.005 0.101 0.018 0.702   
## left son=254 (50 obs) right son=255 (168 obs)  
## Primary splits:  
## 518 < 241.5 to the right, improve=14.56990, (0 missing)  
## 235 < 3.5 to the left, improve=14.16128, (0 missing)  
## 155 < 1 to the right, improve=13.12314, (0 missing)  
## 354 < 4 to the left, improve=12.86037, (0 missing)  
## 316 < 6 to the left, improve=12.85993, (0 missing)  
## Surrogate splits:  
## 545 < 30 to the right, agree=0.927, adj=0.68, (0 split)  
## 517 < 223.5 to the right, agree=0.899, adj=0.56, (0 split)  
## 546 < 171.5 to the right, agree=0.862, adj=0.40, (0 split)  
## 573 < 62.5 to the right, agree=0.862, adj=0.40, (0 split)  
## 572 < 24.5 to the right, agree=0.858, adj=0.38, (0 split)  
##   
## Node number 128: 2291 observations, complexity param=0.0001786193  
## predicted class=1 expected loss=0.03360978 P(node) =0.09089466  
## class counts: 0 2214 12 6 7 10 8 8 24 2  
## probabilities: 0.000 0.966 0.005 0.003 0.003 0.004 0.003 0.003 0.010 0.001   
## left son=256 (2260 obs) right son=257 (31 obs)  
## Primary splits:  
## 484 < 8 to the left, improve=24.92766, (0 missing)  
## 456 < 8 to the left, improve=24.56170, (0 missing)  
## 483 < 1 to the left, improve=23.74161, (0 missing)  
## 457 < 81 to the left, improve=23.35611, (0 missing)  
## 466 < 3 to the left, improve=22.41290, (0 missing)  
## Surrogate splits:  
## 485 < 179 to the left, agree=0.996, adj=0.677, (0 split)  
## 512 < 113 to the left, agree=0.996, adj=0.677, (0 split)  
## 457 < 57 to the left, agree=0.995, adj=0.645, (0 split)  
## 456 < 8 to the left, agree=0.994, adj=0.548, (0 split)  
## 483 < 1 to the left, agree=0.993, adj=0.516, (0 split)  
##   
## Node number 129: 21 observations  
## predicted class=2 expected loss=0.1428571 P(node) =0.000833168  
## class counts: 0 2 18 1 0 0 0 0 0 0  
## probabilities: 0.000 0.095 0.857 0.048 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 130: 72 observations, complexity param=0.0005358578  
## predicted class=1 expected loss=0.2916667 P(node) =0.002856576  
## class counts: 0 51 1 2 1 13 0 0 4 0  
## probabilities: 0.000 0.708 0.014 0.028 0.014 0.181 0.000 0.000 0.056 0.000   
## left son=260 (55 obs) right son=261 (17 obs)  
## Primary splits:  
## 487 < 145 to the right, improve=17.70351, (0 missing)  
## 434 < 203.5 to the right, improve=17.37037, (0 missing)  
## 242 < 182 to the right, improve=17.02758, (0 missing)  
## 215 < 32 to the right, improve=16.82813, (0 missing)  
## 597 < 27 to the right, improve=16.07407, (0 missing)  
## Surrogate splits:  
## 242 < 160.5 to the right, agree=0.958, adj=0.824, (0 split)  
## 460 < 225.5 to the right, agree=0.958, adj=0.824, (0 split)  
## 488 < 221 to the right, agree=0.958, adj=0.824, (0 split)  
## 244 < 126.5 to the right, agree=0.944, adj=0.765, (0 split)  
## 243 < 44.5 to the right, agree=0.931, adj=0.706, (0 split)  
##   
## Node number 131: 72 observations  
## predicted class=8 expected loss=0.1388889 P(node) =0.002856576  
## class counts: 0 0 0 3 2 1 0 0 62 4  
## probabilities: 0.000 0.000 0.000 0.042 0.028 0.014 0.000 0.000 0.861 0.056   
##   
## Node number 132: 91 observations, complexity param=0.0001339645  
## predicted class=2 expected loss=0.0989011 P(node) =0.003610395  
## class counts: 0 2 82 5 0 0 0 0 2 0  
## probabilities: 0.000 0.022 0.901 0.055 0.000 0.000 0.000 0.000 0.022 0.000   
## left son=264 (83 obs) right son=265 (8 obs)  
## Primary splits:  
## 543 < 24.5 to the right, improve=6.665927, (0 missing)  
## 515 < 112 to the right, improve=5.821327, (0 missing)  
## 516 < 66.5 to the right, improve=5.641831, (0 missing)  
## 655 < 215 to the left, improve=5.120092, (0 missing)  
## 542 < 61.5 to the right, improve=4.670330, (0 missing)  
## Surrogate splits:  
## 515 < 34 to the right, agree=0.956, adj=0.500, (0 split)  
## 516 < 13.5 to the right, agree=0.956, adj=0.500, (0 split)  
## 488 < 16 to the right, agree=0.945, adj=0.375, (0 split)  
## 544 < 1.5 to the right, agree=0.945, adj=0.375, (0 split)  
## 235 < 16.5 to the left, agree=0.934, adj=0.250, (0 split)  
##   
## Node number 133: 17 observations  
## predicted class=1 expected loss=0.4705882 P(node) =0.0006744694  
## class counts: 0 9 1 0 1 0 0 0 6 0  
## probabilities: 0.000 0.529 0.059 0.000 0.059 0.000 0.000 0.000 0.353 0.000   
##   
## Node number 134: 24 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.6666667 P(node) =0.000952192  
## class counts: 1 1 8 3 3 0 5 1 2 0  
## probabilities: 0.042 0.042 0.333 0.125 0.125 0.000 0.208 0.042 0.083 0.000   
## left son=268 (13 obs) right son=269 (11 obs)  
## Primary splits:  
## 349 < 206.5 to the left, improve=4.564685, (0 missing)  
## 546 < 99.5 to the right, improve=3.767483, (0 missing)  
## 348 < 7 to the left, improve=3.583333, (0 missing)  
## 551 < 18.5 to the right, improve=3.459790, (0 missing)  
## 376 < 75.5 to the left, improve=3.421429, (0 missing)  
## Surrogate splits:  
## 348 < 7 to the left, agree=0.958, adj=0.909, (0 split)  
## 600 < 121 to the left, agree=0.917, adj=0.818, (0 split)  
## 296 < 188.5 to the right, agree=0.875, adj=0.727, (0 split)  
## 321 < 66 to the left, agree=0.875, adj=0.727, (0 split)  
## 376 < 75.5 to the left, agree=0.875, adj=0.727, (0 split)  
##   
## Node number 135: 19 observations  
## predicted class=6 expected loss=0.1052632 P(node) =0.0007538187  
## class counts: 0 0 1 0 0 0 17 0 0 1  
## probabilities: 0.000 0.000 0.053 0.000 0.000 0.000 0.895 0.000 0.000 0.053   
##   
## Node number 136: 252 observations, complexity param=0.001406627  
## predicted class=6 expected loss=0.7857143 P(node) =0.009998016  
## class counts: 12 33 31 14 40 24 54 8 6 30  
## probabilities: 0.048 0.131 0.123 0.056 0.159 0.095 0.214 0.032 0.024 0.119   
## left son=272 (93 obs) right son=273 (159 obs)  
## Primary splits:  
## 574 < 233 to the right, improve=20.46787, (0 missing)  
## 602 < 74.5 to the right, improve=18.99616, (0 missing)  
## 573 < 248.5 to the left, improve=17.63102, (0 missing)  
## 601 < 127 to the left, improve=17.47485, (0 missing)  
## 550 < 65.5 to the right, improve=16.87836, (0 missing)  
## Surrogate splits:  
## 602 < 52 to the right, agree=0.925, adj=0.796, (0 split)  
## 575 < 145.5 to the right, agree=0.913, adj=0.763, (0 split)  
## 603 < 1.5 to the right, agree=0.889, adj=0.699, (0 split)  
## 576 < 19.5 to the right, agree=0.865, adj=0.634, (0 split)  
## 573 < 250.5 to the right, agree=0.849, adj=0.591, (0 split)  
##   
## Node number 137: 34 observations  
## predicted class=5 expected loss=0.1176471 P(node) =0.001348939  
## class counts: 0 0 0 0 2 30 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.000 0.059 0.882 0.000 0.000 0.059 0.000   
##   
## Node number 138: 134 observations, complexity param=0.0004018934  
## predicted class=1 expected loss=0.4552239 P(node) =0.005316405  
## class counts: 3 73 1 4 10 9 4 4 16 10  
## probabilities: 0.022 0.545 0.007 0.030 0.075 0.067 0.030 0.030 0.119 0.075   
## left son=276 (95 obs) right son=277 (39 obs)  
## Primary splits:  
## 429 < 10.5 to the left, improve=18.14786, (0 missing)  
## 299 < 18 to the left, improve=17.89685, (0 missing)  
## 271 < 27.5 to the left, improve=17.79153, (0 missing)  
## 327 < 30.5 to the left, improve=17.44297, (0 missing)  
## 430 < 2.5 to the left, improve=16.75559, (0 missing)  
## Surrogate splits:  
## 457 < 61 to the left, agree=0.963, adj=0.872, (0 split)  
## 430 < 160.5 to the left, agree=0.933, adj=0.769, (0 split)  
## 456 < 6.5 to the left, agree=0.933, adj=0.769, (0 split)  
## 428 < 3 to the left, agree=0.925, adj=0.744, (0 split)  
## 401 < 61.5 to the left, agree=0.910, adj=0.692, (0 split)  
##   
## Node number 139: 144 observations, complexity param=0.0008037867  
## predicted class=8 expected loss=0.3819444 P(node) =0.005713152  
## class counts: 1 3 1 15 9 3 0 3 89 20  
## probabilities: 0.007 0.021 0.007 0.104 0.062 0.021 0.000 0.021 0.618 0.139   
## left son=278 (124 obs) right son=279 (20 obs)  
## Primary splits:  
## 711 < 94.5 to the left, improve=22.83728, (0 missing)  
## 712 < 2.5 to the left, improve=22.34791, (0 missing)  
## 461 < 170.5 to the left, improve=21.84393, (0 missing)  
## 488 < 15 to the right, improve=19.92244, (0 missing)  
## 433 < 166 to the left, improve=19.58357, (0 missing)  
## Surrogate splits:  
## 712 < 69.5 to the left, agree=0.965, adj=0.75, (0 split)  
## 710 < 7.5 to the left, agree=0.958, adj=0.70, (0 split)  
## 739 < 44.5 to the left, agree=0.917, adj=0.40, (0 split)  
## 740 < 28 to the left, agree=0.910, adj=0.35, (0 split)  
## 433 < 1.5 to the right, agree=0.903, adj=0.30, (0 split)  
##   
## Node number 144: 122 observations  
## predicted class=2 expected loss=0.04918033 P(node) =0.004840309  
## class counts: 0 0 116 1 0 1 1 2 1 0  
## probabilities: 0.000 0.000 0.951 0.008 0.000 0.008 0.008 0.016 0.008 0.000   
##   
## Node number 145: 20 observations, complexity param=0.0002232741  
## predicted class=8 expected loss=0.5 P(node) =0.0007934934  
## class counts: 0 0 3 1 0 0 5 0 10 1  
## probabilities: 0.000 0.000 0.150 0.050 0.000 0.000 0.250 0.000 0.500 0.050   
## left son=290 (9 obs) right son=291 (11 obs)  
## Primary splits:  
## 291 < 86 to the left, improve=6.270707, (0 missing)  
## 319 < 26 to the left, improve=6.270707, (0 missing)  
## 320 < 98 to the left, improve=6.270707, (0 missing)  
## 321 < 48 to the left, improve=6.270707, (0 missing)  
## 497 < 8 to the right, improve=6.270707, (0 missing)  
## Surrogate splits:  
## 319 < 26 to the left, agree=1, adj=1, (0 split)  
## 320 < 98 to the left, agree=1, adj=1, (0 split)  
## 321 < 48 to the left, agree=1, adj=1, (0 split)  
## 497 < 8 to the right, agree=1, adj=1, (0 split)  
## 525 < 20 to the right, agree=1, adj=1, (0 split)  
##   
## Node number 146: 57 observations, complexity param=0.0004242208  
## predicted class=1 expected loss=0.7017544 P(node) =0.002261456  
## class counts: 0 17 15 10 0 0 3 2 8 2  
## probabilities: 0.000 0.298 0.263 0.175 0.000 0.000 0.053 0.035 0.140 0.035   
## left son=292 (21 obs) right son=293 (36 obs)  
## Primary splits:  
## 459 < 5.5 to the left, improve=11.076860, (0 missing)  
## 515 < 1.5 to the left, improve=10.451460, (0 missing)  
## 487 < 0.5 to the left, improve=10.305740, (0 missing)  
## 488 < 158.5 to the left, improve=10.213420, (0 missing)  
## 233 < 23 to the left, improve= 9.465748, (0 missing)  
## Surrogate splits:  
## 460 < 126 to the left, agree=0.947, adj=0.857, (0 split)  
## 487 < 0.5 to the left, agree=0.895, adj=0.714, (0 split)  
## 233 < 23 to the left, agree=0.860, adj=0.619, (0 split)  
## 458 < 1 to the left, agree=0.860, adj=0.619, (0 split)  
## 431 < 1 to the left, agree=0.842, adj=0.571, (0 split)  
##   
## Node number 147: 29 observations, complexity param=0.0002679289  
## predicted class=7 expected loss=0.4137931 P(node) =0.001150565  
## class counts: 0 0 0 3 1 0 0 17 1 7  
## probabilities: 0.000 0.000 0.000 0.103 0.034 0.000 0.000 0.586 0.034 0.241   
## left son=294 (17 obs) right son=295 (12 obs)  
## Primary splits:  
## 349 < 102.5 to the left, improve=7.749831, (0 missing)  
## 406 < 250.5 to the right, improve=7.298851, (0 missing)  
## 319 < 8 to the left, improve=7.112886, (0 missing)  
## 434 < 230.5 to the right, improve=6.917898, (0 missing)  
## 318 < 90 to the left, improve=6.887595, (0 missing)  
## Surrogate splits:  
## 348 < 7 to the left, agree=0.966, adj=0.917, (0 split)  
## 406 < 250.5 to the right, agree=0.966, adj=0.917, (0 split)  
## 434 < 250 to the right, agree=0.931, adj=0.833, (0 split)  
## 461 < 250 to the right, agree=0.931, adj=0.833, (0 split)  
## 488 < 142 to the right, agree=0.931, adj=0.833, (0 split)  
##   
## Node number 148: 112 observations, complexity param=4.465482e-05  
## predicted class=6 expected loss=0.1160714 P(node) =0.004443563  
## class counts: 1 2 0 0 3 2 99 4 0 1  
## probabilities: 0.009 0.018 0.000 0.000 0.027 0.018 0.884 0.036 0.000 0.009   
## left son=296 (14 obs) right son=297 (98 obs)  
## Primary splits:  
## 266 < 154 to the right, improve=8.811224, (0 missing)  
## 294 < 250.5 to the right, improve=8.651905, (0 missing)  
## 514 < 2.5 to the left, improve=7.072689, (0 missing)  
## 485 < 17.5 to the left, improve=6.534438, (0 missing)  
## 293 < 244.5 to the right, improve=6.380592, (0 missing)  
## Surrogate splits:  
## 294 < 250.5 to the right, agree=0.982, adj=0.857, (0 split)  
## 293 < 244.5 to the right, agree=0.973, adj=0.786, (0 split)  
## 267 < 236 to the right, agree=0.955, adj=0.643, (0 split)  
## 265 < 247 to the right, agree=0.938, adj=0.500, (0 split)  
## 238 < 252.5 to the right, agree=0.929, adj=0.429, (0 split)  
##   
## Node number 149: 32 observations, complexity param=0.0002232741  
## predicted class=8 expected loss=0.6875 P(node) =0.001269589  
## class counts: 4 0 3 0 0 3 6 1 10 5  
## probabilities: 0.125 0.000 0.094 0.000 0.000 0.094 0.188 0.031 0.312 0.156   
## left son=298 (12 obs) right son=299 (20 obs)  
## Primary splits:  
## 442 < 27 to the right, improve=5.341667, (0 missing)  
## 470 < 21 to the right, improve=5.341667, (0 missing)  
## 483 < 19 to the right, improve=5.278922, (0 missing)  
## 511 < 138 to the right, improve=5.278922, (0 missing)  
## 469 < 183 to the right, improve=5.154352, (0 missing)  
## Surrogate splits:  
## 470 < 21 to the right, agree=1.000, adj=1.000, (0 split)  
## 426 < 16.5 to the right, agree=0.969, adj=0.917, (0 split)  
## 443 < 10.5 to the right, agree=0.969, adj=0.917, (0 split)  
## 454 < 69 to the right, agree=0.969, adj=0.917, (0 split)  
## 469 < 183 to the right, agree=0.969, adj=0.917, (0 split)  
##   
## Node number 150: 19 observations  
## predicted class=4 expected loss=0.5263158 P(node) =0.0007538187  
## class counts: 0 0 3 0 9 0 0 1 3 3  
## probabilities: 0.000 0.000 0.158 0.000 0.474 0.000 0.000 0.053 0.158 0.158   
##   
## Node number 151: 43 observations  
## predicted class=9 expected loss=0.1860465 P(node) =0.001706011  
## class counts: 0 0 3 0 0 0 0 1 4 35  
## probabilities: 0.000 0.000 0.070 0.000 0.000 0.000 0.000 0.023 0.093 0.814   
##   
## Node number 152: 59 observations, complexity param=0.0002232741  
## predicted class=3 expected loss=0.1694915 P(node) =0.002340805  
## class counts: 0 0 7 49 0 0 0 2 1 0  
## probabilities: 0.000 0.000 0.119 0.831 0.000 0.000 0.000 0.034 0.017 0.000   
## left son=304 (7 obs) right son=305 (52 obs)  
## Primary splits:  
## 527 < 25.5 to the right, improve=8.098622, (0 missing)  
## 555 < 25 to the right, improve=8.098622, (0 missing)  
## 514 < 214 to the right, improve=6.821203, (0 missing)  
## 543 < 220.5 to the right, improve=6.821203, (0 missing)  
## 515 < 233.5 to the right, improve=6.590588, (0 missing)  
## Surrogate splits:  
## 555 < 25 to the right, agree=1.000, adj=1.000, (0 split)  
## 583 < 14 to the right, agree=0.983, adj=0.857, (0 split)  
## 499 < 67 to the right, agree=0.966, adj=0.714, (0 split)  
## 554 < 153.5 to the right, agree=0.966, adj=0.714, (0 split)  
## 582 < 122 to the right, agree=0.966, adj=0.714, (0 split)  
##   
## Node number 153: 103 observations, complexity param=0.001071716  
## predicted class=7 expected loss=0.592233 P(node) =0.004086491  
## class counts: 0 9 26 13 0 0 0 42 12 1  
## probabilities: 0.000 0.087 0.252 0.126 0.000 0.000 0.000 0.408 0.117 0.010   
## left son=306 (47 obs) right son=307 (56 obs)  
## Primary splits:  
## 153 < 121 to the right, improve=21.50764, (0 missing)  
## 152 < 13 to the right, improve=20.69896, (0 missing)  
## 154 < 2.5 to the right, improve=20.21410, (0 missing)  
## 155 < 20 to the right, improve=18.46666, (0 missing)  
## 151 < 0.5 to the right, improve=17.12519, (0 missing)  
## Surrogate splits:  
## 152 < 35.5 to the right, agree=0.961, adj=0.915, (0 split)  
## 154 < 117.5 to the right, agree=0.932, adj=0.851, (0 split)  
## 155 < 38.5 to the right, agree=0.883, adj=0.745, (0 split)  
## 151 < 0.5 to the right, agree=0.874, adj=0.723, (0 split)  
## 238 < 148 to the left, agree=0.854, adj=0.681, (0 split)  
##   
## Node number 154: 14 observations  
## predicted class=9 expected loss=0.5714286 P(node) =0.0005554453  
## class counts: 0 0 0 1 5 0 0 0 2 6  
## probabilities: 0.000 0.000 0.000 0.071 0.357 0.000 0.000 0.000 0.143 0.429   
##   
## Node number 155: 42 observations, complexity param=4.465482e-05  
## predicted class=8 expected loss=0.1666667 P(node) =0.001666336  
## class counts: 1 0 1 1 0 1 3 0 35 0  
## probabilities: 0.024 0.000 0.024 0.024 0.000 0.024 0.071 0.000 0.833 0.000   
## left son=310 (7 obs) right son=311 (35 obs)  
## Primary splits:  
## 356 < 118.5 to the right, improve=3.838095, (0 missing)  
## 384 < 122 to the right, improve=3.838095, (0 missing)  
## 383 < 91 to the right, improve=3.386310, (0 missing)  
## 602 < 204.5 to the right, improve=3.386310, (0 missing)  
## 374 < 24 to the left, improve=3.266667, (0 missing)  
## Surrogate splits:  
## 384 < 129.5 to the right, agree=0.976, adj=0.857, (0 split)  
## 357 < 21 to the right, agree=0.952, adj=0.714, (0 split)  
## 328 < 247.5 to the right, agree=0.929, adj=0.571, (0 split)  
## 383 < 252.5 to the right, agree=0.929, adj=0.571, (0 split)  
## 385 < 99.5 to the right, agree=0.929, adj=0.571, (0 split)  
##   
## Node number 156: 80 observations, complexity param=0.0002976988  
## predicted class=8 expected loss=0.4875 P(node) =0.003173973  
## class counts: 0 13 1 6 4 1 0 8 41 6  
## probabilities: 0.000 0.163 0.013 0.075 0.050 0.013 0.000 0.100 0.513 0.075   
## left son=312 (35 obs) right son=313 (45 obs)  
## Primary splits:  
## 294 < 148.5 to the right, improve=8.124603, (0 missing)  
## 298 < 9 to the left, improve=8.043407, (0 missing)  
## 297 < 11.5 to the left, improve=7.834584, (0 missing)  
## 213 < 15 to the left, improve=7.771429, (0 missing)  
## 322 < 134.5 to the right, improve=7.548997, (0 missing)  
## Surrogate splits:  
## 322 < 184 to the right, agree=0.938, adj=0.857, (0 split)  
## 293 < 176 to the right, agree=0.900, adj=0.771, (0 split)  
## 266 < 233.5 to the right, agree=0.887, adj=0.743, (0 split)  
## 185 < 20.5 to the left, agree=0.838, adj=0.629, (0 split)  
## 295 < 241.5 to the right, agree=0.825, adj=0.600, (0 split)  
##   
## Node number 157: 44 observations, complexity param=0.000379566  
## predicted class=9 expected loss=0.5227273 P(node) =0.001745685  
## class counts: 1 0 0 10 3 1 0 4 4 21  
## probabilities: 0.023 0.000 0.000 0.227 0.068 0.023 0.000 0.091 0.091 0.477   
## left son=314 (18 obs) right son=315 (26 obs)  
## Primary splits:  
## 206 < 125 to the right, improve=9.240093, (0 missing)  
## 318 < 153 to the left, improve=8.282828, (0 missing)  
## 551 < 16.5 to the right, improve=7.761461, (0 missing)  
## 627 < 221 to the right, improve=7.698701, (0 missing)  
## 178 < 7 to the right, improve=7.584416, (0 missing)  
## Surrogate splits:  
## 178 < 7 to the right, agree=0.955, adj=0.889, (0 split)  
## 205 < 11 to the right, agree=0.932, adj=0.833, (0 split)  
## 207 < 207.5 to the right, agree=0.932, adj=0.833, (0 split)  
## 179 < 4.5 to the right, agree=0.909, adj=0.778, (0 split)  
## 634 < 17 to the right, agree=0.909, adj=0.778, (0 split)  
##   
## Node number 158: 19 observations  
## predicted class=7 expected loss=0.6842105 P(node) =0.0007538187  
## class counts: 2 0 1 4 1 3 0 6 2 0  
## probabilities: 0.105 0.000 0.053 0.211 0.053 0.158 0.000 0.316 0.105 0.000   
##   
## Node number 159: 355 observations, complexity param=0.0001339645  
## predicted class=8 expected loss=0.08169014 P(node) =0.01408451  
## class counts: 1 1 1 4 10 2 2 5 326 3  
## probabilities: 0.003 0.003 0.003 0.011 0.028 0.006 0.006 0.014 0.918 0.008   
## left son=318 (7 obs) right son=319 (348 obs)  
## Primary splits:  
## 461 < 43.5 to the left, improve=7.981241, (0 missing)  
## 573 < 252.5 to the right, improve=7.465913, (0 missing)  
## 183 < 25 to the left, improve=7.381929, (0 missing)  
## 433 < 19.5 to the left, improve=7.071051, (0 missing)  
## 182 < 7.5 to the left, improve=5.869188, (0 missing)  
## Surrogate splits:  
## 433 < 6.5 to the left, agree=0.989, adj=0.429, (0 split)  
## 369 < 39 to the right, agree=0.983, adj=0.143, (0 split)  
## 406 < 2 to the left, agree=0.983, adj=0.143, (0 split)  
##   
## Node number 160: 64 observations, complexity param=0.0007368045  
## predicted class=1 expected loss=0.484375 P(node) =0.002539179  
## class counts: 0 33 3 20 0 1 0 5 2 0  
## probabilities: 0.000 0.516 0.047 0.312 0.000 0.016 0.000 0.078 0.031 0.000   
## left son=320 (39 obs) right son=321 (25 obs)  
## Primary splits:  
## 297 < 26.5 to the left, improve=20.92705, (0 missing)  
## 270 < 9 to the left, improve=19.81591, (0 missing)  
## 242 < 18.5 to the left, improve=19.48048, (0 missing)  
## 656 < 6.5 to the left, improve=19.39167, (0 missing)  
## 325 < 3 to the left, improve=19.30833, (0 missing)  
## Surrogate splits:  
## 325 < 3 to the left, agree=0.984, adj=0.96, (0 split)  
## 324 < 174 to the left, agree=0.969, adj=0.92, (0 split)  
## 269 < 11 to the left, agree=0.953, adj=0.88, (0 split)  
## 184 < 2.5 to the left, agree=0.938, adj=0.84, (0 split)  
## 213 < 3 to the left, agree=0.938, adj=0.84, (0 split)  
##   
## Node number 161: 1438 observations, complexity param=0.0002456015  
## predicted class=3 expected loss=0.05841446 P(node) =0.05705217  
## class counts: 0 8 10 1354 0 38 0 2 21 5  
## probabilities: 0.000 0.006 0.007 0.942 0.000 0.026 0.000 0.001 0.015 0.003   
## left son=322 (1393 obs) right son=323 (45 obs)  
## Primary splits:  
## 264 < 244.5 to the left, improve=20.42218, (0 missing)  
## 296 < 1 to the right, improve=17.95148, (0 missing)  
## 487 < 140.5 to the left, improve=17.62124, (0 missing)  
## 317 < 206 to the left, improve=17.03519, (0 missing)  
## 292 < 248.5 to the left, improve=16.23283, (0 missing)  
## Surrogate splits:  
## 291 < 224 to the left, agree=0.973, adj=0.133, (0 split)  
## 263 < 251 to the left, agree=0.971, adj=0.089, (0 split)  
## 292 < 254.5 to the left, agree=0.971, adj=0.067, (0 split)  
## 265 < 254.5 to the left, agree=0.970, adj=0.044, (0 split)  
## 247 < 220.5 to the left, agree=0.969, adj=0.022, (0 split)  
##   
## Node number 162: 78 observations, complexity param=4.465482e-05  
## predicted class=5 expected loss=0.2179487 P(node) =0.003094624  
## class counts: 1 0 0 3 4 61 0 0 4 5  
## probabilities: 0.013 0.000 0.000 0.038 0.051 0.782 0.000 0.000 0.051 0.064   
## left son=324 (62 obs) right son=325 (16 obs)  
## Primary splits:  
## 300 < 6 to the left, improve=7.859285, (0 missing)  
## 547 < 15 to the left, improve=7.030100, (0 missing)  
## 492 < 100.5 to the left, improve=6.972129, (0 missing)  
## 299 < 13.5 to the left, improve=6.699389, (0 missing)  
## 520 < 4 to the right, improve=6.567512, (0 missing)  
## Surrogate splits:  
## 299 < 13.5 to the left, agree=0.962, adj=0.813, (0 split)  
## 301 < 4.5 to the left, agree=0.936, adj=0.688, (0 split)  
## 272 < 97.5 to the left, agree=0.910, adj=0.562, (0 split)  
## 302 < 2 to the left, agree=0.910, adj=0.562, (0 split)  
## 273 < 84 to the left, agree=0.897, adj=0.500, (0 split)  
##   
## Node number 163: 46 observations, complexity param=0.000491203  
## predicted class=9 expected loss=0.6304348 P(node) =0.001825035  
## class counts: 2 0 0 15 1 5 2 0 4 17  
## probabilities: 0.043 0.000 0.000 0.326 0.022 0.109 0.043 0.000 0.087 0.370   
## left son=326 (25 obs) right son=327 (21 obs)  
## Primary splits:  
## 493 < 1 to the left, improve=8.093416, (0 missing)  
## 497 < 1 to the right, improve=7.992977, (0 missing)  
## 624 < 3.5 to the right, improve=7.076765, (0 missing)  
## 525 < 32.5 to the right, improve=6.866115, (0 missing)  
## 372 < 24.5 to the left, improve=6.768542, (0 missing)  
## Surrogate splits:  
## 465 < 14.5 to the left, agree=0.891, adj=0.762, (0 split)  
## 492 < 7.5 to the left, agree=0.848, adj=0.667, (0 split)  
## 494 < 168.5 to the left, agree=0.848, adj=0.667, (0 split)  
## 520 < 14.5 to the left, agree=0.848, adj=0.667, (0 split)  
## 437 < 115.5 to the left, agree=0.826, adj=0.619, (0 split)  
##   
## Node number 164: 261 observations, complexity param=0.000379566  
## predicted class=3 expected loss=0.1954023 P(node) =0.01035509  
## class counts: 7 4 5 210 0 23 3 3 5 1  
## probabilities: 0.027 0.015 0.019 0.805 0.000 0.088 0.011 0.011 0.019 0.004   
## left son=328 (202 obs) right son=329 (59 obs)  
## Primary splits:  
## 155 < 3 to the right, improve=20.26569, (0 missing)  
## 154 < 1.5 to the right, improve=17.63843, (0 missing)  
## 156 < 0.5 to the right, improve=17.55721, (0 missing)  
## 275 < 55 to the left, improve=16.22994, (0 missing)  
## 220 < 4.5 to the left, improve=15.23607, (0 missing)  
## Surrogate splits:  
## 156 < 7.5 to the right, agree=0.943, adj=0.746, (0 split)  
## 154 < 1.5 to the right, agree=0.927, adj=0.678, (0 split)  
## 157 < 3 to the right, agree=0.866, adj=0.407, (0 split)  
## 184 < 14.5 to the right, agree=0.858, adj=0.373, (0 split)  
## 219 < 3.5 to the left, agree=0.839, adj=0.288, (0 split)  
##   
## Node number 165: 156 observations, complexity param=0.0008037867  
## predicted class=5 expected loss=0.3846154 P(node) =0.006189248  
## class counts: 19 0 0 25 0 96 5 1 7 3  
## probabilities: 0.122 0.000 0.000 0.160 0.000 0.615 0.032 0.006 0.045 0.019   
## left son=330 (25 obs) right son=331 (131 obs)  
## Primary splits:  
## 456 < 235.5 to the right, improve=22.99540, (0 missing)  
## 299 < 24 to the right, improve=22.37895, (0 missing)  
## 457 < 132 to the right, improve=21.66617, (0 missing)  
## 429 < 252.5 to the right, improve=20.38718, (0 missing)  
## 328 < 56.5 to the right, improve=20.05636, (0 missing)  
## Surrogate splits:  
## 429 < 252.5 to the right, agree=0.968, adj=0.80, (0 split)  
## 457 < 132 to the right, agree=0.962, adj=0.76, (0 split)  
## 484 < 209.5 to the right, agree=0.949, adj=0.68, (0 split)  
## 428 < 174 to the right, agree=0.936, adj=0.60, (0 split)  
## 455 < 73 to the right, agree=0.929, adj=0.56, (0 split)  
##   
## Node number 166: 104 observations, complexity param=0.0001786193  
## predicted class=1 expected loss=0.2307692 P(node) =0.004126165  
## class counts: 0 80 0 4 1 5 1 7 3 3  
## probabilities: 0.000 0.769 0.000 0.038 0.010 0.048 0.010 0.067 0.029 0.029   
## left son=332 (85 obs) right son=333 (19 obs)  
## Primary splits:  
## 462 < 85.5 to the right, improve=14.67072, (0 missing)  
## 266 < 63.5 to the right, improve=14.49487, (0 missing)  
## 325 < 4 to the left, improve=13.46066, (0 missing)  
## 294 < 73 to the right, improve=13.14803, (0 missing)  
## 297 < 2 to the left, improve=13.10839, (0 missing)  
## Surrogate splits:  
## 434 < 57 to the right, agree=0.952, adj=0.737, (0 split)  
## 490 < 21 to the right, agree=0.933, adj=0.632, (0 split)  
## 294 < 66 to the right, agree=0.923, adj=0.579, (0 split)  
## 463 < 20 to the right, agree=0.923, adj=0.579, (0 split)  
## 491 < 71.5 to the right, agree=0.913, adj=0.526, (0 split)  
##   
## Node number 167: 171 observations, complexity param=0.001161025  
## predicted class=5 expected loss=0.7192982 P(node) =0.006784368  
## class counts: 5 7 1 22 30 48 8 12 7 31  
## probabilities: 0.029 0.041 0.006 0.129 0.175 0.281 0.047 0.070 0.041 0.181   
## left son=334 (58 obs) right son=335 (113 obs)  
## Primary splits:  
## 539 < 54.5 to the right, improve=25.08373, (0 missing)  
## 570 < 79 to the right, improve=24.44883, (0 missing)  
## 569 < 8 to the right, improve=23.88734, (0 missing)  
## 540 < 57.5 to the right, improve=23.88416, (0 missing)  
## 541 < 70 to the right, improve=23.88416, (0 missing)  
## Surrogate splits:  
## 538 < 5.5 to the right, agree=0.977, adj=0.931, (0 split)  
## 540 < 31 to the right, agree=0.953, adj=0.862, (0 split)  
## 567 < 26.5 to the right, agree=0.953, adj=0.862, (0 split)  
## 568 < 74.5 to the right, agree=0.953, adj=0.862, (0 split)  
## 541 < 117.5 to the right, agree=0.936, adj=0.810, (0 split)  
##   
## Node number 168: 32 observations  
## predicted class=0 expected loss=0.125 P(node) =0.001269589  
## class counts: 28 0 0 0 0 0 1 2 1 0  
## probabilities: 0.875 0.000 0.000 0.000 0.000 0.000 0.031 0.062 0.031 0.000   
##   
## Node number 169: 292 observations, complexity param=0.0007144771  
## predicted class=3 expected loss=0.5034247 P(node) =0.011585  
## class counts: 5 1 1 145 0 69 2 3 37 29  
## probabilities: 0.017 0.003 0.003 0.497 0.000 0.236 0.007 0.010 0.127 0.099   
## left son=338 (112 obs) right son=339 (180 obs)  
## Primary splits:  
## 318 < 219.5 to the left, improve=21.19424, (0 missing)  
## 346 < 156.5 to the left, improve=19.16912, (0 missing)  
## 247 < 16.5 to the left, improve=19.12572, (0 missing)  
## 345 < 124.5 to the left, improve=18.26027, (0 missing)  
## 275 < 41 to the left, improve=16.79973, (0 missing)  
## Surrogate splits:  
## 346 < 127.5 to the left, agree=0.877, adj=0.679, (0 split)  
## 317 < 22.5 to the left, agree=0.863, adj=0.643, (0 split)  
## 319 < 108 to the left, agree=0.856, adj=0.625, (0 split)  
## 345 < 5 to the left, agree=0.846, adj=0.598, (0 split)  
## 347 < 205 to the left, agree=0.822, adj=0.536, (0 split)  
##   
## Node number 170: 39 observations, complexity param=0.0001786193  
## predicted class=0 expected loss=0.3846154 P(node) =0.001547312  
## class counts: 24 0 0 3 1 1 0 0 5 5  
## probabilities: 0.615 0.000 0.000 0.077 0.026 0.026 0.000 0.000 0.128 0.128   
## left son=340 (23 obs) right son=341 (16 obs)  
## Primary splits:  
## 293 < 187 to the right, improve=10.541670, (0 missing)  
## 381 < 28 to the left, improve=10.541670, (0 missing)  
## 409 < 144 to the left, improve= 9.820513, (0 missing)  
## 266 < 161.5 to the right, improve= 9.816667, (0 missing)  
## 294 < 42.5 to the right, improve= 9.550000, (0 missing)  
## Surrogate splits:  
## 294 < 149 to the right, agree=0.949, adj=0.875, (0 split)  
## 381 < 28 to the left, agree=0.949, adj=0.875, (0 split)  
## 265 < 213 to the right, agree=0.923, adj=0.813, (0 split)  
## 266 < 161.5 to the right, agree=0.923, adj=0.813, (0 split)  
## 354 < 48 to the left, agree=0.923, adj=0.813, (0 split)  
##   
## Node number 171: 473 observations, complexity param=0.0007591319  
## predicted class=5 expected loss=0.141649 P(node) =0.01876612  
## class counts: 2 0 0 50 0 406 6 0 6 3  
## probabilities: 0.004 0.000 0.000 0.106 0.000 0.858 0.013 0.000 0.013 0.006   
## left son=342 (33 obs) right son=343 (440 obs)  
## Primary splits:  
## 295 < 219 to the right, improve=29.11258, (0 missing)  
## 294 < 176.5 to the right, improve=24.87470, (0 missing)  
## 186 < 2.5 to the left, improve=24.12164, (0 missing)  
## 262 < 12.5 to the left, improve=23.88677, (0 missing)  
## 187 < 1 to the left, improve=23.43563, (0 missing)  
## Surrogate splits:  
## 296 < 117.5 to the right, agree=0.960, adj=0.424, (0 split)  
## 267 < 245.5 to the right, agree=0.958, adj=0.394, (0 split)  
## 268 < 241 to the right, agree=0.953, adj=0.333, (0 split)  
## 294 < 251.5 to the right, agree=0.949, adj=0.273, (0 split)  
## 349 < 6 to the left, agree=0.934, adj=0.061, (0 split)  
##   
## Node number 172: 85 observations, complexity param=0.0001786193  
## predicted class=4 expected loss=0.3176471 P(node) =0.003372347  
## class counts: 0 0 0 4 58 7 4 3 1 8  
## probabilities: 0.000 0.000 0.000 0.047 0.682 0.082 0.047 0.035 0.012 0.094   
## left son=344 (70 obs) right son=345 (15 obs)  
## Primary splits:  
## 266 < 36 to the left, improve=9.104762, (0 missing)  
## 405 < 10.5 to the right, improve=8.905141, (0 missing)  
## 409 < 242 to the right, improve=8.366917, (0 missing)  
## 238 < 13.5 to the left, improve=8.280590, (0 missing)  
## 492 < 31 to the right, improve=8.164593, (0 missing)  
## Surrogate splits:  
## 265 < 131 to the left, agree=0.976, adj=0.867, (0 split)  
## 238 < 4.5 to the left, agree=0.965, adj=0.800, (0 split)  
## 237 < 151.5 to the left, agree=0.941, adj=0.667, (0 split)  
## 293 < 30 to the left, agree=0.929, adj=0.600, (0 split)  
## 267 < 208 to the left, agree=0.918, adj=0.533, (0 split)  
##   
## Node number 173: 79 observations, complexity param=0.0001786193  
## predicted class=7 expected loss=0.2531646 P(node) =0.003134299  
## class counts: 4 3 0 5 0 4 0 59 2 2  
## probabilities: 0.051 0.038 0.000 0.063 0.000 0.051 0.000 0.747 0.025 0.025   
## left son=346 (12 obs) right son=347 (67 obs)  
## Primary splits:  
## 570 < 2 to the right, improve=10.616920, (0 missing)  
## 571 < 64 to the right, improve=10.616920, (0 missing)  
## 598 < 8 to the right, improve= 9.893048, (0 missing)  
## 542 < 28.5 to the right, improve= 9.529412, (0 missing)  
## 569 < 64 to the right, improve= 9.426087, (0 missing)  
## Surrogate splits:  
## 571 < 64 to the right, agree=1.000, adj=1.000, (0 split)  
## 542 < 28.5 to the right, agree=0.987, adj=0.917, (0 split)  
## 598 < 8 to the right, agree=0.987, adj=0.917, (0 split)  
## 543 < 3 to the right, agree=0.975, adj=0.833, (0 split)  
## 569 < 64 to the right, agree=0.975, adj=0.833, (0 split)  
##   
## Node number 174: 100 observations, complexity param=0.0005805126  
## predicted class=5 expected loss=0.56 P(node) =0.003967467  
## class counts: 0 2 0 16 10 44 3 2 3 20  
## probabilities: 0.000 0.020 0.000 0.160 0.100 0.440 0.030 0.020 0.030 0.200   
## left son=348 (63 obs) right son=349 (37 obs)  
## Primary splits:  
## 295 < 99 to the left, improve=13.37684, (0 missing)  
## 491 < 144 to the left, improve=11.90888, (0 missing)  
## 186 < 5.5 to the right, improve=11.88813, (0 missing)  
## 294 < 203.5 to the right, improve=11.38746, (0 missing)  
## 296 < 3 to the left, improve=11.22879, (0 missing)  
## Surrogate splits:  
## 296 < 3 to the left, agree=0.94, adj=0.838, (0 split)  
## 267 < 167.5 to the left, agree=0.91, adj=0.757, (0 split)  
## 294 < 127 to the left, agree=0.90, adj=0.730, (0 split)  
## 323 < 223 to the left, agree=0.90, adj=0.730, (0 split)  
## 266 < 231 to the left, agree=0.80, adj=0.459, (0 split)  
##   
## Node number 175: 257 observations, complexity param=0.0003572385  
## predicted class=9 expected loss=0.1673152 P(node) =0.01019639  
## class counts: 4 0 2 12 8 2 0 10 5 214  
## probabilities: 0.016 0.000 0.008 0.047 0.031 0.008 0.000 0.039 0.019 0.833   
## left son=350 (10 obs) right son=351 (247 obs)  
## Primary splits:  
## 680 < 29 to the right, improve=13.31189, (0 missing)  
## 681 < 106.5 to the right, improve=11.82432, (0 missing)  
## 651 < 29.5 to the right, improve=11.66365, (0 missing)  
## 653 < 4 to the right, improve=11.59529, (0 missing)  
## 652 < 184.5 to the right, improve=11.51373, (0 missing)  
## Surrogate splits:  
## 681 < 106.5 to the right, agree=0.996, adj=0.9, (0 split)  
## 651 < 36 to the right, agree=0.992, adj=0.8, (0 split)  
## 679 < 0.5 to the right, agree=0.992, adj=0.8, (0 split)  
## 652 < 218.5 to the right, agree=0.988, adj=0.7, (0 split)  
## 682 < 243.5 to the right, agree=0.988, adj=0.7, (0 split)  
##   
## Node number 176: 60 observations  
## predicted class=2 expected loss=0.08333333 P(node) =0.00238048  
## class counts: 0 1 55 2 0 0 2 0 0 0  
## probabilities: 0.000 0.017 0.917 0.033 0.000 0.000 0.033 0.000 0.000 0.000   
##   
## Node number 177: 13 observations  
## predicted class=8 expected loss=0.5384615 P(node) =0.0005157707  
## class counts: 0 0 2 3 0 0 2 0 6 0  
## probabilities: 0.000 0.000 0.154 0.231 0.000 0.000 0.154 0.000 0.462 0.000   
##   
## Node number 178: 83 observations, complexity param=0.0004465482  
## predicted class=8 expected loss=0.8072289 P(node) =0.003292997  
## class counts: 9 14 12 3 9 7 10 0 16 3  
## probabilities: 0.108 0.169 0.145 0.036 0.108 0.084 0.120 0.000 0.193 0.036   
## left son=356 (39 obs) right son=357 (44 obs)  
## Primary splits:  
## 211 < 22.5 to the left, improve=8.254023, (0 missing)  
## 572 < 25.5 to the left, improve=7.771388, (0 missing)  
## 210 < 37.5 to the left, improve=7.755189, (0 missing)  
## 457 < 14.5 to the left, improve=7.718914, (0 missing)  
## 209 < 2 to the left, improve=7.624469, (0 missing)  
## Surrogate splits:  
## 210 < 37.5 to the left, agree=0.940, adj=0.872, (0 split)  
## 237 < 20.5 to the left, agree=0.916, adj=0.821, (0 split)  
## 238 < 91 to the left, agree=0.916, adj=0.821, (0 split)  
## 209 < 0.5 to the left, agree=0.892, adj=0.769, (0 split)  
## 183 < 5 to the left, agree=0.880, adj=0.744, (0 split)  
##   
## Node number 179: 17 observations  
## predicted class=9 expected loss=0.05882353 P(node) =0.0006744694  
## class counts: 0 0 0 0 0 0 0 0 1 16  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.059 0.941   
##   
## Node number 180: 18 observations  
## predicted class=2 expected loss=0.5 P(node) =0.000714144  
## class counts: 1 5 9 0 0 2 1 0 0 0  
## probabilities: 0.056 0.278 0.500 0.000 0.000 0.111 0.056 0.000 0.000 0.000   
##   
## Node number 181: 23 observations, complexity param=0.0001786193  
## predicted class=9 expected loss=0.6956522 P(node) =0.0009125174  
## class counts: 1 0 0 3 5 2 3 0 2 7  
## probabilities: 0.043 0.000 0.000 0.130 0.217 0.087 0.130 0.000 0.087 0.304   
## left son=362 (13 obs) right son=363 (10 obs)  
## Primary splits:  
## 428 < 201 to the left, improve=3.808696, (0 missing)  
## 208 < 74.5 to the left, improve=3.701003, (0 missing)  
## 319 < 94.5 to the right, improve=3.320817, (0 missing)  
## 344 < 48.5 to the left, improve=3.305665, (0 missing)  
## 347 < 112 to the right, improve=3.301003, (0 missing)  
## Surrogate splits:  
## 371 < 5.5 to the left, agree=0.957, adj=0.9, (0 split)  
## 400 < 78 to the left, agree=0.957, adj=0.9, (0 split)  
## 316 < 4.5 to the left, agree=0.913, adj=0.8, (0 split)  
## 343 < 51 to the left, agree=0.913, adj=0.8, (0 split)  
## 344 < 15.5 to the left, agree=0.913, adj=0.8, (0 split)  
##   
## Node number 182: 16 observations  
## predicted class=2 expected loss=0.1875 P(node) =0.0006347947  
## class counts: 0 0 13 0 0 0 3 0 0 0  
## probabilities: 0.000 0.000 0.813 0.000 0.000 0.000 0.188 0.000 0.000 0.000   
##   
## Node number 183: 193 observations, complexity param=0.0002009467  
## predicted class=6 expected loss=0.1502591 P(node) =0.007657211  
## class counts: 2 0 7 4 0 12 164 0 4 0  
## probabilities: 0.010 0.000 0.036 0.021 0.000 0.062 0.850 0.000 0.021 0.000   
## left son=366 (21 obs) right son=367 (172 obs)  
## Primary splits:  
## 431 < 1 to the left, improve=9.612658, (0 missing)  
## 430 < 9.5 to the left, improve=8.260657, (0 missing)  
## 245 < 23 to the right, improve=7.806778, (0 missing)  
## 459 < 15 to the left, improve=7.540244, (0 missing)  
## 272 < 65 to the right, improve=7.168708, (0 missing)  
## Surrogate splits:  
## 404 < 3.5 to the left, agree=0.964, adj=0.667, (0 split)  
## 403 < 4.5 to the left, agree=0.953, adj=0.571, (0 split)  
## 459 < 4 to the left, agree=0.943, adj=0.476, (0 split)  
## 458 < 1.5 to the left, agree=0.933, adj=0.381, (0 split)  
## 376 < 1.5 to the left, agree=0.922, adj=0.286, (0 split)  
##   
## Node number 186: 40 observations, complexity param=0.0002083892  
## predicted class=5 expected loss=0.675 P(node) =0.001586987  
## class counts: 7 0 0 5 0 13 3 0 12 0  
## probabilities: 0.175 0.000 0.000 0.125 0.000 0.325 0.075 0.000 0.300 0.000   
## left son=372 (12 obs) right son=373 (28 obs)  
## Primary splits:  
## 351 < 190 to the left, improve=4.528571, (0 missing)  
## 379 < 16 to the left, improve=4.407692, (0 missing)  
## 297 < 178 to the left, improve=3.880051, (0 missing)  
## 431 < 27.5 to the left, improve=3.766667, (0 missing)  
## 352 < 79.5 to the left, improve=3.684416, (0 missing)  
## Surrogate splits:  
## 379 < 18.5 to the left, agree=0.950, adj=0.833, (0 split)  
## 352 < 111 to the left, agree=0.900, adj=0.667, (0 split)  
## 299 < 58 to the right, agree=0.825, adj=0.417, (0 split)  
## 350 < 199.5 to the left, agree=0.825, adj=0.417, (0 split)  
## 353 < 2.5 to the left, agree=0.825, adj=0.417, (0 split)  
##   
## Node number 187: 16 observations  
## predicted class=2 expected loss=0.5 P(node) =0.0006347947  
## class counts: 0 0 8 0 0 0 0 0 8 0  
## probabilities: 0.000 0.000 0.500 0.000 0.000 0.000 0.000 0.000 0.500 0.000   
##   
## Node number 188: 27 observations, complexity param=0.0001786193  
## predicted class=3 expected loss=0.2222222 P(node) =0.001071216  
## class counts: 0 0 0 21 0 1 0 0 0 5  
## probabilities: 0.000 0.000 0.000 0.778 0.000 0.037 0.000 0.000 0.000 0.185   
## left son=376 (20 obs) right son=377 (7 obs)  
## Primary splits:  
## 320 < 71.5 to the left, improve=6.560847, (0 missing)  
## 265 < 233.5 to the left, improve=5.453704, (0 missing)  
## 292 < 131.5 to the left, improve=5.453704, (0 missing)  
## 319 < 74 to the left, improve=5.453704, (0 missing)  
## 653 < 6 to the right, improve=5.453704, (0 missing)  
## Surrogate splits:  
## 265 < 233.5 to the left, agree=0.963, adj=0.857, (0 split)  
## 292 < 131.5 to the left, agree=0.963, adj=0.857, (0 split)  
## 319 < 74 to the left, agree=0.963, adj=0.857, (0 split)  
## 183 < 146.5 to the right, agree=0.926, adj=0.714, (0 split)  
## 291 < 15.5 to the left, agree=0.926, adj=0.714, (0 split)  
##   
## Node number 189: 16 observations  
## predicted class=8 expected loss=0.1875 P(node) =0.0006347947  
## class counts: 0 0 1 1 0 1 0 0 13 0  
## probabilities: 0.000 0.000 0.062 0.062 0.000 0.062 0.000 0.000 0.813 0.000   
##   
## Node number 190: 28 observations, complexity param=0.0002344378  
## predicted class=3 expected loss=0.7142857 P(node) =0.001110891  
## class counts: 6 0 1 8 0 6 1 0 5 1  
## probabilities: 0.214 0.000 0.036 0.286 0.000 0.214 0.036 0.000 0.179 0.036   
## left son=380 (13 obs) right son=381 (15 obs)  
## Primary splits:  
## 429 < 101.5 to the right, improve=5.722344, (0 missing)  
## 457 < 228.5 to the right, improve=5.722344, (0 missing)  
## 402 < 196.5 to the right, improve=5.684524, (0 missing)  
## 430 < 119.5 to the right, improve=5.684524, (0 missing)  
## 317 < 20.5 to the right, improve=5.559524, (0 missing)  
## Surrogate splits:  
## 457 < 228.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 401 < 24 to the right, agree=0.964, adj=0.923, (0 split)  
## 402 < 196.5 to the right, agree=0.964, adj=0.923, (0 split)  
## 428 < 17.5 to the right, agree=0.964, adj=0.923, (0 split)  
## 430 < 53 to the right, agree=0.964, adj=0.923, (0 split)  
##   
## Node number 191: 402 observations, complexity param=0.0002344378  
## predicted class=8 expected loss=0.141791 P(node) =0.01594922  
## class counts: 2 0 18 15 0 7 11 1 345 3  
## probabilities: 0.005 0.000 0.045 0.037 0.000 0.017 0.027 0.002 0.858 0.007   
## left son=382 (57 obs) right son=383 (345 obs)  
## Primary splits:  
## 436 < 7 to the left, improve=10.780420, (0 missing)  
## 439 < 250.5 to the right, improve= 9.744096, (0 missing)  
## 611 < 5.5 to the right, improve= 9.738585, (0 missing)  
## 435 < 44.5 to the left, improve= 9.566444, (0 missing)  
## 464 < 0.5 to the left, improve= 8.444042, (0 missing)  
## Surrogate splits:  
## 407 < 114.5 to the left, agree=0.876, adj=0.123, (0 split)  
## 408 < 0.5 to the left, agree=0.876, adj=0.123, (0 split)  
## 584 < 57 to the right, agree=0.871, adj=0.088, (0 split)  
## 611 < 5.5 to the right, agree=0.871, adj=0.088, (0 split)  
## 556 < 121.5 to the right, agree=0.868, adj=0.070, (0 split)  
##   
## Node number 192: 1955 observations, complexity param=0.0001786193  
## predicted class=0 expected loss=0.03734015 P(node) =0.07756398  
## class counts: 1882 0 26 7 1 16 17 4 0 2  
## probabilities: 0.963 0.000 0.013 0.004 0.001 0.008 0.009 0.002 0.000 0.001   
## left son=384 (1623 obs) right son=385 (332 obs)  
## Primary splits:  
## 400 < 3.5 to the right, improve=9.077685, (0 missing)  
## 427 < 0.5 to the right, improve=8.966215, (0 missing)  
## 563 < 11.5 to the left, improve=8.723178, (0 missing)  
## 455 < 1 to the right, improve=8.318778, (0 missing)  
## 214 < 0.5 to the right, improve=8.285884, (0 missing)  
## Surrogate splits:  
## 428 < 1.5 to the right, agree=0.935, adj=0.614, (0 split)  
## 372 < 5.5 to the right, agree=0.912, adj=0.482, (0 split)  
## 345 < 3.5 to the right, agree=0.908, adj=0.458, (0 split)  
## 373 < 3.5 to the right, agree=0.881, adj=0.301, (0 split)  
## 456 < 0.5 to the right, agree=0.874, adj=0.256, (0 split)  
##   
## Node number 193: 18 observations  
## predicted class=7 expected loss=0.6666667 P(node) =0.000714144  
## class counts: 3 0 4 0 0 3 1 6 1 0  
## probabilities: 0.167 0.000 0.222 0.000 0.000 0.167 0.056 0.333 0.056 0.000   
##   
## Node number 194: 42 observations  
## predicted class=0 expected loss=0.04761905 P(node) =0.001666336  
## class counts: 40 0 0 1 0 1 0 0 0 0  
## probabilities: 0.952 0.000 0.000 0.024 0.000 0.024 0.000 0.000 0.000 0.000   
##   
## Node number 195: 57 observations, complexity param=0.0004242208  
## predicted class=5 expected loss=0.5789474 P(node) =0.002261456  
## class counts: 5 0 2 23 0 24 3 0 0 0  
## probabilities: 0.088 0.000 0.035 0.404 0.000 0.421 0.053 0.000 0.000 0.000   
## left son=390 (30 obs) right son=391 (27 obs)  
## Primary splits:  
## 240 < 64.5 to the right, improve=11.117740, (0 missing)  
## 241 < 12 to the right, improve=10.379130, (0 missing)  
## 208 < 18 to the left, improve= 9.593314, (0 missing)  
## 267 < 123.5 to the right, improve= 8.864035, (0 missing)  
## 239 < 11.5 to the right, improve= 8.677368, (0 missing)  
## Surrogate splits:  
## 239 < 11.5 to the right, agree=0.930, adj=0.852, (0 split)  
## 241 < 1 to the right, agree=0.860, adj=0.704, (0 split)  
## 267 < 190 to the right, agree=0.860, adj=0.704, (0 split)  
## 212 < 148.5 to the right, agree=0.825, adj=0.630, (0 split)  
## 213 < 12 to the right, agree=0.825, adj=0.630, (0 split)  
##   
## Node number 196: 45 observations, complexity param=0.0001339645  
## predicted class=0 expected loss=0.2 P(node) =0.00178536  
## class counts: 36 0 3 0 1 2 0 0 2 1  
## probabilities: 0.800 0.000 0.067 0.000 0.022 0.044 0.000 0.000 0.044 0.022   
## left son=392 (38 obs) right son=393 (7 obs)  
## Primary splits:  
## 378 < 76.5 to the left, improve=7.364244, (0 missing)  
## 379 < 201 to the left, improve=7.364244, (0 missing)  
## 405 < 14 to the left, improve=5.277778, (0 missing)  
## 406 < 24.5 to the left, improve=5.236424, (0 missing)  
## 432 < 88 to the left, improve=5.236424, (0 missing)  
## Surrogate splits:  
## 379 < 201 to the left, agree=1.000, adj=1.000, (0 split)  
## 405 < 125.5 to the left, agree=0.978, adj=0.857, (0 split)  
## 406 < 128.5 to the left, agree=0.978, adj=0.857, (0 split)  
## 377 < 107.5 to the left, agree=0.956, adj=0.714, (0 split)  
## 380 < 252.5 to the left, agree=0.956, adj=0.714, (0 split)  
##   
## Node number 197: 39 observations, complexity param=0.0002679289  
## predicted class=6 expected loss=0.4358974 P(node) =0.001547312  
## class counts: 3 0 3 2 0 9 22 0 0 0  
## probabilities: 0.077 0.000 0.077 0.051 0.000 0.231 0.564 0.000 0.000 0.000   
## left son=394 (13 obs) right son=395 (26 obs)  
## Primary splits:  
## 325 < 145 to the right, improve=8.025641, (0 missing)  
## 324 < 49.5 to the right, improve=7.632051, (0 missing)  
## 408 < 15.5 to the left, improve=6.932414, (0 missing)  
## 296 < 67.5 to the right, improve=6.494172, (0 missing)  
## 323 < 134.5 to the right, improve=6.370940, (0 missing)  
## Surrogate splits:  
## 297 < 4.5 to the right, agree=0.949, adj=0.846, (0 split)  
## 324 < 49.5 to the right, agree=0.949, adj=0.846, (0 split)  
## 296 < 71 to the right, agree=0.923, adj=0.769, (0 split)  
## 401 < 4 to the left, agree=0.872, adj=0.615, (0 split)  
## 323 < 134.5 to the right, agree=0.846, adj=0.538, (0 split)  
##   
## Node number 198: 65 observations, complexity param=0.0003125837  
## predicted class=3 expected loss=0.5230769 P(node) =0.002578853  
## class counts: 3 1 10 31 0 14 3 2 1 0  
## probabilities: 0.046 0.015 0.154 0.477 0.000 0.215 0.046 0.031 0.015 0.000   
## left son=396 (55 obs) right son=397 (10 obs)  
## Primary splits:  
## 287 < 38.5 to the left, improve=6.146853, (0 missing)  
## 485 < 9.5 to the right, improve=6.090287, (0 missing)  
## 322 < 21.5 to the left, improve=5.958974, (0 missing)  
## 571 < 198 to the left, improve=5.746089, (0 missing)  
## 514 < 4 to the right, improve=5.712476, (0 missing)  
## Surrogate splits:  
## 288 < 180 to the left, agree=0.969, adj=0.8, (0 split)  
## 315 < 3 to the left, agree=0.954, adj=0.7, (0 split)  
## 260 < 171.5 to the left, agree=0.938, adj=0.6, (0 split)  
## 342 < 13 to the left, agree=0.938, adj=0.6, (0 split)  
## 371 < 71 to the left, agree=0.923, adj=0.5, (0 split)  
##   
## Node number 199: 74 observations, complexity param=8.930964e-05  
## predicted class=5 expected loss=0.2972973 P(node) =0.002935925  
## class counts: 4 0 1 11 0 52 1 0 2 3  
## probabilities: 0.054 0.000 0.014 0.149 0.000 0.703 0.014 0.000 0.027 0.041   
## left son=398 (21 obs) right son=399 (53 obs)  
## Primary splits:  
## 326 < 3.5 to the right, improve=6.206843, (0 missing)  
## 268 < 27 to the right, improve=5.378133, (0 missing)  
## 296 < 187 to the right, improve=5.135544, (0 missing)  
## 297 < 226 to the right, improve=4.935708, (0 missing)  
## 459 < 155.5 to the right, improve=4.910736, (0 missing)  
## Surrogate splits:  
## 325 < 35.5 to the right, agree=0.905, adj=0.667, (0 split)  
## 353 < 237 to the right, agree=0.905, adj=0.667, (0 split)  
## 354 < 73.5 to the right, agree=0.905, adj=0.667, (0 split)  
## 324 < 2.5 to the right, agree=0.851, adj=0.476, (0 split)  
## 408 < 61 to the left, agree=0.851, adj=0.476, (0 split)  
##   
## Node number 200: 169 observations  
## predicted class=2 expected loss=0.04142012 P(node) =0.006705019  
## class counts: 0 0 162 2 1 0 1 3 0 0  
## probabilities: 0.000 0.000 0.959 0.012 0.006 0.000 0.006 0.018 0.000 0.000   
##   
## Node number 201: 23 observations, complexity param=8.930964e-05  
## predicted class=2 expected loss=0.6956522 P(node) =0.0009125174  
## class counts: 0 5 7 4 0 2 0 0 5 0  
## probabilities: 0.000 0.217 0.304 0.174 0.000 0.087 0.000 0.000 0.217 0.000   
## left son=402 (11 obs) right son=403 (12 obs)  
## Primary splits:  
## 351 < 171.5 to the right, improve=4.204875, (0 missing)  
## 546 < 103.5 to the left, improve=4.143547, (0 missing)  
## 598 < 244.5 to the right, improve=3.986801, (0 missing)  
## 124 < 47 to the right, improve=3.759420, (0 missing)  
## 125 < 111 to the right, improve=3.759420, (0 missing)  
## Surrogate splits:  
## 518 < 13 to the left, agree=0.957, adj=0.909, (0 split)  
## 209 < 4.5 to the left, agree=0.913, adj=0.818, (0 split)  
## 324 < 159.5 to the right, agree=0.913, adj=0.818, (0 split)  
## 378 < 164.5 to the right, agree=0.913, adj=0.818, (0 split)  
## 517 < 22 to the left, agree=0.913, adj=0.818, (0 split)  
##   
## Node number 202: 17 observations  
## predicted class=0 expected loss=0.5882353 P(node) =0.0006744694  
## class counts: 7 0 1 0 1 0 5 0 1 2  
## probabilities: 0.412 0.000 0.059 0.000 0.059 0.000 0.294 0.000 0.059 0.118   
##   
## Node number 203: 9 observations  
## predicted class=5 expected loss=0.1111111 P(node) =0.000357072  
## class counts: 0 0 0 0 0 8 1 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.889 0.111 0.000 0.000 0.000   
##   
## Node number 204: 64 observations  
## predicted class=0 expected loss=0.046875 P(node) =0.002539179  
## class counts: 61 0 1 0 0 0 0 1 1 0  
## probabilities: 0.953 0.000 0.016 0.000 0.000 0.000 0.000 0.016 0.016 0.000   
##   
## Node number 205: 9 observations  
## predicted class=6 expected loss=0.4444444 P(node) =0.000357072  
## class counts: 3 0 0 0 0 0 5 0 0 1  
## probabilities: 0.333 0.000 0.000 0.000 0.000 0.000 0.556 0.000 0.000 0.111   
##   
## Node number 206: 64 observations, complexity param=0.0002976988  
## predicted class=6 expected loss=0.640625 P(node) =0.002539179  
## class counts: 5 0 9 4 1 10 23 0 12 0  
## probabilities: 0.078 0.000 0.141 0.062 0.016 0.156 0.359 0.000 0.188 0.000   
## left son=412 (44 obs) right son=413 (20 obs)  
## Primary splits:  
## 131 < 89 to the left, improve=9.009091, (0 missing)  
## 132 < 19.5 to the left, improve=8.963636, (0 missing)  
## 432 < 229.5 to the left, improve=8.156725, (0 missing)  
## 103 < 9.5 to the left, improve=8.133333, (0 missing)  
## 682 < 20.5 to the left, improve=7.714286, (0 missing)  
## Surrogate splits:  
## 132 < 19.5 to the left, agree=0.938, adj=0.80, (0 split)  
## 103 < 49 to the left, agree=0.891, adj=0.65, (0 split)  
## 130 < 157 to the left, agree=0.891, adj=0.65, (0 split)  
## 104 < 8 to the left, agree=0.875, adj=0.60, (0 split)  
## 159 < 210 to the left, agree=0.859, adj=0.55, (0 split)  
##   
## Node number 207: 87 observations  
## predicted class=5 expected loss=0.09195402 P(node) =0.003451696  
## class counts: 1 0 1 0 0 79 1 0 5 0  
## probabilities: 0.011 0.000 0.011 0.000 0.000 0.908 0.011 0.000 0.057 0.000   
##   
## Node number 208: 93 observations, complexity param=4.465482e-05  
## predicted class=0 expected loss=0.1397849 P(node) =0.003689744  
## class counts: 80 0 3 1 0 2 2 2 1 2  
## probabilities: 0.860 0.000 0.032 0.011 0.000 0.022 0.022 0.022 0.011 0.022   
## left son=416 (86 obs) right son=417 (7 obs)  
## Primary splits:  
## 322 < 103 to the left, improve=5.184832, (0 missing)  
## 350 < 6 to the left, improve=5.161576, (0 missing)  
## 294 < 236 to the left, improve=4.098355, (0 missing)  
## 263 < 9.5 to the right, improve=3.316716, (0 missing)  
## 600 < 172 to the right, improve=2.993843, (0 missing)  
## Surrogate splits:  
## 294 < 236 to the left, agree=0.968, adj=0.571, (0 split)  
## 350 < 6 to the left, agree=0.957, adj=0.429, (0 split)  
## 321 < 252.5 to the left, agree=0.946, adj=0.286, (0 split)  
## 323 < 144 to the left, agree=0.946, adj=0.286, (0 split)  
## 349 < 215.5 to the left, agree=0.946, adj=0.286, (0 split)  
##   
## Node number 209: 58 observations, complexity param=0.0004018934  
## predicted class=2 expected loss=0.7758621 P(node) =0.002301131  
## class counts: 10 0 13 2 3 12 3 1 1 13  
## probabilities: 0.172 0.000 0.224 0.034 0.052 0.207 0.052 0.017 0.017 0.224   
## left son=418 (25 obs) right son=419 (33 obs)  
## Primary splits:  
## 438 < 23.5 to the left, improve=9.008694, (0 missing)  
## 443 < 22 to the right, improve=7.751724, (0 missing)  
## 494 < 2 to the right, improve=7.646461, (0 missing)  
## 466 < 25.5 to the left, improve=7.511320, (0 missing)  
## 411 < 9 to the left, improve=7.316573, (0 missing)  
## Surrogate splits:  
## 410 < 5 to the left, agree=0.948, adj=0.88, (0 split)  
## 411 < 22.5 to the left, agree=0.948, adj=0.88, (0 split)  
## 437 < 1.5 to the left, agree=0.914, adj=0.80, (0 split)  
## 466 < 25.5 to the left, agree=0.914, adj=0.80, (0 split)  
## 439 < 39 to the left, agree=0.897, adj=0.76, (0 split)  
##   
## Node number 210: 15 observations  
## predicted class=0 expected loss=0.5333333 P(node) =0.00059512  
## class counts: 7 0 3 0 2 0 1 0 1 1  
## probabilities: 0.467 0.000 0.200 0.000 0.133 0.000 0.067 0.000 0.067 0.067   
##   
## Node number 211: 143 observations, complexity param=8.930964e-05  
## predicted class=6 expected loss=0.1818182 P(node) =0.005673477  
## class counts: 2 1 11 3 4 5 117 0 0 0  
## probabilities: 0.014 0.007 0.077 0.021 0.028 0.035 0.818 0.000 0.000 0.000   
## left son=422 (15 obs) right son=423 (128 obs)  
## Primary splits:  
## 322 < 99.5 to the right, improve=9.768000, (0 missing)  
## 295 < 31 to the right, improve=7.841958, (0 missing)  
## 554 < 252.5 to the right, improve=7.336076, (0 missing)  
## 323 < 122 to the right, improve=7.176412, (0 missing)  
## 149 < 21 to the right, improve=7.004282, (0 missing)  
## Surrogate splits:  
## 295 < 31 to the right, agree=0.958, adj=0.600, (0 split)  
## 294 < 202 to the right, agree=0.951, adj=0.533, (0 split)  
## 349 < 212.5 to the right, agree=0.951, adj=0.533, (0 split)  
## 323 < 40 to the right, agree=0.944, adj=0.467, (0 split)  
## 324 < 114.5 to the right, agree=0.930, adj=0.333, (0 split)  
##   
## Node number 212: 103 observations, complexity param=4.465482e-05  
## predicted class=4 expected loss=0.1067961 P(node) =0.004086491  
## class counts: 1 0 3 0 92 0 5 0 0 2  
## probabilities: 0.010 0.000 0.029 0.000 0.893 0.000 0.049 0.000 0.000 0.019   
## left son=424 (7 obs) right son=425 (96 obs)  
## Primary splits:  
## 125 < 149.5 to the right, improve=4.396007, (0 missing)  
## 126 < 128 to the right, improve=4.396007, (0 missing)  
## 415 < 65 to the left, improve=3.184236, (0 missing)  
## 128 < 2 to the right, improve=2.952554, (0 missing)  
## 155 < 6.5 to the right, improve=2.952554, (0 missing)  
## Surrogate splits:  
## 126 < 128 to the right, agree=0.981, adj=0.714, (0 split)  
## 97 < 67.5 to the right, agree=0.971, adj=0.571, (0 split)  
## 98 < 33 to the right, agree=0.971, adj=0.571, (0 split)  
## 127 < 70.5 to the right, agree=0.961, adj=0.429, (0 split)  
## 155 < 64.5 to the right, agree=0.961, adj=0.429, (0 split)  
##   
## Node number 213: 16 observations  
## predicted class=7 expected loss=0.625 P(node) =0.0006347947  
## class counts: 1 0 3 0 0 3 0 6 0 3  
## probabilities: 0.062 0.000 0.188 0.000 0.000 0.188 0.000 0.375 0.000 0.188   
##   
## Node number 214: 69 observations, complexity param=0.000111637  
## predicted class=5 expected loss=0.4492754 P(node) =0.002737552  
## class counts: 6 0 5 5 1 38 4 4 1 5  
## probabilities: 0.087 0.000 0.072 0.072 0.014 0.551 0.058 0.058 0.014 0.072   
## left son=428 (35 obs) right son=429 (34 obs)  
## Primary splits:  
## 218 < 1.5 to the right, improve=10.841600, (0 missing)  
## 345 < 15 to the left, improve=10.481360, (0 missing)  
## 523 < 139 to the right, improve= 9.488872, (0 missing)  
## 467 < 0.5 to the left, improve= 8.841421, (0 missing)  
## 373 < 18.5 to the left, improve= 8.838739, (0 missing)  
## Surrogate splits:  
## 217 < 31 to the right, agree=0.928, adj=0.853, (0 split)  
## 216 < 116.5 to the right, agree=0.884, adj=0.765, (0 split)  
## 219 < 2 to the right, agree=0.870, adj=0.735, (0 split)  
## 189 < 10 to the right, agree=0.855, adj=0.706, (0 split)  
## 190 < 0.5 to the right, agree=0.855, adj=0.706, (0 split)  
##   
## Node number 215: 106 observations, complexity param=0.0006251675  
## predicted class=9 expected loss=0.3962264 P(node) =0.004205515  
## class counts: 1 0 3 0 23 0 1 13 1 64  
## probabilities: 0.009 0.000 0.028 0.000 0.217 0.000 0.009 0.123 0.009 0.604   
## left son=430 (24 obs) right son=431 (82 obs)  
## Primary splits:  
## 208 < 2.5 to the left, improve=14.69290, (0 missing)  
## 235 < 3 to the left, improve=13.55717, (0 missing)  
## 156 < 10.5 to the right, improve=12.51154, (0 missing)  
## 374 < 121 to the right, improve=12.34940, (0 missing)  
## 320 < 89 to the right, improve=12.34725, (0 missing)  
## Surrogate splits:  
## 209 < 17 to the left, agree=0.962, adj=0.833, (0 split)  
## 210 < 72 to the left, agree=0.906, adj=0.583, (0 split)  
## 207 < 2.5 to the left, agree=0.877, adj=0.458, (0 split)  
## 235 < 3 to the left, agree=0.877, adj=0.458, (0 split)  
## 157 < 59.5 to the right, agree=0.858, adj=0.375, (0 split)  
##   
## Node number 216: 53 observations, complexity param=0.0002456015  
## predicted class=3 expected loss=0.6792453 P(node) =0.002102757  
## class counts: 1 7 0 17 1 17 8 0 0 2  
## probabilities: 0.019 0.132 0.000 0.321 0.019 0.321 0.151 0.000 0.000 0.038   
## left son=432 (16 obs) right son=433 (37 obs)  
## Primary splits:  
## 205 < 9.5 to the right, improve=7.426759, (0 missing)  
## 541 < 18.5 to the left, improve=6.576329, (0 missing)  
## 574 < 1.5 to the left, improve=6.534771, (0 missing)  
## 517 < 31 to the left, improve=6.495608, (0 missing)  
## 544 < 2.5 to the left, improve=6.334176, (0 missing)  
## Surrogate splits:  
## 232 < 13 to the right, agree=0.943, adj=0.813, (0 split)  
## 204 < 10 to the right, agree=0.925, adj=0.750, (0 split)  
## 206 < 23.5 to the right, agree=0.925, adj=0.750, (0 split)  
## 203 < 5 to the right, agree=0.906, adj=0.688, (0 split)  
## 231 < 2 to the right, agree=0.906, adj=0.688, (0 split)  
##   
## Node number 217: 53 observations, complexity param=0.0001339645  
## predicted class=5 expected loss=0.2075472 P(node) =0.002102757  
## class counts: 1 0 0 0 1 42 1 2 2 4  
## probabilities: 0.019 0.000 0.000 0.000 0.019 0.792 0.019 0.038 0.038 0.075   
## left son=434 (46 obs) right son=435 (7 obs)  
## Primary splits:  
## 464 < 87 to the left, improve=5.617485, (0 missing)  
## 465 < 186 to the left, improve=3.306926, (0 missing)  
## 325 < 20.5 to the left, improve=3.185902, (0 missing)  
## 656 < 88 to the right, improve=3.156754, (0 missing)  
## 351 < 151 to the left, improve=3.064690, (0 missing)  
## Surrogate splits:  
## 436 < 104.5 to the left, agree=0.943, adj=0.571, (0 split)  
## 465 < 199.5 to the left, agree=0.943, adj=0.571, (0 split)  
## 492 < 248.5 to the left, agree=0.943, adj=0.571, (0 split)  
## 352 < 184 to the left, agree=0.925, adj=0.429, (0 split)  
## 353 < 97.5 to the left, agree=0.925, adj=0.429, (0 split)  
##   
## Node number 218: 31 observations, complexity param=0.0001786193  
## predicted class=4 expected loss=0.3870968 P(node) =0.001229915  
## class counts: 0 0 1 4 19 1 0 3 0 3  
## probabilities: 0.000 0.000 0.032 0.129 0.613 0.032 0.000 0.097 0.000 0.097   
## left son=436 (7 obs) right son=437 (24 obs)  
## Primary splits:  
## 155 < 78.5 to the right, improve=5.693548, (0 missing)  
## 183 < 35 to the right, improve=5.693548, (0 missing)  
## 184 < 114 to the right, improve=4.508766, (0 missing)  
## 381 < 251 to the right, improve=4.219189, (0 missing)  
## 464 < 13 to the right, improve=4.213750, (0 missing)  
## Surrogate splits:  
## 154 < 90.5 to the right, agree=0.968, adj=0.857, (0 split)  
## 156 < 104.5 to the right, agree=0.968, adj=0.857, (0 split)  
## 153 < 77.5 to the right, agree=0.935, adj=0.714, (0 split)  
## 183 < 35 to the right, agree=0.935, adj=0.714, (0 split)  
## 622 < 9 to the right, agree=0.935, adj=0.714, (0 split)  
##   
## Node number 219: 71 observations  
## predicted class=9 expected loss=0.2112676 P(node) =0.002816901  
## class counts: 2 0 2 4 1 2 0 4 0 56  
## probabilities: 0.028 0.000 0.028 0.056 0.014 0.028 0.000 0.056 0.000 0.789   
##   
## Node number 220: 59 observations, complexity param=8.930964e-05  
## predicted class=0 expected loss=0.1694915 P(node) =0.002340805  
## class counts: 49 0 0 0 2 3 0 2 0 3  
## probabilities: 0.831 0.000 0.000 0.000 0.034 0.051 0.000 0.034 0.000 0.051   
## left son=440 (51 obs) right son=441 (8 obs)  
## Primary splits:  
## 518 < 37.5 to the left, improve=6.388917, (0 missing)  
## 517 < 15 to the left, improve=5.477740, (0 missing)  
## 519 < 158.5 to the left, improve=5.430341, (0 missing)  
## 491 < 1 to the left, improve=5.144627, (0 missing)  
## 492 < 46 to the left, improve=4.550121, (0 missing)  
## Surrogate splits:  
## 517 < 15 to the left, agree=0.983, adj=0.875, (0 split)  
## 519 < 158.5 to the left, agree=0.983, adj=0.875, (0 split)  
## 491 < 11 to the left, agree=0.966, adj=0.750, (0 split)  
## 490 < 13.5 to the left, agree=0.949, adj=0.625, (0 split)  
## 492 < 112.5 to the left, agree=0.949, adj=0.625, (0 split)  
##   
## Node number 221: 9 observations  
## predicted class=5 expected loss=0.3333333 P(node) =0.000357072  
## class counts: 0 0 0 1 0 6 0 2 0 0  
## probabilities: 0.000 0.000 0.000 0.111 0.000 0.667 0.000 0.222 0.000 0.000   
##   
## Node number 222: 30 observations, complexity param=0.0003572385  
## predicted class=5 expected loss=0.6666667 P(node) =0.00119024  
## class counts: 0 2 1 1 8 10 1 2 0 5  
## probabilities: 0.000 0.067 0.033 0.033 0.267 0.333 0.033 0.067 0.000 0.167   
## left son=444 (14 obs) right son=445 (16 obs)  
## Primary splits:  
## 381 < 10.5 to the left, improve=6.779762, (0 missing)  
## 409 < 65 to the left, improve=6.779762, (0 missing)  
## 437 < 77 to the left, improve=6.779762, (0 missing)  
## 465 < 168.5 to the left, improve=6.779762, (0 missing)  
## 464 < 205 to the right, improve=6.733333, (0 missing)  
## Surrogate splits:  
## 409 < 65 to the left, agree=1.000, adj=1.000, (0 split)  
## 437 < 77 to the left, agree=1.000, adj=1.000, (0 split)  
## 465 < 168.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 493 < 115.5 to the left, agree=0.967, adj=0.929, (0 split)  
## 353 < 3.5 to the left, agree=0.933, adj=0.857, (0 split)  
##   
## Node number 223: 648 observations, complexity param=0.0001786193  
## predicted class=7 expected loss=0.0632716 P(node) =0.02570918  
## class counts: 8 1 4 7 4 7 3 607 0 7  
## probabilities: 0.012 0.002 0.006 0.011 0.006 0.011 0.005 0.937 0.000 0.011   
## left son=446 (19 obs) right son=447 (629 obs)  
## Primary splits:  
## 153 < 27 to the right, improve=18.41900, (0 missing)  
## 155 < 11.5 to the right, improve=17.95829, (0 missing)  
## 154 < 1 to the right, improve=17.53289, (0 missing)  
## 157 < 1.5 to the right, improve=16.51543, (0 missing)  
## 156 < 6.5 to the right, improve=16.38860, (0 missing)  
## Surrogate splits:  
## 154 < 1 to the right, agree=0.998, adj=0.947, (0 split)  
## 152 < 29 to the right, agree=0.994, adj=0.789, (0 split)  
## 151 < 1 to the right, agree=0.991, adj=0.684, (0 split)  
## 150 < 4 to the right, agree=0.988, adj=0.579, (0 split)  
## 155 < 27 to the right, agree=0.988, adj=0.579, (0 split)  
##   
## Node number 224: 936 observations, complexity param=0.0006251675  
## predicted class=2 expected loss=0.05769231 P(node) =0.03713549  
## class counts: 0 0 882 15 0 1 0 12 25 1  
## probabilities: 0.000 0.000 0.942 0.016 0.000 0.001 0.000 0.013 0.027 0.001   
## left son=448 (922 obs) right son=449 (14 obs)  
## Primary splits:  
## 349 < 134.5 to the left, improve=26.08949, (0 missing)  
## 348 < 51 to the left, improve=20.47057, (0 missing)  
## 321 < 169.5 to the left, improve=17.05345, (0 missing)  
## 320 < 143 to the left, improve=15.22744, (0 missing)  
## 345 < 104.5 to the left, improve=11.95572, (0 missing)  
## Surrogate splits:  
## 348 < 51 to the left, agree=0.997, adj=0.786, (0 split)  
## 321 < 169.5 to the left, agree=0.995, adj=0.643, (0 split)  
## 320 < 143 to the left, agree=0.994, adj=0.571, (0 split)  
## 377 < 253.5 to the left, agree=0.987, adj=0.143, (0 split)  
##   
## Node number 225: 85 observations, complexity param=0.0007591319  
## predicted class=8 expected loss=0.5176471 P(node) =0.003372347  
## class counts: 3 0 20 1 2 1 2 0 41 15  
## probabilities: 0.035 0.000 0.235 0.012 0.024 0.012 0.024 0.000 0.482 0.176   
## left son=450 (35 obs) right son=451 (50 obs)  
## Primary splits:  
## 402 < 51.5 to the left, improve=19.00706, (0 missing)  
## 403 < 5.5 to the left, improve=17.87550, (0 missing)  
## 657 < 157.5 to the left, improve=15.56613, (0 missing)  
## 431 < 182 to the left, improve=15.56511, (0 missing)  
## 432 < 128 to the left, improve=15.20337, (0 missing)  
## Surrogate splits:  
## 403 < 5.5 to the left, agree=0.918, adj=0.800, (0 split)  
## 430 < 50.5 to the left, agree=0.906, adj=0.771, (0 split)  
## 431 < 24 to the left, agree=0.894, adj=0.743, (0 split)  
## 432 < 128 to the left, agree=0.882, adj=0.714, (0 split)  
## 404 < 11 to the left, agree=0.871, adj=0.686, (0 split)  
##   
## Node number 226: 487 observations, complexity param=0.002857908  
## predicted class=2 expected loss=0.7864476 P(node) =0.01932156  
## class counts: 2 102 104 6 62 10 48 57 22 74  
## probabilities: 0.004 0.209 0.214 0.012 0.127 0.021 0.099 0.117 0.045 0.152   
## left son=452 (246 obs) right son=453 (241 obs)  
## Primary splits:  
## 211 < 1 to the left, improve=54.34980, (0 missing)  
## 344 < 21.5 to the left, improve=52.68771, (0 missing)  
## 238 < 1 to the left, improve=52.56168, (0 missing)  
## 210 < 5.5 to the left, improve=52.23305, (0 missing)  
## 237 < 1 to the left, improve=50.24258, (0 missing)  
## Surrogate splits:  
## 210 < 0.5 to the left, agree=0.973, adj=0.946, (0 split)  
## 212 < 63 to the left, agree=0.951, adj=0.900, (0 split)  
## 209 < 1 to the left, agree=0.940, adj=0.880, (0 split)  
## 237 < 26.5 to the left, agree=0.940, adj=0.880, (0 split)  
## 238 < 1 to the left, agree=0.938, adj=0.876, (0 split)  
##   
## Node number 227: 136 observations, complexity param=0.0002679289  
## predicted class=7 expected loss=0.08823529 P(node) =0.005395755  
## class counts: 0 0 3 1 1 0 0 124 6 1  
## probabilities: 0.000 0.000 0.022 0.007 0.007 0.000 0.000 0.912 0.044 0.007   
## left son=454 (128 obs) right son=455 (8 obs)  
## Primary splits:  
## 373 < 182.5 to the left, improve=11.541360, (0 missing)  
## 374 < 46 to the left, improve=10.126290, (0 missing)  
## 401 < 51.5 to the left, improve= 9.641326, (0 missing)  
## 402 < 128 to the left, improve= 8.369485, (0 missing)  
## 603 < 54 to the right, improve= 8.036963, (0 missing)  
## Surrogate splits:  
## 374 < 46 to the left, agree=0.993, adj=0.875, (0 split)  
## 402 < 128 to the left, agree=0.985, adj=0.750, (0 split)  
## 345 < 233.5 to the left, agree=0.978, adj=0.625, (0 split)  
## 401 < 51.5 to the left, agree=0.978, adj=0.625, (0 split)  
## 346 < 106.5 to the left, agree=0.971, adj=0.500, (0 split)  
##   
## Node number 228: 121 observations, complexity param=0.0002679289  
## predicted class=5 expected loss=0.2231405 P(node) =0.004800635  
## class counts: 5 0 7 0 3 94 4 0 8 0  
## probabilities: 0.041 0.000 0.058 0.000 0.025 0.777 0.033 0.000 0.066 0.000   
## left son=456 (20 obs) right son=457 (101 obs)  
## Primary splits:  
## 384 < 14 to the right, improve=18.04196, (0 missing)  
## 413 < 1 to the right, improve=17.66176, (0 missing)  
## 412 < 5 to the right, improve=17.56195, (0 missing)  
## 385 < 43.5 to the right, improve=17.43202, (0 missing)  
## 356 < 2.5 to the right, improve=16.41559, (0 missing)  
## Surrogate splits:  
## 385 < 43.5 to the right, agree=0.992, adj=0.95, (0 split)  
## 356 < 2.5 to the right, agree=0.983, adj=0.90, (0 split)  
## 357 < 5 to the right, agree=0.983, adj=0.90, (0 split)  
## 412 < 130 to the right, agree=0.983, adj=0.90, (0 split)  
## 413 < 1 to the right, agree=0.983, adj=0.90, (0 split)  
##   
## Node number 229: 364 observations, complexity param=0.001674556  
## predicted class=4 expected loss=0.6565934 P(node) =0.01444158  
## class counts: 14 0 66 0 125 2 15 48 41 53  
## probabilities: 0.038 0.000 0.181 0.000 0.343 0.005 0.041 0.132 0.113 0.146   
## left son=458 (155 obs) right son=459 (209 obs)  
## Primary splits:  
## 212 < 1.5 to the left, improve=41.35091, (0 missing)  
## 240 < 16.5 to the left, improve=40.03897, (0 missing)  
## 213 < 6.5 to the left, improve=34.08154, (0 missing)  
## 184 < 55 to the right, improve=33.64439, (0 missing)  
## 429 < 64 to the right, improve=32.44985, (0 missing)  
## Surrogate splits:  
## 211 < 7.5 to the left, agree=0.896, adj=0.755, (0 split)  
## 213 < 6.5 to the left, agree=0.882, adj=0.723, (0 split)  
## 184 < 4.5 to the left, agree=0.857, adj=0.665, (0 split)  
## 240 < 6 to the left, agree=0.843, adj=0.632, (0 split)  
## 239 < 103.5 to the left, agree=0.832, adj=0.606, (0 split)  
##   
## Node number 230: 74 observations, complexity param=0.0004465482  
## predicted class=4 expected loss=0.7162162 P(node) =0.002935925  
## class counts: 10 0 1 0 21 9 5 0 15 13  
## probabilities: 0.135 0.000 0.014 0.000 0.284 0.122 0.068 0.000 0.203 0.176   
## left son=460 (21 obs) right son=461 (53 obs)  
## Primary splits:  
## 212 < 40.5 to the left, improve=13.65836, (0 missing)  
## 213 < 11 to the left, improve=11.76198, (0 missing)  
## 211 < 40.5 to the left, improve=11.71766, (0 missing)  
## 597 < 35 to the right, improve=11.04087, (0 missing)  
## 185 < 107 to the left, improve=10.69842, (0 missing)  
## Surrogate splits:  
## 211 < 40.5 to the left, agree=0.946, adj=0.810, (0 split)  
## 239 < 21.5 to the left, agree=0.946, adj=0.810, (0 split)  
## 213 < 20 to the left, agree=0.932, adj=0.762, (0 split)  
## 210 < 50 to the left, agree=0.919, adj=0.714, (0 split)  
## 184 < 3 to the left, agree=0.905, adj=0.667, (0 split)  
##   
## Node number 231: 635 observations, complexity param=0.0002456015  
## predicted class=8 expected loss=0.08031496 P(node) =0.02519341  
## class counts: 7 0 4 5 3 14 4 8 584 6  
## probabilities: 0.011 0.000 0.006 0.008 0.005 0.022 0.006 0.013 0.920 0.009   
## left son=462 (47 obs) right son=463 (588 obs)  
## Primary splits:  
## 488 < 14.5 to the left, improve=12.62911, (0 missing)  
## 404 < 2 to the left, improve=12.45999, (0 missing)  
## 487 < 2.5 to the left, improve=11.15042, (0 missing)  
## 434 < 27 to the left, improve=10.17359, (0 missing)  
## 461 < 56.5 to the left, improve=10.09254, (0 missing)  
## Surrogate splits:  
## 461 < 67.5 to the left, agree=0.965, adj=0.532, (0 split)  
## 515 < 8.5 to the left, agree=0.961, adj=0.468, (0 split)  
## 489 < 0.5 to the left, agree=0.943, adj=0.234, (0 split)  
## 462 < 0.5 to the left, agree=0.942, adj=0.213, (0 split)  
## 121 < 6.5 to the right, agree=0.932, adj=0.085, (0 split)  
##   
## Node number 232: 318 observations, complexity param=0.0006698223  
## predicted class=2 expected loss=0.1823899 P(node) =0.01261654  
## class counts: 2 25 260 2 8 0 3 9 4 5  
## probabilities: 0.006 0.079 0.818 0.006 0.025 0.000 0.009 0.028 0.013 0.016   
## left son=464 (32 obs) right son=465 (286 obs)  
## Primary splits:  
## 159 < 0.5 to the right, improve=26.02915, (0 missing)  
## 187 < 16.5 to the right, improve=25.86607, (0 missing)  
## 215 < 28 to the right, improve=24.47659, (0 missing)  
## 186 < 129 to the right, improve=22.71974, (0 missing)  
## 158 < 132.5 to the right, improve=19.37000, (0 missing)  
## Surrogate splits:  
## 187 < 16.5 to the right, agree=0.987, adj=0.875, (0 split)  
## 186 < 215 to the right, agree=0.965, adj=0.656, (0 split)  
## 131 < 12.5 to the right, agree=0.959, adj=0.594, (0 split)  
## 158 < 143 to the right, agree=0.956, adj=0.562, (0 split)  
## 215 < 4 to the right, agree=0.953, adj=0.531, (0 split)  
##   
## Node number 233: 26 observations  
## predicted class=7 expected loss=0.3076923 P(node) =0.001031541  
## class counts: 1 0 0 2 2 0 0 18 2 1  
## probabilities: 0.038 0.000 0.000 0.077 0.077 0.000 0.000 0.692 0.077 0.038   
##   
## Node number 234: 73 observations, complexity param=0.0008484415  
## predicted class=4 expected loss=0.6712329 P(node) =0.002896251  
## class counts: 0 1 9 0 24 1 19 4 4 11  
## probabilities: 0.000 0.014 0.123 0.000 0.329 0.014 0.260 0.055 0.055 0.151   
## left son=468 (48 obs) right son=469 (25 obs)  
## Primary splits:  
## 573 < 214 to the left, improve=14.67151, (0 missing)  
## 571 < 79 to the right, improve=13.28790, (0 missing)  
## 356 < 63.5 to the left, improve=12.90220, (0 missing)  
## 572 < 108.5 to the right, improve=12.42019, (0 missing)  
## 269 < 4 to the right, improve=11.92731, (0 missing)  
## Surrogate splits:  
## 572 < 232.5 to the left, agree=0.932, adj=0.80, (0 split)  
## 601 < 26.5 to the left, agree=0.904, adj=0.72, (0 split)  
## 574 < 182 to the left, agree=0.890, adj=0.68, (0 split)  
## 600 < 96 to the left, agree=0.890, adj=0.68, (0 split)  
## 269 < 4 to the right, agree=0.863, adj=0.60, (0 split)  
##   
## Node number 235: 30 observations  
## predicted class=8 expected loss=0.1 P(node) =0.00119024  
## class counts: 2 0 1 0 0 0 0 0 27 0  
## probabilities: 0.067 0.000 0.033 0.000 0.000 0.000 0.000 0.000 0.900 0.000   
##   
## Node number 236: 127 observations, complexity param=0.0004465482  
## predicted class=2 expected loss=0.4330709 P(node) =0.005038683  
## class counts: 3 1 72 3 12 1 14 1 15 5  
## probabilities: 0.024 0.008 0.567 0.024 0.094 0.008 0.110 0.008 0.118 0.039   
## left son=472 (83 obs) right son=473 (44 obs)  
## Primary splits:  
## 537 < 23.5 to the right, improve=23.51794, (0 missing)  
## 565 < 20 to the right, improve=22.83947, (0 missing)  
## 158 < 9 to the right, improve=19.65800, (0 missing)  
## 159 < 9.5 to the right, improve=19.65800, (0 missing)  
## 157 < 67.5 to the right, improve=18.50751, (0 missing)  
## Surrogate splits:  
## 565 < 2.5 to the right, agree=0.937, adj=0.818, (0 split)  
## 566 < 17 to the right, agree=0.921, adj=0.773, (0 split)  
## 509 < 3 to the right, agree=0.913, adj=0.750, (0 split)  
## 538 < 61.5 to the right, agree=0.913, adj=0.750, (0 split)  
## 594 < 3 to the right, agree=0.890, adj=0.682, (0 split)  
##   
## Node number 237: 114 observations, complexity param=0.000111637  
## predicted class=8 expected loss=0.0877193 P(node) =0.004522912  
## class counts: 0 0 6 0 3 0 0 1 104 0  
## probabilities: 0.000 0.000 0.053 0.000 0.026 0.000 0.000 0.009 0.912 0.000   
## left son=474 (20 obs) right son=475 (94 obs)  
## Primary splits:  
## 404 < 4.5 to the left, improve=6.019298, (0 missing)  
## 405 < 2 to the left, improve=5.671679, (0 missing)  
## 465 < 251 to the right, improve=5.130837, (0 missing)  
## 467 < 250.5 to the right, improve=5.037055, (0 missing)  
## 468 < 138.5 to the right, improve=5.037055, (0 missing)  
## Surrogate splits:  
## 433 < 23.5 to the left, agree=0.912, adj=0.50, (0 split)  
## 405 < 2 to the left, agree=0.904, adj=0.45, (0 split)  
## 376 < 3 to the left, agree=0.895, adj=0.40, (0 split)  
## 432 < 4.5 to the left, agree=0.886, adj=0.35, (0 split)  
## 434 < 35.5 to the left, agree=0.886, adj=0.35, (0 split)  
##   
## Node number 238: 1537 observations, complexity param=0.00111637  
## predicted class=6 expected loss=0.0540013 P(node) =0.06097996  
## class counts: 0 2 30 1 4 27 1454 1 11 7  
## probabilities: 0.000 0.001 0.020 0.001 0.003 0.018 0.946 0.001 0.007 0.005   
## left son=476 (34 obs) right son=477 (1503 obs)  
## Primary splits:  
## 323 < 161.5 to the right, improve=48.87607, (0 missing)  
## 296 < 141.5 to the right, improve=26.03819, (0 missing)  
## 324 < 155 to the right, improve=25.77839, (0 missing)  
## 217 < 164 to the right, improve=21.99027, (0 missing)  
## 218 < 139 to the right, improve=21.17130, (0 missing)  
## Surrogate splits:  
## 351 < 250 to the right, agree=0.985, adj=0.324, (0 split)  
## 296 < 141.5 to the right, agree=0.984, adj=0.294, (0 split)  
## 295 < 250.5 to the right, agree=0.983, adj=0.235, (0 split)  
## 324 < 166 to the right, agree=0.982, adj=0.206, (0 split)  
## 201 < 212 to the right, agree=0.979, adj=0.059, (0 split)  
##   
## Node number 239: 163 observations, complexity param=0.000870769  
## predicted class=5 expected loss=0.5398773 P(node) =0.006466971  
## class counts: 0 0 2 4 1 75 37 1 39 4  
## probabilities: 0.000 0.000 0.012 0.025 0.006 0.460 0.227 0.006 0.239 0.025   
## left son=478 (67 obs) right son=479 (96 obs)  
## Primary splits:  
## 515 < 12.5 to the left, improve=23.29689, (0 missing)  
## 355 < 30.5 to the left, improve=23.03449, (0 missing)  
## 488 < 23.5 to the left, improve=22.22119, (0 missing)  
## 487 < 5 to the left, improve=21.91009, (0 missing)  
## 328 < 10 to the left, improve=21.24660, (0 missing)  
## Surrogate splits:  
## 487 < 5 to the left, agree=0.883, adj=0.716, (0 split)  
## 514 < 65.5 to the left, agree=0.883, adj=0.716, (0 split)  
## 516 < 1.5 to the left, agree=0.871, adj=0.687, (0 split)  
## 488 < 0.5 to the left, agree=0.865, adj=0.672, (0 split)  
## 486 < 41.5 to the left, agree=0.810, adj=0.537, (0 split)  
##   
## Node number 240: 109 observations, complexity param=0.0005805126  
## predicted class=2 expected loss=0.2293578 P(node) =0.004324539  
## class counts: 0 0 84 17 0 2 0 0 6 0  
## probabilities: 0.000 0.000 0.771 0.156 0.000 0.018 0.000 0.000 0.055 0.000   
## left son=480 (87 obs) right son=481 (22 obs)  
## Primary splits:  
## 379 < 151.5 to the left, improve=21.18397, (0 missing)  
## 456 < 3 to the right, improve=17.86108, (0 missing)  
## 484 < 2 to the right, improve=15.49374, (0 missing)  
## 483 < 1.5 to the right, improve=14.94328, (0 missing)  
## 351 < 1 to the left, improve=14.40911, (0 missing)  
## Surrogate splits:  
## 351 < 1 to the left, agree=0.954, adj=0.773, (0 split)  
## 378 < 162.5 to the left, agree=0.945, adj=0.727, (0 split)  
## 380 < 155 to the left, agree=0.917, adj=0.591, (0 split)  
## 352 < 66 to the left, agree=0.908, adj=0.545, (0 split)  
## 377 < 162.5 to the left, agree=0.908, adj=0.545, (0 split)  
##   
## Node number 241: 112 observations, complexity param=0.0006251675  
## predicted class=5 expected loss=0.2946429 P(node) =0.004443563  
## class counts: 0 0 4 7 4 79 2 0 16 0  
## probabilities: 0.000 0.000 0.036 0.062 0.036 0.705 0.018 0.000 0.143 0.000   
## left son=482 (87 obs) right son=483 (25 obs)  
## Primary splits:  
## 355 < 10 to the left, improve=21.55950, (0 missing)  
## 381 < 6 to the left, improve=21.24793, (0 missing)  
## 382 < 4.5 to the left, improve=20.59950, (0 missing)  
## 354 < 7 to the left, improve=19.31057, (0 missing)  
## 356 < 14.5 to the left, improve=17.67997, (0 missing)  
## Surrogate splits:  
## 354 < 63 to the left, agree=0.973, adj=0.88, (0 split)  
## 381 < 74 to the left, agree=0.964, adj=0.84, (0 split)  
## 382 < 4.5 to the left, agree=0.964, adj=0.84, (0 split)  
## 383 < 6 to the left, agree=0.955, adj=0.80, (0 split)  
## 353 < 14 to the left, agree=0.929, adj=0.68, (0 split)  
##   
## Node number 242: 1469 observations, complexity param=0.001629901  
## predicted class=4 expected loss=0.1266167 P(node) =0.05828209  
## class counts: 0 6 16 16 1283 21 66 10 31 20  
## probabilities: 0.000 0.004 0.011 0.011 0.873 0.014 0.045 0.007 0.021 0.014   
## left son=484 (1415 obs) right son=485 (54 obs)  
## Primary splits:  
## 98 < 3 to the left, improve=86.42458, (0 missing)  
## 97 < 1 to the left, improve=73.90600, (0 missing)  
## 155 < 99.5 to the left, improve=72.01172, (0 missing)  
## 126 < 2 to the left, improve=70.29448, (0 missing)  
## 154 < 64.5 to the left, improve=67.46091, (0 missing)  
## Surrogate splits:  
## 99 < 24 to the left, agree=0.990, adj=0.722, (0 split)  
## 97 < 1 to the left, agree=0.988, adj=0.685, (0 split)  
## 70 < 2 to the left, agree=0.982, adj=0.500, (0 split)  
## 126 < 215 to the left, agree=0.980, adj=0.463, (0 split)  
## 71 < 7 to the left, agree=0.980, adj=0.444, (0 split)  
##   
## Node number 243: 140 observations, complexity param=0.0009377512  
## predicted class=9 expected loss=0.6642857 P(node) =0.005554453  
## class counts: 0 0 7 4 24 21 0 34 3 47  
## probabilities: 0.000 0.000 0.050 0.029 0.171 0.150 0.000 0.243 0.021 0.336   
## left son=486 (93 obs) right son=487 (47 obs)  
## Primary splits:  
## 401 < 2.5 to the right, improve=15.36521, (0 missing)  
## 373 < 12 to the left, improve=15.21905, (0 missing)  
## 372 < 3 to the left, improve=14.71924, (0 missing)  
## 428 < 2 to the left, improve=13.38245, (0 missing)  
## 429 < 5 to the left, improve=13.28977, (0 missing)  
## Surrogate splits:  
## 402 < 3 to the right, agree=0.907, adj=0.723, (0 split)  
## 373 < 1 to the right, agree=0.886, adj=0.660, (0 split)  
## 374 < 1.5 to the right, agree=0.857, adj=0.574, (0 split)  
## 429 < 91.5 to the right, agree=0.857, adj=0.574, (0 split)  
## 430 < 94 to the right, agree=0.857, adj=0.574, (0 split)  
##   
## Node number 244: 581 observations, complexity param=0.0009377512  
## predicted class=5 expected loss=0.2340792 P(node) =0.02305098  
## class counts: 3 0 14 37 6 445 26 1 9 40  
## probabilities: 0.005 0.000 0.024 0.064 0.010 0.766 0.045 0.002 0.015 0.069   
## left son=488 (521 obs) right son=489 (60 obs)  
## Primary splits:  
## 384 < 17.5 to the left, improve=45.16512, (0 missing)  
## 356 < 2 to the left, improve=44.03084, (0 missing)  
## 385 < 1.5 to the left, improve=42.43825, (0 missing)  
## 357 < 4.5 to the left, improve=41.53327, (0 missing)  
## 383 < 49.5 to the left, improve=37.52325, (0 missing)  
## Surrogate splits:  
## 385 < 1.5 to the left, agree=0.981, adj=0.817, (0 split)  
## 383 < 49.5 to the left, agree=0.979, adj=0.800, (0 split)  
## 412 < 78 to the left, agree=0.978, adj=0.783, (0 split)  
## 356 < 2 to the left, agree=0.976, adj=0.767, (0 split)  
## 357 < 4.5 to the left, agree=0.974, adj=0.750, (0 split)  
##   
## Node number 245: 227 observations, complexity param=0.00129499  
## predicted class=4 expected loss=0.6123348 P(node) =0.00900615  
## class counts: 0 2 5 18 88 0 2 32 28 52  
## probabilities: 0.000 0.009 0.022 0.079 0.388 0.000 0.009 0.141 0.123 0.229   
## left son=490 (79 obs) right son=491 (148 obs)  
## Primary splits:  
## 209 < 16.5 to the left, improve=34.57810, (0 missing)  
## 208 < 14.5 to the left, improve=33.34277, (0 missing)  
## 210 < 95 to the left, improve=22.91833, (0 missing)  
## 156 < 1 to the right, improve=20.89619, (0 missing)  
## 373 < 40 to the right, improve=18.83432, (0 missing)  
## Surrogate splits:  
## 210 < 82.5 to the left, agree=0.912, adj=0.747, (0 split)  
## 208 < 1 to the left, agree=0.881, adj=0.658, (0 split)  
## 181 < 5 to the left, agree=0.819, adj=0.481, (0 split)  
## 182 < 1 to the left, agree=0.802, adj=0.430, (0 split)  
## 237 < 18 to the left, agree=0.780, adj=0.367, (0 split)  
##   
## Node number 246: 406 observations, complexity param=0.002835581  
## predicted class=4 expected loss=0.7487685 P(node) =0.01610792  
## class counts: 3 0 53 98 102 12 4 1 77 56  
## probabilities: 0.007 0.000 0.131 0.241 0.251 0.030 0.010 0.002 0.190 0.138   
## left son=492 (178 obs) right son=493 (228 obs)  
## Primary splits:  
## 624 < 1 to the right, improve=41.06848, (0 missing)  
## 400 < 6.5 to the left, improve=41.06288, (0 missing)  
## 372 < 2.5 to the left, improve=40.49366, (0 missing)  
## 345 < 1 to the left, improve=40.21070, (0 missing)  
## 373 < 65 to the left, improve=40.00554, (0 missing)  
## Surrogate splits:  
## 625 < 90.5 to the right, agree=0.941, adj=0.865, (0 split)  
## 623 < 1 to the right, agree=0.936, adj=0.854, (0 split)  
## 595 < 0.5 to the right, agree=0.904, adj=0.781, (0 split)  
## 596 < 3.5 to the right, agree=0.904, adj=0.781, (0 split)  
## 652 < 0.5 to the right, agree=0.887, adj=0.742, (0 split)  
##   
## Node number 247: 1445 observations, complexity param=0.0006698223  
## predicted class=9 expected loss=0.1944637 P(node) =0.05732989  
## class counts: 1 0 18 62 92 7 0 54 47 1164  
## probabilities: 0.001 0.000 0.012 0.043 0.064 0.005 0.000 0.037 0.033 0.806   
## left son=494 (293 obs) right son=495 (1152 obs)  
## Primary splits:  
## 317 < 1 to the left, improve=48.99596, (0 missing)  
## 290 < 3.5 to the left, improve=45.68732, (0 missing)  
## 345 < 0.5 to the left, improve=44.17524, (0 missing)  
## 289 < 8.5 to the left, improve=39.02495, (0 missing)  
## 373 < 0.5 to the left, improve=36.31497, (0 missing)  
## Surrogate splits:  
## 290 < 13.5 to the left, agree=0.905, adj=0.532, (0 split)  
## 345 < 0.5 to the left, agree=0.901, adj=0.512, (0 split)  
## 289 < 0.5 to the left, agree=0.878, adj=0.399, (0 split)  
## 344 < 0.5 to the left, agree=0.854, adj=0.280, (0 split)  
## 263 < 0.5 to the left, agree=0.846, adj=0.239, (0 split)  
##   
## Node number 248: 175 observations, complexity param=0.0008930964  
## predicted class=5 expected loss=0.3428571 P(node) =0.006943067  
## class counts: 1 7 4 40 3 115 2 0 1 2  
## probabilities: 0.006 0.040 0.023 0.229 0.017 0.657 0.011 0.000 0.006 0.011   
## left son=496 (40 obs) right son=497 (135 obs)  
## Primary splits:  
## 323 < 1.5 to the right, improve=24.11683, (0 missing)  
## 322 < 52 to the right, improve=23.30486, (0 missing)  
## 150 < 65 to the right, improve=17.90386, (0 missing)  
## 295 < 126 to the right, improve=17.71134, (0 missing)  
## 321 < 210 to the right, improve=16.90571, (0 missing)  
## Surrogate splits:  
## 295 < 140 to the right, agree=0.914, adj=0.625, (0 split)  
## 322 < 76 to the right, agree=0.897, adj=0.550, (0 split)  
## 324 < 2.5 to the right, agree=0.897, adj=0.550, (0 split)  
## 296 < 97 to the right, agree=0.880, adj=0.475, (0 split)  
## 294 < 252.5 to the right, agree=0.851, adj=0.350, (0 split)  
##   
## Node number 249: 138 observations, complexity param=0.00111637  
## predicted class=9 expected loss=0.6594203 P(node) =0.005475104  
## class counts: 0 5 4 17 27 1 0 8 29 47  
## probabilities: 0.000 0.036 0.029 0.123 0.196 0.007 0.000 0.058 0.210 0.341   
## left son=498 (46 obs) right son=499 (92 obs)  
## Primary splits:  
## 434 < 208.5 to the right, improve=19.10145, (0 missing)  
## 433 < 12 to the right, improve=17.09489, (0 missing)  
## 154 < 1.5 to the right, improve=14.04231, (0 missing)  
## 376 < 47.5 to the left, improve=13.70145, (0 missing)  
## 375 < 129.5 to the left, improve=13.29010, (0 missing)  
## Surrogate splits:  
## 461 < 63 to the right, agree=0.899, adj=0.696, (0 split)  
## 433 < 17 to the right, agree=0.891, adj=0.674, (0 split)  
## 489 < 183.5 to the right, agree=0.862, adj=0.587, (0 split)  
## 462 < 193.5 to the right, agree=0.848, adj=0.543, (0 split)  
## 488 < 8.5 to the right, agree=0.833, adj=0.500, (0 split)  
##   
## Node number 250: 93 observations, complexity param=0.0009377512  
## predicted class=1 expected loss=0.5591398 P(node) =0.003689744  
## class counts: 4 41 24 5 0 2 12 5 0 0  
## probabilities: 0.043 0.441 0.258 0.054 0.000 0.022 0.129 0.054 0.000 0.000   
## left son=500 (54 obs) right son=501 (39 obs)  
## Primary splits:  
## 179 < 7 to the left, improve=18.75774, (0 missing)  
## 351 < 244 to the right, improve=18.16590, (0 missing)  
## 378 < 71.5 to the right, improve=18.01097, (0 missing)  
## 323 < 173 to the right, improve=17.50988, (0 missing)  
## 178 < 29 to the left, improve=17.14835, (0 missing)  
## Surrogate splits:  
## 180 < 49 to the left, agree=0.968, adj=0.923, (0 split)  
## 153 < 53 to the left, agree=0.946, adj=0.872, (0 split)  
## 178 < 4 to the left, agree=0.946, adj=0.872, (0 split)  
## 152 < 19 to the left, agree=0.925, adj=0.821, (0 split)  
## 206 < 1 to the left, agree=0.925, adj=0.821, (0 split)  
##   
## Node number 251: 1360 observations, complexity param=0.0004018934  
## predicted class=7 expected loss=0.04705882 P(node) =0.05395755  
## class counts: 2 12 21 6 4 0 7 1296 1 11  
## probabilities: 0.001 0.009 0.015 0.004 0.003 0.000 0.005 0.953 0.001 0.008   
## left son=502 (23 obs) right son=503 (1337 obs)  
## Primary splits:  
## 153 < 57 to the right, improve=25.10725, (0 missing)  
## 154 < 7 to the right, improve=20.15141, (0 missing)  
## 152 < 18 to the right, improve=19.96451, (0 missing)  
## 151 < 5.5 to the right, improve=17.55849, (0 missing)  
## 150 < 219 to the right, improve=17.38734, (0 missing)  
## Surrogate splits:  
## 154 < 3 to the right, agree=0.996, adj=0.783, (0 split)  
## 152 < 98.5 to the right, agree=0.996, adj=0.739, (0 split)  
## 124 < 6.5 to the right, agree=0.991, adj=0.478, (0 split)  
## 125 < 1.5 to the right, agree=0.991, adj=0.478, (0 split)  
## 151 < 87 to the right, agree=0.991, adj=0.478, (0 split)  
##   
## Node number 252: 132 observations, complexity param=0.0001562919  
## predicted class=4 expected loss=0.1969697 P(node) =0.005237056  
## class counts: 1 1 8 0 106 1 6 1 1 7  
## probabilities: 0.008 0.008 0.061 0.000 0.803 0.008 0.045 0.008 0.008 0.053   
## left son=504 (29 obs) right son=505 (103 obs)  
## Primary splits:  
## 429 < 8 to the left, improve=8.663578, (0 missing)  
## 597 < 35.5 to the right, improve=8.599218, (0 missing)  
## 97 < 4.5 to the left, improve=7.835550, (0 missing)  
## 125 < 155 to the right, improve=7.614560, (0 missing)  
## 267 < 132 to the left, improve=7.563361, (0 missing)  
## Surrogate splits:  
## 457 < 95.5 to the left, agree=0.886, adj=0.483, (0 split)  
## 401 < 11.5 to the left, agree=0.879, adj=0.448, (0 split)  
## 373 < 1.5 to the left, agree=0.864, adj=0.379, (0 split)  
## 353 < 1 to the left, agree=0.841, adj=0.276, (0 split)  
## 538 < 19 to the right, agree=0.841, adj=0.276, (0 split)  
##   
## Node number 253: 12 observations  
## predicted class=6 expected loss=0.25 P(node) =0.000476096  
## class counts: 0 0 3 0 0 0 9 0 0 0  
## probabilities: 0.000 0.000 0.250 0.000 0.000 0.000 0.750 0.000 0.000 0.000   
##   
## Node number 254: 50 observations, complexity param=0.0003125837  
## predicted class=7 expected loss=0.68 P(node) =0.001983733  
## class counts: 0 0 4 0 12 0 0 16 3 15  
## probabilities: 0.000 0.000 0.080 0.000 0.240 0.000 0.000 0.320 0.060 0.300   
## left son=508 (24 obs) right son=509 (26 obs)  
## Primary splits:  
## 429 < 48.5 to the left, improve=9.358974, (0 missing)  
## 457 < 169.5 to the left, improve=9.358974, (0 missing)  
## 205 < 45 to the left, improve=9.039216, (0 missing)  
## 428 < 42 to the left, improve=8.314103, (0 missing)  
## 232 < 76.5 to the left, improve=7.873016, (0 missing)  
## Surrogate splits:  
## 457 < 169.5 to the left, agree=0.96, adj=0.917, (0 split)  
## 401 < 31 to the left, agree=0.92, adj=0.833, (0 split)  
## 428 < 42 to the left, agree=0.92, adj=0.833, (0 split)  
## 400 < 3.5 to the left, agree=0.88, adj=0.750, (0 split)  
## 456 < 15.5 to the left, agree=0.88, adj=0.750, (0 split)  
##   
## Node number 255: 168 observations, complexity param=0.0002902563  
## predicted class=9 expected loss=0.1785714 P(node) =0.006665344  
## class counts: 0 0 4 1 17 0 1 6 1 138  
## probabilities: 0.000 0.000 0.024 0.006 0.101 0.000 0.006 0.036 0.006 0.821   
## left son=510 (25 obs) right son=511 (143 obs)  
## Primary splits:  
## 235 < 0.5 to the left, improve=12.447550, (0 missing)  
## 320 < 91.5 to the right, improve=11.288570, (0 missing)  
## 326 < 2 to the left, improve=10.129240, (0 missing)  
## 354 < 3 to the left, improve= 9.811462, (0 missing)  
## 293 < 72 to the right, improve= 9.306647, (0 missing)  
## Surrogate splits:  
## 320 < 81.5 to the right, agree=0.911, adj=0.40, (0 split)  
## 208 < 1.5 to the left, agree=0.905, adj=0.36, (0 split)  
## 292 < 181 to the right, agree=0.905, adj=0.36, (0 split)  
## 293 < 72 to the right, agree=0.905, adj=0.36, (0 split)  
## 347 < 192 to the right, agree=0.899, adj=0.32, (0 split)  
##   
## Node number 256: 2260 observations, complexity param=0.0001339645  
## predicted class=1 expected loss=0.02256637 P(node) =0.08966475  
## class counts: 0 2209 4 6 2 5 5 8 19 2  
## probabilities: 0.000 0.977 0.002 0.003 0.001 0.002 0.002 0.004 0.008 0.001   
## left son=512 (2249 obs) right son=513 (11 obs)  
## Primary splits:  
## 406 < 48 to the right, improve=10.840210, (0 missing)  
## 410 < 32 to the left, improve= 9.961333, (0 missing)  
## 437 < 198 to the left, improve= 9.149731, (0 missing)  
## 466 < 3 to the left, improve= 8.726610, (0 missing)  
## 411 < 28.5 to the left, improve= 8.723056, (0 missing)  
## Surrogate splits:  
## 434 < 6.5 to the right, agree=0.998, adj=0.545, (0 split)  
## 378 < 126.5 to the right, agree=0.996, adj=0.273, (0 split)  
## 345 < 136.5 to the left, agree=0.996, adj=0.182, (0 split)  
## 372 < 73 to the left, agree=0.996, adj=0.182, (0 split)  
## 387 < 7.5 to the left, agree=0.996, adj=0.182, (0 split)  
##   
## Node number 257: 31 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.7419355 P(node) =0.001229915  
## class counts: 0 5 8 0 5 5 3 0 5 0  
## probabilities: 0.000 0.161 0.258 0.000 0.161 0.161 0.097 0.000 0.161 0.000   
## left son=514 (19 obs) right son=515 (12 obs)  
## Primary splits:  
## 623 < 14.5 to the left, improve=4.489530, (0 missing)  
## 457 < 152.5 to the right, improve=4.227688, (0 missing)  
## 652 < 12.5 to the left, improve=4.095545, (0 missing)  
## 432 < 115 to the right, improve=4.062212, (0 missing)  
## 322 < 159 to the left, improve=4.038402, (0 missing)  
## Surrogate splits:  
## 595 < 136.5 to the left, agree=0.935, adj=0.833, (0 split)  
## 624 < 168.5 to the left, agree=0.935, adj=0.833, (0 split)  
## 652 < 12.5 to the left, agree=0.935, adj=0.833, (0 split)  
## 622 < 5.5 to the left, agree=0.903, adj=0.750, (0 split)  
## 651 < 0.5 to the left, agree=0.903, adj=0.750, (0 split)  
##   
## Node number 260: 55 observations  
## predicted class=1 expected loss=0.07272727 P(node) =0.002182107  
## class counts: 0 51 1 1 0 1 0 0 1 0  
## probabilities: 0.000 0.927 0.018 0.018 0.000 0.018 0.000 0.000 0.018 0.000   
##   
## Node number 261: 17 observations  
## predicted class=5 expected loss=0.2941176 P(node) =0.0006744694  
## class counts: 0 0 0 1 1 12 0 0 3 0  
## probabilities: 0.000 0.000 0.000 0.059 0.059 0.706 0.000 0.000 0.176 0.000   
##   
## Node number 264: 83 observations  
## predicted class=2 expected loss=0.03614458 P(node) =0.003292997  
## class counts: 0 2 80 0 0 0 0 0 1 0  
## probabilities: 0.000 0.024 0.964 0.000 0.000 0.000 0.000 0.000 0.012 0.000   
##   
## Node number 265: 8 observations  
## predicted class=3 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 2 5 0 0 0 0 1 0  
## probabilities: 0.000 0.000 0.250 0.625 0.000 0.000 0.000 0.000 0.125 0.000   
##   
## Node number 268: 13 observations  
## predicted class=2 expected loss=0.3846154 P(node) =0.0005157707  
## class counts: 1 0 8 0 3 0 0 1 0 0  
## probabilities: 0.077 0.000 0.615 0.000 0.231 0.000 0.000 0.077 0.000 0.000   
##   
## Node number 269: 11 observations  
## predicted class=6 expected loss=0.5454545 P(node) =0.0004364213  
## class counts: 0 1 0 3 0 0 5 0 2 0  
## probabilities: 0.000 0.091 0.000 0.273 0.000 0.000 0.455 0.000 0.182 0.000   
##   
## Node number 272: 93 observations, complexity param=0.0005805126  
## predicted class=6 expected loss=0.4623656 P(node) =0.003689744  
## class counts: 7 13 9 6 3 3 50 1 0 1  
## probabilities: 0.075 0.140 0.097 0.065 0.032 0.032 0.538 0.011 0.000 0.011   
## left son=544 (25 obs) right son=545 (68 obs)  
## Primary splits:  
## 486 < 67.5 to the left, improve=15.77872, (0 missing)  
## 514 < 7 to the left, improve=13.63803, (0 missing)  
## 458 < 48.5 to the left, improve=12.53402, (0 missing)  
## 487 < 30 to the left, improve=12.32299, (0 missing)  
## 459 < 119.5 to the left, improve=11.10767, (0 missing)  
## Surrogate splits:  
## 487 < 30 to the left, agree=0.946, adj=0.80, (0 split)  
## 514 < 7 to the left, agree=0.946, adj=0.80, (0 split)  
## 458 < 14.5 to the left, agree=0.914, adj=0.68, (0 split)  
## 485 < 2.5 to the left, agree=0.903, adj=0.64, (0 split)  
## 515 < 24.5 to the left, agree=0.882, adj=0.56, (0 split)  
##   
## Node number 273: 159 observations, complexity param=0.0007591319  
## predicted class=4 expected loss=0.7672956 P(node) =0.006308272  
## class counts: 5 20 22 8 37 21 4 7 6 29  
## probabilities: 0.031 0.126 0.138 0.050 0.233 0.132 0.025 0.044 0.038 0.182   
## left son=546 (67 obs) right son=547 (92 obs)  
## Primary splits:  
## 539 < 2 to the right, improve=14.46493, (0 missing)  
## 540 < 48 to the right, improve=14.31537, (0 missing)  
## 567 < 10.5 to the right, improve=12.80517, (0 missing)  
## 681 < 73 to the left, improve=12.69986, (0 missing)  
## 538 < 0.5 to the right, improve=12.23804, (0 missing)  
## Surrogate splits:  
## 540 < 2.5 to the right, agree=0.962, adj=0.910, (0 split)  
## 512 < 37.5 to the right, agree=0.931, adj=0.836, (0 split)  
## 511 < 59.5 to the right, agree=0.906, adj=0.776, (0 split)  
## 541 < 57.5 to the right, agree=0.906, adj=0.776, (0 split)  
## 567 < 2.5 to the right, agree=0.906, adj=0.776, (0 split)  
##   
## Node number 276: 95 observations, complexity param=0.0002232741  
## predicted class=1 expected loss=0.2421053 P(node) =0.003769093  
## class counts: 1 72 1 1 0 3 1 4 8 4  
## probabilities: 0.011 0.758 0.011 0.011 0.000 0.032 0.011 0.042 0.084 0.042   
## left son=552 (77 obs) right son=553 (18 obs)  
## Primary splits:  
## 299 < 31 to the left, improve=12.03746, (0 missing)  
## 300 < 2 to the left, improve=11.65921, (0 missing)  
## 155 < 1.5 to the right, improve=11.20692, (0 missing)  
## 271 < 27.5 to the left, improve=11.11690, (0 missing)  
## 272 < 170 to the left, improve=10.82839, (0 missing)  
## Surrogate splits:  
## 271 < 43 to the left, agree=0.979, adj=0.889, (0 split)  
## 298 < 219 to the left, agree=0.968, adj=0.833, (0 split)  
## 300 < 2 to the left, agree=0.968, adj=0.833, (0 split)  
## 327 < 19 to the left, agree=0.968, adj=0.833, (0 split)  
## 272 < 60 to the left, agree=0.958, adj=0.778, (0 split)  
##   
## Node number 277: 39 observations, complexity param=0.0003125837  
## predicted class=4 expected loss=0.7435897 P(node) =0.001547312  
## class counts: 2 1 0 3 10 6 3 0 8 6  
## probabilities: 0.051 0.026 0.000 0.077 0.256 0.154 0.077 0.000 0.205 0.154   
## left son=554 (11 obs) right son=555 (28 obs)  
## Primary splits:  
## 627 < 5.5 to the left, improve=6.047286, (0 missing)  
## 628 < 87.5 to the left, improve=5.647863, (0 missing)  
## 655 < 10.5 to the left, improve=5.136752, (0 missing)  
## 625 < 40.5 to the right, improve=5.043185, (0 missing)  
## 653 < 106.5 to the left, improve=4.815496, (0 missing)  
## Surrogate splits:  
## 655 < 10.5 to the left, agree=0.974, adj=0.909, (0 split)  
## 628 < 87.5 to the left, agree=0.949, adj=0.818, (0 split)  
## 626 < 13 to the left, agree=0.923, adj=0.727, (0 split)  
## 598 < 5.5 to the left, agree=0.897, adj=0.636, (0 split)  
## 600 < 77.5 to the left, agree=0.897, adj=0.636, (0 split)  
##   
## Node number 278: 124 observations, complexity param=0.0002902563  
## predicted class=8 expected loss=0.2822581 P(node) =0.004919659  
## class counts: 1 3 1 15 9 3 0 1 89 2  
## probabilities: 0.008 0.024 0.008 0.121 0.073 0.024 0.000 0.008 0.718 0.016   
## left son=556 (37 obs) right son=557 (87 obs)  
## Primary splits:  
## 265 < 15.5 to the left, improve=11.27827, (0 missing)  
## 373 < 6 to the right, improve=11.17824, (0 missing)  
## 401 < 123 to the right, improve=10.98102, (0 missing)  
## 378 < 196 to the left, improve=10.40339, (0 missing)  
## 292 < 98.5 to the left, improve=10.24454, (0 missing)  
## Surrogate splits:  
## 237 < 49 to the left, agree=0.935, adj=0.784, (0 split)  
## 264 < 25 to the left, agree=0.935, adj=0.784, (0 split)  
## 292 < 126.5 to the left, agree=0.919, adj=0.730, (0 split)  
## 238 < 4 to the left, agree=0.895, adj=0.649, (0 split)  
## 236 < 40.5 to the left, agree=0.887, adj=0.622, (0 split)  
##   
## Node number 279: 20 observations  
## predicted class=9 expected loss=0.1 P(node) =0.0007934934  
## class counts: 0 0 0 0 0 0 0 2 0 18  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.100 0.000 0.900   
##   
## Node number 290: 9 observations  
## predicted class=6 expected loss=0.4444444 P(node) =0.000357072  
## class counts: 0 0 3 1 0 0 5 0 0 0  
## probabilities: 0.000 0.000 0.333 0.111 0.000 0.000 0.556 0.000 0.000 0.000   
##   
## Node number 291: 11 observations  
## predicted class=8 expected loss=0.09090909 P(node) =0.0004364213  
## class counts: 0 0 0 0 0 0 0 0 10 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.909 0.091   
##   
## Node number 292: 21 observations  
## predicted class=1 expected loss=0.1904762 P(node) =0.000833168  
## class counts: 0 17 2 0 0 0 0 0 1 1  
## probabilities: 0.000 0.810 0.095 0.000 0.000 0.000 0.000 0.000 0.048 0.048   
##   
## Node number 293: 36 observations, complexity param=0.0004018934  
## predicted class=2 expected loss=0.6388889 P(node) =0.001428288  
## class counts: 0 0 13 10 0 0 3 2 7 1  
## probabilities: 0.000 0.000 0.361 0.278 0.000 0.000 0.083 0.056 0.194 0.028   
## left son=586 (24 obs) right son=587 (12 obs)  
## Primary splits:  
## 516 < 7 to the right, improve=6.777778, (0 missing)  
## 517 < 88 to the right, improve=6.777778, (0 missing)  
## 515 < 1.5 to the right, improve=6.383129, (0 missing)  
## 488 < 234 to the right, improve=6.377778, (0 missing)  
## 544 < 8 to the left, improve=5.863492, (0 missing)  
## Surrogate splits:  
## 517 < 88 to the right, agree=1.000, adj=1.00, (0 split)  
## 488 < 234 to the right, agree=0.917, adj=0.75, (0 split)  
## 489 < 152.5 to the right, agree=0.917, adj=0.75, (0 split)  
## 515 < 1.5 to the right, agree=0.917, adj=0.75, (0 split)  
## 544 < 8 to the right, agree=0.917, adj=0.75, (0 split)  
##   
## Node number 294: 17 observations  
## predicted class=7 expected loss=0.05882353 P(node) =0.0006744694  
## class counts: 0 0 0 1 0 0 0 16 0 0  
## probabilities: 0.000 0.000 0.000 0.059 0.000 0.000 0.000 0.941 0.000 0.000   
##   
## Node number 295: 12 observations  
## predicted class=9 expected loss=0.4166667 P(node) =0.000476096  
## class counts: 0 0 0 2 1 0 0 1 1 7  
## probabilities: 0.000 0.000 0.000 0.167 0.083 0.000 0.000 0.083 0.083 0.583   
##   
## Node number 296: 14 observations  
## predicted class=7 expected loss=0.7142857 P(node) =0.0005554453  
## class counts: 1 2 0 0 2 1 3 4 0 1  
## probabilities: 0.071 0.143 0.000 0.000 0.143 0.071 0.214 0.286 0.000 0.071   
##   
## Node number 297: 98 observations  
## predicted class=6 expected loss=0.02040816 P(node) =0.003888117  
## class counts: 0 0 0 0 1 1 96 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.010 0.010 0.980 0.000 0.000 0.000   
##   
## Node number 298: 12 observations  
## predicted class=6 expected loss=0.5 P(node) =0.000476096  
## class counts: 4 0 2 0 0 0 6 0 0 0  
## probabilities: 0.333 0.000 0.167 0.000 0.000 0.000 0.500 0.000 0.000 0.000   
##   
## Node number 299: 20 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.5 P(node) =0.0007934934  
## class counts: 0 0 1 0 0 3 0 1 10 5  
## probabilities: 0.000 0.000 0.050 0.000 0.000 0.150 0.000 0.050 0.500 0.250   
## left son=598 (9 obs) right son=599 (11 obs)  
## Primary splits:  
## 432 < 47.5 to the left, improve=5.381818, (0 missing)  
## 433 < 173.5 to the left, improve=5.381818, (0 missing)  
## 434 < 181.5 to the left, improve=5.381818, (0 missing)  
## 409 < 183 to the left, improve=5.000000, (0 missing)  
## 410 < 50.5 to the left, improve=5.000000, (0 missing)  
## Surrogate splits:  
## 433 < 173.5 to the left, agree=1.00, adj=1.000, (0 split)  
## 434 < 181.5 to the left, agree=1.00, adj=1.000, (0 split)  
## 406 < 216 to the left, agree=0.95, adj=0.889, (0 split)  
## 461 < 48 to the left, agree=0.95, adj=0.889, (0 split)  
## 431 < 37.5 to the left, agree=0.90, adj=0.778, (0 split)  
##   
## Node number 304: 7 observations  
## predicted class=2 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 6 1 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.857 0.143 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 305: 52 observations  
## predicted class=3 expected loss=0.07692308 P(node) =0.002063083  
## class counts: 0 0 1 48 0 0 0 2 1 0  
## probabilities: 0.000 0.000 0.019 0.923 0.000 0.000 0.000 0.038 0.019 0.000   
##   
## Node number 306: 47 observations, complexity param=0.0004465482  
## predicted class=2 expected loss=0.4893617 P(node) =0.001864709  
## class counts: 0 4 24 8 0 0 0 0 11 0  
## probabilities: 0.000 0.085 0.511 0.170 0.000 0.000 0.000 0.000 0.234 0.000   
## left son=612 (34 obs) right son=613 (13 obs)  
## Primary splits:  
## 321 < 195 to the left, improve=10.735050, (0 missing)  
## 293 < 55.5 to the left, improve= 9.355531, (0 missing)  
## 292 < 19.5 to the left, improve= 8.993085, (0 missing)  
## 600 < 133 to the right, improve= 8.151418, (0 missing)  
## 320 < 30 to the left, improve= 8.006097, (0 missing)  
## Surrogate splits:  
## 293 < 55.5 to the left, agree=0.979, adj=0.923, (0 split)  
## 292 < 19.5 to the left, agree=0.957, adj=0.846, (0 split)  
## 264 < 80.5 to the left, agree=0.936, adj=0.769, (0 split)  
## 320 < 9.5 to the left, agree=0.936, adj=0.769, (0 split)  
## 265 < 57.5 to the left, agree=0.915, adj=0.692, (0 split)  
##   
## Node number 307: 56 observations, complexity param=0.0001786193  
## predicted class=7 expected loss=0.25 P(node) =0.002221781  
## class counts: 0 5 2 5 0 0 0 42 1 1  
## probabilities: 0.000 0.089 0.036 0.089 0.000 0.000 0.000 0.750 0.018 0.018   
## left son=614 (7 obs) right son=615 (49 obs)  
## Primary splits:  
## 546 < 15 to the left, improve=6.275510, (0 missing)  
## 578 < 59 to the right, improve=5.541667, (0 missing)  
## 634 < 94 to the right, improve=4.397959, (0 missing)  
## 606 < 105.5 to the right, improve=4.275510, (0 missing)  
## 518 < 116 to the left, improve=4.208333, (0 missing)  
## Surrogate splits:  
## 518 < 116 to the left, agree=0.946, adj=0.571, (0 split)  
## 573 < 16 to the left, agree=0.929, adj=0.429, (0 split)  
## 574 < 90 to the left, agree=0.929, adj=0.429, (0 split)  
## 315 < 196 to the right, agree=0.911, adj=0.286, (0 split)  
## 316 < 178.5 to the right, agree=0.911, adj=0.286, (0 split)  
##   
## Node number 310: 7 observations  
## predicted class=6 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 1 0 0 1 0 0 3 0 2 0  
## probabilities: 0.143 0.000 0.000 0.143 0.000 0.000 0.429 0.000 0.286 0.000   
##   
## Node number 311: 35 observations  
## predicted class=8 expected loss=0.05714286 P(node) =0.001388613  
## class counts: 0 0 1 0 0 1 0 0 33 0  
## probabilities: 0.000 0.000 0.029 0.000 0.000 0.029 0.000 0.000 0.943 0.000   
##   
## Node number 312: 35 observations, complexity param=0.0002976988  
## predicted class=1 expected loss=0.6285714 P(node) =0.001388613  
## class counts: 0 13 0 3 0 1 0 8 9 1  
## probabilities: 0.000 0.371 0.000 0.086 0.000 0.029 0.000 0.229 0.257 0.029   
## left son=624 (26 obs) right son=625 (9 obs)  
## Primary splits:  
## 180 < 118.5 to the right, improve=7.936508, (0 missing)  
## 269 < 25.5 to the left, improve=7.431391, (0 missing)  
## 268 < 26 to the left, improve=7.098344, (0 missing)  
## 377 < 134.5 to the right, improve=7.071429, (0 missing)  
## 233 < 126 to the left, improve=6.786181, (0 missing)  
## Surrogate splits:  
## 179 < 7 to the right, agree=0.943, adj=0.778, (0 split)  
## 181 < 43 to the right, agree=0.943, adj=0.778, (0 split)  
## 377 < 134.5 to the right, agree=0.943, adj=0.778, (0 split)  
## 349 < 138.5 to the right, agree=0.914, adj=0.667, (0 split)  
## 352 < 251.5 to the left, agree=0.914, adj=0.667, (0 split)  
##   
## Node number 313: 45 observations, complexity param=0.0001339645  
## predicted class=8 expected loss=0.2888889 P(node) =0.00178536  
## class counts: 0 0 1 3 4 0 0 0 32 5  
## probabilities: 0.000 0.000 0.022 0.067 0.089 0.000 0.000 0.000 0.711 0.111   
## left son=626 (8 obs) right son=627 (37 obs)  
## Primary splits:  
## 461 < 62.5 to the left, improve=5.658408, (0 missing)  
## 433 < 129 to the left, improve=5.444444, (0 missing)  
## 180 < 61.5 to the left, improve=5.134153, (0 missing)  
## 207 < 191.5 to the left, improve=4.691111, (0 missing)  
## 488 < 15.5 to the left, improve=4.555556, (0 missing)  
## Surrogate splits:  
## 433 < 15.5 to the left, agree=0.956, adj=0.750, (0 split)  
## 209 < 4.5 to the left, agree=0.889, adj=0.375, (0 split)  
## 405 < 2.5 to the left, agree=0.889, adj=0.375, (0 split)  
## 406 < 230.5 to the left, agree=0.889, adj=0.375, (0 split)  
## 432 < 6 to the left, agree=0.889, adj=0.375, (0 split)  
##   
## Node number 314: 18 observations  
## predicted class=3 expected loss=0.4444444 P(node) =0.000714144  
## class counts: 0 0 0 10 0 1 0 3 3 1  
## probabilities: 0.000 0.000 0.000 0.556 0.000 0.056 0.000 0.167 0.167 0.056   
##   
## Node number 315: 26 observations, complexity param=4.465482e-05  
## predicted class=9 expected loss=0.2307692 P(node) =0.001031541  
## class counts: 1 0 0 0 3 0 0 1 1 20  
## probabilities: 0.038 0.000 0.000 0.000 0.115 0.000 0.000 0.038 0.038 0.769   
## left son=630 (7 obs) right son=631 (19 obs)  
## Primary splits:  
## 325 < 213.5 to the left, improve=3.401966, (0 missing)  
## 326 < 25.5 to the left, improve=3.401966, (0 missing)  
## 353 < 159.5 to the left, improve=3.401966, (0 missing)  
## 440 < 153.5 to the right, improve=3.401966, (0 missing)  
## 441 < 22.5 to the right, improve=3.401966, (0 missing)  
## Surrogate splits:  
## 157 < 68 to the right, agree=0.923, adj=0.714, (0 split)  
## 158 < 9 to the right, agree=0.923, adj=0.714, (0 split)  
## 326 < 25.5 to the left, agree=0.923, adj=0.714, (0 split)  
## 353 < 159.5 to the left, agree=0.923, adj=0.714, (0 split)  
## 156 < 47.5 to the right, agree=0.885, adj=0.571, (0 split)  
##   
## Node number 318: 7 observations  
## predicted class=7 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 0 0 0 1 2 1 0 3 0 0  
## probabilities: 0.000 0.000 0.000 0.143 0.286 0.143 0.000 0.429 0.000 0.000   
##   
## Node number 319: 348 observations, complexity param=8.930964e-05  
## predicted class=8 expected loss=0.06321839 P(node) =0.01380678  
## class counts: 1 1 1 3 8 1 2 2 326 3  
## probabilities: 0.003 0.003 0.003 0.009 0.023 0.003 0.006 0.006 0.937 0.009   
## left son=638 (36 obs) right son=639 (312 obs)  
## Primary splits:  
## 401 < 218.5 to the right, improve=5.680961, (0 missing)  
## 430 < 252.5 to the right, improve=4.851546, (0 missing)  
## 573 < 252.5 to the right, improve=4.635418, (0 missing)  
## 428 < 52 to the right, improve=4.473383, (0 missing)  
## 400 < 162.5 to the right, improve=4.259570, (0 missing)  
## Surrogate splits:  
## 400 < 15 to the right, agree=0.983, adj=0.833, (0 split)  
## 428 < 3 to the right, agree=0.966, adj=0.667, (0 split)  
## 372 < 145.5 to the right, agree=0.963, adj=0.639, (0 split)  
## 429 < 128 to the right, agree=0.957, adj=0.583, (0 split)  
## 399 < 8 to the right, agree=0.954, adj=0.556, (0 split)  
##   
## Node number 320: 39 observations, complexity param=4.465482e-05  
## predicted class=1 expected loss=0.1538462 P(node) =0.001547312  
## class counts: 0 33 3 0 0 1 0 2 0 0  
## probabilities: 0.000 0.846 0.077 0.000 0.000 0.026 0.000 0.051 0.000 0.000   
## left son=640 (32 obs) right son=641 (7 obs)  
## Primary splits:  
## 264 < 27.5 to the right, improve=4.20902, (0 missing)  
## 265 < 185.5 to the right, improve=4.20902, (0 missing)  
## 292 < 6 to the right, improve=4.20902, (0 missing)  
## 293 < 175 to the right, improve=4.20902, (0 missing)  
## 321 < 128.5 to the right, improve=4.20902, (0 missing)  
## Surrogate splits:  
## 265 < 185.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 292 < 6 to the right, agree=1.000, adj=1.000, (0 split)  
## 293 < 175 to the right, agree=1.000, adj=1.000, (0 split)  
## 321 < 128.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 236 < 39.5 to the right, agree=0.974, adj=0.857, (0 split)  
##   
## Node number 321: 25 observations, complexity param=4.465482e-05  
## predicted class=3 expected loss=0.2 P(node) =0.0009918667  
## class counts: 0 0 0 20 0 0 0 3 2 0  
## probabilities: 0.000 0.000 0.000 0.800 0.000 0.000 0.000 0.120 0.080 0.000   
## left son=642 (18 obs) right son=643 (7 obs)  
## Primary splits:  
## 628 < 164 to the right, improve=3.908571, (0 missing)  
## 625 < 17.5 to the right, improve=3.230000, (0 missing)  
## 653 < 10 to the right, improve=3.230000, (0 missing)  
## 654 < 115 to the right, improve=3.230000, (0 missing)  
## 156 < 139.5 to the right, improve=2.702222, (0 missing)  
## Surrogate splits:  
## 627 < 33.5 to the right, agree=0.96, adj=0.857, (0 split)  
## 214 < 8 to the right, agree=0.92, adj=0.714, (0 split)  
## 599 < 4 to the right, agree=0.92, adj=0.714, (0 split)  
## 625 < 49.5 to the right, agree=0.92, adj=0.714, (0 split)  
## 629 < 47.5 to the right, agree=0.92, adj=0.714, (0 split)  
##   
## Node number 322: 1393 observations, complexity param=0.0002456015  
## predicted class=3 expected loss=0.04020101 P(node) =0.05526681  
## class counts: 0 2 10 1337 0 23 0 0 16 5  
## probabilities: 0.000 0.001 0.007 0.960 0.000 0.017 0.000 0.000 0.011 0.004   
## left son=644 (1370 obs) right son=645 (23 obs)  
## Primary splits:  
## 317 < 206 to the left, improve=17.86201, (0 missing)  
## 289 < 174 to the left, improve=16.71907, (0 missing)  
## 487 < 140.5 to the left, improve=16.29442, (0 missing)  
## 488 < 58.5 to the left, improve=14.98376, (0 missing)  
## 316 < 156 to the left, improve=13.71488, (0 missing)  
## Surrogate splits:  
## 289 < 151.5 to the left, agree=0.992, adj=0.522, (0 split)  
## 316 < 132 to the left, agree=0.992, adj=0.522, (0 split)  
## 288 < 211 to the left, agree=0.986, adj=0.174, (0 split)  
## 290 < 40.5 to the left, agree=0.984, adj=0.043, (0 split)  
## 717 < 142 to the left, agree=0.984, adj=0.043, (0 split)  
##   
## Node number 323: 45 observations, complexity param=0.0002456015  
## predicted class=3 expected loss=0.6222222 P(node) =0.00178536  
## class counts: 0 6 0 17 0 15 0 2 5 0  
## probabilities: 0.000 0.133 0.000 0.378 0.000 0.333 0.000 0.044 0.111 0.000   
## left son=646 (16 obs) right son=647 (29 obs)  
## Primary splits:  
## 296 < 124.5 to the right, improve=7.904885, (0 missing)  
## 297 < 146 to the right, improve=7.849679, (0 missing)  
## 205 < 103 to the right, improve=7.737020, (0 missing)  
## 324 < 169.5 to the right, improve=7.651852, (0 missing)  
## 323 < 191.5 to the right, improve=7.538192, (0 missing)  
## Surrogate splits:  
## 297 < 25.5 to the right, agree=0.978, adj=0.937, (0 split)  
## 268 < 10.5 to the right, agree=0.956, adj=0.875, (0 split)  
## 324 < 169.5 to the right, agree=0.956, adj=0.875, (0 split)  
## 323 < 191.5 to the right, agree=0.933, adj=0.812, (0 split)  
## 269 < 58 to the right, agree=0.911, adj=0.750, (0 split)  
##   
## Node number 324: 62 observations  
## predicted class=5 expected loss=0.08064516 P(node) =0.002459829  
## class counts: 1 0 0 2 2 57 0 0 0 0  
## probabilities: 0.016 0.000 0.000 0.032 0.032 0.919 0.000 0.000 0.000 0.000   
##   
## Node number 325: 16 observations  
## predicted class=9 expected loss=0.6875 P(node) =0.0006347947  
## class counts: 0 0 0 1 2 4 0 0 4 5  
## probabilities: 0.000 0.000 0.000 0.062 0.125 0.250 0.000 0.000 0.250 0.312   
##   
## Node number 326: 25 observations, complexity param=0.0002232741  
## predicted class=3 expected loss=0.52 P(node) =0.0009918667  
## class counts: 2 0 0 12 0 5 1 0 4 1  
## probabilities: 0.080 0.000 0.000 0.480 0.000 0.200 0.040 0.000 0.160 0.040   
## left son=652 (13 obs) right son=653 (12 obs)  
## Primary splits:  
## 401 < 112.5 to the left, improve=7.180513, (0 missing)  
## 428 < 4 to the left, improve=7.180513, (0 missing)  
## 429 < 41 to the left, improve=6.840519, (0 missing)  
## 400 < 67 to the left, improve=6.697662, (0 missing)  
## 399 < 42 to the left, improve=4.960000, (0 missing)  
## Surrogate splits:  
## 428 < 4 to the left, agree=1.00, adj=1.000, (0 split)  
## 400 < 67 to the left, agree=0.96, adj=0.917, (0 split)  
## 429 < 41 to the left, agree=0.96, adj=0.917, (0 split)  
## 399 < 42 to the left, agree=0.92, adj=0.833, (0 split)  
## 427 < 4 to the left, agree=0.92, adj=0.833, (0 split)  
##   
## Node number 327: 21 observations  
## predicted class=9 expected loss=0.2380952 P(node) =0.000833168  
## class counts: 0 0 0 3 1 0 1 0 0 16  
## probabilities: 0.000 0.000 0.000 0.143 0.048 0.000 0.048 0.000 0.000 0.762   
##   
## Node number 328: 202 observations, complexity param=8.930964e-05  
## predicted class=3 expected loss=0.06930693 P(node) =0.008014283  
## class counts: 2 1 4 188 0 2 0 0 4 1  
## probabilities: 0.010 0.005 0.020 0.931 0.000 0.010 0.000 0.000 0.020 0.005   
## left son=656 (9 obs) right son=657 (193 obs)  
## Primary splits:  
## 428 < 205 to the right, improve=6.698581, (0 missing)  
## 456 < 107.5 to the right, improve=5.803467, (0 missing)  
## 427 < 216.5 to the left, improve=5.334603, (0 missing)  
## 455 < 63.5 to the right, improve=4.149721, (0 missing)  
## 454 < 252 to the right, improve=4.039365, (0 missing)  
## Surrogate splits:  
## 357 < 210.5 to the right, agree=0.975, adj=0.444, (0 split)  
## 358 < 107 to the right, agree=0.975, adj=0.444, (0 split)  
## 427 < 232.5 to the right, agree=0.975, adj=0.444, (0 split)  
## 330 < 95 to the right, agree=0.970, adj=0.333, (0 split)  
## 385 < 237.5 to the right, agree=0.970, adj=0.333, (0 split)  
##   
## Node number 329: 59 observations, complexity param=0.000379566  
## predicted class=3 expected loss=0.6271186 P(node) =0.002340805  
## class counts: 5 3 1 22 0 21 3 3 1 0  
## probabilities: 0.085 0.051 0.017 0.373 0.000 0.356 0.051 0.051 0.017 0.000   
## left son=658 (29 obs) right son=659 (30 obs)  
## Primary splits:  
## 348 < 235 to the left, improve=11.326320, (0 missing)  
## 321 < 120 to the left, improve=10.406780, (0 missing)  
## 320 < 11.5 to the left, improve= 9.742619, (0 missing)  
## 209 < 30 to the right, improve= 9.666942, (0 missing)  
## 294 < 71 to the left, improve= 9.123446, (0 missing)  
## Surrogate splits:  
## 320 < 105.5 to the left, agree=0.898, adj=0.793, (0 split)  
## 347 < 108.5 to the left, agree=0.898, adj=0.793, (0 split)  
## 319 < 2 to the left, agree=0.864, adj=0.724, (0 split)  
## 321 < 207 to the left, agree=0.831, adj=0.655, (0 split)  
## 349 < 250.5 to the left, agree=0.814, adj=0.621, (0 split)  
##   
## Node number 330: 25 observations, complexity param=8.930964e-05  
## predicted class=0 expected loss=0.24 P(node) =0.0009918667  
## class counts: 19 0 0 0 0 1 2 0 3 0  
## probabilities: 0.760 0.000 0.000 0.000 0.000 0.040 0.080 0.000 0.120 0.000   
## left son=660 (18 obs) right son=661 (7 obs)  
## Primary splits:  
## 214 < 169 to the right, improve=5.142857, (0 missing)  
## 241 < 184.5 to the right, improve=5.142857, (0 missing)  
## 295 < 242.5 to the right, improve=5.142857, (0 missing)  
## 351 < 223 to the left, improve=5.142857, (0 missing)  
## 352 < 50 to the left, improve=5.142857, (0 missing)  
## Surrogate splits:  
## 241 < 184.5 to the right, agree=1.00, adj=1.000, (0 split)  
## 352 < 50 to the left, agree=1.00, adj=1.000, (0 split)  
## 240 < 245 to the right, agree=0.96, adj=0.857, (0 split)  
## 353 < 185.5 to the left, agree=0.96, adj=0.857, (0 split)  
## 380 < 176 to the left, agree=0.96, adj=0.857, (0 split)  
##   
## Node number 331: 131 observations, complexity param=0.0005358578  
## predicted class=5 expected loss=0.2748092 P(node) =0.005197381  
## class counts: 0 0 0 25 0 95 3 1 4 3  
## probabilities: 0.000 0.000 0.000 0.191 0.000 0.725 0.023 0.008 0.031 0.023   
## left son=662 (30 obs) right son=663 (101 obs)  
## Primary splits:  
## 299 < 40 to the right, improve=18.01656, (0 missing)  
## 298 < 162 to the right, improve=17.94568, (0 missing)  
## 326 < 98 to the right, improve=14.96753, (0 missing)  
## 327 < 8.5 to the right, improve=13.19848, (0 missing)  
## 328 < 56.5 to the right, improve=12.87945, (0 missing)  
## Surrogate splits:  
## 298 < 80.5 to the right, agree=0.954, adj=0.800, (0 split)  
## 271 < 217 to the right, agree=0.916, adj=0.633, (0 split)  
## 297 < 131 to the right, agree=0.916, adj=0.633, (0 split)  
## 300 < 0.5 to the right, agree=0.908, adj=0.600, (0 split)  
## 270 < 202.5 to the right, agree=0.885, adj=0.500, (0 split)  
##   
## Node number 332: 85 observations, complexity param=8.930964e-05  
## predicted class=1 expected loss=0.07058824 P(node) =0.003372347  
## class counts: 0 79 0 0 1 0 1 4 0 0  
## probabilities: 0.000 0.929 0.000 0.000 0.012 0.000 0.012 0.047 0.000 0.000   
## left son=664 (77 obs) right son=665 (8 obs)  
## Primary splits:  
## 324 < 109.5 to the left, improve=6.114706, (0 missing)  
## 352 < 173 to the left, improve=6.114706, (0 missing)  
## 266 < 71.5 to the right, improve=4.533204, (0 missing)  
## 296 < 104.5 to the left, improve=4.533204, (0 missing)  
## 380 < 105.5 to the left, improve=3.391022, (0 missing)  
## Surrogate splits:  
## 352 < 173 to the left, agree=1.000, adj=1.000, (0 split)  
## 232 < 22 to the left, agree=0.976, adj=0.750, (0 split)  
## 380 < 178 to the left, agree=0.976, adj=0.750, (0 split)  
## 204 < 12.5 to the left, agree=0.965, adj=0.625, (0 split)  
## 260 < 14 to the left, agree=0.965, adj=0.625, (0 split)  
##   
## Node number 333: 19 observations  
## predicted class=5 expected loss=0.7368421 P(node) =0.0007538187  
## class counts: 0 1 0 4 0 5 0 3 3 3  
## probabilities: 0.000 0.053 0.000 0.211 0.000 0.263 0.000 0.158 0.158 0.158   
##   
## Node number 334: 58 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.2586207 P(node) =0.002301131  
## class counts: 5 0 1 6 0 43 1 1 1 0  
## probabilities: 0.086 0.000 0.017 0.103 0.000 0.741 0.017 0.017 0.017 0.000   
## left son=668 (7 obs) right son=669 (51 obs)  
## Primary splits:  
## 413 < 194 to the right, improve=7.789916, (0 missing)  
## 507 < 5.5 to the right, improve=7.442577, (0 missing)  
## 456 < 243 to the right, improve=7.220000, (0 missing)  
## 455 < 228.5 to the right, improve=6.977324, (0 missing)  
## 385 < 3.5 to the right, improve=6.832200, (0 missing)  
## Surrogate splits:  
## 385 < 28 to the right, agree=0.983, adj=0.857, (0 split)  
## 414 < 28.5 to the right, agree=0.983, adj=0.857, (0 split)  
## 330 < 169.5 to the right, agree=0.966, adj=0.714, (0 split)  
## 358 < 128.5 to the right, agree=0.966, adj=0.714, (0 split)  
## 359 < 52.5 to the right, agree=0.966, adj=0.714, (0 split)  
##   
## Node number 335: 113 observations, complexity param=0.001161025  
## predicted class=9 expected loss=0.7256637 P(node) =0.004483237  
## class counts: 0 7 0 16 30 5 7 11 6 31  
## probabilities: 0.000 0.062 0.000 0.142 0.265 0.044 0.062 0.097 0.053 0.274   
## left son=670 (43 obs) right son=671 (70 obs)  
## Primary splits:  
## 237 < 2 to the left, improve=15.18030, (0 missing)  
## 210 < 1 to the left, improve=14.74200, (0 missing)  
## 238 < 17 to the left, improve=14.30474, (0 missing)  
## 209 < 3 to the left, improve=12.95114, (0 missing)  
## 236 < 5.5 to the left, improve=12.88428, (0 missing)  
## Surrogate splits:  
## 210 < 1 to the left, agree=0.956, adj=0.884, (0 split)  
## 238 < 17 to the left, agree=0.938, adj=0.837, (0 split)  
## 209 < 3 to the left, agree=0.920, adj=0.791, (0 split)  
## 236 < 5.5 to the left, agree=0.858, adj=0.628, (0 split)  
## 211 < 2.5 to the left, agree=0.850, adj=0.605, (0 split)  
##   
## Node number 338: 112 observations, complexity param=0.0004465482  
## predicted class=3 expected loss=0.2321429 P(node) =0.004443563  
## class counts: 0 0 0 86 0 4 0 0 16 6  
## probabilities: 0.000 0.000 0.000 0.768 0.000 0.036 0.000 0.000 0.143 0.054   
## left son=676 (101 obs) right son=677 (11 obs)  
## Primary splits:  
## 484 < 186 to the left, improve=14.425810, (0 missing)  
## 485 < 113 to the left, improve=12.845660, (0 missing)  
## 483 < 100 to the left, improve=11.382120, (0 missing)  
## 456 < 204.5 to the left, improve=10.193880, (0 missing)  
## 457 < 141 to the left, improve= 9.204099, (0 missing)  
## Surrogate splits:  
## 485 < 113 to the left, agree=0.991, adj=0.909, (0 split)  
## 483 < 100 to the left, agree=0.964, adj=0.636, (0 split)  
## 456 < 204.5 to the left, agree=0.955, adj=0.545, (0 split)  
## 457 < 252.5 to the left, agree=0.955, adj=0.545, (0 split)  
## 512 < 218 to the left, agree=0.955, adj=0.545, (0 split)  
##   
## Node number 339: 180 observations, complexity param=0.0007144771  
## predicted class=5 expected loss=0.6388889 P(node) =0.00714144  
## class counts: 5 1 1 59 0 65 2 3 21 23  
## probabilities: 0.028 0.006 0.006 0.328 0.000 0.361 0.011 0.017 0.117 0.128   
## left son=678 (40 obs) right son=679 (140 obs)  
## Primary splits:  
## 176 < 79.5 to the right, improve=14.89206, (0 missing)  
## 149 < 81 to the right, improve=14.58492, (0 missing)  
## 262 < 5 to the left, improve=13.83847, (0 missing)  
## 263 < 51.5 to the left, improve=13.79172, (0 missing)  
## 148 < 48 to the right, improve=13.79111, (0 missing)  
## Surrogate splits:  
## 175 < 3 to the right, agree=0.972, adj=0.875, (0 split)  
## 148 < 5.5 to the right, agree=0.944, adj=0.750, (0 split)  
## 177 < 213 to the right, agree=0.933, adj=0.700, (0 split)  
## 147 < 0.5 to the right, agree=0.922, adj=0.650, (0 split)  
## 149 < 46 to the right, agree=0.922, adj=0.650, (0 split)  
##   
## Node number 340: 23 observations  
## predicted class=0 expected loss=0 P(node) =0.0009125174  
## class counts: 23 0 0 0 0 0 0 0 0 0  
## probabilities: 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 341: 16 observations  
## predicted class=8 expected loss=0.6875 P(node) =0.0006347947  
## class counts: 1 0 0 3 1 1 0 0 5 5  
## probabilities: 0.062 0.000 0.000 0.188 0.062 0.062 0.000 0.000 0.312 0.312   
##   
## Node number 342: 33 observations, complexity param=0.0001786193  
## predicted class=3 expected loss=0.3333333 P(node) =0.001309264  
## class counts: 2 0 0 22 0 5 1 0 2 1  
## probabilities: 0.061 0.000 0.000 0.667 0.000 0.152 0.030 0.000 0.061 0.030   
## left son=684 (23 obs) right son=685 (10 obs)  
## Primary splits:  
## 214 < 206 to the left, improve=6.733597, (0 missing)  
## 242 < 146 to the left, improve=6.217172, (0 missing)  
## 187 < 34.5 to the left, improve=6.133597, (0 missing)  
## 243 < 100 to the left, improve=6.041958, (0 missing)  
## 244 < 6.5 to the left, improve=6.041958, (0 missing)  
## Surrogate splits:  
## 187 < 96 to the left, agree=0.97, adj=0.9, (0 split)  
## 215 < 65.5 to the left, agree=0.97, adj=0.9, (0 split)  
## 216 < 10 to the left, agree=0.97, adj=0.9, (0 split)  
## 242 < 104.5 to the left, agree=0.97, adj=0.9, (0 split)  
## 243 < 10.5 to the left, agree=0.97, adj=0.9, (0 split)  
##   
## Node number 343: 440 observations, complexity param=0.0004018934  
## predicted class=5 expected loss=0.08863636 P(node) =0.01745685  
## class counts: 0 0 0 28 0 401 5 0 4 2  
## probabilities: 0.000 0.000 0.000 0.064 0.000 0.911 0.011 0.000 0.009 0.005   
## left son=686 (18 obs) right son=687 (422 obs)  
## Primary splits:  
## 121 < 122.5 to the right, improve=17.09669, (0 missing)  
## 262 < 12.5 to the left, improve=14.56608, (0 missing)  
## 148 < 159.5 to the right, improve=12.84638, (0 missing)  
## 186 < 1 to the left, improve=12.75933, (0 missing)  
## 120 < 3.5 to the right, improve=12.66861, (0 missing)  
## Surrogate splits:  
## 120 < 19.5 to the right, agree=0.989, adj=0.722, (0 split)  
## 122 < 193.5 to the right, agree=0.982, adj=0.556, (0 split)  
## 148 < 232.5 to the right, agree=0.980, adj=0.500, (0 split)  
## 119 < 3.5 to the right, agree=0.973, adj=0.333, (0 split)  
## 118 < 64.5 to the right, agree=0.970, adj=0.278, (0 split)  
##   
## Node number 344: 70 observations, complexity param=0.0001786193  
## predicted class=4 expected loss=0.1857143 P(node) =0.002777227  
## class counts: 0 0 0 1 57 3 4 2 0 3  
## probabilities: 0.000 0.000 0.000 0.014 0.814 0.043 0.057 0.029 0.000 0.043   
## left son=688 (63 obs) right son=689 (7 obs)  
## Primary splits:  
## 124 < 37 to the left, improve=8.393651, (0 missing)  
## 543 < 17.5 to the left, improve=8.393651, (0 missing)  
## 544 < 32 to the left, improve=8.393651, (0 missing)  
## 571 < 5 to the left, improve=8.393651, (0 missing)  
## 152 < 187.5 to the left, improve=6.585023, (0 missing)  
## Surrogate splits:  
## 543 < 17.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 544 < 32 to the left, agree=1.000, adj=1.000, (0 split)  
## 571 < 5 to the left, agree=1.000, adj=1.000, (0 split)  
## 123 < 17 to the left, agree=0.986, adj=0.857, (0 split)  
## 125 < 76 to the left, agree=0.986, adj=0.857, (0 split)  
##   
## Node number 345: 15 observations  
## predicted class=9 expected loss=0.6666667 P(node) =0.00059512  
## class counts: 0 0 0 3 1 4 0 1 1 5  
## probabilities: 0.000 0.000 0.000 0.200 0.067 0.267 0.000 0.067 0.067 0.333   
##   
## Node number 346: 12 observations  
## predicted class=0 expected loss=0.6666667 P(node) =0.000476096  
## class counts: 4 0 0 2 0 4 0 0 2 0  
## probabilities: 0.333 0.000 0.000 0.167 0.000 0.333 0.000 0.000 0.167 0.000   
##   
## Node number 347: 67 observations  
## predicted class=7 expected loss=0.119403 P(node) =0.002658203  
## class counts: 0 3 0 3 0 0 0 59 0 2  
## probabilities: 0.000 0.045 0.000 0.045 0.000 0.000 0.000 0.881 0.000 0.030   
##   
## Node number 348: 63 observations, complexity param=0.0001339645  
## predicted class=5 expected loss=0.3174603 P(node) =0.002499504  
## class counts: 0 0 0 5 4 43 3 1 1 6  
## probabilities: 0.000 0.000 0.000 0.079 0.063 0.683 0.048 0.016 0.016 0.095   
## left son=696 (52 obs) right son=697 (11 obs)  
## Primary splits:  
## 491 < 144 to the left, improve=7.089633, (0 missing)  
## 327 < 21.5 to the left, improve=6.906798, (0 missing)  
## 519 < 156.5 to the left, improve=6.533968, (0 missing)  
## 518 < 94.5 to the left, improve=6.072836, (0 missing)  
## 326 < 177 to the left, improve=5.994709, (0 missing)  
## Surrogate splits:  
## 463 < 59.5 to the left, agree=0.968, adj=0.818, (0 split)  
## 490 < 14.5 to the left, agree=0.952, adj=0.727, (0 split)  
## 435 < 146 to the left, agree=0.937, adj=0.636, (0 split)  
## 462 < 69 to the left, agree=0.937, adj=0.636, (0 split)  
## 464 < 241.5 to the left, agree=0.937, adj=0.636, (0 split)  
##   
## Node number 349: 37 observations, complexity param=0.0004018934  
## predicted class=9 expected loss=0.6216216 P(node) =0.001467963  
## class counts: 0 2 0 11 6 1 0 1 2 14  
## probabilities: 0.000 0.054 0.000 0.297 0.162 0.027 0.000 0.027 0.054 0.378   
## left son=698 (9 obs) right son=699 (28 obs)  
## Primary splits:  
## 468 < 26 to the right, improve=7.974903, (0 missing)  
## 496 < 101 to the right, improve=7.974903, (0 missing)  
## 294 < 197.5 to the right, improve=7.958420, (0 missing)  
## 349 < 249.5 to the right, improve=7.570142, (0 missing)  
## 321 < 196 to the right, improve=6.995072, (0 missing)  
## Surrogate splits:  
## 496 < 101 to the right, agree=1.000, adj=1.000, (0 split)  
## 524 < 69 to the right, agree=0.946, adj=0.778, (0 split)  
## 467 < 227.5 to the right, agree=0.919, adj=0.667, (0 split)  
## 469 < 23 to the right, agree=0.919, adj=0.667, (0 split)  
## 497 < 17 to the right, agree=0.919, adj=0.667, (0 split)  
##   
## Node number 350: 10 observations  
## predicted class=3 expected loss=0.2 P(node) =0.0003967467  
## class counts: 1 0 0 8 0 1 0 0 0 0  
## probabilities: 0.100 0.000 0.000 0.800 0.000 0.100 0.000 0.000 0.000 0.000   
##   
## Node number 351: 247 observations, complexity param=0.0002232741  
## predicted class=9 expected loss=0.1336032 P(node) =0.009799643  
## class counts: 3 0 2 4 8 1 0 10 5 214  
## probabilities: 0.012 0.000 0.008 0.016 0.032 0.004 0.000 0.040 0.020 0.866   
## left son=702 (9 obs) right son=703 (238 obs)  
## Primary splits:  
## 515 < 44 to the right, improve=10.555990, (0 missing)  
## 543 < 61 to the right, improve= 9.894746, (0 missing)  
## 571 < 23.5 to the right, improve= 9.894746, (0 missing)  
## 516 < 10.5 to the right, improve= 9.302766, (0 missing)  
## 544 < 79 to the right, improve= 8.892397, (0 missing)  
## Surrogate splits:  
## 516 < 10.5 to the right, agree=0.996, adj=0.889, (0 split)  
## 543 < 61 to the right, agree=0.992, adj=0.778, (0 split)  
## 571 < 23.5 to the right, agree=0.992, adj=0.778, (0 split)  
## 514 < 5.5 to the right, agree=0.988, adj=0.667, (0 split)  
## 542 < 0.5 to the right, agree=0.988, adj=0.667, (0 split)  
##   
## Node number 356: 39 observations, complexity param=0.0003125837  
## predicted class=1 expected loss=0.6410256 P(node) =0.001547312  
## class counts: 0 14 0 0 8 7 7 0 2 1  
## probabilities: 0.000 0.359 0.000 0.000 0.205 0.179 0.179 0.000 0.051 0.026   
## left son=712 (14 obs) right son=713 (25 obs)  
## Primary splits:  
## 457 < 14.5 to the left, improve=9.035165, (0 missing)  
## 402 < 16 to the left, improve=8.007525, (0 missing)  
## 572 < 25.5 to the left, improve=7.542308, (0 missing)  
## 548 < 3.5 to the left, improve=7.200244, (0 missing)  
## 429 < 32 to the left, improve=6.976518, (0 missing)  
## Surrogate splits:  
## 429 < 8 to the left, agree=0.923, adj=0.786, (0 split)  
## 458 < 205.5 to the left, agree=0.923, adj=0.786, (0 split)  
## 160 < 13 to the right, agree=0.897, adj=0.714, (0 split)  
## 161 < 25 to the right, agree=0.897, adj=0.714, (0 split)  
## 402 < 16 to the left, agree=0.897, adj=0.714, (0 split)  
##   
## Node number 357: 44 observations, complexity param=0.0004018934  
## predicted class=8 expected loss=0.6818182 P(node) =0.001745685  
## class counts: 9 0 12 3 1 0 3 0 14 2  
## probabilities: 0.205 0.000 0.273 0.068 0.023 0.000 0.068 0.000 0.318 0.045   
## left son=714 (9 obs) right son=715 (35 obs)  
## Primary splits:  
## 406 < 98 to the left, improve=7.388456, (0 missing)  
## 380 < 1.5 to the left, improve=6.828010, (0 missing)  
## 386 < 75 to the right, improve=6.214646, (0 missing)  
## 414 < 43 to the right, improve=6.214646, (0 missing)  
## 429 < 50.5 to the right, improve=6.132249, (0 missing)  
## Surrogate splits:  
## 386 < 75 to the right, agree=0.977, adj=0.889, (0 split)  
## 414 < 43 to the right, agree=0.977, adj=0.889, (0 split)  
## 358 < 82 to the right, agree=0.955, adj=0.778, (0 split)  
## 380 < 1.5 to the left, agree=0.955, adj=0.778, (0 split)  
## 385 < 31 to the right, agree=0.932, adj=0.667, (0 split)  
##   
## Node number 362: 13 observations  
## predicted class=4 expected loss=0.6923077 P(node) =0.0005157707  
## class counts: 0 0 0 3 4 1 3 0 2 0  
## probabilities: 0.000 0.000 0.000 0.231 0.308 0.077 0.231 0.000 0.154 0.000   
##   
## Node number 363: 10 observations  
## predicted class=9 expected loss=0.3 P(node) =0.0003967467  
## class counts: 1 0 0 0 1 1 0 0 0 7  
## probabilities: 0.100 0.000 0.000 0.000 0.100 0.100 0.000 0.000 0.000 0.700   
##   
## Node number 366: 21 observations, complexity param=0.0002009467  
## predicted class=5 expected loss=0.5238095 P(node) =0.000833168  
## class counts: 0 0 0 3 0 10 8 0 0 0  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.476 0.381 0.000 0.000 0.000   
## left son=732 (14 obs) right son=733 (7 obs)  
## Primary splits:  
## 321 < 93.5 to the right, improve=6.619048, (0 missing)  
## 598 < 138.5 to the right, improve=5.011905, (0 missing)  
## 400 < 62.5 to the left, improve=5.011905, (0 missing)  
## 597 < 135 to the right, improve=4.984127, (0 missing)  
## 293 < 84.5 to the right, improve=4.761905, (0 missing)  
## Surrogate splits:  
## 293 < 11.5 to the right, agree=0.952, adj=0.857, (0 split)  
## 430 < 97 to the left, agree=0.952, adj=0.857, (0 split)  
## 294 < 44.5 to the right, agree=0.905, adj=0.714, (0 split)  
## 401 < 208 to the left, agree=0.905, adj=0.714, (0 split)  
## 429 < 190.5 to the left, agree=0.905, adj=0.714, (0 split)  
##   
## Node number 367: 172 observations, complexity param=0.0001339645  
## predicted class=6 expected loss=0.09302326 P(node) =0.006824043  
## class counts: 2 0 7 1 0 2 156 0 4 0  
## probabilities: 0.012 0.000 0.041 0.006 0.000 0.012 0.907 0.000 0.023 0.000   
## left son=734 (7 obs) right son=735 (165 obs)  
## Primary splits:  
## 273 < 58.5 to the right, improve=8.024252, (0 missing)  
## 245 < 33.5 to the right, improve=6.886273, (0 missing)  
## 246 < 18.5 to the right, improve=6.886273, (0 missing)  
## 271 < 34 to the right, improve=6.157586, (0 missing)  
## 272 < 22.5 to the right, improve=6.157586, (0 missing)  
## Surrogate splits:  
## 245 < 33.5 to the right, agree=0.994, adj=0.857, (0 split)  
## 246 < 18.5 to the right, agree=0.994, adj=0.857, (0 split)  
## 271 < 48.5 to the right, agree=0.994, adj=0.857, (0 split)  
## 272 < 103.5 to the right, agree=0.994, adj=0.857, (0 split)  
## 274 < 29 to the right, agree=0.994, adj=0.857, (0 split)  
##   
## Node number 372: 12 observations  
## predicted class=0 expected loss=0.4166667 P(node) =0.000476096  
## class counts: 7 0 0 1 0 3 1 0 0 0  
## probabilities: 0.583 0.000 0.000 0.083 0.000 0.250 0.083 0.000 0.000 0.000   
##   
## Node number 373: 28 observations, complexity param=0.0002083892  
## predicted class=8 expected loss=0.5714286 P(node) =0.001110891  
## class counts: 0 0 0 4 0 10 2 0 12 0  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.357 0.071 0.000 0.429 0.000   
## left son=746 (16 obs) right son=747 (12 obs)  
## Primary splits:  
## 297 < 178 to the left, improve=4.863095, (0 missing)  
## 468 < 197.5 to the right, improve=4.089377, (0 missing)  
## 269 < 10.5 to the left, improve=3.863095, (0 missing)  
## 270 < 1 to the left, improve=3.863095, (0 missing)  
## 431 < 27.5 to the left, improve=3.771429, (0 missing)  
## Surrogate splits:  
## 298 < 3.5 to the left, agree=0.929, adj=0.833, (0 split)  
## 269 < 10.5 to the left, agree=0.857, adj=0.667, (0 split)  
## 270 < 1 to the left, agree=0.857, adj=0.667, (0 split)  
## 296 < 181 to the left, agree=0.857, adj=0.667, (0 split)  
## 548 < 14 to the left, agree=0.821, adj=0.583, (0 split)  
##   
## Node number 376: 20 observations  
## predicted class=3 expected loss=0 P(node) =0.0007934934  
## class counts: 0 0 0 20 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 377: 7 observations  
## predicted class=9 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 0 1 0 1 0 0 0 5  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.143 0.000 0.000 0.000 0.714   
##   
## Node number 380: 13 observations  
## predicted class=0 expected loss=0.5384615 P(node) =0.0005157707  
## class counts: 6 0 1 0 0 0 1 0 5 0  
## probabilities: 0.462 0.000 0.077 0.000 0.000 0.000 0.077 0.000 0.385 0.000   
##   
## Node number 381: 15 observations  
## predicted class=3 expected loss=0.4666667 P(node) =0.00059512  
## class counts: 0 0 0 8 0 6 0 0 0 1  
## probabilities: 0.000 0.000 0.000 0.533 0.000 0.400 0.000 0.000 0.000 0.067   
##   
## Node number 382: 57 observations, complexity param=0.0002344378  
## predicted class=8 expected loss=0.4385965 P(node) =0.002261456  
## class counts: 1 0 18 3 0 1 1 1 32 0  
## probabilities: 0.018 0.000 0.316 0.053 0.000 0.018 0.018 0.018 0.561 0.000   
## left son=764 (24 obs) right son=765 (33 obs)  
## Primary splits:  
## 126 < 44.5 to the right, improve=11.622810, (0 missing)  
## 125 < 27 to the right, improve=11.084970, (0 missing)  
## 154 < 246.5 to the right, improve=10.226700, (0 missing)  
## 606 < 250.5 to the right, improve= 9.847131, (0 missing)  
## 608 < 57 to the right, improve= 9.819103, (0 missing)  
## Surrogate splits:  
## 127 < 24 to the right, agree=0.965, adj=0.917, (0 split)  
## 128 < 5.5 to the right, agree=0.947, adj=0.875, (0 split)  
## 125 < 1.5 to the right, agree=0.930, adj=0.833, (0 split)  
## 129 < 2.5 to the right, agree=0.912, adj=0.792, (0 split)  
## 154 < 237 to the right, agree=0.877, adj=0.708, (0 split)  
##   
## Node number 383: 345 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.09275362 P(node) =0.01368776  
## class counts: 1 0 0 12 0 6 10 0 313 3  
## probabilities: 0.003 0.000 0.000 0.035 0.000 0.017 0.029 0.000 0.907 0.009   
## left son=766 (36 obs) right son=767 (309 obs)  
## Primary splits:  
## 439 < 250.5 to the right, improve=9.676202, (0 missing)  
## 459 < 15 to the left, improve=8.315192, (0 missing)  
## 428 < 119 to the right, improve=7.693051, (0 missing)  
## 440 < 156.5 to the right, improve=7.585100, (0 missing)  
## 468 < 249.5 to the right, improve=7.509916, (0 missing)  
## Surrogate splits:  
## 440 < 72.5 to the right, agree=0.965, adj=0.667, (0 split)  
## 468 < 242 to the right, agree=0.965, adj=0.667, (0 split)  
## 412 < 4 to the right, agree=0.945, adj=0.472, (0 split)  
## 411 < 130 to the right, agree=0.942, adj=0.444, (0 split)  
## 441 < 1 to the right, agree=0.936, adj=0.389, (0 split)  
##   
## Node number 384: 1623 observations, complexity param=6.698223e-05  
## predicted class=0 expected loss=0.01047443 P(node) =0.06439199  
## class counts: 1606 0 1 0 1 2 12 0 0 1  
## probabilities: 0.990 0.000 0.001 0.000 0.001 0.001 0.007 0.000 0.000 0.001   
## left son=768 (1603 obs) right son=769 (20 obs)  
## Primary splits:  
## 96 < 93.5 to the left, improve=2.353663, (0 missing)  
## 97 < 24.5 to the left, improve=1.727104, (0 missing)  
## 214 < 0.5 to the right, improve=1.546484, (0 missing)  
## 101 < 189 to the left, improve=1.542815, (0 missing)  
## 626 < 64.5 to the right, improve=1.534401, (0 missing)  
## Surrogate splits:  
## 95 < 2.5 to the left, agree=0.998, adj=0.80, (0 split)  
## 97 < 162 to the left, agree=0.994, adj=0.50, (0 split)  
## 70 < 126.5 to the left, agree=0.989, adj=0.10, (0 split)  
## 71 < 31 to the left, agree=0.989, adj=0.10, (0 split)  
## 69 < 52 to the left, agree=0.988, adj=0.05, (0 split)  
##   
## Node number 385: 332 observations, complexity param=0.0001786193  
## predicted class=0 expected loss=0.1686747 P(node) =0.01317199  
## class counts: 276 0 25 7 0 14 5 4 0 1  
## probabilities: 0.831 0.000 0.075 0.021 0.000 0.042 0.015 0.012 0.000 0.003   
## left son=770 (299 obs) right son=771 (33 obs)  
## Primary splits:  
## 545 < 198.5 to the left, improve=14.54646, (0 missing)  
## 517 < 13 to the left, improve=13.77057, (0 missing)  
## 544 < 83.5 to the left, improve=13.00613, (0 missing)  
## 398 < 10.5 to the right, improve=12.99808, (0 missing)  
## 370 < 8 to the right, improve=12.75578, (0 missing)  
## Surrogate splits:  
## 517 < 7 to the left, agree=0.961, adj=0.606, (0 split)  
## 546 < 239.5 to the left, agree=0.961, adj=0.606, (0 split)  
## 544 < 145.5 to the left, agree=0.958, adj=0.576, (0 split)  
## 518 < 93.5 to the left, agree=0.949, adj=0.485, (0 split)  
## 490 < 13.5 to the left, agree=0.934, adj=0.333, (0 split)  
##   
## Node number 390: 30 observations, complexity param=8.930964e-05  
## predicted class=3 expected loss=0.3 P(node) =0.00119024  
## class counts: 4 0 1 21 0 4 0 0 0 0  
## probabilities: 0.133 0.000 0.033 0.700 0.000 0.133 0.000 0.000 0.000 0.000   
## left son=780 (11 obs) right son=781 (19 obs)  
## Primary splits:  
## 209 < 148.5 to the right, improve=6.563636, (0 missing)  
## 208 < 131 to the right, improve=5.300000, (0 missing)  
## 236 < 185.5 to the right, improve=4.436025, (0 missing)  
## 210 < 229 to the left, improve=3.768182, (0 missing)  
## 299 < 13 to the right, improve=3.600000, (0 missing)  
## Surrogate splits:  
## 208 < 131 to the right, agree=0.967, adj=0.909, (0 split)  
## 210 < 186 to the right, agree=0.900, adj=0.727, (0 split)  
## 236 < 22.5 to the right, agree=0.900, adj=0.727, (0 split)  
## 181 < 211.5 to the right, agree=0.867, adj=0.636, (0 split)  
## 207 < 131 to the right, agree=0.867, adj=0.636, (0 split)  
##   
## Node number 391: 27 observations, complexity param=4.465482e-05  
## predicted class=5 expected loss=0.2592593 P(node) =0.001071216  
## class counts: 1 0 1 2 0 20 3 0 0 0  
## probabilities: 0.037 0.000 0.037 0.074 0.000 0.741 0.111 0.000 0.000 0.000   
## left son=782 (7 obs) right son=783 (20 obs)  
## Primary splits:  
## 541 < 148 to the right, improve=3.172487, (0 missing)  
## 572 < 9.5 to the right, improve=3.074074, (0 missing)  
## 512 < 216.5 to the right, improve=3.072487, (0 missing)  
## 602 < 121 to the right, improve=2.552707, (0 missing)  
## 153 < 10 to the right, improve=2.445419, (0 missing)  
## Surrogate splits:  
## 327 < 248 to the right, agree=0.889, adj=0.571, (0 split)  
## 354 < 129 to the left, agree=0.889, adj=0.571, (0 split)  
## 429 < 210 to the right, agree=0.889, adj=0.571, (0 split)  
## 457 < 163.5 to the right, agree=0.889, adj=0.571, (0 split)  
## 485 < 153.5 to the right, agree=0.889, adj=0.571, (0 split)  
##   
## Node number 392: 38 observations  
## predicted class=0 expected loss=0.05263158 P(node) =0.001507637  
## class counts: 36 0 0 0 1 0 0 0 0 1  
## probabilities: 0.947 0.000 0.000 0.000 0.026 0.000 0.000 0.000 0.000 0.026   
##   
## Node number 393: 7 observations  
## predicted class=2 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 0 0 3 0 0 2 0 0 2 0  
## probabilities: 0.000 0.000 0.429 0.000 0.000 0.286 0.000 0.000 0.286 0.000   
##   
## Node number 394: 13 observations  
## predicted class=5 expected loss=0.5384615 P(node) =0.0005157707  
## class counts: 2 0 3 2 0 6 0 0 0 0  
## probabilities: 0.154 0.000 0.231 0.154 0.000 0.462 0.000 0.000 0.000 0.000   
##   
## Node number 395: 26 observations  
## predicted class=6 expected loss=0.1538462 P(node) =0.001031541  
## class counts: 1 0 0 0 0 3 22 0 0 0  
## probabilities: 0.038 0.000 0.000 0.000 0.000 0.115 0.846 0.000 0.000 0.000   
##   
## Node number 396: 55 observations, complexity param=0.0002679289  
## predicted class=3 expected loss=0.4363636 P(node) =0.002182107  
## class counts: 3 1 10 31 0 7 1 2 0 0  
## probabilities: 0.055 0.018 0.182 0.564 0.000 0.127 0.018 0.036 0.000 0.000   
## left son=792 (11 obs) right son=793 (44 obs)  
## Primary splits:  
## 514 < 4 to the right, improve=6.409091, (0 missing)  
## 485 < 9.5 to the right, improve=6.357049, (0 missing)  
## 513 < 37.5 to the right, improve=6.234343, (0 missing)  
## 571 < 209.5 to the left, improve=6.188865, (0 missing)  
## 541 < 187 to the right, improve=6.146518, (0 missing)  
## Surrogate splits:  
## 513 < 37.5 to the right, agree=0.982, adj=0.909, (0 split)  
## 485 < 9.5 to the right, agree=0.964, adj=0.818, (0 split)  
## 486 < 44.5 to the right, agree=0.964, adj=0.818, (0 split)  
## 487 < 22 to the right, agree=0.945, adj=0.727, (0 split)  
## 515 < 2 to the right, agree=0.945, adj=0.727, (0 split)  
##   
## Node number 397: 10 observations  
## predicted class=5 expected loss=0.3 P(node) =0.0003967467  
## class counts: 0 0 0 0 0 7 2 0 1 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.700 0.200 0.000 0.100 0.000   
##   
## Node number 398: 21 observations, complexity param=8.930964e-05  
## predicted class=5 expected loss=0.7142857 P(node) =0.000833168  
## class counts: 4 0 1 4 0 6 1 0 2 3  
## probabilities: 0.190 0.000 0.048 0.190 0.000 0.286 0.048 0.000 0.095 0.143   
## left son=796 (13 obs) right son=797 (8 obs)  
## Primary splits:  
## 381 < 215.5 to the right, improve=3.105311, (0 missing)  
## 351 < 63.5 to the left, improve=3.047619, (0 missing)  
## 352 < 218 to the left, improve=2.993074, (0 missing)  
## 654 < 106.5 to the right, improve=2.701465, (0 missing)  
## 575 < 36 to the right, improve=2.658730, (0 missing)  
## Surrogate splits:  
## 351 < 113.5 to the left, agree=0.905, adj=0.75, (0 split)  
## 409 < 36 to the right, agree=0.905, adj=0.75, (0 split)  
## 437 < 18.5 to the right, agree=0.905, adj=0.75, (0 split)  
## 465 < 31 to the right, agree=0.905, adj=0.75, (0 split)  
## 493 < 18.5 to the right, agree=0.905, adj=0.75, (0 split)  
##   
## Node number 399: 53 observations, complexity param=8.930964e-05  
## predicted class=5 expected loss=0.1320755 P(node) =0.002102757  
## class counts: 0 0 0 7 0 46 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.132 0.000 0.868 0.000 0.000 0.000 0.000   
## left son=798 (7 obs) right son=799 (46 obs)  
## Primary splits:  
## 202 < 10 to the right, improve=5.467714, (0 missing)  
## 203 < 95 to the right, improve=5.467714, (0 missing)  
## 177 < 144 to the right, improve=4.684277, (0 missing)  
## 554 < 8 to the right, improve=4.199724, (0 missing)  
## 294 < 47 to the right, improve=3.915649, (0 missing)  
## Surrogate splits:  
## 203 < 95 to the right, agree=1.000, adj=1.000, (0 split)  
## 174 < 1 to the right, agree=0.962, adj=0.714, (0 split)  
## 175 < 11 to the right, agree=0.962, adj=0.714, (0 split)  
## 204 < 220 to the right, agree=0.962, adj=0.714, (0 split)  
## 176 < 52 to the right, agree=0.943, adj=0.571, (0 split)  
##   
## Node number 402: 11 observations  
## predicted class=2 expected loss=0.4545455 P(node) =0.0004364213  
## class counts: 0 5 6 0 0 0 0 0 0 0  
## probabilities: 0.000 0.455 0.545 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 403: 12 observations  
## predicted class=8 expected loss=0.5833333 P(node) =0.000476096  
## class counts: 0 0 1 4 0 2 0 0 5 0  
## probabilities: 0.000 0.000 0.083 0.333 0.000 0.167 0.000 0.000 0.417 0.000   
##   
## Node number 412: 44 observations, complexity param=0.0002976988  
## predicted class=8 expected loss=0.7272727 P(node) =0.001745685  
## class counts: 4 0 8 3 1 10 6 0 12 0  
## probabilities: 0.091 0.000 0.182 0.068 0.023 0.227 0.136 0.000 0.273 0.000   
## left son=824 (34 obs) right son=825 (10 obs)  
## Primary splits:  
## 407 < 63 to the left, improve=6.379144, (0 missing)  
## 682 < 20.5 to the left, improve=6.313131, (0 missing)  
## 684 < 31.5 to the left, improve=5.933341, (0 missing)  
## 685 < 43.5 to the left, improve=5.933341, (0 missing)  
## 380 < 118.5 to the left, improve=5.772727, (0 missing)  
## Surrogate splits:  
## 380 < 118.5 to the left, agree=0.977, adj=0.9, (0 split)  
## 378 < 89.5 to the left, agree=0.955, adj=0.8, (0 split)  
## 379 < 107.5 to the left, agree=0.955, adj=0.8, (0 split)  
## 405 < 197.5 to the left, agree=0.955, adj=0.8, (0 split)  
## 406 < 130.5 to the left, agree=0.955, adj=0.8, (0 split)  
##   
## Node number 413: 20 observations  
## predicted class=6 expected loss=0.15 P(node) =0.0007934934  
## class counts: 1 0 1 1 0 0 17 0 0 0  
## probabilities: 0.050 0.000 0.050 0.050 0.000 0.000 0.850 0.000 0.000 0.000   
##   
## Node number 416: 86 observations  
## predicted class=0 expected loss=0.08139535 P(node) =0.003412021  
## class counts: 79 0 2 1 0 0 0 2 0 2  
## probabilities: 0.919 0.000 0.023 0.012 0.000 0.000 0.000 0.023 0.000 0.023   
##   
## Node number 417: 7 observations  
## predicted class=5 expected loss=0.7142857 P(node) =0.0002777227  
## class counts: 1 0 1 0 0 2 2 0 1 0  
## probabilities: 0.143 0.000 0.143 0.000 0.000 0.286 0.286 0.000 0.143 0.000   
##   
## Node number 418: 25 observations, complexity param=0.0003572385  
## predicted class=5 expected loss=0.52 P(node) =0.0009918667  
## class counts: 8 0 0 1 0 12 3 0 1 0  
## probabilities: 0.320 0.000 0.000 0.040 0.000 0.480 0.120 0.000 0.040 0.000   
## left son=836 (8 obs) right son=837 (17 obs)  
## Primary splits:  
## 370 < 3 to the right, improve=8.357647, (0 missing)  
## 386 < 2 to the right, improve=8.357647, (0 missing)  
## 443 < 22 to the right, improve=8.357647, (0 missing)  
## 470 < 1 to the right, improve=8.357647, (0 missing)  
## 398 < 36 to the right, improve=8.087222, (0 missing)  
## Surrogate splits:  
## 386 < 2 to the right, agree=1.00, adj=1.000, (0 split)  
## 443 < 22 to the right, agree=1.00, adj=1.000, (0 split)  
## 470 < 1 to the right, agree=1.00, adj=1.000, (0 split)  
## 358 < 62 to the right, agree=0.96, adj=0.875, (0 split)  
## 359 < 16.5 to the right, agree=0.96, adj=0.875, (0 split)  
##   
## Node number 419: 33 observations, complexity param=0.0004018934  
## predicted class=2 expected loss=0.6060606 P(node) =0.001309264  
## class counts: 2 0 13 1 3 0 0 1 0 13  
## probabilities: 0.061 0.000 0.394 0.030 0.091 0.000 0.000 0.030 0.000 0.394   
## left son=838 (19 obs) right son=839 (14 obs)  
## Primary splits:  
## 343 < 29 to the left, improve=9.152654, (0 missing)  
## 371 < 64.5 to the left, improve=9.152654, (0 missing)  
## 315 < 3.5 to the left, improve=7.658586, (0 missing)  
## 372 < 2.5 to the left, improve=7.560383, (0 missing)  
## 261 < 72.5 to the left, improve=7.560383, (0 missing)  
## Surrogate splits:  
## 371 < 6 to the left, agree=0.939, adj=0.857, (0 split)  
## 315 < 3.5 to the left, agree=0.909, adj=0.786, (0 split)  
## 316 < 38 to the left, agree=0.909, adj=0.786, (0 split)  
## 261 < 72.5 to the left, agree=0.879, adj=0.714, (0 split)  
## 288 < 62.5 to the left, agree=0.879, adj=0.714, (0 split)  
##   
## Node number 422: 15 observations  
## predicted class=2 expected loss=0.7333333 P(node) =0.00059512  
## class counts: 2 1 4 3 0 3 2 0 0 0  
## probabilities: 0.133 0.067 0.267 0.200 0.000 0.200 0.133 0.000 0.000 0.000   
##   
## Node number 423: 128 observations, complexity param=8.930964e-05  
## predicted class=6 expected loss=0.1015625 P(node) =0.005078357  
## class counts: 0 0 7 0 4 2 115 0 0 0  
## probabilities: 0.000 0.000 0.055 0.000 0.031 0.016 0.898 0.000 0.000 0.000   
## left son=846 (8 obs) right son=847 (120 obs)  
## Primary splits:  
## 555 < 194 to the right, improve=5.123958, (0 missing)  
## 657 < 4.5 to the right, improve=4.126457, (0 missing)  
## 272 < 7 to the right, improve=3.819492, (0 missing)  
## 273 < 62.5 to the right, improve=3.819492, (0 missing)  
## 300 < 176.5 to the right, improve=3.819492, (0 missing)  
## Surrogate splits:  
## 528 < 60 to the right, agree=0.984, adj=0.750, (0 split)  
## 556 < 4.5 to the right, agree=0.984, adj=0.750, (0 split)  
## 583 < 9 to the right, agree=0.984, adj=0.750, (0 split)  
## 529 < 56 to the right, agree=0.977, adj=0.625, (0 split)  
## 584 < 6.5 to the right, agree=0.977, adj=0.625, (0 split)  
##   
## Node number 424: 7 observations  
## predicted class=2 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 0 0 3 0 2 0 2 0 0 0  
## probabilities: 0.000 0.000 0.429 0.000 0.286 0.000 0.286 0.000 0.000 0.000   
##   
## Node number 425: 96 observations  
## predicted class=4 expected loss=0.0625 P(node) =0.003808768  
## class counts: 1 0 0 0 90 0 3 0 0 2  
## probabilities: 0.010 0.000 0.000 0.000 0.938 0.000 0.031 0.000 0.000 0.021   
##   
## Node number 428: 35 observations  
## predicted class=5 expected loss=0.08571429 P(node) =0.001388613  
## class counts: 2 0 1 0 0 32 0 0 0 0  
## probabilities: 0.057 0.000 0.029 0.000 0.000 0.914 0.000 0.000 0.000 0.000   
##   
## Node number 429: 34 observations, complexity param=0.000111637  
## predicted class=5 expected loss=0.8235294 P(node) =0.001348939  
## class counts: 4 0 4 5 1 6 4 4 1 5  
## probabilities: 0.118 0.000 0.118 0.147 0.029 0.176 0.118 0.118 0.029 0.147   
## left son=858 (25 obs) right son=859 (9 obs)  
## Primary splits:  
## 345 < 146 to the left, improve=4.569412, (0 missing)  
## 373 < 160.5 to the left, improve=4.569412, (0 missing)  
## 317 < 97 to the left, improve=3.514260, (0 missing)  
## 318 < 209 to the left, improve=3.423592, (0 missing)  
## 570 < 82.5 to the right, improve=3.394796, (0 missing)  
## Surrogate splits:  
## 373 < 160.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 317 < 146 to the left, agree=0.941, adj=0.778, (0 split)  
## 318 < 204.5 to the left, agree=0.912, adj=0.667, (0 split)  
## 401 < 250 to the left, agree=0.912, adj=0.667, (0 split)  
## 661 < 192.5 to the left, agree=0.882, adj=0.556, (0 split)  
##   
## Node number 430: 24 observations, complexity param=4.465482e-05  
## predicted class=4 expected loss=0.2916667 P(node) =0.000952192  
## class counts: 1 0 1 0 17 0 0 2 0 3  
## probabilities: 0.042 0.000 0.042 0.000 0.708 0.000 0.000 0.083 0.000 0.125   
## left son=860 (17 obs) right son=861 (7 obs)  
## Primary splits:  
## 328 < 97.5 to the left, improve=4.022409, (0 missing)  
## 411 < 120.5 to the left, improve=4.022409, (0 missing)  
## 184 < 2.5 to the right, improve=3.708333, (0 missing)  
## 263 < 112.5 to the left, improve=3.708333, (0 missing)  
## 356 < 44.5 to the left, improve=3.208333, (0 missing)  
## Surrogate splits:  
## 411 < 120.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 356 < 44.5 to the left, agree=0.958, adj=0.857, (0 split)  
## 345 < 22.5 to the right, agree=0.917, adj=0.714, (0 split)  
## 353 < 8 to the right, agree=0.917, adj=0.714, (0 split)  
## 355 < 249.5 to the left, agree=0.917, adj=0.714, (0 split)  
##   
## Node number 431: 82 observations, complexity param=0.0001339645  
## predicted class=9 expected loss=0.2560976 P(node) =0.003253323  
## class counts: 0 0 2 0 6 0 1 11 1 61  
## probabilities: 0.000 0.000 0.024 0.000 0.073 0.000 0.012 0.134 0.012 0.744   
## left son=862 (9 obs) right son=863 (73 obs)  
## Primary splits:  
## 375 < 62.5 to the right, improve=5.696551, (0 missing)  
## 293 < 122 to the right, improve=4.776038, (0 missing)  
## 153 < 2 to the right, improve=4.747579, (0 missing)  
## 154 < 12 to the right, improve=4.660902, (0 missing)  
## 155 < 4.5 to the right, improve=4.660902, (0 missing)  
## Surrogate splits:  
## 348 < 6.5 to the right, agree=0.988, adj=0.889, (0 split)  
## 347 < 161.5 to the right, agree=0.976, adj=0.778, (0 split)  
## 402 < 208.5 to the right, agree=0.963, adj=0.667, (0 split)  
## 403 < 156 to the right, agree=0.963, adj=0.667, (0 split)  
## 320 < 68.5 to the right, agree=0.951, adj=0.556, (0 split)  
##   
## Node number 432: 16 observations  
## predicted class=3 expected loss=0.1875 P(node) =0.0006347947  
## class counts: 0 0 0 13 1 2 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.813 0.062 0.125 0.000 0.000 0.000 0.000   
##   
## Node number 433: 37 observations, complexity param=0.0001786193  
## predicted class=5 expected loss=0.5945946 P(node) =0.001467963  
## class counts: 1 7 0 4 0 15 8 0 0 2  
## probabilities: 0.027 0.189 0.000 0.108 0.000 0.405 0.216 0.000 0.000 0.054   
## left son=866 (28 obs) right son=867 (9 obs)  
## Primary splits:  
## 541 < 12 to the left, improve=5.368726, (0 missing)  
## 550 < 9.5 to the left, improve=5.322938, (0 missing)  
## 487 < 65 to the left, improve=5.116345, (0 missing)  
## 488 < 40.5 to the left, improve=4.987356, (0 missing)  
## 551 < 1.5 to the left, improve=4.917297, (0 missing)  
## Surrogate splits:  
## 540 < 46.5 to the left, agree=0.973, adj=0.889, (0 split)  
## 482 < 12.5 to the left, agree=0.946, adj=0.778, (0 split)  
## 510 < 40 to the left, agree=0.946, adj=0.778, (0 split)  
## 511 < 13 to the left, agree=0.946, adj=0.778, (0 split)  
## 512 < 91 to the left, agree=0.946, adj=0.778, (0 split)  
##   
## Node number 434: 46 observations  
## predicted class=5 expected loss=0.1086957 P(node) =0.001825035  
## class counts: 1 0 0 0 0 41 1 1 2 0  
## probabilities: 0.022 0.000 0.000 0.000 0.000 0.891 0.022 0.022 0.043 0.000   
##   
## Node number 435: 7 observations  
## predicted class=9 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 0 0 1 1 0 1 0 4  
## probabilities: 0.000 0.000 0.000 0.000 0.143 0.143 0.000 0.143 0.000 0.571   
##   
## Node number 436: 7 observations  
## predicted class=3 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 1 4 0 0 0 0 0 2  
## probabilities: 0.000 0.000 0.143 0.571 0.000 0.000 0.000 0.000 0.000 0.286   
##   
## Node number 437: 24 observations  
## predicted class=4 expected loss=0.2083333 P(node) =0.000952192  
## class counts: 0 0 0 0 19 1 0 3 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.792 0.042 0.000 0.125 0.000 0.042   
##   
## Node number 440: 51 observations  
## predicted class=0 expected loss=0.05882353 P(node) =0.002023408  
## class counts: 48 0 0 0 0 1 0 2 0 0  
## probabilities: 0.941 0.000 0.000 0.000 0.000 0.020 0.000 0.039 0.000 0.000   
##   
## Node number 441: 8 observations  
## predicted class=9 expected loss=0.625 P(node) =0.0003173973  
## class counts: 1 0 0 0 2 2 0 0 0 3  
## probabilities: 0.125 0.000 0.000 0.000 0.250 0.250 0.000 0.000 0.000 0.375   
##   
## Node number 444: 14 observations  
## predicted class=5 expected loss=0.2857143 P(node) =0.0005554453  
## class counts: 0 2 0 1 0 10 1 0 0 0  
## probabilities: 0.000 0.143 0.000 0.071 0.000 0.714 0.071 0.000 0.000 0.000   
##   
## Node number 445: 16 observations  
## predicted class=4 expected loss=0.5 P(node) =0.0006347947  
## class counts: 0 0 1 0 8 0 0 2 0 5  
## probabilities: 0.000 0.000 0.062 0.000 0.500 0.000 0.000 0.125 0.000 0.312   
##   
## Node number 446: 19 observations  
## predicted class=3 expected loss=0.7368421 P(node) =0.0007538187  
## class counts: 3 1 3 5 0 4 0 1 0 2  
## probabilities: 0.158 0.053 0.158 0.263 0.000 0.211 0.000 0.053 0.000 0.105   
##   
## Node number 447: 629 observations, complexity param=0.0001339645  
## predicted class=7 expected loss=0.03656598 P(node) =0.02495537  
## class counts: 5 0 1 2 4 3 3 606 0 5  
## probabilities: 0.008 0.000 0.002 0.003 0.006 0.005 0.005 0.963 0.000 0.008   
## left son=894 (7 obs) right son=895 (622 obs)  
## Primary splits:  
## 158 < 2 to the right, improve=8.934805, (0 missing)  
## 157 < 28.5 to the right, improve=8.649091, (0 missing)  
## 542 < 123 to the right, improve=8.341861, (0 missing)  
## 512 < 205 to the right, improve=8.206338, (0 missing)  
## 513 < 101.5 to the right, improve=7.903226, (0 missing)  
## Surrogate splits:  
## 159 < 10.5 to the right, agree=0.998, adj=0.857, (0 split)  
## 157 < 28.5 to the right, agree=0.997, adj=0.714, (0 split)  
## 185 < 251.5 to the right, agree=0.997, adj=0.714, (0 split)  
## 156 < 39.5 to the right, agree=0.995, adj=0.571, (0 split)  
## 160 < 0.5 to the right, agree=0.995, adj=0.571, (0 split)  
##   
## Node number 448: 922 observations, complexity param=0.0002679289  
## predicted class=2 expected loss=0.04338395 P(node) =0.03658004  
## class counts: 0 0 882 15 0 1 0 12 11 1  
## probabilities: 0.000 0.000 0.957 0.016 0.000 0.001 0.000 0.013 0.012 0.001   
## left son=896 (912 obs) right son=897 (10 obs)  
## Primary splits:  
## 345 < 104.5 to the left, improve=12.406900, (0 missing)  
## 346 < 70.5 to the left, improve=12.406900, (0 missing)  
## 681 < 18 to the left, improve= 6.490996, (0 missing)  
## 680 < 41 to the left, improve= 5.718800, (0 missing)  
## 683 < 44.5 to the left, improve= 5.615033, (0 missing)  
## Surrogate splits:  
## 346 < 70.5 to the left, agree=1.000, adj=1.0, (0 split)  
## 318 < 245.5 to the left, agree=0.991, adj=0.2, (0 split)  
## 373 < 241.5 to the left, agree=0.991, adj=0.2, (0 split)  
## 317 < 230 to the left, agree=0.990, adj=0.1, (0 split)  
## 374 < 230.5 to the left, agree=0.990, adj=0.1, (0 split)  
##   
## Node number 449: 14 observations  
## predicted class=8 expected loss=0 P(node) =0.0005554453  
## class counts: 0 0 0 0 0 0 0 0 14 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000   
##   
## Node number 450: 35 observations, complexity param=0.000491203  
## predicted class=2 expected loss=0.5142857 P(node) =0.001388613  
## class counts: 3 0 17 0 2 0 2 0 0 11  
## probabilities: 0.086 0.000 0.486 0.000 0.057 0.000 0.057 0.000 0.000 0.314   
## left son=900 (22 obs) right son=901 (13 obs)  
## Primary splits:  
## 570 < 169.5 to the right, improve=11.14266, (0 missing)  
## 597 < 4.5 to the right, improve=11.14266, (0 missing)  
## 598 < 93.5 to the right, improve=11.14266, (0 missing)  
## 599 < 19.5 to the right, improve=11.14058, (0 missing)  
## 626 < 2.5 to the right, improve=11.14058, (0 missing)  
## Surrogate splits:  
## 597 < 4.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 598 < 93.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 599 < 19.5 to the right, agree=0.971, adj=0.923, (0 split)  
## 625 < 2.5 to the right, agree=0.971, adj=0.923, (0 split)  
## 626 < 2.5 to the right, agree=0.971, adj=0.923, (0 split)  
##   
## Node number 451: 50 observations, complexity param=4.465482e-05  
## predicted class=8 expected loss=0.18 P(node) =0.001983733  
## class counts: 0 0 3 1 0 1 0 0 41 4  
## probabilities: 0.000 0.000 0.060 0.020 0.000 0.020 0.000 0.000 0.820 0.080   
## left son=902 (7 obs) right son=903 (43 obs)  
## Primary splits:  
## 318 < 167.5 to the right, improve=4.737010, (0 missing)  
## 545 < 239.5 to the right, improve=3.780199, (0 missing)  
## 290 < 247.5 to the right, improve=3.292575, (0 missing)  
## 488 < 203 to the left, improve=3.240000, (0 missing)  
## 657 < 8 to the left, improve=3.066190, (0 missing)  
## Surrogate splits:  
## 290 < 247.5 to the right, agree=0.96, adj=0.714, (0 split)  
## 291 < 143.5 to the right, agree=0.96, adj=0.714, (0 split)  
## 319 < 5 to the right, agree=0.94, adj=0.571, (0 split)  
## 577 < 253.5 to the right, agree=0.92, adj=0.429, (0 split)  
## 264 < 211.5 to the right, agree=0.90, adj=0.286, (0 split)  
##   
## Node number 452: 246 observations, complexity param=0.002589979  
## predicted class=1 expected loss=0.5934959 P(node) =0.009759968  
## class counts: 0 100 19 1 60 5 48 8 3 2  
## probabilities: 0.000 0.407 0.077 0.004 0.244 0.020 0.195 0.033 0.012 0.008   
## left son=904 (135 obs) right son=905 (111 obs)  
## Primary splits:  
## 344 < 1.5 to the left, improve=56.73869, (0 missing)  
## 456 < 1 to the left, improve=55.85903, (0 missing)  
## 372 < 10 to the left, improve=55.65413, (0 missing)  
## 428 < 2 to the left, improve=55.43471, (0 missing)  
## 316 < 1 to the left, improve=55.18781, (0 missing)  
## Surrogate splits:  
## 316 < 1 to the left, agree=0.967, adj=0.928, (0 split)  
## 372 < 10 to the left, agree=0.967, adj=0.928, (0 split)  
## 400 < 4.5 to the left, agree=0.947, adj=0.883, (0 split)  
## 288 < 0.5 to the left, agree=0.939, adj=0.865, (0 split)  
## 289 < 0.5 to the left, agree=0.935, adj=0.856, (0 split)  
##   
## Node number 453: 241 observations, complexity param=0.002634634  
## predicted class=2 expected loss=0.6473029 P(node) =0.009561595  
## class counts: 2 2 85 5 2 5 0 49 19 72  
## probabilities: 0.008 0.008 0.353 0.021 0.008 0.021 0.000 0.203 0.079 0.299   
## left son=906 (150 obs) right son=907 (91 obs)  
## Primary splits:  
## 371 < 1.5 to the left, improve=41.69612, (0 missing)  
## 344 < 110 to the left, improve=41.20927, (0 missing)  
## 372 < 67 to the left, improve=39.75462, (0 missing)  
## 343 < 1 to the left, improve=35.41713, (0 missing)  
## 399 < 3 to the left, improve=34.26607, (0 missing)  
## Surrogate splits:  
## 343 < 1 to the left, agree=0.946, adj=0.857, (0 split)  
## 399 < 8.5 to the left, agree=0.934, adj=0.824, (0 split)  
## 344 < 66.5 to the left, agree=0.925, adj=0.802, (0 split)  
## 316 < 139 to the left, agree=0.913, adj=0.769, (0 split)  
## 372 < 58 to the left, agree=0.909, adj=0.758, (0 split)  
##   
## Node number 454: 128 observations  
## predicted class=7 expected loss=0.03125 P(node) =0.005078357  
## class counts: 0 0 3 1 0 0 0 124 0 0  
## probabilities: 0.000 0.000 0.023 0.008 0.000 0.000 0.000 0.969 0.000 0.000   
##   
## Node number 455: 8 observations  
## predicted class=8 expected loss=0.25 P(node) =0.0003173973  
## class counts: 0 0 0 0 1 0 0 0 6 1  
## probabilities: 0.000 0.000 0.000 0.000 0.125 0.000 0.000 0.000 0.750 0.125   
##   
## Node number 456: 20 observations, complexity param=0.0002232741  
## predicted class=8 expected loss=0.7 P(node) =0.0007934934  
## class counts: 5 0 5 0 1 0 3 0 6 0  
## probabilities: 0.250 0.000 0.250 0.000 0.050 0.000 0.150 0.000 0.300 0.000   
## left son=912 (13 obs) right son=913 (7 obs)  
## Primary splits:  
## 522 < 13.5 to the right, improve=5.024176, (0 missing)  
## 495 < 32.5 to the right, improve=5.024176, (0 missing)  
## 493 < 165.5 to the right, improve=4.800000, (0 missing)  
## 494 < 80 to the right, improve=4.450000, (0 missing)  
## 521 < 125 to the right, improve=4.450000, (0 missing)  
## Surrogate splits:  
## 495 < 32.5 to the right, agree=1.00, adj=1.000, (0 split)  
## 440 < 205 to the right, agree=0.95, adj=0.857, (0 split)  
## 441 < 13.5 to the right, agree=0.95, adj=0.857, (0 split)  
## 467 < 121.5 to the right, agree=0.95, adj=0.857, (0 split)  
## 468 < 19 to the right, agree=0.95, adj=0.857, (0 split)  
##   
## Node number 457: 101 observations, complexity param=4.465482e-05  
## predicted class=5 expected loss=0.06930693 P(node) =0.004007141  
## class counts: 0 0 2 0 2 94 1 0 2 0  
## probabilities: 0.000 0.000 0.020 0.000 0.020 0.931 0.010 0.000 0.020 0.000   
## left son=914 (7 obs) right son=915 (94 obs)  
## Primary splits:  
## 352 < 52.5 to the right, improve=6.264558, (0 missing)  
## 272 < 12.5 to the left, improve=4.552805, (0 missing)  
## 294 < 6.5 to the left, improve=4.307111, (0 missing)  
## 325 < 216 to the right, improve=4.307111, (0 missing)  
## 353 < 14 to the right, improve=4.307111, (0 missing)  
## Surrogate splits:  
## 325 < 216 to the right, agree=0.98, adj=0.714, (0 split)  
## 353 < 14 to the right, agree=0.98, adj=0.714, (0 split)  
## 351 < 64 to the right, agree=0.97, adj=0.571, (0 split)  
## 129 < 54 to the right, agree=0.96, adj=0.429, (0 split)  
## 130 < 80 to the right, agree=0.96, adj=0.429, (0 split)  
##   
## Node number 458: 155 observations, complexity param=0.0005805126  
## predicted class=4 expected loss=0.316129 P(node) =0.006149573  
## class counts: 0 0 13 0 106 1 13 13 7 2  
## probabilities: 0.000 0.000 0.084 0.000 0.684 0.006 0.084 0.084 0.045 0.013   
## left son=916 (132 obs) right son=917 (23 obs)  
## Primary splits:  
## 268 < 136 to the left, improve=20.08729, (0 missing)  
## 295 < 173 to the left, improve=17.80890, (0 missing)  
## 429 < 55 to the right, improve=16.97293, (0 missing)  
## 126 < 6.5 to the right, improve=16.01735, (0 missing)  
## 127 < 2.5 to the right, improve=15.84815, (0 missing)  
## Surrogate splits:  
## 295 < 173 to the left, agree=0.981, adj=0.870, (0 split)  
## 267 < 184.5 to the left, agree=0.961, adj=0.739, (0 split)  
## 296 < 210.5 to the left, agree=0.948, adj=0.652, (0 split)  
## 240 < 68.5 to the left, agree=0.942, adj=0.609, (0 split)  
## 294 < 228 to the left, agree=0.935, adj=0.565, (0 split)  
##   
## Node number 459: 209 observations, complexity param=0.001674556  
## predicted class=2 expected loss=0.7464115 P(node) =0.008292006  
## class counts: 14 0 53 0 19 1 2 35 34 51  
## probabilities: 0.067 0.000 0.254 0.000 0.091 0.005 0.010 0.167 0.163 0.244   
## left son=918 (85 obs) right son=919 (124 obs)  
## Primary splits:  
## 567 < 25 to the right, improve=24.04753, (0 missing)  
## 568 < 77 to the right, improve=22.73472, (0 missing)  
## 708 < 1.5 to the left, improve=22.62774, (0 missing)  
## 709 < 6.5 to the left, improve=21.41509, (0 missing)  
## 155 < 9.5 to the right, improve=20.79665, (0 missing)  
## Surrogate splits:  
## 568 < 172.5 to the right, agree=0.919, adj=0.800, (0 split)  
## 566 < 2 to the right, agree=0.904, adj=0.765, (0 split)  
## 595 < 8.5 to the right, agree=0.895, adj=0.741, (0 split)  
## 539 < 7.5 to the right, agree=0.876, adj=0.694, (0 split)  
## 594 < 0.5 to the right, agree=0.871, adj=0.682, (0 split)  
##   
## Node number 460: 21 observations  
## predicted class=4 expected loss=0.0952381 P(node) =0.000833168  
## class counts: 0 0 0 0 19 0 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.000 0.905 0.000 0.000 0.000 0.095 0.000   
##   
## Node number 461: 53 observations, complexity param=0.0004465482  
## predicted class=8 expected loss=0.754717 P(node) =0.002102757  
## class counts: 10 0 1 0 2 9 5 0 13 13  
## probabilities: 0.189 0.000 0.019 0.000 0.038 0.170 0.094 0.000 0.245 0.245   
## left son=922 (36 obs) right son=923 (17 obs)  
## Primary splits:  
## 597 < 24.5 to the right, improve=9.657849, (0 missing)  
## 570 < 22.5 to the right, improve=9.326491, (0 missing)  
## 598 < 10.5 to the right, improve=9.164385, (0 missing)  
## 569 < 2.5 to the right, improve=9.100859, (0 missing)  
## 627 < 2.5 to the right, improve=8.688021, (0 missing)  
## Surrogate splits:  
## 569 < 96 to the right, agree=0.943, adj=0.824, (0 split)  
## 598 < 39 to the right, agree=0.943, adj=0.824, (0 split)  
## 626 < 16 to the right, agree=0.943, adj=0.824, (0 split)  
## 568 < 7 to the right, agree=0.906, adj=0.706, (0 split)  
## 570 < 22.5 to the right, agree=0.906, adj=0.706, (0 split)  
##   
## Node number 462: 47 observations, complexity param=0.0002456015  
## predicted class=8 expected loss=0.5106383 P(node) =0.001864709  
## class counts: 4 0 0 2 1 12 1 2 23 2  
## probabilities: 0.085 0.000 0.000 0.043 0.021 0.255 0.021 0.043 0.489 0.043   
## left son=924 (20 obs) right son=925 (27 obs)  
## Primary splits:  
## 600 < 214 to the right, improve=11.983290, (0 missing)  
## 485 < 32.5 to the left, improve= 8.681651, (0 missing)  
## 486 < 1.5 to the left, improve= 8.681651, (0 missing)  
## 572 < 6 to the right, improve= 8.433531, (0 missing)  
## 628 < 251.5 to the right, improve= 7.878917, (0 missing)  
## Surrogate splits:  
## 572 < 132 to the right, agree=0.894, adj=0.75, (0 split)  
## 599 < 226.5 to the right, agree=0.894, adj=0.75, (0 split)  
## 601 < 71 to the right, agree=0.851, adj=0.65, (0 split)  
## 265 < 237 to the right, agree=0.830, adj=0.60, (0 split)  
## 373 < 145.5 to the right, agree=0.830, adj=0.60, (0 split)  
##   
## Node number 463: 588 observations, complexity param=0.000111637  
## predicted class=8 expected loss=0.04591837 P(node) =0.0233287  
## class counts: 3 0 4 3 2 2 3 6 561 4  
## probabilities: 0.005 0.000 0.007 0.005 0.003 0.003 0.005 0.010 0.954 0.007   
## left son=926 (33 obs) right son=927 (555 obs)  
## Primary splits:  
## 404 < 2 to the left, improve=9.524919, (0 missing)  
## 433 < 111 to the left, improve=5.477891, (0 missing)  
## 322 < 122.5 to the right, improve=5.366020, (0 missing)  
## 405 < 18.5 to the left, improve=5.170456, (0 missing)  
## 376 < 1.5 to the left, improve=5.165837, (0 missing)  
## Surrogate splits:  
## 433 < 29 to the left, agree=0.957, adj=0.242, (0 split)  
## 376 < 1.5 to the left, agree=0.951, adj=0.121, (0 split)  
## 405 < 4 to the left, agree=0.951, adj=0.121, (0 split)  
## 322 < 252 to the right, agree=0.947, adj=0.061, (0 split)  
## 357 < 254.5 to the right, agree=0.947, adj=0.061, (0 split)  
##   
## Node number 464: 32 observations, complexity param=0.0003125837  
## predicted class=1 expected loss=0.3125 P(node) =0.001269589  
## class counts: 1 22 7 0 1 0 0 0 1 0  
## probabilities: 0.031 0.688 0.219 0.000 0.031 0.000 0.000 0.000 0.031 0.000   
## left son=928 (24 obs) right son=929 (8 obs)  
## Primary splits:  
## 127 < 5 to the left, improve=9.750000, (0 missing)  
## 128 < 106.5 to the left, improve=9.750000, (0 missing)  
## 154 < 2.5 to the left, improve=9.750000, (0 missing)  
## 577 < 48 to the left, improve=9.730000, (0 missing)  
## 155 < 1 to the left, improve=8.177536, (0 missing)  
## Surrogate splits:  
## 128 < 106.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 154 < 2.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 126 < 11 to the left, agree=0.969, adj=0.875, (0 split)  
## 155 < 1 to the left, agree=0.969, adj=0.875, (0 split)  
## 577 < 48 to the left, agree=0.969, adj=0.875, (0 split)  
##   
## Node number 465: 286 observations, complexity param=0.0002232741  
## predicted class=2 expected loss=0.1153846 P(node) =0.01134695  
## class counts: 1 3 253 2 7 0 3 9 3 5  
## probabilities: 0.003 0.010 0.885 0.007 0.024 0.000 0.010 0.031 0.010 0.017   
## left son=930 (275 obs) right son=931 (11 obs)  
## Primary splits:  
## 398 < 100.5 to the left, improve=12.80392, (0 missing)  
## 371 < 119 to the left, improve=12.03539, (0 missing)  
## 370 < 183 to the left, improve=11.69353, (0 missing)  
## 343 < 21.5 to the left, improve=11.44725, (0 missing)  
## 399 < 157 to the left, improve=11.43237, (0 missing)  
## Surrogate splits:  
## 370 < 183 to the left, agree=0.997, adj=0.909, (0 split)  
## 399 < 230 to the left, agree=0.990, adj=0.727, (0 split)  
## 315 < 251 to the left, agree=0.986, adj=0.636, (0 split)  
## 371 < 245.5 to the left, agree=0.986, adj=0.636, (0 split)  
## 397 < 10.5 to the left, agree=0.986, adj=0.636, (0 split)  
##   
## Node number 468: 48 observations, complexity param=0.0001339645  
## predicted class=4 expected loss=0.5 P(node) =0.001904384  
## class counts: 0 1 5 0 24 1 0 2 4 11  
## probabilities: 0.000 0.021 0.104 0.000 0.500 0.021 0.000 0.042 0.083 0.229   
## left son=936 (27 obs) right son=937 (21 obs)  
## Primary splits:  
## 465 < 250 to the right, improve=5.748677, (0 missing)  
## 209 < 225.5 to the left, improve=5.611111, (0 missing)  
## 208 < 72.5 to the left, improve=5.596189, (0 missing)  
## 402 < 48.5 to the right, improve=5.588889, (0 missing)  
## 492 < 250.5 to the right, improve=5.537037, (0 missing)  
## Surrogate splits:  
## 437 < 250 to the right, agree=0.938, adj=0.857, (0 split)  
## 409 < 225.5 to the right, agree=0.896, adj=0.762, (0 split)  
## 438 < 9.5 to the right, agree=0.896, adj=0.762, (0 split)  
## 485 < 142 to the right, agree=0.854, adj=0.667, (0 split)  
## 493 < 156.5 to the right, agree=0.854, adj=0.667, (0 split)  
##   
## Node number 469: 25 observations, complexity param=0.0001339645  
## predicted class=6 expected loss=0.24 P(node) =0.0009918667  
## class counts: 0 0 4 0 0 0 19 2 0 0  
## probabilities: 0.000 0.000 0.160 0.000 0.000 0.000 0.760 0.080 0.000 0.000   
## left son=938 (7 obs) right son=939 (18 obs)  
## Primary splits:  
## 441 < 2.5 to the left, improve=5.76, (0 missing)  
## 468 < 13.5 to the left, improve=5.76, (0 missing)  
## 296 < 220 to the right, improve=5.76, (0 missing)  
## 324 < 251.5 to the right, improve=4.76, (0 missing)  
## 413 < 21.5 to the left, improve=4.76, (0 missing)  
## Surrogate splits:  
## 468 < 13.5 to the left, agree=1.00, adj=1.000, (0 split)  
## 413 < 21.5 to the left, agree=0.96, adj=0.857, (0 split)  
## 440 < 5.5 to the left, agree=0.96, adj=0.857, (0 split)  
## 296 < 220 to the right, agree=0.92, adj=0.714, (0 split)  
## 297 < 234 to the right, agree=0.92, adj=0.714, (0 split)  
##   
## Node number 472: 83 observations  
## predicted class=2 expected loss=0.1566265 P(node) =0.003292997  
## class counts: 3 0 70 3 0 0 2 0 5 0  
## probabilities: 0.036 0.000 0.843 0.036 0.000 0.000 0.024 0.000 0.060 0.000   
##   
## Node number 473: 44 observations, complexity param=0.0004465482  
## predicted class=4 expected loss=0.7272727 P(node) =0.001745685  
## class counts: 0 1 2 0 12 1 12 1 10 5  
## probabilities: 0.000 0.023 0.045 0.000 0.273 0.023 0.273 0.023 0.227 0.114   
## left son=946 (12 obs) right son=947 (32 obs)  
## Primary splits:  
## 220 < 30 to the right, improve=7.079545, (0 missing)  
## 415 < 42.5 to the right, improve=5.933911, (0 missing)  
## 443 < 3.5 to the right, improve=5.933911, (0 missing)  
## 470 < 27 to the right, improve=5.933911, (0 missing)  
## 442 < 40.5 to the right, improve=5.848485, (0 missing)  
## Surrogate splits:  
## 248 < 98 to the right, agree=0.932, adj=0.750, (0 split)  
## 221 < 15.5 to the right, agree=0.886, adj=0.583, (0 split)  
## 247 < 107 to the right, agree=0.864, adj=0.500, (0 split)  
## 275 < 242.5 to the right, agree=0.864, adj=0.500, (0 split)  
## 249 < 14 to the right, agree=0.841, adj=0.417, (0 split)  
##   
## Node number 474: 20 observations, complexity param=0.000111637  
## predicted class=8 expected loss=0.5 P(node) =0.0007934934  
## class counts: 0 0 6 0 3 0 0 1 10 0  
## probabilities: 0.000 0.000 0.300 0.000 0.150 0.000 0.000 0.050 0.500 0.000   
## left son=948 (10 obs) right son=949 (10 obs)  
## Primary splits:  
## 626 < 244 to the right, improve=5.100000, (0 missing)  
## 247 < 13 to the left, improve=4.950000, (0 missing)  
## 374 < 25 to the left, improve=4.950000, (0 missing)  
## 402 < 64 to the left, improve=4.950000, (0 missing)  
## 465 < 228.5 to the right, improve=4.765934, (0 missing)  
## Surrogate splits:  
## 191 < 14 to the left, agree=0.90, adj=0.8, (0 split)  
## 545 < 190 to the right, agree=0.90, adj=0.8, (0 split)  
## 599 < 245.5 to the right, agree=0.90, adj=0.8, (0 split)  
## 627 < 194.5 to the right, agree=0.90, adj=0.8, (0 split)  
## 218 < 133.5 to the left, agree=0.85, adj=0.7, (0 split)  
##   
## Node number 475: 94 observations  
## predicted class=8 expected loss=0 P(node) =0.003729419  
## class counts: 0 0 0 0 0 0 0 0 94 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000   
##   
## Node number 476: 34 observations  
## predicted class=2 expected loss=0.2352941 P(node) =0.001348939  
## class counts: 0 2 26 0 2 0 1 1 2 0  
## probabilities: 0.000 0.059 0.765 0.000 0.059 0.000 0.029 0.029 0.059 0.000   
##   
## Node number 477: 1503 observations, complexity param=0.000491203  
## predicted class=6 expected loss=0.0332668 P(node) =0.05963103  
## class counts: 0 0 4 1 2 27 1453 0 9 7  
## probabilities: 0.000 0.000 0.003 0.001 0.001 0.018 0.967 0.000 0.006 0.005   
## left son=954 (18 obs) right son=955 (1485 obs)  
## Primary splits:  
## 217 < 164 to the right, improve=22.62187, (0 missing)  
## 218 < 139 to the right, improve=21.71964, (0 missing)  
## 215 < 165 to the right, improve=20.87881, (0 missing)  
## 191 < 40 to the right, improve=19.28097, (0 missing)  
## 192 < 25 to the right, improve=18.87744, (0 missing)  
## Surrogate splits:  
## 218 < 139 to the right, agree=0.997, adj=0.778, (0 split)  
## 216 < 194.5 to the right, agree=0.997, adj=0.722, (0 split)  
## 219 < 34 to the right, agree=0.995, adj=0.556, (0 split)  
## 215 < 236.5 to the right, agree=0.994, adj=0.500, (0 split)  
## 220 < 82 to the right, agree=0.994, adj=0.500, (0 split)  
##   
## Node number 478: 67 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.1641791 P(node) =0.002658203  
## class counts: 0 0 0 2 1 56 6 0 2 0  
## probabilities: 0.000 0.000 0.000 0.030 0.015 0.836 0.090 0.000 0.030 0.000   
## left son=956 (58 obs) right son=957 (9 obs)  
## Primary splits:  
## 456 < 140 to the left, improve=9.097101, (0 missing)  
## 484 < 104.5 to the left, improve=6.276934, (0 missing)  
## 485 < 100.5 to the left, improve=4.330817, (0 missing)  
## 427 < 39 to the left, improve=4.108595, (0 missing)  
## 428 < 154 to the left, improve=3.775949, (0 missing)  
## Surrogate splits:  
## 427 < 39 to the left, agree=0.940, adj=0.556, (0 split)  
## 455 < 35.5 to the left, agree=0.940, adj=0.556, (0 split)  
## 405 < 16 to the right, agree=0.925, adj=0.444, (0 split)  
## 484 < 104.5 to the left, agree=0.925, adj=0.444, (0 split)  
## 428 < 154 to the left, agree=0.910, adj=0.333, (0 split)  
##   
## Node number 479: 96 observations, complexity param=0.000870769  
## predicted class=8 expected loss=0.6145833 P(node) =0.003808768  
## class counts: 0 0 2 2 0 19 31 1 37 4  
## probabilities: 0.000 0.000 0.021 0.021 0.000 0.198 0.323 0.010 0.385 0.042   
## left son=958 (34 obs) right son=959 (62 obs)  
## Primary splits:  
## 457 < 103 to the right, improve=13.42750, (0 missing)  
## 429 < 14 to the right, improve=13.11877, (0 missing)  
## 328 < 10 to the left, improve=12.90833, (0 missing)  
## 131 < 9.5 to the right, improve=12.26006, (0 missing)  
## 430 < 226 to the right, improve=11.99758, (0 missing)  
## Surrogate splits:  
## 429 < 22.5 to the right, agree=0.885, adj=0.676, (0 split)  
## 485 < 150.5 to the right, agree=0.885, adj=0.676, (0 split)  
## 456 < 9.5 to the right, agree=0.854, adj=0.588, (0 split)  
## 458 < 246 to the right, agree=0.854, adj=0.588, (0 split)  
## 484 < 17 to the right, agree=0.833, adj=0.529, (0 split)  
##   
## Node number 480: 87 observations  
## predicted class=2 expected loss=0.05747126 P(node) =0.003451696  
## class counts: 0 0 82 2 0 2 0 0 1 0  
## probabilities: 0.000 0.000 0.943 0.023 0.000 0.023 0.000 0.000 0.011 0.000   
##   
## Node number 481: 22 observations, complexity param=0.0002232741  
## predicted class=3 expected loss=0.3181818 P(node) =0.0008728427  
## class counts: 0 0 2 15 0 0 0 0 5 0  
## probabilities: 0.000 0.000 0.091 0.682 0.000 0.000 0.000 0.000 0.227 0.000   
## left son=962 (15 obs) right son=963 (7 obs)  
## Primary splits:  
## 484 < 42.5 to the left, improve=7.597403, (0 missing)  
## 485 < 86 to the left, improve=7.597403, (0 missing)  
## 512 < 106 to the left, improve=7.597403, (0 missing)  
## 511 < 45.5 to the left, improve=6.204545, (0 missing)  
## 513 < 2.5 to the left, improve=6.204545, (0 missing)  
## Surrogate splits:  
## 485 < 86 to the left, agree=1.000, adj=1.000, (0 split)  
## 512 < 106 to the left, agree=1.000, adj=1.000, (0 split)  
## 511 < 45.5 to the left, agree=0.955, adj=0.857, (0 split)  
## 513 < 2.5 to the left, agree=0.955, adj=0.857, (0 split)  
## 321 < 12 to the left, agree=0.909, adj=0.714, (0 split)  
##   
## Node number 482: 87 observations, complexity param=4.465482e-05  
## predicted class=5 expected loss=0.1034483 P(node) =0.003451696  
## class counts: 0 0 2 5 0 78 1 0 1 0  
## probabilities: 0.000 0.000 0.023 0.057 0.000 0.897 0.011 0.000 0.011 0.000   
## left son=964 (9 obs) right son=965 (78 obs)  
## Primary splits:  
## 126 < 110 to the right, improve=5.088712, (0 missing)  
## 185 < 218 to the right, improve=5.088712, (0 missing)  
## 123 < 16 to the right, improve=4.962644, (0 missing)  
## 124 < 86.5 to the right, improve=4.962644, (0 missing)  
## 156 < 174 to the right, improve=4.793725, (0 missing)  
## Surrogate splits:  
## 124 < 43 to the right, agree=0.977, adj=0.778, (0 split)  
## 125 < 7 to the right, agree=0.977, adj=0.778, (0 split)  
## 127 < 37 to the right, agree=0.977, adj=0.778, (0 split)  
## 123 < 7.5 to the right, agree=0.966, adj=0.667, (0 split)  
## 128 < 1 to the right, agree=0.954, adj=0.556, (0 split)  
##   
## Node number 483: 25 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.4 P(node) =0.0009918667  
## class counts: 0 0 2 2 4 1 1 0 15 0  
## probabilities: 0.000 0.000 0.080 0.080 0.160 0.040 0.040 0.000 0.600 0.000   
## left son=966 (7 obs) right son=967 (18 obs)  
## Primary splits:  
## 400 < 192 to the right, improve=5.626667, (0 missing)  
## 485 < 88.5 to the left, improve=5.055238, (0 missing)  
## 401 < 201.5 to the right, improve=4.890556, (0 missing)  
## 512 < 17.5 to the left, improve=4.769524, (0 missing)  
## 439 < 38 to the right, improve=4.652308, (0 missing)  
## Surrogate splits:  
## 427 < 25.5 to the right, agree=0.96, adj=0.857, (0 split)  
## 398 < 3 to the right, agree=0.92, adj=0.714, (0 split)  
## 399 < 97.5 to the right, agree=0.92, adj=0.714, (0 split)  
## 401 < 201.5 to the right, agree=0.92, adj=0.714, (0 split)  
## 426 < 3 to the right, agree=0.92, adj=0.714, (0 split)  
##   
## Node number 484: 1415 observations, complexity param=0.0008037867  
## predicted class=4 expected loss=0.09399293 P(node) =0.05613965  
## class counts: 0 6 14 16 1282 21 15 10 31 20  
## probabilities: 0.000 0.004 0.010 0.011 0.906 0.015 0.011 0.007 0.022 0.014   
## left son=968 (1344 obs) right son=969 (71 obs)  
## Primary splits:  
## 155 < 120.5 to the left, improve=61.80734, (0 missing)  
## 183 < 31.5 to the left, improve=46.27412, (0 missing)  
## 154 < 128 to the left, improve=37.69171, (0 missing)  
## 156 < 179 to the left, improve=33.33936, (0 missing)  
## 429 < 29.5 to the right, improve=24.05030, (0 missing)  
## Surrogate splits:  
## 183 < 82 to the left, agree=0.983, adj=0.662, (0 split)  
## 154 < 169.5 to the left, agree=0.972, adj=0.437, (0 split)  
## 156 < 221 to the left, agree=0.970, adj=0.394, (0 split)  
## 127 < 72 to the left, agree=0.965, adj=0.296, (0 split)  
## 182 < 240.5 to the left, agree=0.963, adj=0.268, (0 split)  
##   
## Node number 485: 54 observations  
## predicted class=6 expected loss=0.05555556 P(node) =0.002142432  
## class counts: 0 0 2 0 1 0 51 0 0 0  
## probabilities: 0.000 0.000 0.037 0.000 0.019 0.000 0.944 0.000 0.000 0.000   
##   
## Node number 486: 93 observations, complexity param=0.0006251675  
## predicted class=9 expected loss=0.5806452 P(node) =0.003689744  
## class counts: 0 0 2 2 24 20 0 5 1 39  
## probabilities: 0.000 0.000 0.022 0.022 0.258 0.215 0.000 0.054 0.011 0.419   
## left son=972 (21 obs) right son=973 (72 obs)  
## Primary splits:  
## 247 < 1.5 to the right, improve=11.82066, (0 missing)  
## 381 < 4 to the left, improve=11.37190, (0 missing)  
## 353 < 5 to the left, improve=10.84927, (0 missing)  
## 248 < 1.5 to the right, improve=10.22326, (0 missing)  
## 354 < 2 to the left, improve=10.20015, (0 missing)  
## Surrogate splits:  
## 246 < 68.5 to the right, agree=0.968, adj=0.857, (0 split)  
## 248 < 1.5 to the right, agree=0.946, adj=0.762, (0 split)  
## 275 < 10.5 to the right, agree=0.935, adj=0.714, (0 split)  
## 218 < 29 to the right, agree=0.925, adj=0.667, (0 split)  
## 219 < 2 to the right, agree=0.925, adj=0.667, (0 split)  
##   
## Node number 487: 47 observations, complexity param=0.0003125837  
## predicted class=7 expected loss=0.3829787 P(node) =0.001864709  
## class counts: 0 0 5 2 0 1 0 29 2 8  
## probabilities: 0.000 0.000 0.106 0.043 0.000 0.021 0.000 0.617 0.043 0.170   
## left son=974 (36 obs) right son=975 (11 obs)  
## Primary splits:  
## 455 < 81.5 to the left, improve=9.107135, (0 missing)  
## 426 < 9 to the left, improve=8.740324, (0 missing)  
## 427 < 1 to the left, improve=8.740324, (0 missing)  
## 370 < 112 to the left, improve=8.707174, (0 missing)  
## 371 < 190.5 to the left, improve=8.707174, (0 missing)  
## Surrogate splits:  
## 426 < 26 to the left, agree=0.957, adj=0.818, (0 split)  
## 427 < 1 to the left, agree=0.936, adj=0.727, (0 split)  
## 370 < 144 to the left, agree=0.915, adj=0.636, (0 split)  
## 398 < 90 to the left, agree=0.915, adj=0.636, (0 split)  
## 454 < 5.5 to the left, agree=0.915, adj=0.636, (0 split)  
##   
## Node number 488: 521 observations, complexity param=0.0009377512  
## predicted class=5 expected loss=0.1516315 P(node) =0.0206705  
## class counts: 0 0 1 35 1 442 24 1 0 17  
## probabilities: 0.000 0.000 0.002 0.067 0.002 0.848 0.046 0.002 0.000 0.033   
## left son=976 (494 obs) right son=977 (27 obs)  
## Primary splits:  
## 516 < 166.5 to the left, improve=37.42924, (0 missing)  
## 544 < 240.5 to the left, improve=35.78384, (0 missing)  
## 100 < 22 to the left, improve=35.66911, (0 missing)  
## 101 < 1.5 to the left, improve=33.93476, (0 missing)  
## 543 < 40 to the left, improve=28.88534, (0 missing)  
## Surrogate splits:  
## 100 < 22 to the left, agree=0.988, adj=0.778, (0 split)  
## 544 < 240.5 to the left, agree=0.988, adj=0.778, (0 split)  
## 101 < 1.5 to the left, agree=0.987, adj=0.741, (0 split)  
## 515 < 67.5 to the left, agree=0.981, adj=0.630, (0 split)  
## 543 < 40 to the left, agree=0.981, adj=0.630, (0 split)  
##   
## Node number 489: 60 observations, complexity param=0.0005805126  
## predicted class=9 expected loss=0.6166667 P(node) =0.00238048  
## class counts: 3 0 13 2 5 3 2 0 9 23  
## probabilities: 0.050 0.000 0.217 0.033 0.083 0.050 0.033 0.000 0.150 0.383   
## left son=978 (25 obs) right son=979 (35 obs)  
## Primary splits:  
## 596 < 14 to the right, improve=11.298100, (0 missing)  
## 155 < 24 to the right, improve= 9.944947, (0 missing)  
## 597 < 21.5 to the right, improve= 9.661661, (0 missing)  
## 595 < 9 to the right, improve= 9.196044, (0 missing)  
## 154 < 7 to the right, improve= 9.104167, (0 missing)  
## Surrogate splits:  
## 597 < 44.5 to the right, agree=0.950, adj=0.88, (0 split)  
## 595 < 9 to the right, agree=0.933, adj=0.84, (0 split)  
## 539 < 13.5 to the right, agree=0.900, adj=0.76, (0 split)  
## 567 < 4.5 to the right, agree=0.900, adj=0.76, (0 split)  
## 568 < 2 to the right, agree=0.900, adj=0.76, (0 split)  
##   
## Node number 490: 79 observations, complexity param=8.930964e-05  
## predicted class=4 expected loss=0.1392405 P(node) =0.003134299  
## class counts: 0 1 1 1 68 0 0 4 1 3  
## probabilities: 0.000 0.013 0.013 0.013 0.861 0.000 0.000 0.051 0.013 0.038   
## left son=980 (71 obs) right son=981 (8 obs)  
## Primary splits:  
## 265 < 248 to the left, improve=5.523801, (0 missing)  
## 436 < 185 to the right, improve=4.886980, (0 missing)  
## 492 < 86.5 to the right, improve=4.420106, (0 missing)  
## 464 < 212.5 to the right, improve=4.353250, (0 missing)  
## 714 < 1 to the left, improve=4.113171, (0 missing)  
## Surrogate splits:  
## 264 < 181 to the left, agree=0.962, adj=0.625, (0 split)  
## 237 < 63.5 to the left, agree=0.949, adj=0.500, (0 split)  
## 258 < 44 to the left, agree=0.937, adj=0.375, (0 split)  
## 714 < 1 to the left, agree=0.937, adj=0.375, (0 split)  
## 741 < 28.5 to the left, agree=0.937, adj=0.375, (0 split)  
##   
## Node number 491: 148 observations, complexity param=0.0008037867  
## predicted class=9 expected loss=0.6689189 P(node) =0.005871851  
## class counts: 0 1 4 17 20 0 2 28 27 49  
## probabilities: 0.000 0.007 0.027 0.115 0.135 0.000 0.014 0.189 0.182 0.331   
## left son=982 (127 obs) right son=983 (21 obs)  
## Primary splits:  
## 544 < 172.5 to the left, improve=15.29669, (0 missing)  
## 346 < 0.5 to the left, improve=14.10428, (0 missing)  
## 345 < 4 to the left, improve=13.30087, (0 missing)  
## 572 < 43 to the left, improve=13.08108, (0 missing)  
## 373 < 3.5 to the left, improve=12.66705, (0 missing)  
## Surrogate splits:  
## 516 < 159 to the left, agree=0.966, adj=0.762, (0 split)  
## 543 < 1 to the left, agree=0.939, adj=0.571, (0 split)  
## 571 < 7.5 to the left, agree=0.939, adj=0.571, (0 split)  
## 572 < 165.5 to the left, agree=0.932, adj=0.524, (0 split)  
## 517 < 252.5 to the left, agree=0.926, adj=0.476, (0 split)  
##   
## Node number 492: 178 observations, complexity param=0.001607573  
## predicted class=3 expected loss=0.5393258 P(node) =0.007062091  
## class counts: 2 0 44 82 1 8 3 0 27 11  
## probabilities: 0.011 0.000 0.247 0.461 0.006 0.045 0.017 0.000 0.152 0.062   
## left son=984 (99 obs) right son=985 (79 obs)  
## Primary splits:  
## 484 < 46 to the left, improve=36.93243, (0 missing)  
## 483 < 2.5 to the left, improve=34.73228, (0 missing)  
## 485 < 2 to the left, improve=29.35907, (0 missing)  
## 379 < 121 to the left, improve=29.01655, (0 missing)  
## 511 < 69.5 to the left, improve=28.38304, (0 missing)  
## Surrogate splits:  
## 483 < 2.5 to the left, agree=0.938, adj=0.861, (0 split)  
## 485 < 2 to the left, agree=0.904, adj=0.785, (0 split)  
## 511 < 31.5 to the left, agree=0.904, adj=0.785, (0 split)  
## 512 < 6 to the left, agree=0.904, adj=0.785, (0 split)  
## 457 < 47.5 to the left, agree=0.876, adj=0.722, (0 split)  
##   
## Node number 493: 228 observations, complexity param=0.001607573  
## predicted class=4 expected loss=0.5570175 P(node) =0.009045824  
## class counts: 1 0 9 16 101 4 1 1 50 45  
## probabilities: 0.004 0.000 0.039 0.070 0.443 0.018 0.004 0.004 0.219 0.197   
## left son=986 (138 obs) right son=987 (90 obs)  
## Primary splits:  
## 428 < 25 to the right, improve=29.39194, (0 missing)  
## 658 < 3.5 to the left, improve=29.31754, (0 missing)  
## 544 < 104 to the left, improve=29.17931, (0 missing)  
## 427 < 2.5 to the right, improve=27.69817, (0 missing)  
## 657 < 62 to the left, improve=27.61997, (0 missing)  
## Surrogate splits:  
## 456 < 1.5 to the right, agree=0.912, adj=0.778, (0 split)  
## 400 < 31 to the right, agree=0.904, adj=0.756, (0 split)  
## 429 < 109.5 to the right, agree=0.882, adj=0.700, (0 split)  
## 427 < 2.5 to the right, agree=0.877, adj=0.689, (0 split)  
## 457 < 32 to the right, agree=0.873, adj=0.678, (0 split)  
##   
## Node number 494: 293 observations, complexity param=0.0006698223  
## predicted class=9 expected loss=0.5119454 P(node) =0.01162468  
## class counts: 1 0 17 52 23 1 0 43 13 143  
## probabilities: 0.003 0.000 0.058 0.177 0.078 0.003 0.000 0.147 0.044 0.488   
## left son=988 (176 obs) right son=989 (117 obs)  
## Primary splits:  
## 319 < 108.5 to the left, improve=23.69464, (0 missing)  
## 320 < 2.5 to the left, improve=22.47628, (0 missing)  
## 318 < 3.5 to the left, improve=21.91279, (0 missing)  
## 347 < 71 to the left, improve=21.76380, (0 missing)  
## 292 < 66.5 to the left, improve=20.70928, (0 missing)  
## Surrogate splits:  
## 347 < 71 to the left, agree=0.973, adj=0.932, (0 split)  
## 320 < 2.5 to the left, agree=0.959, adj=0.897, (0 split)  
## 292 < 85.5 to the left, agree=0.952, adj=0.880, (0 split)  
## 318 < 1 to the left, agree=0.939, adj=0.846, (0 split)  
## 291 < 13.5 to the left, agree=0.928, adj=0.821, (0 split)  
##   
## Node number 495: 1152 observations, complexity param=0.0006698223  
## predicted class=9 expected loss=0.1137153 P(node) =0.04570522  
## class counts: 0 0 1 10 69 6 0 11 34 1021  
## probabilities: 0.000 0.000 0.001 0.009 0.060 0.005 0.000 0.010 0.030 0.886   
## left son=990 (66 obs) right son=991 (1086 obs)  
## Primary splits:  
## 212 < 14 to the left, improve=28.50180, (0 missing)  
## 219 < 193 to the right, improve=22.58637, (0 missing)  
## 191 < 63 to the right, improve=22.43587, (0 missing)  
## 220 < 2 to the right, improve=20.35757, (0 missing)  
## 213 < 0.5 to the left, improve=18.59774, (0 missing)  
## Surrogate splits:  
## 191 < 166 to the right, agree=0.948, adj=0.091, (0 split)  
## 154 < 96 to the right, agree=0.947, adj=0.076, (0 split)  
## 164 < 9.5 to the right, agree=0.947, adj=0.076, (0 split)  
## 192 < 27.5 to the right, agree=0.946, adj=0.061, (0 split)  
## 219 < 200.5 to the right, agree=0.946, adj=0.061, (0 split)  
##   
## Node number 496: 40 observations, complexity param=0.0002679289  
## predicted class=3 expected loss=0.4 P(node) =0.001586987  
## class counts: 1 6 0 24 3 4 1 0 0 1  
## probabilities: 0.025 0.150 0.000 0.600 0.075 0.100 0.025 0.000 0.000 0.025   
## left son=992 (26 obs) right son=993 (14 obs)  
## Primary splits:  
## 490 < 1 to the left, improve=9.945055, (0 missing)  
## 462 < 37.5 to the left, improve=9.367521, (0 missing)  
## 518 < 24 to the right, improve=9.133903, (0 missing)  
## 517 < 7 to the right, improve=8.523810, (0 missing)  
## 545 < 19.5 to the right, improve=8.523810, (0 missing)  
## Surrogate splits:  
## 462 < 37.5 to the left, agree=0.975, adj=0.929, (0 split)  
## 518 < 24 to the left, agree=0.975, adj=0.929, (0 split)  
## 517 < 7 to the left, agree=0.950, adj=0.857, (0 split)  
## 545 < 19.5 to the left, agree=0.950, adj=0.857, (0 split)  
## 546 < 15.5 to the left, agree=0.925, adj=0.786, (0 split)  
##   
## Node number 497: 135 observations, complexity param=0.0002679289  
## predicted class=5 expected loss=0.1777778 P(node) =0.00535608  
## class counts: 0 1 4 16 0 111 1 0 1 1  
## probabilities: 0.000 0.007 0.030 0.119 0.000 0.822 0.007 0.000 0.007 0.007   
## left son=994 (25 obs) right son=995 (110 obs)  
## Primary splits:  
## 150 < 65 to the right, improve=10.710710, (0 missing)  
## 151 < 133.5 to the right, improve=10.355560, (0 missing)  
## 149 < 46 to the right, improve=10.235900, (0 missing)  
## 176 < 25.5 to the right, improve= 8.979616, (0 missing)  
## 152 < 138.5 to the right, improve= 8.784127, (0 missing)  
## Surrogate splits:  
## 151 < 227.5 to the right, agree=0.948, adj=0.72, (0 split)  
## 149 < 25.5 to the right, agree=0.941, adj=0.68, (0 split)  
## 123 < 9.5 to the right, agree=0.933, adj=0.64, (0 split)  
## 122 < 3.5 to the right, agree=0.926, adj=0.60, (0 split)  
## 152 < 138.5 to the right, agree=0.904, adj=0.48, (0 split)  
##   
## Node number 498: 46 observations, complexity param=0.0004018934  
## predicted class=8 expected loss=0.4347826 P(node) =0.001825035  
## class counts: 0 5 2 9 0 0 0 3 26 1  
## probabilities: 0.000 0.109 0.043 0.196 0.000 0.000 0.000 0.065 0.565 0.022   
## left son=996 (18 obs) right son=997 (28 obs)  
## Primary splits:  
## 348 < 11.5 to the left, improve=13.425810, (0 missing)  
## 347 < 20.5 to the left, improve=10.983680, (0 missing)  
## 376 < 113 to the left, improve=10.578990, (0 missing)  
## 319 < 3 to the left, improve=10.226420, (0 missing)  
## 377 < 111.5 to the left, improve= 9.637319, (0 missing)  
## Surrogate splits:  
## 347 < 20.5 to the left, agree=0.935, adj=0.833, (0 split)  
## 376 < 113 to the left, agree=0.913, adj=0.778, (0 split)  
## 377 < 111.5 to the left, agree=0.913, adj=0.778, (0 split)  
## 351 < 148 to the right, agree=0.891, adj=0.722, (0 split)  
## 319 < 3 to the left, agree=0.870, adj=0.667, (0 split)  
##   
## Node number 499: 92 observations, complexity param=0.0008484415  
## predicted class=9 expected loss=0.5 P(node) =0.003650069  
## class counts: 0 0 2 8 27 1 0 5 3 46  
## probabilities: 0.000 0.000 0.022 0.087 0.293 0.011 0.000 0.054 0.033 0.500   
## left son=998 (32 obs) right son=999 (60 obs)  
## Primary splits:  
## 210 < 49 to the left, improve=15.898190, (0 missing)  
## 211 < 18 to the left, improve=14.630380, (0 missing)  
## 237 < 12.5 to the left, improve=12.035720, (0 missing)  
## 212 < 19 to the left, improve=10.219870, (0 missing)  
## 238 < 8 to the left, improve= 9.997799, (0 missing)  
## Surrogate splits:  
## 209 < 3 to the left, agree=0.891, adj=0.687, (0 split)  
## 211 < 11.5 to the left, agree=0.891, adj=0.687, (0 split)  
## 237 < 1.5 to the left, agree=0.848, adj=0.562, (0 split)  
## 212 < 19 to the left, agree=0.815, adj=0.469, (0 split)  
## 238 < 0.5 to the left, agree=0.815, adj=0.469, (0 split)  
##   
## Node number 500: 54 observations, complexity param=0.000491203  
## predicted class=1 expected loss=0.2962963 P(node) =0.002142432  
## class counts: 2 38 0 1 0 2 11 0 0 0  
## probabilities: 0.037 0.704 0.000 0.019 0.000 0.037 0.204 0.000 0.000 0.000   
## left son=1000 (39 obs) right son=1001 (15 obs)  
## Primary splits:  
## 568 < 14 to the left, improve=16.36980, (0 missing)  
## 268 < 40 to the right, improve=15.85899, (0 missing)  
## 296 < 37.5 to the right, improve=15.65485, (0 missing)  
## 295 < 10.5 to the right, improve=15.54233, (0 missing)  
## 323 < 23 to the right, improve=15.54233, (0 missing)  
## Surrogate splits:  
## 567 < 18.5 to the left, agree=0.981, adj=0.933, (0 split)  
## 569 < 28 to the left, agree=0.981, adj=0.933, (0 split)  
## 596 < 77 to the left, agree=0.981, adj=0.933, (0 split)  
## 597 < 144 to the left, agree=0.981, adj=0.933, (0 split)  
## 296 < 37.5 to the right, agree=0.963, adj=0.867, (0 split)  
##   
## Node number 501: 39 observations, complexity param=8.930964e-05  
## predicted class=2 expected loss=0.3846154 P(node) =0.001547312  
## class counts: 2 3 24 4 0 0 1 5 0 0  
## probabilities: 0.051 0.077 0.615 0.103 0.000 0.000 0.026 0.128 0.000 0.000   
## left son=1002 (25 obs) right son=1003 (14 obs)  
## Primary splits:  
## 545 < 104 to the right, improve=6.094799, (0 missing)  
## 231 < 5 to the right, improve=5.025776, (0 missing)  
## 544 < 23 to the right, improve=4.757021, (0 missing)  
## 518 < 165.5 to the right, improve=4.574799, (0 missing)  
## 204 < 15 to the right, improve=4.467252, (0 missing)  
## Surrogate splits:  
## 518 < 165.5 to the right, agree=0.949, adj=0.857, (0 split)  
## 517 < 13.5 to the right, agree=0.923, adj=0.786, (0 split)  
## 490 < 223.5 to the right, agree=0.897, adj=0.714, (0 split)  
## 573 < 178 to the right, agree=0.872, adj=0.643, (0 split)  
## 544 < 23 to the right, agree=0.846, adj=0.571, (0 split)  
##   
## Node number 502: 23 observations, complexity param=0.0002232741  
## predicted class=2 expected loss=0.5652174 P(node) =0.0009125174  
## class counts: 0 3 10 2 1 0 5 1 1 0  
## probabilities: 0.000 0.130 0.435 0.087 0.043 0.000 0.217 0.043 0.043 0.000   
## left son=1004 (12 obs) right son=1005 (11 obs)  
## Primary splits:  
## 176 < 25.5 to the right, improve=5.899868, (0 missing)  
## 202 < 6.5 to the right, improve=5.899868, (0 missing)  
## 203 < 13 to the right, improve=5.899868, (0 missing)  
## 177 < 77.5 to the right, improve=5.546488, (0 missing)  
## 210 < 201 to the right, improve=5.369565, (0 missing)  
## Surrogate splits:  
## 202 < 6.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 203 < 13 to the right, agree=1.000, adj=1.000, (0 split)  
## 175 < 27 to the right, agree=0.957, adj=0.909, (0 split)  
## 177 < 77.5 to the right, agree=0.957, adj=0.909, (0 split)  
## 240 < 50 to the right, agree=0.957, adj=0.909, (0 split)  
##   
## Node number 503: 1337 observations, complexity param=0.0003572385  
## predicted class=7 expected loss=0.03141361 P(node) =0.05304503  
## class counts: 2 9 11 4 3 0 2 1295 0 11  
## probabilities: 0.001 0.007 0.008 0.003 0.002 0.000 0.001 0.969 0.000 0.008   
## left son=1006 (10 obs) right son=1007 (1327 obs)  
## Primary splits:  
## 158 < 54 to the right, improve=16.191000, (0 missing)  
## 159 < 24.5 to the right, improve=14.330360, (0 missing)  
## 157 < 3 to the right, improve=12.494870, (0 missing)  
## 461 < 219.5 to the right, improve=11.010110, (0 missing)  
## 433 < 113.5 to the right, improve= 6.680192, (0 missing)  
## Surrogate splits:  
## 159 < 24.5 to the right, agree=0.999, adj=0.9, (0 split)  
## 157 < 3 to the right, agree=0.999, adj=0.8, (0 split)  
## 130 < 4.5 to the right, agree=0.996, adj=0.4, (0 split)  
## 131 < 35.5 to the right, agree=0.996, adj=0.4, (0 split)  
## 160 < 78.5 to the right, agree=0.995, adj=0.3, (0 split)  
##   
## Node number 504: 29 observations, complexity param=0.0001562919  
## predicted class=4 expected loss=0.6206897 P(node) =0.001150565  
## class counts: 1 1 8 0 11 1 3 1 1 2  
## probabilities: 0.034 0.034 0.276 0.000 0.379 0.034 0.103 0.034 0.034 0.069   
## left son=1008 (11 obs) right son=1009 (18 obs)  
## Primary splits:  
## 398 < 2.5 to the right, improve=6.737374, (0 missing)  
## 399 < 10.5 to the right, improve=6.737374, (0 missing)  
## 426 < 13 to the left, improve=6.147059, (0 missing)  
## 371 < 59 to the right, improve=5.673684, (0 missing)  
## 427 < 73.5 to the right, improve=5.673684, (0 missing)  
## Surrogate splits:  
## 399 < 10.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 371 < 59 to the right, agree=0.966, adj=0.909, (0 split)  
## 426 < 13 to the right, agree=0.966, adj=0.909, (0 split)  
## 427 < 73.5 to the right, agree=0.966, adj=0.909, (0 split)  
## 454 < 0.5 to the right, agree=0.931, adj=0.818, (0 split)  
##   
## Node number 505: 103 observations, complexity param=4.465482e-05  
## predicted class=4 expected loss=0.0776699 P(node) =0.004086491  
## class counts: 0 0 0 0 95 0 3 0 0 5  
## probabilities: 0.000 0.000 0.000 0.000 0.922 0.000 0.029 0.000 0.000 0.049   
## left son=1010 (96 obs) right son=1011 (7 obs)  
## Primary splits:  
## 490 < 97.5 to the right, improve=3.890806, (0 missing)  
## 463 < 137 to the right, improve=3.096163, (0 missing)  
## 210 < 11.5 to the left, improve=2.586422, (0 missing)  
## 209 < 135.5 to the left, improve=2.380440, (0 missing)  
## 491 < 38 to the right, improve=2.015806, (0 missing)  
## Surrogate splits:  
## 207 < 254.5 to the left, agree=0.951, adj=0.286, (0 split)  
## 235 < 254.5 to the left, agree=0.951, adj=0.286, (0 split)  
## 268 < 254.5 to the left, agree=0.951, adj=0.286, (0 split)  
## 491 < 3 to the right, agree=0.951, adj=0.286, (0 split)  
## 719 < 59.5 to the left, agree=0.951, adj=0.286, (0 split)  
##   
## Node number 508: 24 observations, complexity param=0.0001339645  
## predicted class=7 expected loss=0.3333333 P(node) =0.000952192  
## class counts: 0 0 4 0 2 0 0 16 0 2  
## probabilities: 0.000 0.000 0.167 0.000 0.083 0.000 0.000 0.667 0.000 0.083   
## left son=1016 (8 obs) right son=1017 (16 obs)  
## Primary splits:  
## 233 < 2.5 to the left, improve=5.208333, (0 missing)  
## 234 < 20 to the left, improve=5.208333, (0 missing)  
## 494 < 6 to the left, improve=5.208333, (0 missing)  
## 207 < 88 to the left, improve=4.708333, (0 missing)  
## 205 < 74 to the left, improve=4.333333, (0 missing)  
## Surrogate splits:  
## 234 < 20 to the left, agree=1.000, adj=1.000, (0 split)  
## 205 < 23.5 to the left, agree=0.958, adj=0.875, (0 split)  
## 206 < 58.5 to the left, agree=0.958, adj=0.875, (0 split)  
## 207 < 41.5 to the left, agree=0.958, adj=0.875, (0 split)  
## 235 < 12.5 to the left, agree=0.958, adj=0.875, (0 split)  
##   
## Node number 509: 26 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.5 P(node) =0.001031541  
## class counts: 0 0 0 0 10 0 0 0 3 13  
## probabilities: 0.000 0.000 0.000 0.000 0.385 0.000 0.000 0.000 0.115 0.500   
## left son=1018 (12 obs) right son=1019 (14 obs)  
## Primary splits:  
## 382 < 178.5 to the left, improve=6.902930, (0 missing)  
## 355 < 79 to the left, improve=6.786480, (0 missing)  
## 383 < 20.5 to the left, improve=6.786480, (0 missing)  
## 410 < 175 to the left, improve=5.615385, (0 missing)  
## 344 < 3 to the left, improve=4.557692, (0 missing)  
## Surrogate splits:  
## 355 < 79 to the left, agree=0.962, adj=0.917, (0 split)  
## 383 < 20.5 to the left, agree=0.962, adj=0.917, (0 split)  
## 410 < 51 to the left, agree=0.885, adj=0.750, (0 split)  
## 354 < 243.5 to the left, agree=0.846, adj=0.667, (0 split)  
## 327 < 35 to the left, agree=0.808, adj=0.583, (0 split)  
##   
## Node number 510: 25 observations, complexity param=0.0002902563  
## predicted class=4 expected loss=0.44 P(node) =0.0009918667  
## class counts: 0 0 1 0 14 0 0 1 0 9  
## probabilities: 0.000 0.000 0.040 0.000 0.560 0.000 0.000 0.040 0.000 0.360   
## left son=1020 (17 obs) right son=1021 (8 obs)  
## Primary splits:  
## 434 < 94 to the left, improve=8.545882, (0 missing)  
## 267 < 139.5 to the right, improve=4.590000, (0 missing)  
## 351 < 104 to the right, improve=4.590000, (0 missing)  
## 456 < 179.5 to the right, improve=4.411429, (0 missing)  
## 492 < 225.5 to the right, improve=4.333506, (0 missing)  
## Surrogate splits:  
## 433 < 49 to the left, agree=0.92, adj=0.750, (0 split)  
## 406 < 4 to the left, agree=0.88, adj=0.625, (0 split)  
## 464 < 218 to the right, agree=0.88, adj=0.625, (0 split)  
## 490 < 102 to the right, agree=0.88, adj=0.625, (0 split)  
## 243 < 132.5 to the left, agree=0.84, adj=0.500, (0 split)  
##   
## Node number 511: 143 observations  
## predicted class=9 expected loss=0.0979021 P(node) =0.005673477  
## class counts: 0 0 3 1 3 0 1 5 1 129  
## probabilities: 0.000 0.000 0.021 0.007 0.021 0.000 0.007 0.035 0.007 0.902   
##   
## Node number 512: 2249 observations, complexity param=8.930964e-05  
## predicted class=1 expected loss=0.01823032 P(node) =0.08922833  
## class counts: 0 2208 2 2 1 4 4 8 19 1  
## probabilities: 0.000 0.982 0.001 0.001 0.000 0.002 0.002 0.004 0.008 0.000   
## left son=1024 (2237 obs) right son=1025 (12 obs)  
## Primary splits:  
## 410 < 32 to the left, improve=9.285559, (0 missing)  
## 430 < 196.5 to the left, improve=7.490684, (0 missing)  
## 437 < 198 to the left, improve=7.445189, (0 missing)  
## 411 < 32 to the left, improve=6.891602, (0 missing)  
## 438 < 3 to the left, improve=6.695199, (0 missing)  
## Surrogate splits:  
## 438 < 3 to the left, agree=0.998, adj=0.667, (0 split)  
## 437 < 211.5 to the left, agree=0.997, adj=0.500, (0 split)  
## 384 < 16 to the left, agree=0.997, adj=0.417, (0 split)  
## 411 < 32 to the left, agree=0.997, adj=0.417, (0 split)  
## 409 < 245 to the left, agree=0.996, adj=0.333, (0 split)  
##   
## Node number 513: 11 observations  
## predicted class=3 expected loss=0.6363636 P(node) =0.0004364213  
## class counts: 0 1 2 4 1 1 1 0 0 1  
## probabilities: 0.000 0.091 0.182 0.364 0.091 0.091 0.091 0.000 0.000 0.091   
##   
## Node number 514: 19 observations  
## predicted class=2 expected loss=0.5789474 P(node) =0.0007538187  
## class counts: 0 0 8 0 5 4 2 0 0 0  
## probabilities: 0.000 0.000 0.421 0.000 0.263 0.211 0.105 0.000 0.000 0.000   
##   
## Node number 515: 12 observations  
## predicted class=1 expected loss=0.5833333 P(node) =0.000476096  
## class counts: 0 5 0 0 0 1 1 0 5 0  
## probabilities: 0.000 0.417 0.000 0.000 0.000 0.083 0.083 0.000 0.417 0.000   
##   
## Node number 544: 25 observations, complexity param=0.0002232741  
## predicted class=1 expected loss=0.48 P(node) =0.0009918667  
## class counts: 0 13 3 5 2 1 0 1 0 0  
## probabilities: 0.000 0.520 0.120 0.200 0.080 0.040 0.000 0.040 0.000 0.000   
## left son=1088 (16 obs) right son=1089 (9 obs)  
## Primary splits:  
## 603 < 181 to the right, improve=5.959444, (0 missing)  
## 631 < 32.5 to the right, improve=5.959444, (0 missing)  
## 185 < 9.5 to the left, improve=5.782857, (0 missing)  
## 374 < 32.5 to the left, improve=5.211429, (0 missing)  
## 265 < 230 to the right, improve=5.211429, (0 missing)  
## Surrogate splits:  
## 631 < 32.5 to the right, agree=1.00, adj=1.000, (0 split)  
## 325 < 10.5 to the left, agree=0.92, adj=0.778, (0 split)  
## 326 < 8 to the left, agree=0.92, adj=0.778, (0 split)  
## 599 < 25.5 to the left, agree=0.92, adj=0.778, (0 split)  
## 604 < 102.5 to the right, agree=0.92, adj=0.778, (0 split)  
##   
## Node number 545: 68 observations, complexity param=0.0002232741  
## predicted class=6 expected loss=0.2647059 P(node) =0.002697877  
## class counts: 7 0 6 1 1 2 50 0 0 1  
## probabilities: 0.103 0.000 0.088 0.015 0.015 0.029 0.735 0.000 0.000 0.015   
## left son=1090 (12 obs) right son=1091 (56 obs)  
## Primary splits:  
## 244 < 56 to the right, improve=8.191877, (0 missing)  
## 567 < 224.5 to the right, improve=7.572943, (0 missing)  
## 123 < 192.5 to the right, improve=7.446756, (0 missing)  
## 150 < 251.5 to the right, improve=7.446756, (0 missing)  
## 151 < 133 to the right, improve=7.446756, (0 missing)  
## Surrogate splits:  
## 243 < 190.5 to the right, agree=0.956, adj=0.750, (0 split)  
## 245 < 10 to the right, agree=0.956, adj=0.750, (0 split)  
## 272 < 2.5 to the right, agree=0.941, adj=0.667, (0 split)  
## 217 < 97 to the right, agree=0.926, adj=0.583, (0 split)  
## 271 < 142.5 to the right, agree=0.926, adj=0.583, (0 split)  
##   
## Node number 546: 67 observations, complexity param=0.000491203  
## predicted class=2 expected loss=0.6865672 P(node) =0.002658203  
## class counts: 5 6 21 6 4 19 1 0 5 0  
## probabilities: 0.075 0.090 0.313 0.090 0.060 0.284 0.015 0.000 0.075 0.000   
## left son=1092 (13 obs) right son=1093 (54 obs)  
## Primary splits:  
## 552 < 26 to the right, improve=9.399668, (0 missing)  
## 553 < 31.5 to the right, improve=9.399668, (0 missing)  
## 554 < 40 to the right, improve=9.399668, (0 missing)  
## 555 < 12.5 to the right, improve=9.399668, (0 missing)  
## 524 < 8 to the right, improve=8.635048, (0 missing)  
## Surrogate splits:  
## 553 < 79.5 to the right, agree=0.970, adj=0.846, (0 split)  
## 524 < 197 to the right, agree=0.940, adj=0.692, (0 split)  
## 554 < 40 to the right, agree=0.940, adj=0.692, (0 split)  
## 555 < 12.5 to the right, agree=0.940, adj=0.692, (0 split)  
## 525 < 186 to the right, agree=0.925, adj=0.615, (0 split)  
##   
## Node number 547: 92 observations, complexity param=0.0007144771  
## predicted class=4 expected loss=0.6413043 P(node) =0.003650069  
## class counts: 0 14 1 2 33 2 3 7 1 29  
## probabilities: 0.000 0.152 0.011 0.022 0.359 0.022 0.033 0.076 0.011 0.315   
## left son=1094 (22 obs) right son=1095 (70 obs)  
## Primary splits:  
## 456 < 13.5 to the right, improve=12.39633, (0 missing)  
## 429 < 115.5 to the right, improve=12.32083, (0 missing)  
## 401 < 130.5 to the right, improve=11.91346, (0 missing)  
## 428 < 0.5 to the right, improve=11.63469, (0 missing)  
## 467 < 2.5 to the right, improve=11.42450, (0 missing)  
## Surrogate splits:  
## 428 < 60 to the right, agree=0.957, adj=0.818, (0 split)  
## 457 < 198.5 to the right, agree=0.946, adj=0.773, (0 split)  
## 429 < 160 to the right, agree=0.935, adj=0.727, (0 split)  
## 455 < 2 to the right, agree=0.935, adj=0.727, (0 split)  
## 484 < 7 to the right, agree=0.935, adj=0.727, (0 split)  
##   
## Node number 552: 77 observations  
## predicted class=1 expected loss=0.09090909 P(node) =0.003054949  
## class counts: 0 70 1 0 0 1 1 2 1 1  
## probabilities: 0.000 0.909 0.013 0.000 0.000 0.013 0.013 0.026 0.013 0.013   
##   
## Node number 553: 18 observations  
## predicted class=8 expected loss=0.6111111 P(node) =0.000714144  
## class counts: 1 2 0 1 0 2 0 2 7 3  
## probabilities: 0.056 0.111 0.000 0.056 0.000 0.111 0.000 0.111 0.389 0.167   
##   
## Node number 554: 11 observations  
## predicted class=4 expected loss=0.1818182 P(node) =0.0004364213  
## class counts: 0 0 0 0 9 0 1 0 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.818 0.000 0.091 0.000 0.000 0.091   
##   
## Node number 555: 28 observations, complexity param=0.0002679289  
## predicted class=8 expected loss=0.7142857 P(node) =0.001110891  
## class counts: 2 1 0 3 1 6 2 0 8 5  
## probabilities: 0.071 0.036 0.000 0.107 0.036 0.214 0.071 0.000 0.286 0.179   
## left son=1110 (7 obs) right son=1111 (21 obs)  
## Primary splits:  
## 379 < 17.5 to the left, improve=5.047619, (0 missing)  
## 378 < 119 to the left, improve=4.857143, (0 missing)  
## 406 < 165 to the left, improve=4.279365, (0 missing)  
## 407 < 62 to the left, improve=4.279365, (0 missing)  
## 408 < 141.5 to the left, improve=3.913553, (0 missing)  
## Surrogate splits:  
## 378 < 119 to the left, agree=0.964, adj=0.857, (0 split)  
## 240 < 232.5 to the left, agree=0.929, adj=0.714, (0 split)  
## 267 < 214 to the left, agree=0.893, adj=0.571, (0 split)  
## 277 < 3.5 to the right, agree=0.893, adj=0.571, (0 split)  
## 380 < 15.5 to the left, agree=0.893, adj=0.571, (0 split)  
##   
## Node number 556: 37 observations, complexity param=0.0002902563  
## predicted class=3 expected loss=0.6486486 P(node) =0.001467963  
## class counts: 1 1 1 13 5 2 0 1 12 1  
## probabilities: 0.027 0.027 0.027 0.351 0.135 0.054 0.000 0.027 0.324 0.027   
## left son=1112 (19 obs) right son=1113 (18 obs)  
## Primary splits:  
## 317 < 4.5 to the left, improve=8.604078, (0 missing)  
## 232 < 12 to the left, improve=8.288288, (0 missing)  
## 318 < 65.5 to the left, improve=7.824003, (0 missing)  
## 544 < 31 to the left, improve=7.645013, (0 missing)  
## 289 < 12.5 to the left, improve=7.627682, (0 missing)  
## Surrogate splits:  
## 289 < 3.5 to the left, agree=0.973, adj=0.944, (0 split)  
## 318 < 164.5 to the left, agree=0.973, adj=0.944, (0 split)  
## 290 < 3 to the left, agree=0.892, adj=0.778, (0 split)  
## 316 < 6.5 to the left, agree=0.865, adj=0.722, (0 split)  
## 403 < 153 to the right, agree=0.865, adj=0.722, (0 split)  
##   
## Node number 557: 87 observations, complexity param=4.465482e-05  
## predicted class=8 expected loss=0.1149425 P(node) =0.003451696  
## class counts: 0 2 0 2 4 1 0 0 77 1  
## probabilities: 0.000 0.023 0.000 0.023 0.046 0.011 0.000 0.000 0.885 0.011   
## left son=1114 (8 obs) right son=1115 (79 obs)  
## Primary splits:  
## 401 < 186 to the right, improve=4.206787, (0 missing)  
## 345 < 150 to the right, improve=4.069581, (0 missing)  
## 461 < 165.5 to the left, improve=3.523153, (0 missing)  
## 373 < 6.5 to the right, improve=3.385057, (0 missing)  
## 184 < 84 to the left, improve=2.956787, (0 missing)  
## Surrogate splits:  
## 373 < 190.5 to the right, agree=0.977, adj=0.750, (0 split)  
## 400 < 77.5 to the right, agree=0.966, adj=0.625, (0 split)  
## 372 < 38.5 to the right, agree=0.954, adj=0.500, (0 split)  
## 402 < 249 to the right, agree=0.954, adj=0.500, (0 split)  
## 344 < 6.5 to the right, agree=0.943, adj=0.375, (0 split)  
##   
## Node number 586: 24 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.4583333 P(node) =0.000952192  
## class counts: 0 0 13 1 0 0 3 1 6 0  
## probabilities: 0.000 0.000 0.542 0.042 0.000 0.000 0.125 0.042 0.250 0.000   
## left son=1172 (16 obs) right son=1173 (8 obs)  
## Primary splits:  
## 270 < 4.5 to the left, improve=4.25, (0 missing)  
## 470 < 11.5 to the right, improve=3.50, (0 missing)  
## 471 < 11.5 to the right, improve=3.50, (0 missing)  
## 472 < 1.5 to the right, improve=3.50, (0 missing)  
## 498 < 68.5 to the right, improve=3.50, (0 missing)  
## Surrogate splits:  
## 242 < 3 to the left, agree=0.958, adj=0.875, (0 split)  
## 214 < 2.5 to the left, agree=0.917, adj=0.750, (0 split)  
## 241 < 120.5 to the left, agree=0.917, adj=0.750, (0 split)  
## 269 < 136 to the left, agree=0.917, adj=0.750, (0 split)  
## 607 < 221.5 to the left, agree=0.917, adj=0.750, (0 split)  
##   
## Node number 587: 12 observations  
## predicted class=3 expected loss=0.25 P(node) =0.000476096  
## class counts: 0 0 0 9 0 0 0 1 1 1  
## probabilities: 0.000 0.000 0.000 0.750 0.000 0.000 0.000 0.083 0.083 0.083   
##   
## Node number 598: 9 observations  
## predicted class=9 expected loss=0.5555556 P(node) =0.000357072  
## class counts: 0 0 1 0 0 3 0 1 0 4  
## probabilities: 0.000 0.000 0.111 0.000 0.000 0.333 0.000 0.111 0.000 0.444   
##   
## Node number 599: 11 observations  
## predicted class=8 expected loss=0.09090909 P(node) =0.0004364213  
## class counts: 0 0 0 0 0 0 0 0 10 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.909 0.091   
##   
## Node number 612: 34 observations, complexity param=0.0003125837  
## predicted class=2 expected loss=0.2941176 P(node) =0.001348939  
## class counts: 0 1 24 8 0 0 0 0 1 0  
## probabilities: 0.000 0.029 0.706 0.235 0.000 0.000 0.000 0.000 0.029 0.000   
## left son=1224 (24 obs) right son=1225 (10 obs)  
## Primary splits:  
## 543 < 81 to the right, improve=9.800980, (0 missing)  
## 544 < 69 to the right, improve=8.477331, (0 missing)  
## 516 < 79.5 to the right, improve=8.024314, (0 missing)  
## 571 < 14.5 to the right, improve=7.921880, (0 missing)  
## 600 < 120 to the right, improve=7.921880, (0 missing)  
## Surrogate splits:  
## 516 < 79.5 to the right, agree=0.971, adj=0.9, (0 split)  
## 544 < 69 to the right, agree=0.971, adj=0.9, (0 split)  
## 571 < 185 to the right, agree=0.941, adj=0.8, (0 split)  
## 600 < 120 to the right, agree=0.912, adj=0.7, (0 split)  
## 572 < 3.5 to the right, agree=0.882, adj=0.6, (0 split)  
##   
## Node number 613: 13 observations  
## predicted class=8 expected loss=0.2307692 P(node) =0.0005157707  
## class counts: 0 3 0 0 0 0 0 0 10 0  
## probabilities: 0.000 0.231 0.000 0.000 0.000 0.000 0.000 0.000 0.769 0.000   
##   
## Node number 614: 7 observations  
## predicted class=3 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 0 5 0 0 0 1 1 0  
## probabilities: 0.000 0.000 0.000 0.714 0.000 0.000 0.000 0.143 0.143 0.000   
##   
## Node number 615: 49 observations  
## predicted class=7 expected loss=0.1632653 P(node) =0.001944059  
## class counts: 0 5 2 0 0 0 0 41 0 1  
## probabilities: 0.000 0.102 0.041 0.000 0.000 0.000 0.000 0.837 0.000 0.020   
##   
## Node number 624: 26 observations, complexity param=0.0002976988  
## predicted class=1 expected loss=0.5 P(node) =0.001031541  
## class counts: 0 13 0 3 0 1 0 0 9 0  
## probabilities: 0.000 0.500 0.000 0.115 0.000 0.038 0.000 0.000 0.346 0.000   
## left son=1248 (14 obs) right son=1249 (12 obs)  
## Primary splits:  
## 269 < 25.5 to the left, improve=8.309524, (0 missing)  
## 573 < 251.5 to the left, improve=7.825000, (0 missing)  
## 268 < 169 to the left, improve=6.923077, (0 missing)  
## 241 < 7.5 to the left, improve=6.896970, (0 missing)  
## 374 < 14.5 to the left, improve=6.896970, (0 missing)  
## Surrogate splits:  
## 241 < 7.5 to the left, agree=0.962, adj=0.917, (0 split)  
## 268 < 169 to the left, agree=0.962, adj=0.917, (0 split)  
## 212 < 99 to the left, agree=0.923, adj=0.833, (0 split)  
## 213 < 19.5 to the left, agree=0.923, adj=0.833, (0 split)  
## 240 < 115 to the left, agree=0.923, adj=0.833, (0 split)  
##   
## Node number 625: 9 observations  
## predicted class=7 expected loss=0.1111111 P(node) =0.000357072  
## class counts: 0 0 0 0 0 0 0 8 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.889 0.000 0.111   
##   
## Node number 626: 8 observations  
## predicted class=9 expected loss=0.5 P(node) =0.0003173973  
## class counts: 0 0 0 0 3 0 0 0 1 4  
## probabilities: 0.000 0.000 0.000 0.000 0.375 0.000 0.000 0.000 0.125 0.500   
##   
## Node number 627: 37 observations  
## predicted class=8 expected loss=0.1621622 P(node) =0.001467963  
## class counts: 0 0 1 3 1 0 0 0 31 1  
## probabilities: 0.000 0.000 0.027 0.081 0.027 0.000 0.000 0.000 0.838 0.027   
##   
## Node number 630: 7 observations  
## predicted class=4 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 1 0 0 0 3 0 0 0 1 2  
## probabilities: 0.143 0.000 0.000 0.000 0.429 0.000 0.000 0.000 0.143 0.286   
##   
## Node number 631: 19 observations  
## predicted class=9 expected loss=0.05263158 P(node) =0.0007538187  
## class counts: 0 0 0 0 0 0 0 1 0 18  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.053 0.000 0.947   
##   
## Node number 638: 36 observations, complexity param=8.930964e-05  
## predicted class=8 expected loss=0.3888889 P(node) =0.001428288  
## class counts: 0 0 0 2 7 1 1 1 22 2  
## probabilities: 0.000 0.000 0.000 0.056 0.194 0.028 0.028 0.028 0.611 0.056   
## left son=1276 (13 obs) right son=1277 (23 obs)  
## Primary splits:  
## 269 < 252.5 to the right, improve=6.026013, (0 missing)  
## 210 < 195.5 to the left, improve=6.000000, (0 missing)  
## 576 < 90.5 to the left, improve=5.960317, (0 missing)  
## 183 < 25.5 to the left, improve=5.781746, (0 missing)  
## 604 < 244 to the left, improve=5.450762, (0 missing)  
## Surrogate splits:  
## 604 < 244 to the left, agree=0.889, adj=0.692, (0 split)  
## 545 < 252.5 to the right, agree=0.833, adj=0.538, (0 split)  
## 573 < 252.5 to the right, agree=0.833, adj=0.538, (0 split)  
## 576 < 140.5 to the left, agree=0.833, adj=0.538, (0 split)  
## 577 < 174.5 to the left, agree=0.833, adj=0.538, (0 split)  
##   
## Node number 639: 312 observations  
## predicted class=8 expected loss=0.02564103 P(node) =0.0123785  
## class counts: 1 1 1 1 1 0 1 1 304 1  
## probabilities: 0.003 0.003 0.003 0.003 0.003 0.000 0.003 0.003 0.974 0.003   
##   
## Node number 640: 32 observations  
## predicted class=1 expected loss=0.03125 P(node) =0.001269589  
## class counts: 0 31 0 0 0 1 0 0 0 0  
## probabilities: 0.000 0.969 0.000 0.000 0.000 0.031 0.000 0.000 0.000 0.000   
##   
## Node number 641: 7 observations  
## predicted class=2 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 0 2 3 0 0 0 0 2 0 0  
## probabilities: 0.000 0.286 0.429 0.000 0.000 0.000 0.000 0.286 0.000 0.000   
##   
## Node number 642: 18 observations  
## predicted class=3 expected loss=0 P(node) =0.000714144  
## class counts: 0 0 0 18 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 643: 7 observations  
## predicted class=7 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 0 0 0 2 0 0 0 3 2 0  
## probabilities: 0.000 0.000 0.000 0.286 0.000 0.000 0.000 0.429 0.286 0.000   
##   
## Node number 644: 1370 observations, complexity param=0.0002456015  
## predicted class=3 expected loss=0.02773723 P(node) =0.05435429  
## class counts: 0 2 10 1332 0 14 0 0 12 0  
## probabilities: 0.000 0.001 0.007 0.972 0.000 0.010 0.000 0.000 0.009 0.000   
## left son=1288 (1360 obs) right son=1289 (10 obs)  
## Primary splits:  
## 487 < 148 to the left, improve=14.791020, (0 missing)  
## 488 < 58.5 to the left, improve=13.689060, (0 missing)  
## 341 < 70 to the left, improve=12.826310, (0 missing)  
## 342 < 147.5 to the left, improve=10.885130, (0 missing)  
## 313 < 154 to the left, improve= 9.880721, (0 missing)  
## Surrogate splits:  
## 488 < 63 to the left, agree=0.997, adj=0.6, (0 split)  
## 515 < 248.5 to the left, agree=0.996, adj=0.4, (0 split)  
##   
## Node number 645: 23 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.6086957 P(node) =0.0009125174  
## class counts: 0 0 0 5 0 9 0 0 4 5  
## probabilities: 0.000 0.000 0.000 0.217 0.000 0.391 0.000 0.000 0.174 0.217   
## left son=1290 (16 obs) right son=1291 (7 obs)  
## Primary splits:  
## 524 < 20 to the right, improve=4.090839, (0 missing)  
## 496 < 36 to the right, improve=3.958696, (0 missing)  
## 296 < 16 to the left, improve=3.701003, (0 missing)  
## 580 < 1 to the right, improve=3.558696, (0 missing)  
## 294 < 109.5 to the right, improve=3.555124, (0 missing)  
## Surrogate splits:  
## 496 < 36 to the right, agree=0.957, adj=0.857, (0 split)  
## 552 < 23.5 to the right, agree=0.957, adj=0.857, (0 split)  
## 205 < 66 to the right, agree=0.870, adj=0.571, (0 split)  
## 468 < 36 to the right, agree=0.870, adj=0.571, (0 split)  
## 492 < 29 to the left, agree=0.870, adj=0.571, (0 split)  
##   
## Node number 646: 16 observations  
## predicted class=3 expected loss=0.1875 P(node) =0.0006347947  
## class counts: 0 0 0 13 0 0 0 1 2 0  
## probabilities: 0.000 0.000 0.000 0.813 0.000 0.000 0.000 0.062 0.125 0.000   
##   
## Node number 647: 29 observations, complexity param=0.0002456015  
## predicted class=5 expected loss=0.4827586 P(node) =0.001150565  
## class counts: 0 6 0 4 0 15 0 1 3 0  
## probabilities: 0.000 0.207 0.000 0.138 0.000 0.517 0.000 0.034 0.103 0.000   
## left son=1294 (12 obs) right son=1295 (17 obs)  
## Primary splits:  
## 185 < 63.5 to the left, improve=8.074037, (0 missing)  
## 213 < 0.5 to the left, improve=6.834218, (0 missing)  
## 466 < 27.5 to the left, improve=6.752799, (0 missing)  
## 628 < 16.5 to the left, improve=6.752799, (0 missing)  
## 629 < 27 to the left, improve=6.752799, (0 missing)  
## Surrogate splits:  
## 213 < 0.5 to the left, agree=0.966, adj=0.917, (0 split)  
## 157 < 9 to the left, agree=0.931, adj=0.833, (0 split)  
## 158 < 4 to the left, agree=0.931, adj=0.833, (0 split)  
## 186 < 18 to the left, agree=0.931, adj=0.833, (0 split)  
## 156 < 8 to the left, agree=0.897, adj=0.750, (0 split)  
##   
## Node number 652: 13 observations  
## predicted class=3 expected loss=0.07692308 P(node) =0.0005157707  
## class counts: 1 0 0 12 0 0 0 0 0 0  
## probabilities: 0.077 0.000 0.000 0.923 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 653: 12 observations  
## predicted class=5 expected loss=0.5833333 P(node) =0.000476096  
## class counts: 1 0 0 0 0 5 1 0 4 1  
## probabilities: 0.083 0.000 0.000 0.000 0.000 0.417 0.083 0.000 0.333 0.083   
##   
## Node number 656: 9 observations  
## predicted class=2 expected loss=0.5555556 P(node) =0.000357072  
## class counts: 1 0 4 2 0 1 0 0 1 0  
## probabilities: 0.111 0.000 0.444 0.222 0.000 0.111 0.000 0.000 0.111 0.000   
##   
## Node number 657: 193 observations  
## predicted class=3 expected loss=0.03626943 P(node) =0.007657211  
## class counts: 1 1 0 186 0 1 0 0 3 1  
## probabilities: 0.005 0.005 0.000 0.964 0.000 0.005 0.000 0.000 0.016 0.005   
##   
## Node number 658: 29 observations, complexity param=0.0001339645  
## predicted class=3 expected loss=0.3103448 P(node) =0.001150565  
## class counts: 0 3 1 20 0 2 3 0 0 0  
## probabilities: 0.000 0.103 0.034 0.690 0.000 0.069 0.103 0.000 0.000 0.000   
## left son=1316 (7 obs) right son=1317 (22 obs)  
## Primary splits:  
## 486 < 1 to the right, improve=5.829378, (0 missing)  
## 325 < 11 to the right, improve=4.719056, (0 missing)  
## 352 < 111.5 to the right, improve=4.699507, (0 missing)  
## 353 < 72.5 to the right, improve=4.413793, (0 missing)  
## 459 < 46 to the left, improve=4.102105, (0 missing)  
## Surrogate splits:  
## 352 < 23 to the left, agree=0.931, adj=0.714, (0 split)  
## 459 < 46 to the right, agree=0.931, adj=0.714, (0 split)  
## 460 < 189 to the right, agree=0.931, adj=0.714, (0 split)  
## 487 < 94.5 to the right, agree=0.931, adj=0.714, (0 split)  
## 488 < 74.5 to the right, agree=0.931, adj=0.714, (0 split)  
##   
## Node number 659: 30 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.3666667 P(node) =0.00119024  
## class counts: 5 0 0 2 0 19 0 3 1 0  
## probabilities: 0.167 0.000 0.000 0.067 0.000 0.633 0.000 0.100 0.033 0.000   
## left son=1318 (7 obs) right son=1319 (23 obs)  
## Primary splits:  
## 412 < 5.5 to the right, improve=6.480331, (0 missing)  
## 384 < 6 to the right, improve=5.536232, (0 missing)  
## 356 < 8.5 to the right, improve=5.416667, (0 missing)  
## 357 < 2.5 to the right, improve=5.416667, (0 missing)  
## 440 < 15.5 to the right, improve=5.089027, (0 missing)  
## Surrogate splits:  
## 330 < 239.5 to the right, agree=0.967, adj=0.857, (0 split)  
## 357 < 111.5 to the right, agree=0.967, adj=0.857, (0 split)  
## 384 < 70.5 to the right, agree=0.967, adj=0.857, (0 split)  
## 385 < 40.5 to the right, agree=0.967, adj=0.857, (0 split)  
## 413 < 95.5 to the right, agree=0.967, adj=0.857, (0 split)  
##   
## Node number 660: 18 observations  
## predicted class=0 expected loss=0 P(node) =0.000714144  
## class counts: 18 0 0 0 0 0 0 0 0 0  
## probabilities: 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 661: 7 observations  
## predicted class=8 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 1 0 0 0 0 1 2 0 3 0  
## probabilities: 0.143 0.000 0.000 0.000 0.000 0.143 0.286 0.000 0.429 0.000   
##   
## Node number 662: 30 observations, complexity param=0.0002232741  
## predicted class=3 expected loss=0.4333333 P(node) =0.00119024  
## class counts: 0 0 0 17 0 5 2 1 2 3  
## probabilities: 0.000 0.000 0.000 0.567 0.000 0.167 0.067 0.033 0.067 0.100   
## left son=1324 (22 obs) right son=1325 (8 obs)  
## Primary splits:  
## 324 < 153.5 to the right, improve=6.228788, (0 missing)  
## 352 < 239 to the right, improve=6.058333, (0 missing)  
## 187 < 208.5 to the right, improve=5.403922, (0 missing)  
## 439 < 26.5 to the right, improve=5.403922, (0 missing)  
## 353 < 117 to the right, improve=5.333333, (0 missing)  
## Surrogate splits:  
## 323 < 120.5 to the right, agree=0.933, adj=0.750, (0 split)  
## 325 < 66.5 to the right, agree=0.933, adj=0.750, (0 split)  
## 236 < 3.5 to the right, agree=0.900, adj=0.625, (0 split)  
## 247 < 60.5 to the left, agree=0.900, adj=0.625, (0 split)  
## 274 < 187 to the left, agree=0.900, adj=0.625, (0 split)  
##   
## Node number 663: 101 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.1089109 P(node) =0.004007141  
## class counts: 0 0 0 8 0 90 1 0 2 0  
## probabilities: 0.000 0.000 0.000 0.079 0.000 0.891 0.010 0.000 0.020 0.000   
## left son=1326 (8 obs) right son=1327 (93 obs)  
## Primary splits:  
## 124 < 83 to the right, improve=9.105371, (0 missing)  
## 125 < 130 to the right, improve=6.255909, (0 missing)  
## 97 < 12.5 to the right, improve=4.693280, (0 missing)  
## 440 < 252.5 to the right, improve=4.693280, (0 missing)  
## 552 < 170 to the right, improve=4.693280, (0 missing)  
## Surrogate splits:  
## 122 < 0.5 to the right, agree=0.98, adj=0.750, (0 split)  
## 123 < 60 to the right, agree=0.98, adj=0.750, (0 split)  
## 96 < 43 to the right, agree=0.97, adj=0.625, (0 split)  
## 152 < 116.5 to the right, agree=0.97, adj=0.625, (0 split)  
## 94 < 61.5 to the right, agree=0.96, adj=0.500, (0 split)  
##   
## Node number 664: 77 observations  
## predicted class=1 expected loss=0 P(node) =0.003054949  
## class counts: 0 77 0 0 0 0 0 0 0 0  
## probabilities: 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 665: 8 observations  
## predicted class=7 expected loss=0.5 P(node) =0.0003173973  
## class counts: 0 2 0 0 1 0 1 4 0 0  
## probabilities: 0.000 0.250 0.000 0.000 0.125 0.000 0.125 0.500 0.000 0.000   
##   
## Node number 668: 7 observations  
## predicted class=0 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 5 0 0 2 0 0 0 0 0 0  
## probabilities: 0.714 0.000 0.000 0.286 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 669: 51 observations, complexity param=8.930964e-05  
## predicted class=5 expected loss=0.1568627 P(node) =0.002023408  
## class counts: 0 0 1 4 0 43 1 1 1 0  
## probabilities: 0.000 0.000 0.020 0.078 0.000 0.843 0.020 0.020 0.020 0.000   
## left son=1338 (7 obs) right son=1339 (44 obs)  
## Primary splits:  
## 352 < 251.5 to the right, improve=4.625668, (0 missing)  
## 184 < 138.5 to the right, improve=4.625668, (0 missing)  
## 326 < 171.5 to the right, improve=3.899283, (0 missing)  
## 327 < 69.5 to the right, improve=3.412032, (0 missing)  
## 183 < 138 to the right, improve=3.378915, (0 missing)  
## Surrogate splits:  
## 353 < 242 to the right, agree=0.922, adj=0.429, (0 split)  
## 507 < 5.5 to the right, agree=0.922, adj=0.429, (0 split)  
## 508 < 252.5 to the right, agree=0.922, adj=0.429, (0 split)  
## 535 < 2 to the right, agree=0.922, adj=0.429, (0 split)  
## 221 < 166 to the right, agree=0.902, adj=0.286, (0 split)  
##   
## Node number 670: 43 observations, complexity param=0.0002456015  
## predicted class=4 expected loss=0.3953488 P(node) =0.001706011  
## class counts: 0 0 0 6 26 0 1 10 0 0  
## probabilities: 0.000 0.000 0.000 0.140 0.605 0.000 0.023 0.233 0.000 0.000   
## left son=1340 (23 obs) right son=1341 (20 obs)  
## Primary splits:  
## 231 < 13 to the right, improve=8.879980, (0 missing)  
## 203 < 3 to the right, improve=7.843023, (0 missing)  
## 259 < 5 to the right, improve=7.584251, (0 missing)  
## 204 < 9.5 to the right, improve=7.133023, (0 missing)  
## 322 < 136 to the left, improve=6.586236, (0 missing)  
## Surrogate splits:  
## 259 < 5 to the right, agree=0.977, adj=0.95, (0 split)  
## 232 < 13.5 to the right, agree=0.930, adj=0.85, (0 split)  
## 260 < 11.5 to the right, agree=0.930, adj=0.85, (0 split)  
## 287 < 60.5 to the right, agree=0.930, adj=0.85, (0 split)  
## 203 < 3 to the right, agree=0.907, adj=0.80, (0 split)  
##   
## Node number 671: 70 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.5571429 P(node) =0.002777227  
## class counts: 0 7 0 10 4 5 6 1 6 31  
## probabilities: 0.000 0.100 0.000 0.143 0.057 0.071 0.086 0.014 0.086 0.443   
## left son=1342 (27 obs) right son=1343 (43 obs)  
## Primary splits:  
## 325 < 5 to the left, improve=11.360110, (0 missing)  
## 182 < 5 to the right, improve=10.020820, (0 missing)  
## 324 < 167.5 to the left, improve= 8.603102, (0 missing)  
## 155 < 60.5 to the right, improve= 8.141367, (0 missing)  
## 353 < 42 to the left, improve= 8.109524, (0 missing)  
## Surrogate splits:  
## 324 < 80.5 to the left, agree=0.900, adj=0.741, (0 split)  
## 297 < 11 to the left, agree=0.871, adj=0.667, (0 split)  
## 353 < 31.5 to the left, agree=0.871, adj=0.667, (0 split)  
## 352 < 127.5 to the left, agree=0.843, adj=0.593, (0 split)  
## 155 < 25.5 to the right, agree=0.814, adj=0.519, (0 split)  
##   
## Node number 676: 101 observations, complexity param=0.0001339645  
## predicted class=3 expected loss=0.1485149 P(node) =0.004007141  
## class counts: 0 0 0 86 0 3 0 0 6 6  
## probabilities: 0.000 0.000 0.000 0.851 0.000 0.030 0.000 0.000 0.059 0.059   
## left son=1352 (94 obs) right son=1353 (7 obs)  
## Primary splits:  
## 488 < 57.5 to the left, improve=5.666346, (0 missing)  
## 515 < 194 to the left, improve=5.666346, (0 missing)  
## 487 < 45 to the left, improve=4.790190, (0 missing)  
## 380 < 205 to the right, improve=4.469740, (0 missing)  
## 381 < 25 to the right, improve=4.060609, (0 missing)  
## Surrogate splits:  
## 487 < 45 to the left, agree=0.99, adj=0.857, (0 split)  
## 515 < 194 to the left, agree=0.98, adj=0.714, (0 split)  
## 516 < 137.5 to the left, agree=0.98, adj=0.714, (0 split)  
## 460 < 243.5 to the left, agree=0.97, adj=0.571, (0 split)  
## 543 < 248 to the left, agree=0.96, adj=0.429, (0 split)  
##   
## Node number 677: 11 observations  
## predicted class=8 expected loss=0.09090909 P(node) =0.0004364213  
## class counts: 0 0 0 0 0 1 0 0 10 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.091 0.000 0.000 0.909 0.000   
##   
## Node number 678: 40 observations, complexity param=0.0001786193  
## predicted class=3 expected loss=0.2 P(node) =0.001586987  
## class counts: 0 0 0 32 0 6 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.800 0.000 0.150 0.000 0.000 0.050 0.000   
## left son=1356 (32 obs) right son=1357 (8 obs)  
## Primary splits:  
## 288 < 216 to the left, improve=7.212500, (0 missing)  
## 260 < 176.5 to the left, improve=6.131183, (0 missing)  
## 289 < 234.5 to the left, improve=5.642424, (0 missing)  
## 261 < 168.5 to the left, improve=5.337500, (0 missing)  
## 287 < 29.5 to the left, improve=5.266667, (0 missing)  
## Surrogate splits:  
## 289 < 234.5 to the left, agree=0.975, adj=0.875, (0 split)  
## 287 < 29.5 to the left, agree=0.950, adj=0.750, (0 split)  
## 260 < 110 to the left, agree=0.925, adj=0.625, (0 split)  
## 316 < 239 to the left, agree=0.900, adj=0.500, (0 split)  
## 428 < 222.5 to the left, agree=0.900, adj=0.500, (0 split)  
##   
## Node number 679: 140 observations, complexity param=0.0004465482  
## predicted class=5 expected loss=0.5785714 P(node) =0.005554453  
## class counts: 5 1 1 27 0 59 2 3 19 23  
## probabilities: 0.036 0.007 0.007 0.193 0.000 0.421 0.014 0.021 0.136 0.164   
## left son=1358 (102 obs) right son=1359 (38 obs)  
## Primary splits:  
## 294 < 3 to the right, improve=11.174260, (0 missing)  
## 293 < 70 to the right, improve=11.042710, (0 missing)  
## 320 < 182.5 to the right, improve=10.150730, (0 missing)  
## 247 < 16.5 to the right, improve=10.000000, (0 missing)  
## 596 < 15 to the right, improve= 9.077527, (0 missing)  
## Surrogate splits:  
## 295 < 32 to the right, agree=0.914, adj=0.684, (0 split)  
## 293 < 42 to the right, agree=0.907, adj=0.658, (0 split)  
## 322 < 192 to the right, agree=0.864, adj=0.500, (0 split)  
## 321 < 166 to the right, agree=0.843, adj=0.421, (0 split)  
## 320 < 164 to the right, agree=0.829, adj=0.368, (0 split)  
##   
## Node number 684: 23 observations  
## predicted class=3 expected loss=0.08695652 P(node) =0.0009125174  
## class counts: 0 0 0 21 0 0 0 0 1 1  
## probabilities: 0.000 0.000 0.000 0.913 0.000 0.000 0.000 0.000 0.043 0.043   
##   
## Node number 685: 10 observations  
## predicted class=5 expected loss=0.5 P(node) =0.0003967467  
## class counts: 2 0 0 1 0 5 1 0 1 0  
## probabilities: 0.200 0.000 0.000 0.100 0.000 0.500 0.100 0.000 0.100 0.000   
##   
## Node number 686: 18 observations  
## predicted class=3 expected loss=0.2777778 P(node) =0.000714144  
## class counts: 0 0 0 13 0 4 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.722 0.000 0.222 0.000 0.000 0.056 0.000   
##   
## Node number 687: 422 observations, complexity param=0.0001488494  
## predicted class=5 expected loss=0.05924171 P(node) =0.01674271  
## class counts: 0 0 0 15 0 397 5 0 3 2  
## probabilities: 0.000 0.000 0.000 0.036 0.000 0.941 0.012 0.000 0.007 0.005   
## left son=1374 (37 obs) right son=1375 (385 obs)  
## Primary splits:  
## 235 < 1 to the left, improve=6.854948, (0 missing)  
## 262 < 12.5 to the left, improve=6.151673, (0 missing)  
## 299 < 67 to the left, improve=4.890571, (0 missing)  
## 234 < 7.5 to the left, improve=3.863683, (0 missing)  
## 293 < 167 to the right, improve=3.715413, (0 missing)  
## Surrogate splits:  
## 262 < 0.5 to the left, agree=0.924, adj=0.135, (0 split)  
## 266 < 253.5 to the right, agree=0.922, adj=0.108, (0 split)  
## 499 < 252.5 to the right, agree=0.919, adj=0.081, (0 split)  
## 500 < 48 to the right, agree=0.919, adj=0.081, (0 split)  
## 528 < 32 to the right, agree=0.919, adj=0.081, (0 split)  
##   
## Node number 688: 63 observations  
## predicted class=4 expected loss=0.0952381 P(node) =0.002499504  
## class counts: 0 0 0 1 57 0 0 2 0 3  
## probabilities: 0.000 0.000 0.000 0.016 0.905 0.000 0.000 0.032 0.000 0.048   
##   
## Node number 689: 7 observations  
## predicted class=6 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 0 0 0 3 4 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.429 0.571 0.000 0.000 0.000   
##   
## Node number 696: 52 observations  
## predicted class=5 expected loss=0.1923077 P(node) =0.002063083  
## class counts: 0 0 0 5 0 42 3 0 0 2  
## probabilities: 0.000 0.000 0.000 0.096 0.000 0.808 0.058 0.000 0.000 0.038   
##   
## Node number 697: 11 observations  
## predicted class=4 expected loss=0.6363636 P(node) =0.0004364213  
## class counts: 0 0 0 0 4 1 0 1 1 4  
## probabilities: 0.000 0.000 0.000 0.000 0.364 0.091 0.000 0.091 0.091 0.364   
##   
## Node number 698: 9 observations  
## predicted class=3 expected loss=0 P(node) =0.000357072  
## class counts: 0 0 0 9 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 699: 28 observations, complexity param=0.0001339645  
## predicted class=9 expected loss=0.5 P(node) =0.001110891  
## class counts: 0 2 0 2 6 1 0 1 2 14  
## probabilities: 0.000 0.071 0.000 0.071 0.214 0.036 0.000 0.036 0.071 0.500   
## left son=1398 (17 obs) right son=1399 (11 obs)  
## Primary splits:  
## 294 < 197.5 to the right, improve=5.684874, (0 missing)  
## 660 < 155 to the right, improve=4.123377, (0 missing)  
## 462 < 205.5 to the right, improve=3.964286, (0 missing)  
## 632 < 134.5 to the right, improve=3.785714, (0 missing)  
## 152 < 5.5 to the right, improve=3.690476, (0 missing)  
## Surrogate splits:  
## 632 < 10.5 to the right, agree=0.857, adj=0.636, (0 split)  
## 660 < 1 to the right, agree=0.857, adj=0.636, (0 split)  
## 267 < 228 to the right, agree=0.821, adj=0.545, (0 split)  
## 319 < 1.5 to the right, agree=0.821, adj=0.545, (0 split)  
## 320 < 37 to the right, agree=0.821, adj=0.545, (0 split)  
##   
## Node number 702: 9 observations  
## predicted class=8 expected loss=0.4444444 P(node) =0.000357072  
## class counts: 2 0 2 0 0 0 0 0 5 0  
## probabilities: 0.222 0.000 0.222 0.000 0.000 0.000 0.000 0.000 0.556 0.000   
##   
## Node number 703: 238 observations, complexity param=8.930964e-05  
## predicted class=9 expected loss=0.1008403 P(node) =0.009442571  
## class counts: 1 0 0 4 8 1 0 10 0 214  
## probabilities: 0.004 0.000 0.000 0.017 0.034 0.004 0.000 0.042 0.000 0.899   
## left son=1406 (16 obs) right son=1407 (222 obs)  
## Primary splits:  
## 377 < 21.5 to the left, improve=8.451387, (0 missing)  
## 203 < 11 to the right, improve=7.080038, (0 missing)  
## 294 < 249 to the right, improve=6.083107, (0 missing)  
## 378 < 16.5 to the left, improve=6.047269, (0 missing)  
## 232 < 244.5 to the right, improve=6.011555, (0 missing)  
## Surrogate splits:  
## 376 < 1 to the left, agree=0.945, adj=0.187, (0 split)  
## 201 < 18 to the right, agree=0.941, adj=0.125, (0 split)  
## 228 < 11.5 to the right, agree=0.941, adj=0.125, (0 split)  
## 229 < 190.5 to the right, agree=0.941, adj=0.125, (0 split)  
## 509 < 126 to the right, agree=0.941, adj=0.125, (0 split)  
##   
## Node number 712: 14 observations  
## predicted class=1 expected loss=0.07142857 P(node) =0.0005554453  
## class counts: 0 13 0 0 0 0 1 0 0 0  
## probabilities: 0.000 0.929 0.000 0.000 0.000 0.000 0.071 0.000 0.000 0.000   
##   
## Node number 713: 25 observations, complexity param=0.0003125837  
## predicted class=4 expected loss=0.68 P(node) =0.0009918667  
## class counts: 0 1 0 0 8 7 6 0 2 1  
## probabilities: 0.000 0.040 0.000 0.000 0.320 0.280 0.240 0.000 0.080 0.040   
## left son=1426 (17 obs) right son=1427 (8 obs)  
## Primary splits:  
## 293 < 127.5 to the left, improve=6.108824, (0 missing)  
## 572 < 19.5 to the left, improve=5.319481, (0 missing)  
## 294 < 94 to the left, improve=5.235897, (0 missing)  
## 320 < 22.5 to the left, improve=5.235897, (0 missing)  
## 321 < 63 to the left, improve=5.235897, (0 missing)  
## Surrogate splits:  
## 273 < 155 to the left, agree=0.92, adj=0.750, (0 split)  
## 274 < 20.5 to the left, agree=0.92, adj=0.750, (0 split)  
## 292 < 20.5 to the left, agree=0.92, adj=0.750, (0 split)  
## 246 < 18.5 to the left, agree=0.88, adj=0.625, (0 split)  
## 265 < 14.5 to the left, agree=0.88, adj=0.625, (0 split)  
##   
## Node number 714: 9 observations  
## predicted class=0 expected loss=0.1111111 P(node) =0.000357072  
## class counts: 8 0 0 0 0 0 1 0 0 0  
## probabilities: 0.889 0.000 0.000 0.000 0.000 0.000 0.111 0.000 0.000 0.000   
##   
## Node number 715: 35 observations, complexity param=0.0004018934  
## predicted class=8 expected loss=0.6 P(node) =0.001388613  
## class counts: 1 0 12 3 1 0 2 0 14 2  
## probabilities: 0.029 0.000 0.343 0.086 0.029 0.000 0.057 0.000 0.400 0.057   
## left son=1430 (16 obs) right son=1431 (19 obs)  
## Primary splits:  
## 550 < 139 to the right, improve=6.933647, (0 missing)  
## 577 < 205.5 to the right, improve=6.177640, (0 missing)  
## 551 < 219.5 to the right, improve=5.885714, (0 missing)  
## 552 < 217.5 to the right, improve=5.134161, (0 missing)  
## 545 < 59.5 to the right, improve=5.004295, (0 missing)  
## Surrogate splits:  
## 551 < 41 to the right, agree=0.943, adj=0.875, (0 split)  
## 578 < 3.5 to the right, agree=0.886, adj=0.750, (0 split)  
## 579 < 21.5 to the right, agree=0.886, adj=0.750, (0 split)  
## 464 < 1.5 to the left, agree=0.829, adj=0.625, (0 split)  
## 523 < 37.5 to the right, agree=0.829, adj=0.625, (0 split)  
##   
## Node number 732: 14 observations  
## predicted class=5 expected loss=0.2857143 P(node) =0.0005554453  
## class counts: 0 0 0 3 0 10 1 0 0 0  
## probabilities: 0.000 0.000 0.000 0.214 0.000 0.714 0.071 0.000 0.000 0.000   
##   
## Node number 733: 7 observations  
## predicted class=6 expected loss=0 P(node) =0.0002777227  
## class counts: 0 0 0 0 0 0 7 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000   
##   
## Node number 734: 7 observations  
## predicted class=8 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 2 0 0 1 0 1 0 0 3 0  
## probabilities: 0.286 0.000 0.000 0.143 0.000 0.143 0.000 0.000 0.429 0.000   
##   
## Node number 735: 165 observations  
## predicted class=6 expected loss=0.05454545 P(node) =0.00654632  
## class counts: 0 0 7 0 0 1 156 0 1 0  
## probabilities: 0.000 0.000 0.042 0.000 0.000 0.006 0.945 0.000 0.006 0.000   
##   
## Node number 746: 16 observations  
## predicted class=5 expected loss=0.375 P(node) =0.0006347947  
## class counts: 0 0 0 2 0 10 1 0 3 0  
## probabilities: 0.000 0.000 0.000 0.125 0.000 0.625 0.062 0.000 0.188 0.000   
##   
## Node number 747: 12 observations  
## predicted class=8 expected loss=0.25 P(node) =0.000476096  
## class counts: 0 0 0 2 0 0 1 0 9 0  
## probabilities: 0.000 0.000 0.000 0.167 0.000 0.000 0.083 0.000 0.750 0.000   
##   
## Node number 764: 24 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.2916667 P(node) =0.000952192  
## class counts: 0 0 17 1 0 0 1 0 5 0  
## probabilities: 0.000 0.000 0.708 0.042 0.000 0.000 0.042 0.000 0.208 0.000   
## left son=1528 (17 obs) right son=1529 (7 obs)  
## Primary splits:  
## 602 < 175 to the right, improve=5.808123, (0 missing)  
## 212 < 2 to the right, improve=4.708333, (0 missing)  
## 574 < 0.5 to the right, improve=4.708333, (0 missing)  
## 603 < 251.5 to the right, improve=4.708333, (0 missing)  
## 347 < 36.5 to the left, improve=4.665266, (0 missing)  
## Surrogate splits:  
## 574 < 0.5 to the right, agree=0.958, adj=0.857, (0 split)  
## 603 < 207.5 to the right, agree=0.958, adj=0.857, (0 split)  
## 184 < 160 to the right, agree=0.917, adj=0.714, (0 split)  
## 486 < 246 to the right, agree=0.917, adj=0.714, (0 split)  
## 575 < 25 to the right, agree=0.917, adj=0.714, (0 split)  
##   
## Node number 765: 33 observations  
## predicted class=8 expected loss=0.1818182 P(node) =0.001309264  
## class counts: 1 0 1 2 0 1 0 1 27 0  
## probabilities: 0.030 0.000 0.030 0.061 0.000 0.030 0.000 0.030 0.818 0.000   
##   
## Node number 766: 36 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.5 P(node) =0.001428288  
## class counts: 0 0 0 10 0 5 2 0 18 1  
## probabilities: 0.000 0.000 0.000 0.278 0.000 0.139 0.056 0.000 0.500 0.028   
## left son=1532 (11 obs) right son=1533 (25 obs)  
## Primary splits:  
## 289 < 1.5 to the left, improve=7.614343, (0 missing)  
## 260 < 30 to the left, improve=6.635642, (0 missing)  
## 288 < 8.5 to the left, improve=6.539391, (0 missing)  
## 298 < 5.5 to the left, improve=5.462963, (0 missing)  
## 268 < 147.5 to the right, improve=5.388889, (0 missing)  
## Surrogate splits:  
## 261 < 2 to the left, agree=0.944, adj=0.818, (0 split)  
## 288 < 8.5 to the left, agree=0.944, adj=0.818, (0 split)  
## 268 < 147.5 to the right, agree=0.889, adj=0.636, (0 split)  
## 290 < 19 to the left, agree=0.889, adj=0.636, (0 split)  
## 295 < 232 to the right, agree=0.889, adj=0.636, (0 split)  
##   
## Node number 767: 309 observations, complexity param=8.930964e-05  
## predicted class=8 expected loss=0.04530744 P(node) =0.01225947  
## class counts: 1 0 0 2 0 1 8 0 295 2  
## probabilities: 0.003 0.000 0.000 0.006 0.000 0.003 0.026 0.000 0.955 0.006   
## left son=1534 (37 obs) right son=1535 (272 obs)  
## Primary splits:  
## 406 < 171.5 to the left, improve=2.811428, (0 missing)  
## 428 < 119 to the right, improve=2.227015, (0 missing)  
## 433 < 71.5 to the left, improve=2.180759, (0 missing)  
## 405 < 183.5 to the left, improve=1.994410, (0 missing)  
## 181 < 1 to the left, improve=1.987110, (0 missing)  
## Surrogate splits:  
## 434 < 7 to the left, agree=0.935, adj=0.459, (0 split)  
## 405 < 85 to the left, agree=0.909, adj=0.243, (0 split)  
## 407 < 66 to the left, agree=0.906, adj=0.216, (0 split)  
## 433 < 1 to the left, agree=0.903, adj=0.189, (0 split)  
## 378 < 222 to the left, agree=0.900, adj=0.162, (0 split)  
##   
## Node number 768: 1603 observations, complexity param=2.232741e-05  
## predicted class=0 expected loss=0.007485964 P(node) =0.06359849  
## class counts: 1591 0 1 0 1 2 7 0 0 1  
## probabilities: 0.993 0.000 0.001 0.000 0.001 0.001 0.004 0.000 0.000 0.001   
## left son=1536 (1578 obs) right son=1537 (25 obs)  
## Primary splits:  
## 101 < 189 to the left, improve=1.5957920, (0 missing)  
## 102 < 1.5 to the left, improve=1.3138310, (0 missing)  
## 405 < 76.5 to the left, improve=1.0415200, (0 missing)  
## 100 < 53 to the left, improve=1.0322220, (0 missing)  
## 492 < 253.5 to the left, improve=0.9408491, (0 missing)  
## Surrogate splits:  
## 102 < 22 to the left, agree=0.99, adj=0.36, (0 split)  
##   
## Node number 769: 20 observations, complexity param=6.698223e-05  
## predicted class=0 expected loss=0.25 P(node) =0.0007934934  
## class counts: 15 0 0 0 0 0 5 0 0 0  
## probabilities: 0.750 0.000 0.000 0.000 0.000 0.000 0.250 0.000 0.000 0.000   
## left son=1538 (13 obs) right son=1539 (7 obs)  
## Primary splits:  
## 183 < 24.5 to the right, improve=4.642857, (0 missing)  
## 184 < 4 to the right, improve=4.642857, (0 missing)  
## 185 < 3.5 to the right, improve=4.642857, (0 missing)  
## 212 < 63 to the right, improve=4.642857, (0 missing)  
## 213 < 82.5 to the right, improve=4.642857, (0 missing)  
## Surrogate splits:  
## 184 < 63.5 to the right, agree=0.95, adj=0.857, (0 split)  
## 212 < 31 to the right, agree=0.95, adj=0.857, (0 split)  
## 213 < 16 to the right, agree=0.95, adj=0.857, (0 split)  
## 156 < 13.5 to the right, agree=0.90, adj=0.714, (0 split)  
## 157 < 7 to the right, agree=0.90, adj=0.714, (0 split)  
##   
## Node number 770: 299 observations, complexity param=0.0001786193  
## predicted class=0 expected loss=0.1170569 P(node) =0.01186273  
## class counts: 264 0 9 7 0 14 3 1 0 1  
## probabilities: 0.883 0.000 0.030 0.023 0.000 0.047 0.010 0.003 0.000 0.003   
## left son=1540 (267 obs) right son=1541 (32 obs)  
## Primary splits:  
## 296 < 135 to the left, improve=14.112060, (0 missing)  
## 295 < 40.5 to the left, improve=10.053470, (0 missing)  
## 323 < 37 to the left, improve= 8.928094, (0 missing)  
## 324 < 29.5 to the left, improve= 8.732347, (0 missing)  
## 214 < 0.5 to the right, improve= 8.321044, (0 missing)  
## Surrogate splits:  
## 324 < 29.5 to the left, agree=0.963, adj=0.656, (0 split)  
## 295 < 237.5 to the left, agree=0.950, adj=0.531, (0 split)  
## 323 < 37 to the left, agree=0.936, adj=0.406, (0 split)  
## 268 < 248 to the left, agree=0.926, adj=0.313, (0 split)  
## 563 < 11.5 to the left, agree=0.913, adj=0.187, (0 split)  
##   
## Node number 771: 33 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.5151515 P(node) =0.001309264  
## class counts: 12 0 16 0 0 0 2 3 0 0  
## probabilities: 0.364 0.000 0.485 0.000 0.000 0.000 0.061 0.091 0.000 0.000   
## left son=1542 (11 obs) right son=1543 (22 obs)  
## Primary splits:  
## 455 < 4 to the right, improve=7.666667, (0 missing)  
## 482 < 13.5 to the right, improve=7.666667, (0 missing)  
## 483 < 76 to the right, improve=7.666667, (0 missing)  
## 214 < 158 to the right, improve=7.521613, (0 missing)  
## 369 < 40.5 to the right, improve=6.884848, (0 missing)  
## Surrogate splits:  
## 483 < 76 to the right, agree=1.000, adj=1.000, (0 split)  
## 482 < 45.5 to the right, agree=0.970, adj=0.909, (0 split)  
## 511 < 207.5 to the right, agree=0.970, adj=0.909, (0 split)  
## 510 < 172.5 to the right, agree=0.939, adj=0.818, (0 split)  
## 454 < 3 to the right, agree=0.909, adj=0.727, (0 split)  
##   
## Node number 780: 11 observations  
## predicted class=0 expected loss=0.6363636 P(node) =0.0004364213  
## class counts: 4 0 1 2 0 4 0 0 0 0  
## probabilities: 0.364 0.000 0.091 0.182 0.000 0.364 0.000 0.000 0.000 0.000   
##   
## Node number 781: 19 observations  
## predicted class=3 expected loss=0 P(node) =0.0007538187  
## class counts: 0 0 0 19 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 782: 7 observations  
## predicted class=6 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 1 0 1 0 0 2 3 0 0 0  
## probabilities: 0.143 0.000 0.143 0.000 0.000 0.286 0.429 0.000 0.000 0.000   
##   
## Node number 783: 20 observations  
## predicted class=5 expected loss=0.1 P(node) =0.0007934934  
## class counts: 0 0 0 2 0 18 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.100 0.000 0.900 0.000 0.000 0.000 0.000   
##   
## Node number 792: 11 observations  
## predicted class=2 expected loss=0.4545455 P(node) =0.0004364213  
## class counts: 1 1 6 0 0 2 1 0 0 0  
## probabilities: 0.091 0.091 0.545 0.000 0.000 0.182 0.091 0.000 0.000 0.000   
##   
## Node number 793: 44 observations, complexity param=0.0001339645  
## predicted class=3 expected loss=0.2954545 P(node) =0.001745685  
## class counts: 2 0 4 31 0 5 0 2 0 0  
## probabilities: 0.045 0.000 0.091 0.705 0.000 0.114 0.000 0.045 0.000 0.000   
## left son=1586 (36 obs) right son=1587 (8 obs)  
## Primary splits:  
## 544 < 35 to the left, improve=5.351010, (0 missing)  
## 351 < 8.5 to the left, improve=5.045455, (0 missing)  
## 571 < 209.5 to the left, improve=4.651632, (0 missing)  
## 572 < 246.5 to the left, improve=4.651632, (0 missing)  
## 211 < 227.5 to the left, improve=4.400574, (0 missing)  
## Surrogate splits:  
## 571 < 209.5 to the left, agree=0.977, adj=0.875, (0 split)  
## 572 < 246.5 to the left, agree=0.977, adj=0.875, (0 split)  
## 543 < 48 to the left, agree=0.955, adj=0.750, (0 split)  
## 545 < 168.5 to the left, agree=0.955, adj=0.750, (0 split)  
## 546 < 232.5 to the left, agree=0.955, adj=0.750, (0 split)  
##   
## Node number 796: 13 observations  
## predicted class=0 expected loss=0.6923077 P(node) =0.0005157707  
## class counts: 4 0 1 4 0 1 0 0 0 3  
## probabilities: 0.308 0.000 0.077 0.308 0.000 0.077 0.000 0.000 0.000 0.231   
##   
## Node number 797: 8 observations  
## predicted class=5 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 5 1 0 2 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.625 0.125 0.000 0.250 0.000   
##   
## Node number 798: 7 observations  
## predicted class=3 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 0 5 0 2 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.714 0.000 0.286 0.000 0.000 0.000 0.000   
##   
## Node number 799: 46 observations  
## predicted class=5 expected loss=0.04347826 P(node) =0.001825035  
## class counts: 0 0 0 2 0 44 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.043 0.000 0.957 0.000 0.000 0.000 0.000   
##   
## Node number 824: 34 observations, complexity param=0.0002976988  
## predicted class=5 expected loss=0.7058824 P(node) =0.001348939  
## class counts: 4 0 8 3 1 10 5 0 3 0  
## probabilities: 0.118 0.000 0.235 0.088 0.029 0.294 0.147 0.000 0.088 0.000   
## left son=1648 (10 obs) right son=1649 (24 obs)  
## Primary splits:  
## 580 < 144 to the right, improve=4.645098, (0 missing)  
## 554 < 19 to the right, improve=4.438220, (0 missing)  
## 582 < 7.5 to the right, improve=4.438220, (0 missing)  
## 247 < 3 to the left, improve=4.200226, (0 missing)  
## 579 < 69 to the right, improve=4.189542, (0 missing)  
## Surrogate splits:  
## 581 < 28 to the right, agree=0.971, adj=0.9, (0 split)  
## 552 < 116.5 to the right, agree=0.941, adj=0.8, (0 split)  
## 553 < 20.5 to the right, agree=0.941, adj=0.8, (0 split)  
## 554 < 19 to the right, agree=0.912, adj=0.7, (0 split)  
## 582 < 7.5 to the right, agree=0.912, adj=0.7, (0 split)  
##   
## Node number 825: 10 observations  
## predicted class=8 expected loss=0.1 P(node) =0.0003967467  
## class counts: 0 0 0 0 0 0 1 0 9 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.100 0.000 0.900 0.000   
##   
## Node number 836: 8 observations  
## predicted class=0 expected loss=0 P(node) =0.0003173973  
## class counts: 8 0 0 0 0 0 0 0 0 0  
## probabilities: 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 837: 17 observations  
## predicted class=5 expected loss=0.2941176 P(node) =0.0006744694  
## class counts: 0 0 0 1 0 12 3 0 1 0  
## probabilities: 0.000 0.000 0.000 0.059 0.000 0.706 0.176 0.000 0.059 0.000   
##   
## Node number 838: 19 observations  
## predicted class=2 expected loss=0.3157895 P(node) =0.0007538187  
## class counts: 2 0 13 1 2 0 0 0 0 1  
## probabilities: 0.105 0.000 0.684 0.053 0.105 0.000 0.000 0.000 0.000 0.053   
##   
## Node number 839: 14 observations  
## predicted class=9 expected loss=0.1428571 P(node) =0.0005554453  
## class counts: 0 0 0 0 1 0 0 1 0 12  
## probabilities: 0.000 0.000 0.000 0.000 0.071 0.000 0.000 0.071 0.000 0.857   
##   
## Node number 846: 8 observations  
## predicted class=2 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 5 0 0 0 3 0 0 0  
## probabilities: 0.000 0.000 0.625 0.000 0.000 0.000 0.375 0.000 0.000 0.000   
##   
## Node number 847: 120 observations, complexity param=4.465482e-05  
## predicted class=6 expected loss=0.06666667 P(node) =0.00476096  
## class counts: 0 0 2 0 4 2 112 0 0 0  
## probabilities: 0.000 0.000 0.017 0.000 0.033 0.017 0.933 0.000 0.000 0.000   
## left son=1694 (7 obs) right son=1695 (113 obs)  
## Primary splits:  
## 657 < 4.5 to the right, improve=4.515718, (0 missing)  
## 427 < 210 to the right, improve=4.059459, (0 missing)  
## 300 < 143.5 to the right, improve=4.050485, (0 missing)  
## 301 < 123.5 to the right, improve=4.050485, (0 missing)  
## 302 < 3.5 to the right, improve=3.480952, (0 missing)  
## Surrogate splits:  
## 658 < 54.5 to the right, agree=0.992, adj=0.857, (0 split)  
## 659 < 102.5 to the right, agree=0.983, adj=0.714, (0 split)  
## 190 < 119.5 to the right, agree=0.967, adj=0.429, (0 split)  
## 628 < 240 to the right, agree=0.967, adj=0.429, (0 split)  
## 656 < 47.5 to the right, agree=0.967, adj=0.429, (0 split)  
##   
## Node number 858: 25 observations, complexity param=0.000111637  
## predicted class=3 expected loss=0.8 P(node) =0.0009918667  
## class counts: 4 0 4 5 1 0 4 1 1 5  
## probabilities: 0.160 0.000 0.160 0.200 0.040 0.000 0.160 0.040 0.040 0.200   
## left son=1716 (7 obs) right son=1717 (18 obs)  
## Primary splits:  
## 324 < 5.5 to the right, improve=3.483810, (0 missing)  
## 570 < 82.5 to the right, improve=3.268824, (0 missing)  
## 571 < 25 to the right, improve=3.268824, (0 missing)  
## 598 < 32 to the right, improve=3.268824, (0 missing)  
## 599 < 78.5 to the right, improve=3.268824, (0 missing)  
## Surrogate splits:  
## 325 < 60.5 to the right, agree=0.92, adj=0.714, (0 split)  
## 326 < 213 to the right, agree=0.92, adj=0.714, (0 split)  
## 353 < 156 to the right, agree=0.92, adj=0.714, (0 split)  
## 296 < 124.5 to the right, agree=0.88, adj=0.571, (0 split)  
## 298 < 64.5 to the right, agree=0.88, adj=0.571, (0 split)  
##   
## Node number 859: 9 observations  
## predicted class=5 expected loss=0.3333333 P(node) =0.000357072  
## class counts: 0 0 0 0 0 6 0 3 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.667 0.000 0.333 0.000 0.000   
##   
## Node number 860: 17 observations  
## predicted class=4 expected loss=0.05882353 P(node) =0.0006744694  
## class counts: 0 0 0 0 16 0 0 0 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.941 0.000 0.000 0.000 0.000 0.059   
##   
## Node number 861: 7 observations  
## predicted class=7 expected loss=0.7142857 P(node) =0.0002777227  
## class counts: 1 0 1 0 1 0 0 2 0 2  
## probabilities: 0.143 0.000 0.143 0.000 0.143 0.000 0.000 0.286 0.000 0.286   
##   
## Node number 862: 9 observations  
## predicted class=4 expected loss=0.5555556 P(node) =0.000357072  
## class counts: 0 0 1 0 4 0 0 2 1 1  
## probabilities: 0.000 0.000 0.111 0.000 0.444 0.000 0.000 0.222 0.111 0.111   
##   
## Node number 863: 73 observations, complexity param=4.465482e-05  
## predicted class=9 expected loss=0.1780822 P(node) =0.002896251  
## class counts: 0 0 1 0 2 0 1 9 0 60  
## probabilities: 0.000 0.000 0.014 0.000 0.027 0.000 0.014 0.123 0.000 0.822   
## left son=1726 (11 obs) right son=1727 (62 obs)  
## Primary splits:  
## 408 < 130.5 to the right, improve=4.070863, (0 missing)  
## 179 < 252.5 to the right, improve=4.066228, (0 missing)  
## 520 < 252.5 to the right, improve=3.483465, (0 missing)  
## 436 < 135.5 to the right, improve=3.392456, (0 missing)  
## 457 < 12 to the left, improve=3.226289, (0 missing)  
## Surrogate splits:  
## 436 < 135.5 to the right, agree=0.918, adj=0.455, (0 split)  
## 211 < 64.5 to the left, agree=0.904, adj=0.364, (0 split)  
## 212 < 4.5 to the left, agree=0.890, adj=0.273, (0 split)  
## 747 < 177.5 to the right, agree=0.890, adj=0.273, (0 split)  
## 179 < 254.5 to the right, agree=0.877, adj=0.182, (0 split)  
##   
## Node number 866: 28 observations, complexity param=0.0001786193  
## predicted class=6 expected loss=0.7142857 P(node) =0.001110891  
## class counts: 1 7 0 4 0 6 8 0 0 2  
## probabilities: 0.036 0.250 0.000 0.143 0.000 0.214 0.286 0.000 0.000 0.071   
## left son=1732 (18 obs) right son=1733 (10 obs)  
## Primary splits:  
## 515 < 28.5 to the left, improve=5.084127, (0 missing)  
## 544 < 196.5 to the left, improve=4.978571, (0 missing)  
## 657 < 96 to the left, improve=4.747285, (0 missing)  
## 188 < 14.5 to the right, improve=4.678571, (0 missing)  
## 656 < 8.5 to the left, improve=4.602368, (0 missing)  
## Surrogate splits:  
## 516 < 173.5 to the left, agree=0.964, adj=0.9, (0 split)  
## 487 < 16 to the left, agree=0.929, adj=0.8, (0 split)  
## 488 < 203.5 to the left, agree=0.929, adj=0.8, (0 split)  
## 544 < 12 to the left, agree=0.929, adj=0.8, (0 split)  
## 543 < 22 to the left, agree=0.893, adj=0.7, (0 split)  
##   
## Node number 867: 9 observations  
## predicted class=5 expected loss=0 P(node) =0.000357072  
## class counts: 0 0 0 0 0 9 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000   
##   
## Node number 894: 7 observations  
## predicted class=0 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 3 0 0 0 2 2 0 0 0 0  
## probabilities: 0.429 0.000 0.000 0.000 0.286 0.286 0.000 0.000 0.000 0.000   
##   
## Node number 895: 622 observations, complexity param=8.930964e-05  
## predicted class=7 expected loss=0.02572347 P(node) =0.02467764  
## class counts: 2 0 1 2 2 1 3 606 0 5  
## probabilities: 0.003 0.000 0.002 0.003 0.003 0.002 0.005 0.974 0.000 0.008   
## left son=1790 (8 obs) right son=1791 (614 obs)  
## Primary splits:  
## 542 < 123 to the right, improve=7.430635, (0 missing)  
## 541 < 102 to the right, improve=6.569800, (0 missing)  
## 513 < 101.5 to the right, improve=5.881189, (0 missing)  
## 514 < 4.5 to the right, improve=5.713208, (0 missing)  
## 512 < 205 to the right, improve=5.317830, (0 missing)  
## Surrogate splits:  
## 541 < 102 to the right, agree=0.998, adj=0.875, (0 split)  
## 514 < 4.5 to the right, agree=0.997, adj=0.750, (0 split)  
## 569 < 10 to the right, agree=0.995, adj=0.625, (0 split)  
## 570 < 10.5 to the right, agree=0.995, adj=0.625, (0 split)  
## 443 < 140.5 to the right, agree=0.994, adj=0.500, (0 split)  
##   
## Node number 896: 912 observations, complexity param=0.0001339645  
## predicted class=2 expected loss=0.03399123 P(node) =0.0361833  
## class counts: 0 0 881 15 0 0 0 12 4 0  
## probabilities: 0.000 0.000 0.966 0.016 0.000 0.000 0.000 0.013 0.004 0.000   
## left son=1792 (869 obs) right son=1793 (43 obs)  
## Primary splits:  
## 681 < 37 to the left, improve=6.530813, (0 missing)  
## 680 < 41 to the left, improve=5.938896, (0 missing)  
## 678 < 104 to the left, improve=5.706384, (0 missing)  
## 679 < 10.5 to the left, improve=5.044293, (0 missing)  
## 682 < 10 to the left, improve=4.922556, (0 missing)  
## Surrogate splits:  
## 680 < 3 to the left, agree=0.987, adj=0.721, (0 split)  
## 682 < 6.5 to the left, agree=0.986, adj=0.698, (0 split)  
## 679 < 0.5 to the left, agree=0.975, adj=0.465, (0 split)  
## 683 < 21.5 to the left, agree=0.975, adj=0.465, (0 split)  
## 678 < 0.5 to the left, agree=0.964, adj=0.233, (0 split)  
##   
## Node number 897: 10 observations  
## predicted class=8 expected loss=0.3 P(node) =0.0003967467  
## class counts: 0 0 1 0 0 1 0 0 7 1  
## probabilities: 0.000 0.000 0.100 0.000 0.000 0.100 0.000 0.000 0.700 0.100   
##   
## Node number 900: 22 observations, complexity param=4.465482e-05  
## predicted class=2 expected loss=0.2272727 P(node) =0.0008728427  
## class counts: 3 0 17 0 0 0 2 0 0 0  
## probabilities: 0.136 0.000 0.773 0.000 0.000 0.000 0.091 0.000 0.000 0.000   
## left son=1800 (15 obs) right son=1801 (7 obs)  
## Primary splits:  
## 372 < 138 to the left, improve=3.701299, (0 missing)  
## 428 < 9 to the left, improve=3.701299, (0 missing)  
## 440 < 29.5 to the left, improve=3.701299, (0 missing)  
## 455 < 7.5 to the left, improve=3.701299, (0 missing)  
## 468 < 89 to the left, improve=3.701299, (0 missing)  
## Surrogate splits:  
## 183 < 193 to the right, agree=0.909, adj=0.714, (0 split)  
## 399 < 57 to the left, agree=0.909, adj=0.714, (0 split)  
## 400 < 65 to the left, agree=0.909, adj=0.714, (0 split)  
## 427 < 79 to the left, agree=0.909, adj=0.714, (0 split)  
## 455 < 86.5 to the left, agree=0.909, adj=0.714, (0 split)  
##   
## Node number 901: 13 observations  
## predicted class=9 expected loss=0.1538462 P(node) =0.0005157707  
## class counts: 0 0 0 0 2 0 0 0 0 11  
## probabilities: 0.000 0.000 0.000 0.000 0.154 0.000 0.000 0.000 0.000 0.846   
##   
## Node number 902: 7 observations  
## predicted class=2 expected loss=0.7142857 P(node) =0.0002777227  
## class counts: 0 0 2 1 0 1 0 0 1 2  
## probabilities: 0.000 0.000 0.286 0.143 0.000 0.143 0.000 0.000 0.143 0.286   
##   
## Node number 903: 43 observations  
## predicted class=8 expected loss=0.06976744 P(node) =0.001706011  
## class counts: 0 0 1 0 0 0 0 0 40 2  
## probabilities: 0.000 0.000 0.023 0.000 0.000 0.000 0.000 0.000 0.930 0.047   
##   
## Node number 904: 135 observations, complexity param=0.0005805126  
## predicted class=1 expected loss=0.2592593 P(node) =0.00535608  
## class counts: 0 100 17 1 2 3 6 6 0 0  
## probabilities: 0.000 0.741 0.126 0.007 0.015 0.022 0.044 0.044 0.000 0.000   
## left son=1808 (107 obs) right son=1809 (28 obs)  
## Primary splits:  
## 520 < 3 to the left, improve=23.79034, (0 missing)  
## 351 < 79 to the right, improve=23.07407, (0 missing)  
## 519 < 49.5 to the left, improve=23.00462, (0 missing)  
## 510 < 2.5 to the left, improve=22.79906, (0 missing)  
## 352 < 194 to the right, improve=22.79529, (0 missing)  
## Surrogate splits:  
## 519 < 69.5 to the left, agree=0.963, adj=0.821, (0 split)  
## 547 < 2.5 to the left, agree=0.956, adj=0.786, (0 split)  
## 492 < 71 to the left, agree=0.948, adj=0.750, (0 split)  
## 521 < 3 to the left, agree=0.941, adj=0.714, (0 split)  
## 464 < 139.5 to the left, agree=0.933, adj=0.679, (0 split)  
##   
## Node number 905: 111 observations, complexity param=0.001384299  
## predicted class=4 expected loss=0.4774775 P(node) =0.004403888  
## class counts: 0 0 2 0 58 2 42 2 3 2  
## probabilities: 0.000 0.000 0.018 0.000 0.523 0.018 0.378 0.018 0.027 0.018   
## left son=1810 (72 obs) right son=1811 (39 obs)  
## Primary splits:  
## 573 < 221 to the left, improve=26.92487, (0 missing)  
## 216 < 3.5 to the right, improve=26.23956, (0 missing)  
## 438 < 73 to the right, improve=24.46467, (0 missing)  
## 574 < 101 to the left, improve=23.81049, (0 missing)  
## 488 < 105.5 to the right, improve=23.70271, (0 missing)  
## Surrogate splits:  
## 572 < 142 to the left, agree=0.883, adj=0.667, (0 split)  
## 574 < 142.5 to the left, agree=0.865, adj=0.615, (0 split)  
## 601 < 70.5 to the left, agree=0.865, adj=0.615, (0 split)  
## 488 < 43.5 to the right, agree=0.847, adj=0.564, (0 split)  
## 459 < 5 to the right, agree=0.829, adj=0.513, (0 split)  
##   
## Node number 906: 150 observations, complexity param=0.000982406  
## predicted class=2 expected loss=0.46 P(node) =0.0059512  
## class counts: 0 2 81 5 1 0 0 46 6 9  
## probabilities: 0.000 0.013 0.540 0.033 0.007 0.000 0.000 0.307 0.040 0.060   
## left son=1812 (127 obs) right son=1813 (23 obs)  
## Primary splits:  
## 678 < 45.5 to the left, improve=19.60675, (0 missing)  
## 566 < 74 to the right, improve=17.50022, (0 missing)  
## 706 < 3.5 to the left, improve=16.47333, (0 missing)  
## 538 < 25 to the right, improve=16.11102, (0 missing)  
## 679 < 102.5 to the left, improve=15.70316, (0 missing)  
## Surrogate splits:  
## 677 < 3 to the left, agree=0.973, adj=0.826, (0 split)  
## 706 < 3.5 to the left, agree=0.967, adj=0.783, (0 split)  
## 650 < 50.5 to the left, agree=0.960, adj=0.739, (0 split)  
## 705 < 8 to the left, agree=0.960, adj=0.739, (0 split)  
## 679 < 0.5 to the left, agree=0.953, adj=0.696, (0 split)  
##   
## Node number 907: 91 observations, complexity param=0.0004465482  
## predicted class=9 expected loss=0.3076923 P(node) =0.003610395  
## class counts: 2 0 4 0 1 5 0 3 13 63  
## probabilities: 0.022 0.000 0.044 0.000 0.011 0.055 0.000 0.033 0.143 0.692   
## left son=1814 (28 obs) right son=1815 (63 obs)  
## Primary splits:  
## 599 < 6.5 to the right, improve=18.85958, (0 missing)  
## 627 < 74.5 to the right, improve=14.62795, (0 missing)  
## 598 < 26 to the right, improve=14.29277, (0 missing)  
## 626 < 29.5 to the right, improve=14.18974, (0 missing)  
## 403 < 0.5 to the right, improve=13.52410, (0 missing)  
## Surrogate splits:  
## 598 < 26 to the right, agree=0.945, adj=0.821, (0 split)  
## 627 < 74.5 to the right, agree=0.934, adj=0.786, (0 split)  
## 600 < 4 to the right, agree=0.923, adj=0.750, (0 split)  
## 626 < 29.5 to the right, agree=0.923, adj=0.750, (0 split)  
## 570 < 36.5 to the right, agree=0.912, adj=0.714, (0 split)  
##   
## Node number 912: 13 observations  
## predicted class=0 expected loss=0.6153846 P(node) =0.0005157707  
## class counts: 5 0 5 0 0 0 3 0 0 0  
## probabilities: 0.385 0.000 0.385 0.000 0.000 0.000 0.231 0.000 0.000 0.000   
##   
## Node number 913: 7 observations  
## predicted class=8 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 0 0 1 0 0 0 6 0  
## probabilities: 0.000 0.000 0.000 0.000 0.143 0.000 0.000 0.000 0.857 0.000   
##   
## Node number 914: 7 observations  
## predicted class=2 expected loss=0.7142857 P(node) =0.0002777227  
## class counts: 0 0 2 0 2 1 0 0 2 0  
## probabilities: 0.000 0.000 0.286 0.000 0.286 0.143 0.000 0.000 0.286 0.000   
##   
## Node number 915: 94 observations  
## predicted class=5 expected loss=0.0106383 P(node) =0.003729419  
## class counts: 0 0 0 0 0 93 1 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.989 0.011 0.000 0.000 0.000   
##   
## Node number 916: 132 observations, complexity param=0.0004018934  
## predicted class=4 expected loss=0.1969697 P(node) =0.005237056  
## class counts: 0 0 10 0 106 1 13 0 2 0  
## probabilities: 0.000 0.000 0.076 0.000 0.803 0.008 0.098 0.000 0.015 0.000   
## left son=1832 (18 obs) right son=1833 (114 obs)  
## Primary splits:  
## 127 < 2.5 to the right, improve=19.72116, (0 missing)  
## 126 < 6.5 to the left, improve=19.47208, (0 missing)  
## 125 < 34 to the left, improve=18.35517, (0 missing)  
## 97 < 2 to the left, improve=16.73281, (0 missing)  
## 128 < 6.5 to the right, improve=15.73523, (0 missing)  
## Surrogate splits:  
## 99 < 1 to the right, agree=0.970, adj=0.778, (0 split)  
## 128 < 6.5 to the right, agree=0.970, adj=0.778, (0 split)  
## 126 < 6.5 to the right, agree=0.962, adj=0.722, (0 split)  
## 129 < 19 to the right, agree=0.947, adj=0.611, (0 split)  
## 98 < 68.5 to the right, agree=0.939, adj=0.556, (0 split)  
##   
## Node number 917: 23 observations, complexity param=0.0002232741  
## predicted class=7 expected loss=0.4347826 P(node) =0.0009125174  
## class counts: 0 0 3 0 0 0 0 13 5 2  
## probabilities: 0.000 0.000 0.130 0.000 0.000 0.000 0.000 0.565 0.217 0.087   
## left son=1834 (8 obs) right son=1835 (15 obs)  
## Primary splits:  
## 486 < 162.5 to the right, improve=6.783333, (0 missing)  
## 376 < 55 to the left, improve=6.283333, (0 missing)  
## 430 < 5.5 to the left, improve=6.267857, (0 missing)  
## 458 < 56 to the right, improve=6.150000, (0 missing)  
## 290 < 13.5 to the right, improve=5.732143, (0 missing)  
## Surrogate splits:  
## 485 < 50 to the right, agree=0.957, adj=0.875, (0 split)  
## 513 < 132 to the right, agree=0.957, adj=0.875, (0 split)  
## 458 < 56 to the right, agree=0.913, adj=0.750, (0 split)  
## 459 < 187.5 to the right, agree=0.913, adj=0.750, (0 split)  
## 460 < 247.5 to the right, agree=0.913, adj=0.750, (0 split)  
##   
## Node number 918: 85 observations, complexity param=0.0008037867  
## predicted class=2 expected loss=0.4823529 P(node) =0.003372347  
## class counts: 12 0 44 0 1 1 1 2 23 1  
## probabilities: 0.141 0.000 0.518 0.000 0.012 0.012 0.012 0.024 0.271 0.012   
## left son=1836 (56 obs) right son=1837 (29 obs)  
## Primary splits:  
## 654 < 33 to the left, improve=16.81152, (0 missing)  
## 653 < 28.5 to the left, improve=14.56957, (0 missing)  
## 655 < 20 to the left, improve=14.16532, (0 missing)  
## 348 < 206.5 to the left, improve=13.32259, (0 missing)  
## 525 < 33.5 to the right, improve=12.24566, (0 missing)  
## Surrogate splits:  
## 653 < 28.5 to the left, agree=0.953, adj=0.862, (0 split)  
## 655 < 4.5 to the left, agree=0.953, adj=0.862, (0 split)  
## 652 < 56.5 to the left, agree=0.906, adj=0.724, (0 split)  
## 656 < 5.5 to the left, agree=0.906, adj=0.724, (0 split)  
## 627 < 180.5 to the left, agree=0.871, adj=0.621, (0 split)  
##   
## Node number 919: 124 observations, complexity param=0.0007591319  
## predicted class=9 expected loss=0.5967742 P(node) =0.004919659  
## class counts: 2 0 9 0 18 0 1 33 11 50  
## probabilities: 0.016 0.000 0.073 0.000 0.145 0.000 0.008 0.266 0.089 0.403   
## left son=1838 (71 obs) right son=1839 (53 obs)  
## Primary splits:  
## 458 < 5 to the left, improve=13.01018, (0 missing)  
## 457 < 5.5 to the right, improve=12.63663, (0 missing)  
## 429 < 9.5 to the left, improve=12.35484, (0 missing)  
## 681 < 233.5 to the right, improve=11.61812, (0 missing)  
## 709 < 168.5 to the left, improve=11.53778, (0 missing)  
## Surrogate splits:  
## 457 < 17.5 to the left, agree=0.919, adj=0.811, (0 split)  
## 459 < 13.5 to the left, agree=0.895, adj=0.755, (0 split)  
## 429 < 20.5 to the left, agree=0.879, adj=0.717, (0 split)  
## 456 < 5.5 to the left, agree=0.863, adj=0.679, (0 split)  
## 430 < 88.5 to the left, agree=0.855, adj=0.660, (0 split)  
##   
## Node number 922: 36 observations, complexity param=0.0004465482  
## predicted class=8 expected loss=0.6388889 P(node) =0.001428288  
## class counts: 10 0 1 0 0 8 4 0 13 0  
## probabilities: 0.278 0.000 0.028 0.000 0.000 0.222 0.111 0.000 0.361 0.000   
## left son=1844 (14 obs) right son=1845 (22 obs)  
## Primary splits:  
## 266 < 251.5 to the right, improve=7.745310, (0 missing)  
## 434 < 5 to the left, improve=7.349206, (0 missing)  
## 382 < 7 to the right, improve=6.699182, (0 missing)  
## 293 < 218 to the right, improve=6.102778, (0 missing)  
## 354 < 29.5 to the right, improve=5.940115, (0 missing)  
## Surrogate splits:  
## 293 < 218 to the right, agree=0.889, adj=0.714, (0 split)  
## 294 < 223 to the right, agree=0.889, adj=0.714, (0 split)  
## 574 < 225 to the right, agree=0.889, adj=0.714, (0 split)  
## 295 < 21 to the right, agree=0.861, adj=0.643, (0 split)  
## 322 < 3 to the right, agree=0.861, adj=0.643, (0 split)  
##   
## Node number 923: 17 observations  
## predicted class=9 expected loss=0.2352941 P(node) =0.0006744694  
## class counts: 0 0 0 0 2 1 1 0 0 13  
## probabilities: 0.000 0.000 0.000 0.000 0.118 0.059 0.059 0.000 0.000 0.765   
##   
## Node number 924: 20 observations, complexity param=0.0001786193  
## predicted class=5 expected loss=0.45 P(node) =0.0007934934  
## class counts: 4 0 0 2 1 11 0 1 0 1  
## probabilities: 0.200 0.000 0.000 0.100 0.050 0.550 0.000 0.050 0.000 0.050   
## left son=1848 (8 obs) right son=1849 (12 obs)  
## Primary splits:  
## 327 < 46.5 to the right, improve=5.716667, (0 missing)  
## 355 < 30.5 to the right, improve=5.716667, (0 missing)  
## 382 < 12 to the right, improve=5.200000, (0 missing)  
## 435 < 204.5 to the left, improve=4.975824, (0 missing)  
## 354 < 58 to the right, improve=4.966667, (0 missing)  
## Surrogate splits:  
## 355 < 30.5 to the right, agree=1.00, adj=1.000, (0 split)  
## 328 < 26.5 to the right, agree=0.95, adj=0.875, (0 split)  
## 289 < 20 to the left, agree=0.90, adj=0.750, (0 split)  
## 354 < 58 to the right, agree=0.90, adj=0.750, (0 split)  
## 382 < 12 to the right, agree=0.90, adj=0.750, (0 split)  
##   
## Node number 925: 27 observations  
## predicted class=8 expected loss=0.1481481 P(node) =0.001071216  
## class counts: 0 0 0 0 0 1 1 1 23 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.037 0.037 0.037 0.852 0.037   
##   
## Node number 926: 33 observations, complexity param=0.000111637  
## predicted class=8 expected loss=0.5151515 P(node) =0.001309264  
## class counts: 1 0 4 1 0 1 1 6 16 3  
## probabilities: 0.030 0.000 0.121 0.030 0.000 0.030 0.030 0.182 0.485 0.091   
## left son=1852 (15 obs) right son=1853 (18 obs)  
## Primary splits:  
## 294 < 13 to the right, improve=7.139394, (0 missing)  
## 297 < 238.5 to the right, improve=6.545455, (0 missing)  
## 265 < 244 to the right, improve=6.103610, (0 missing)  
## 241 < 170.5 to the right, improve=5.795804, (0 missing)  
## 293 < 169 to the right, improve=5.753930, (0 missing)  
## Surrogate splits:  
## 293 < 181 to the right, agree=0.939, adj=0.867, (0 split)  
## 241 < 170.5 to the right, agree=0.879, adj=0.733, (0 split)  
## 268 < 2 to the right, agree=0.879, adj=0.733, (0 split)  
## 295 < 41.5 to the right, agree=0.879, adj=0.733, (0 split)  
## 297 < 238.5 to the right, agree=0.879, adj=0.733, (0 split)  
##   
## Node number 927: 555 observations  
## predicted class=8 expected loss=0.01801802 P(node) =0.02201944  
## class counts: 2 0 0 2 2 1 2 0 545 1  
## probabilities: 0.004 0.000 0.000 0.004 0.004 0.002 0.004 0.000 0.982 0.002   
##   
## Node number 928: 24 observations  
## predicted class=1 expected loss=0.08333333 P(node) =0.000952192  
## class counts: 0 22 0 0 1 0 0 0 1 0  
## probabilities: 0.000 0.917 0.000 0.000 0.042 0.000 0.000 0.000 0.042 0.000   
##   
## Node number 929: 8 observations  
## predicted class=2 expected loss=0.125 P(node) =0.0003173973  
## class counts: 1 0 7 0 0 0 0 0 0 0  
## probabilities: 0.125 0.000 0.875 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 930: 275 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.08 P(node) =0.01091053  
## class counts: 1 3 253 2 3 0 1 9 3 0  
## probabilities: 0.004 0.011 0.920 0.007 0.011 0.000 0.004 0.033 0.011 0.000   
## left son=1860 (268 obs) right son=1861 (7 obs)  
## Primary splits:  
## 681 < 13 to the left, improve=7.816926, (0 missing)  
## 348 < 41 to the left, improve=6.281745, (0 missing)  
## 349 < 37.5 to the left, improve=6.281745, (0 missing)  
## 320 < 35.5 to the left, improve=6.132054, (0 missing)  
## 321 < 12.5 to the left, improve=5.425455, (0 missing)  
## Surrogate splits:  
## 680 < 11.5 to the left, agree=0.985, adj=0.429, (0 split)  
## 682 < 42.5 to the left, agree=0.985, adj=0.429, (0 split)  
## 679 < 56 to the left, agree=0.982, adj=0.286, (0 split)  
## 708 < 26.5 to the left, agree=0.982, adj=0.286, (0 split)  
## 709 < 77.5 to the left, agree=0.982, adj=0.286, (0 split)  
##   
## Node number 931: 11 observations  
## predicted class=9 expected loss=0.5454545 P(node) =0.0004364213  
## class counts: 0 0 0 0 4 0 2 0 0 5  
## probabilities: 0.000 0.000 0.000 0.000 0.364 0.000 0.182 0.000 0.000 0.455   
##   
## Node number 936: 27 observations, complexity param=8.930964e-05  
## predicted class=4 expected loss=0.2222222 P(node) =0.001071216  
## class counts: 0 0 1 0 21 0 0 0 0 5  
## probabilities: 0.000 0.000 0.037 0.000 0.778 0.000 0.000 0.000 0.000 0.185   
## left son=1872 (18 obs) right son=1873 (9 obs)  
## Primary splits:  
## 209 < 225.5 to the left, improve=4.592593, (0 missing)  
## 208 < 72.5 to the left, improve=3.370370, (0 missing)  
## 185 < 83 to the right, improve=3.340067, (0 missing)  
## 406 < 5 to the left, improve=3.058967, (0 missing)  
## 407 < 153.5 to the left, improve=3.058967, (0 missing)  
## Surrogate splits:  
## 208 < 40 to the left, agree=0.889, adj=0.667, (0 split)  
## 181 < 37.5 to the left, agree=0.852, adj=0.556, (0 split)  
## 182 < 236 to the left, agree=0.852, adj=0.556, (0 split)  
## 210 < 242.5 to the left, agree=0.852, adj=0.556, (0 split)  
## 235 < 237 to the left, agree=0.815, adj=0.444, (0 split)  
##   
## Node number 937: 21 observations, complexity param=0.0001339645  
## predicted class=9 expected loss=0.7142857 P(node) =0.000833168  
## class counts: 0 1 4 0 3 1 0 2 4 6  
## probabilities: 0.000 0.048 0.190 0.000 0.143 0.048 0.000 0.095 0.190 0.286   
## left son=1874 (10 obs) right son=1875 (11 obs)  
## Primary splits:  
## 429 < 5 to the left, improve=2.720346, (0 missing)  
## 240 < 81 to the right, improve=2.619048, (0 missing)  
## 599 < 81.5 to the right, improve=2.451465, (0 missing)  
## 627 < 10.5 to the right, improve=2.451465, (0 missing)  
## 488 < 86 to the right, improve=2.429437, (0 missing)  
## Surrogate splits:  
## 401 < 45.5 to the left, agree=0.905, adj=0.8, (0 split)  
## 402 < 2 to the left, agree=0.905, adj=0.8, (0 split)  
## 430 < 11 to the left, agree=0.905, adj=0.8, (0 split)  
## 458 < 13.5 to the left, agree=0.905, adj=0.8, (0 split)  
## 457 < 23.5 to the left, agree=0.857, adj=0.7, (0 split)  
##   
## Node number 938: 7 observations  
## predicted class=2 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 4 0 0 0 1 2 0 0  
## probabilities: 0.000 0.000 0.571 0.000 0.000 0.000 0.143 0.286 0.000 0.000   
##   
## Node number 939: 18 observations  
## predicted class=6 expected loss=0 P(node) =0.000714144  
## class counts: 0 0 0 0 0 0 18 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000   
##   
## Node number 946: 12 observations  
## predicted class=4 expected loss=0.1666667 P(node) =0.000476096  
## class counts: 0 0 0 0 10 1 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.000 0.833 0.083 0.000 0.000 0.083 0.000   
##   
## Node number 947: 32 observations, complexity param=0.0003572385  
## predicted class=6 expected loss=0.625 P(node) =0.001269589  
## class counts: 0 1 2 0 2 0 12 1 9 5  
## probabilities: 0.000 0.031 0.062 0.000 0.062 0.000 0.375 0.031 0.281 0.156   
## left son=1894 (15 obs) right son=1895 (17 obs)  
## Primary splits:  
## 494 < 33.5 to the right, improve=6.282843, (0 missing)  
## 456 < 30.5 to the right, improve=5.583502, (0 missing)  
## 484 < 131.5 to the right, improve=5.583502, (0 missing)  
## 415 < 5 to the right, improve=5.087121, (0 missing)  
## 442 < 40.5 to the right, improve=5.087121, (0 missing)  
## Surrogate splits:  
## 467 < 13 to the right, agree=0.906, adj=0.800, (0 split)  
## 468 < 3.5 to the right, agree=0.906, adj=0.800, (0 split)  
## 495 < 3.5 to the right, agree=0.906, adj=0.800, (0 split)  
## 428 < 121.5 to the right, agree=0.875, adj=0.733, (0 split)  
## 455 < 43.5 to the right, agree=0.875, adj=0.733, (0 split)  
##   
## Node number 948: 10 observations  
## predicted class=2 expected loss=0.4 P(node) =0.0003967467  
## class counts: 0 0 6 0 2 0 0 1 1 0  
## probabilities: 0.000 0.000 0.600 0.000 0.200 0.000 0.000 0.100 0.100 0.000   
##   
## Node number 949: 10 observations  
## predicted class=8 expected loss=0.1 P(node) =0.0003967467  
## class counts: 0 0 0 0 1 0 0 0 9 0  
## probabilities: 0.000 0.000 0.000 0.000 0.100 0.000 0.000 0.000 0.900 0.000   
##   
## Node number 954: 18 observations  
## predicted class=5 expected loss=0.2777778 P(node) =0.000714144  
## class counts: 0 0 0 0 0 13 2 0 2 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.722 0.111 0.000 0.111 0.056   
##   
## Node number 955: 1485 observations, complexity param=0.0001786193  
## predicted class=6 expected loss=0.02289562 P(node) =0.05891688  
## class counts: 0 0 4 1 2 14 1451 0 7 6  
## probabilities: 0.000 0.000 0.003 0.001 0.001 0.009 0.977 0.000 0.005 0.004   
## left son=1910 (1478 obs) right son=1911 (7 obs)  
## Primary splits:  
## 662 < 2 to the left, improve=9.656883, (0 missing)  
## 651 < 2 to the left, improve=6.903935, (0 missing)  
## 652 < 132.5 to the left, improve=6.903935, (0 missing)  
## 653 < 122 to the left, improve=6.903935, (0 missing)  
## 624 < 225.5 to the left, improve=4.762589, (0 missing)  
## Surrogate splits:  
## 661 < 3 to the left, agree=0.999, adj=0.857, (0 split)  
## 690 < 9.5 to the left, agree=0.998, adj=0.571, (0 split)  
## 660 < 1 to the left, agree=0.997, adj=0.429, (0 split)  
## 663 < 30 to the left, agree=0.997, adj=0.429, (0 split)  
## 689 < 4 to the left, agree=0.997, adj=0.429, (0 split)  
##   
## Node number 956: 58 observations  
## predicted class=5 expected loss=0.05172414 P(node) =0.002301131  
## class counts: 0 0 0 2 0 55 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.034 0.000 0.948 0.000 0.000 0.017 0.000   
##   
## Node number 957: 9 observations  
## predicted class=6 expected loss=0.3333333 P(node) =0.000357072  
## class counts: 0 0 0 0 1 1 6 0 1 0  
## probabilities: 0.000 0.000 0.000 0.000 0.111 0.111 0.667 0.000 0.111 0.000   
##   
## Node number 958: 34 observations, complexity param=0.0001339645  
## predicted class=6 expected loss=0.2647059 P(node) =0.001348939  
## class counts: 0 0 0 0 0 3 25 0 4 2  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.088 0.735 0.000 0.118 0.059   
## left son=1916 (27 obs) right son=1917 (7 obs)  
## Primary splits:  
## 243 < 11.5 to the left, improve=6.489574, (0 missing)  
## 215 < 195.5 to the left, improve=4.574230, (0 missing)  
## 357 < 12 to the left, improve=3.727669, (0 missing)  
## 402 < 18.5 to the right, improve=3.653595, (0 missing)  
## 382 < 241.5 to the left, improve=3.156240, (0 missing)  
## Surrogate splits:  
## 215 < 215.5 to the left, agree=0.971, adj=0.857, (0 split)  
## 542 < 51 to the right, agree=0.941, adj=0.714, (0 split)  
## 599 < 27 to the right, agree=0.941, adj=0.714, (0 split)  
## 600 < 45 to the right, agree=0.941, adj=0.714, (0 split)  
## 684 < 26 to the left, agree=0.941, adj=0.714, (0 split)  
##   
## Node number 959: 62 observations, complexity param=0.0003125837  
## predicted class=8 expected loss=0.4677419 P(node) =0.002459829  
## class counts: 0 0 2 2 0 16 6 1 33 2  
## probabilities: 0.000 0.000 0.032 0.032 0.000 0.258 0.097 0.016 0.532 0.032   
## left son=1918 (29 obs) right son=1919 (33 obs)  
## Primary splits:  
## 354 < 0.5 to the left, improve=8.548522, (0 missing)  
## 355 < 30.5 to the left, improve=8.537137, (0 missing)  
## 467 < 5.5 to the right, improve=8.294507, (0 missing)  
## 488 < 0.5 to the left, improve=7.360993, (0 missing)  
## 466 < 218.5 to the right, improve=6.812832, (0 missing)  
## Surrogate splits:  
## 355 < 3.5 to the left, agree=0.984, adj=0.966, (0 split)  
## 356 < 1.5 to the left, agree=0.919, adj=0.828, (0 split)  
## 382 < 137.5 to the left, agree=0.903, adj=0.793, (0 split)  
## 381 < 30 to the left, agree=0.855, adj=0.690, (0 split)  
## 383 < 1 to the left, agree=0.839, adj=0.655, (0 split)  
##   
## Node number 962: 15 observations  
## predicted class=3 expected loss=0 P(node) =0.00059512  
## class counts: 0 0 0 15 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 963: 7 observations  
## predicted class=8 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 2 0 0 0 0 0 5 0  
## probabilities: 0.000 0.000 0.286 0.000 0.000 0.000 0.000 0.000 0.714 0.000   
##   
## Node number 964: 9 observations  
## predicted class=3 expected loss=0.5555556 P(node) =0.000357072  
## class counts: 0 0 2 4 0 3 0 0 0 0  
## probabilities: 0.000 0.000 0.222 0.444 0.000 0.333 0.000 0.000 0.000 0.000   
##   
## Node number 965: 78 observations  
## predicted class=5 expected loss=0.03846154 P(node) =0.003094624  
## class counts: 0 0 0 1 0 75 1 0 1 0  
## probabilities: 0.000 0.000 0.000 0.013 0.000 0.962 0.013 0.000 0.013 0.000   
##   
## Node number 966: 7 observations  
## predicted class=4 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 2 1 4 0 0 0 0 0  
## probabilities: 0.000 0.000 0.286 0.143 0.571 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 967: 18 observations  
## predicted class=8 expected loss=0.1666667 P(node) =0.000714144  
## class counts: 0 0 0 1 0 1 1 0 15 0  
## probabilities: 0.000 0.000 0.000 0.056 0.000 0.056 0.056 0.000 0.833 0.000   
##   
## Node number 968: 1344 observations, complexity param=0.0004018934  
## predicted class=4 expected loss=0.05208333 P(node) =0.05332275  
## class counts: 0 6 8 9 1274 2 14 10 5 16  
## probabilities: 0.000 0.004 0.006 0.007 0.948 0.001 0.010 0.007 0.004 0.012   
## left son=1936 (1325 obs) right son=1937 (19 obs)  
## Primary splits:  
## 295 < 222 to the left, improve=21.51074, (0 missing)  
## 294 < 222.5 to the left, improve=20.11547, (0 missing)  
## 322 < 47 to the left, improve=16.49136, (0 missing)  
## 95 < 32 to the left, improve=15.59351, (0 missing)  
## 96 < 2 to the left, improve=15.59351, (0 missing)  
## Surrogate splits:  
## 294 < 245.5 to the left, agree=0.992, adj=0.421, (0 split)  
## 322 < 210.5 to the left, agree=0.992, adj=0.421, (0 split)  
## 323 < 253.5 to the left, agree=0.987, adj=0.105, (0 split)  
## 740 < 159 to the left, agree=0.987, adj=0.105, (0 split)  
## 255 < 222 to the left, agree=0.987, adj=0.053, (0 split)  
##   
## Node number 969: 71 observations, complexity param=0.0005358578  
## predicted class=8 expected loss=0.6338028 P(node) =0.002816901  
## class counts: 0 0 6 7 8 19 1 0 26 4  
## probabilities: 0.000 0.000 0.085 0.099 0.113 0.268 0.014 0.000 0.366 0.056   
## left son=1938 (48 obs) right son=1939 (23 obs)  
## Primary splits:  
## 516 < 47 to the left, improve=11.28641, (0 missing)  
## 544 < 95.5 to the left, improve=10.56403, (0 missing)  
## 517 < 20 to the left, improve=10.35095, (0 missing)  
## 572 < 46 to the left, improve=10.16924, (0 missing)  
## 489 < 177.5 to the left, improve=10.07118, (0 missing)  
## Surrogate splits:  
## 544 < 131.5 to the left, agree=0.958, adj=0.870, (0 split)  
## 489 < 177.5 to the left, agree=0.930, adj=0.783, (0 split)  
## 543 < 16.5 to the left, agree=0.930, adj=0.783, (0 split)  
## 517 < 28.5 to the left, agree=0.901, adj=0.696, (0 split)  
## 515 < 3 to the left, agree=0.887, adj=0.652, (0 split)  
##   
## Node number 972: 21 observations  
## predicted class=5 expected loss=0.2380952 P(node) =0.000833168  
## class counts: 0 0 0 0 2 16 0 0 1 2  
## probabilities: 0.000 0.000 0.000 0.000 0.095 0.762 0.000 0.000 0.048 0.095   
##   
## Node number 973: 72 observations, complexity param=0.0006251675  
## predicted class=9 expected loss=0.4861111 P(node) =0.002856576  
## class counts: 0 0 2 2 22 4 0 5 0 37  
## probabilities: 0.000 0.000 0.028 0.028 0.306 0.056 0.000 0.069 0.000 0.514   
## left son=1946 (32 obs) right son=1947 (40 obs)  
## Primary splits:  
## 237 < 23.5 to the left, improve=12.383330, (0 missing)  
## 238 < 158.5 to the left, improve=10.583330, (0 missing)  
## 375 < 35.5 to the right, improve= 9.861111, (0 missing)  
## 186 < 4 to the right, improve= 8.873974, (0 missing)  
## 263 < 5.5 to the left, improve= 8.694444, (0 missing)  
## Surrogate splits:  
## 238 < 142.5 to the left, agree=0.944, adj=0.875, (0 split)  
## 236 < 2 to the left, agree=0.917, adj=0.812, (0 split)  
## 263 < 15 to the left, agree=0.861, adj=0.688, (0 split)  
## 347 < 137.5 to the right, agree=0.861, adj=0.688, (0 split)  
## 265 < 235 to the left, agree=0.847, adj=0.656, (0 split)  
##   
## Node number 974: 36 observations  
## predicted class=7 expected loss=0.1944444 P(node) =0.001428288  
## class counts: 0 0 2 2 0 0 0 29 2 1  
## probabilities: 0.000 0.000 0.056 0.056 0.000 0.000 0.000 0.806 0.056 0.028   
##   
## Node number 975: 11 observations  
## predicted class=9 expected loss=0.3636364 P(node) =0.0004364213  
## class counts: 0 0 3 0 0 1 0 0 0 7  
## probabilities: 0.000 0.000 0.273 0.000 0.000 0.091 0.000 0.000 0.000 0.636   
##   
## Node number 976: 494 observations, complexity param=0.0003572385  
## predicted class=5 expected loss=0.1093117 P(node) =0.01959929  
## class counts: 0 0 1 35 1 440 0 1 0 16  
## probabilities: 0.000 0.000 0.002 0.071 0.002 0.891 0.000 0.002 0.000 0.032   
## left son=1952 (24 obs) right son=1953 (470 obs)  
## Primary splits:  
## 322 < 187.5 to the right, improve=16.81794, (0 missing)  
## 217 < 1 to the left, improve=15.29740, (0 missing)  
## 216 < 1.5 to the left, improve=15.15130, (0 missing)  
## 188 < 2 to the left, improve=14.52128, (0 missing)  
## 263 < 8.5 to the left, improve=14.33422, (0 missing)  
## Surrogate splits:  
## 321 < 252.5 to the right, agree=0.962, adj=0.208, (0 split)  
## 323 < 62.5 to the right, agree=0.957, adj=0.125, (0 split)  
## 649 < 245 to the right, agree=0.957, adj=0.125, (0 split)  
## 203 < 253.5 to the right, agree=0.953, adj=0.042, (0 split)  
## 324 < 117.5 to the right, agree=0.953, adj=0.042, (0 split)  
##   
## Node number 977: 27 observations  
## predicted class=6 expected loss=0.1111111 P(node) =0.001071216  
## class counts: 0 0 0 0 0 2 24 0 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.074 0.889 0.000 0.000 0.037   
##   
## Node number 978: 25 observations, complexity param=0.0002679289  
## predicted class=2 expected loss=0.48 P(node) =0.0009918667  
## class counts: 3 0 13 1 0 0 2 0 6 0  
## probabilities: 0.120 0.000 0.520 0.040 0.000 0.000 0.080 0.000 0.240 0.000   
## left son=1956 (18 obs) right son=1957 (7 obs)  
## Primary splits:  
## 685 < 1.5 to the left, improve=6.636825, (0 missing)  
## 684 < 3 to the left, improve=6.414603, (0 missing)  
## 683 < 8.5 to the left, improve=6.401765, (0 missing)  
## 358 < 61.5 to the left, improve=6.084156, (0 missing)  
## 466 < 239 to the right, improve=5.483590, (0 missing)  
## Surrogate splits:  
## 436 < 252.5 to the left, agree=0.96, adj=0.857, (0 split)  
## 683 < 8.5 to the left, agree=0.96, adj=0.857, (0 split)  
## 684 < 7 to the left, agree=0.96, adj=0.857, (0 split)  
## 232 < 2.5 to the left, agree=0.92, adj=0.714, (0 split)  
## 233 < 58 to the left, agree=0.92, adj=0.714, (0 split)  
##   
## Node number 979: 35 observations, complexity param=0.0001786193  
## predicted class=9 expected loss=0.3428571 P(node) =0.001388613  
## class counts: 0 0 0 1 5 3 0 0 3 23  
## probabilities: 0.000 0.000 0.000 0.029 0.143 0.086 0.000 0.000 0.086 0.657   
## left son=1958 (11 obs) right son=1959 (24 obs)  
## Primary splits:  
## 242 < 14.5 to the left, improve=7.424026, (0 missing)  
## 347 < 176.5 to the right, improve=6.867888, (0 missing)  
## 243 < 0.5 to the left, improve=6.508571, (0 missing)  
## 155 < 24 to the right, improve=5.841534, (0 missing)  
## 320 < 144.5 to the right, improve=5.708571, (0 missing)  
## Surrogate splits:  
## 243 < 0.5 to the left, agree=0.971, adj=0.909, (0 split)  
## 241 < 2 to the left, agree=0.943, adj=0.818, (0 split)  
## 347 < 221 to the right, agree=0.914, adj=0.727, (0 split)  
## 154 < 7 to the right, agree=0.857, adj=0.545, (0 split)  
## 213 < 57 to the left, agree=0.857, adj=0.545, (0 split)  
##   
## Node number 980: 71 observations  
## predicted class=4 expected loss=0.07042254 P(node) =0.002816901  
## class counts: 0 1 1 1 66 0 0 0 1 1  
## probabilities: 0.000 0.014 0.014 0.014 0.930 0.000 0.000 0.000 0.014 0.014   
##   
## Node number 981: 8 observations  
## predicted class=7 expected loss=0.5 P(node) =0.0003173973  
## class counts: 0 0 0 0 2 0 0 4 0 2  
## probabilities: 0.000 0.000 0.000 0.000 0.250 0.000 0.000 0.500 0.000 0.250   
##   
## Node number 982: 127 observations, complexity param=0.0007144771  
## predicted class=9 expected loss=0.6141732 P(node) =0.005038683  
## class counts: 0 1 3 16 20 0 1 28 9 49  
## probabilities: 0.000 0.008 0.024 0.126 0.157 0.000 0.008 0.220 0.071 0.386   
## left son=1964 (60 obs) right son=1965 (67 obs)  
## Primary splits:  
## 373 < 9.5 to the left, improve=14.28025, (0 missing)  
## 345 < 4 to the left, improve=14.01165, (0 missing)  
## 346 < 1 to the left, improve=13.03548, (0 missing)  
## 205 < 46 to the right, improve=11.38308, (0 missing)  
## 318 < 1 to the left, improve=11.35079, (0 missing)  
## Surrogate splits:  
## 345 < 4 to the left, agree=0.929, adj=0.850, (0 split)  
## 401 < 30.5 to the left, agree=0.874, adj=0.733, (0 split)  
## 317 < 1 to the left, agree=0.858, adj=0.700, (0 split)  
## 374 < 55 to the left, agree=0.835, adj=0.650, (0 split)  
## 346 < 1 to the left, agree=0.811, adj=0.600, (0 split)  
##   
## Node number 983: 21 observations  
## predicted class=8 expected loss=0.1428571 P(node) =0.000833168  
## class counts: 0 0 1 1 0 0 1 0 18 0  
## probabilities: 0.000 0.000 0.048 0.048 0.000 0.000 0.048 0.000 0.857 0.000   
##   
## Node number 984: 99 observations, complexity param=0.0002679289  
## predicted class=3 expected loss=0.2323232 P(node) =0.003927792  
## class counts: 1 0 2 76 1 7 0 0 2 10  
## probabilities: 0.010 0.000 0.020 0.768 0.010 0.071 0.000 0.000 0.020 0.101   
## left son=1968 (77 obs) right son=1969 (22 obs)  
## Primary splits:  
## 373 < 63 to the left, improve=15.06349, (0 missing)  
## 318 < 22 to the left, improve=13.10780, (0 missing)  
## 346 < 167.5 to the left, improve=12.38503, (0 missing)  
## 345 < 13 to the left, improve=12.08025, (0 missing)  
## 319 < 116.5 to the left, improve=11.25532, (0 missing)  
## Surrogate splits:  
## 345 < 13 to the left, agree=0.949, adj=0.773, (0 split)  
## 374 < 209 to the left, agree=0.949, adj=0.773, (0 split)  
## 346 < 83.5 to the left, agree=0.919, adj=0.636, (0 split)  
## 372 < 16 to the left, agree=0.909, adj=0.591, (0 split)  
## 402 < 251.5 to the left, agree=0.909, adj=0.591, (0 split)  
##   
## Node number 985: 79 observations, complexity param=0.0009377512  
## predicted class=2 expected loss=0.4683544 P(node) =0.003134299  
## class counts: 1 0 42 6 0 1 3 0 25 1  
## probabilities: 0.013 0.000 0.532 0.076 0.000 0.013 0.038 0.000 0.316 0.013   
## left son=1970 (46 obs) right son=1971 (33 obs)  
## Primary splits:  
## 465 < 96.5 to the right, improve=20.78167, (0 missing)  
## 521 < 6.5 to the right, improve=19.34563, (0 missing)  
## 492 < 114.5 to the right, improve=18.17561, (0 missing)  
## 379 < 146.5 to the left, improve=17.94013, (0 missing)  
## 599 < 126.5 to the right, improve=17.68251, (0 missing)  
## Surrogate splits:  
## 493 < 41 to the right, agree=0.937, adj=0.848, (0 split)  
## 437 < 121 to the right, agree=0.911, adj=0.788, (0 split)  
## 492 < 59.5 to the right, agree=0.899, adj=0.758, (0 split)  
## 464 < 99 to the right, agree=0.886, adj=0.727, (0 split)  
## 520 < 86.5 to the right, agree=0.861, adj=0.667, (0 split)  
##   
## Node number 986: 138 observations, complexity param=0.0004465482  
## predicted class=4 expected loss=0.3333333 P(node) =0.005475104  
## class counts: 0 0 5 7 92 2 1 0 5 26  
## probabilities: 0.000 0.000 0.036 0.051 0.667 0.014 0.007 0.000 0.036 0.188   
## left son=1972 (90 obs) right son=1973 (48 obs)  
## Primary splits:  
## 207 < 10 to the left, improve=19.72005, (0 missing)  
## 181 < 126 to the left, improve=18.83848, (0 missing)  
## 180 < 1.5 to the left, improve=18.44868, (0 missing)  
## 208 < 31 to the left, improve=17.91859, (0 missing)  
## 179 < 6 to the left, improve=15.51269, (0 missing)  
## Surrogate splits:  
## 208 < 88.5 to the left, agree=0.942, adj=0.833, (0 split)  
## 180 < 1.5 to the left, agree=0.920, adj=0.771, (0 split)  
## 179 < 2.5 to the left, agree=0.913, adj=0.750, (0 split)  
## 235 < 109 to the left, agree=0.899, adj=0.708, (0 split)  
## 181 < 152.5 to the left, agree=0.891, adj=0.687, (0 split)  
##   
## Node number 987: 90 observations, complexity param=0.0004465482  
## predicted class=8 expected loss=0.5 P(node) =0.00357072  
## class counts: 1 0 4 9 9 2 0 1 45 19  
## probabilities: 0.011 0.000 0.044 0.100 0.100 0.022 0.000 0.011 0.500 0.211   
## left son=1974 (50 obs) right son=1975 (40 obs)  
## Primary splits:  
## 544 < 147 to the left, improve=17.02444, (0 missing)  
## 516 < 55 to the left, improve=14.42222, (0 missing)  
## 517 < 192.5 to the left, improve=12.81599, (0 missing)  
## 543 < 12 to the left, improve=11.52738, (0 missing)  
## 545 < 131 to the left, improve=10.43108, (0 missing)  
## Surrogate splits:  
## 516 < 55 to the left, agree=0.900, adj=0.775, (0 split)  
## 543 < 12 to the left, agree=0.900, adj=0.775, (0 split)  
## 572 < 239.5 to the left, agree=0.878, adj=0.725, (0 split)  
## 517 < 149 to the left, agree=0.867, adj=0.700, (0 split)  
## 571 < 52 to the left, agree=0.867, adj=0.700, (0 split)  
##   
## Node number 988: 176 observations, complexity param=0.0006698223  
## predicted class=9 expected loss=0.6931818 P(node) =0.006982742  
## class counts: 1 0 17 51 8 0 0 39 6 54  
## probabilities: 0.006 0.000 0.097 0.290 0.045 0.000 0.000 0.222 0.034 0.307   
## left son=1976 (119 obs) right son=1977 (57 obs)  
## Primary splits:  
## 342 < 10 to the left, improve=36.80002, (0 missing)  
## 371 < 3 to the left, improve=36.32649, (0 missing)  
## 370 < 2.5 to the left, improve=33.43193, (0 missing)  
## 399 < 5.5 to the left, improve=33.30885, (0 missing)  
## 315 < 51 to the left, improve=32.74784, (0 missing)  
## Surrogate splits:  
## 371 < 3 to the left, agree=0.972, adj=0.912, (0 split)  
## 370 < 2.5 to the left, agree=0.960, adj=0.877, (0 split)  
## 314 < 5.5 to the left, agree=0.949, adj=0.842, (0 split)  
## 343 < 10 to the left, agree=0.949, adj=0.842, (0 split)  
## 315 < 32 to the left, agree=0.938, adj=0.807, (0 split)  
##   
## Node number 989: 117 observations, complexity param=0.0003572385  
## predicted class=9 expected loss=0.2393162 P(node) =0.004641936  
## class counts: 0 0 0 1 15 1 0 4 7 89  
## probabilities: 0.000 0.000 0.000 0.009 0.128 0.009 0.000 0.034 0.060 0.761   
## left son=1978 (20 obs) right son=1979 (97 obs)  
## Primary splits:  
## 428 < 71.5 to the right, improve=13.05703, (0 missing)  
## 456 < 1 to the right, improve=11.83117, (0 missing)  
## 213 < 3.5 to the left, improve=11.66334, (0 missing)  
## 212 < 83 to the left, improve=11.41880, (0 missing)  
## 427 < 0.5 to the right, improve=10.77495, (0 missing)  
## Surrogate splits:  
## 400 < 12 to the right, agree=0.966, adj=0.80, (0 split)  
## 427 < 0.5 to the right, agree=0.966, adj=0.80, (0 split)  
## 456 < 2.5 to the right, agree=0.949, adj=0.70, (0 split)  
## 401 < 244.5 to the right, agree=0.940, adj=0.65, (0 split)  
## 455 < 16 to the right, agree=0.932, adj=0.60, (0 split)  
##   
## Node number 990: 66 observations, complexity param=0.0006698223  
## predicted class=4 expected loss=0.4848485 P(node) =0.002618528  
## class counts: 0 0 0 0 34 0 0 1 2 29  
## probabilities: 0.000 0.000 0.000 0.000 0.515 0.000 0.000 0.015 0.030 0.439   
## left son=1980 (31 obs) right son=1981 (35 obs)  
## Primary splits:  
## 319 < 195 to the right, improve=23.27404, (0 missing)  
## 206 < 5.5 to the left, improve=22.77634, (0 missing)  
## 261 < 29 to the left, improve=21.84444, (0 missing)  
## 291 < 141.5 to the right, improve=21.32479, (0 missing)  
## 234 < 142 to the left, improve=21.27350, (0 missing)  
## Surrogate splits:  
## 292 < 99.5 to the right, agree=0.939, adj=0.871, (0 split)  
## 320 < 6 to the right, agree=0.939, adj=0.871, (0 split)  
## 346 < 235.5 to the right, agree=0.939, adj=0.871, (0 split)  
## 347 < 33.5 to the right, agree=0.939, adj=0.871, (0 split)  
## 261 < 29 to the left, agree=0.924, adj=0.839, (0 split)  
##   
## Node number 991: 1086 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.08655617 P(node) =0.04308669  
## class counts: 0 0 1 10 35 6 0 10 32 992  
## probabilities: 0.000 0.000 0.001 0.009 0.032 0.006 0.000 0.009 0.029 0.913   
## left son=1982 (72 obs) right son=1983 (1014 obs)  
## Primary splits:  
## 204 < 10.5 to the right, improve=12.80996, (0 missing)  
## 437 < 2.5 to the left, improve=12.02509, (0 missing)  
## 203 < 12 to the right, improve=11.64847, (0 missing)  
## 232 < 132.5 to the right, improve=11.64608, (0 missing)  
## 177 < 119 to the right, improve=11.10262, (0 missing)  
## Surrogate splits:  
## 232 < 212.5 to the right, agree=0.977, adj=0.653, (0 split)  
## 205 < 91.5 to the right, agree=0.975, adj=0.625, (0 split)  
## 231 < 16.5 to the right, agree=0.969, adj=0.528, (0 split)  
## 203 < 0.5 to the right, agree=0.967, adj=0.500, (0 split)  
## 259 < 195 to the right, agree=0.966, adj=0.486, (0 split)  
##   
## Node number 992: 26 observations  
## predicted class=3 expected loss=0.07692308 P(node) =0.001031541  
## class counts: 0 0 0 24 1 1 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.923 0.038 0.038 0.000 0.000 0.000 0.000   
##   
## Node number 993: 14 observations  
## predicted class=1 expected loss=0.5714286 P(node) =0.0005554453  
## class counts: 1 6 0 0 2 3 1 0 0 1  
## probabilities: 0.071 0.429 0.000 0.000 0.143 0.214 0.071 0.000 0.000 0.071   
##   
## Node number 994: 25 observations, complexity param=0.0002679289  
## predicted class=3 expected loss=0.52 P(node) =0.0009918667  
## class counts: 0 1 2 12 0 9 0 0 1 0  
## probabilities: 0.000 0.040 0.080 0.480 0.000 0.360 0.000 0.000 0.040 0.000   
## left son=1988 (16 obs) right son=1989 (9 obs)  
## Primary splits:  
## 233 < 6 to the left, improve=9.135000, (0 missing)  
## 261 < 11.5 to the left, improve=8.893333, (0 missing)  
## 234 < 58.5 to the left, improve=7.357222, (0 missing)  
## 289 < 21 to the left, improve=7.305455, (0 missing)  
## 262 < 83.5 to the left, improve=6.315556, (0 missing)  
## Surrogate splits:  
## 261 < 11.5 to the left, agree=0.96, adj=0.889, (0 split)  
## 234 < 58.5 to the left, agree=0.92, adj=0.778, (0 split)  
## 262 < 83.5 to the left, agree=0.92, adj=0.778, (0 split)  
## 289 < 21 to the left, agree=0.92, adj=0.778, (0 split)  
## 205 < 227.5 to the left, agree=0.88, adj=0.667, (0 split)  
##   
## Node number 995: 110 observations  
## predicted class=5 expected loss=0.07272727 P(node) =0.004364213  
## class counts: 0 0 2 4 0 102 1 0 0 1  
## probabilities: 0.000 0.000 0.018 0.036 0.000 0.927 0.009 0.000 0.000 0.009   
##   
## Node number 996: 18 observations  
## predicted class=3 expected loss=0.5 P(node) =0.000714144  
## class counts: 0 5 0 9 0 0 0 3 0 1  
## probabilities: 0.000 0.278 0.000 0.500 0.000 0.000 0.000 0.167 0.000 0.056   
##   
## Node number 997: 28 observations  
## predicted class=8 expected loss=0.07142857 P(node) =0.001110891  
## class counts: 0 0 2 0 0 0 0 0 26 0  
## probabilities: 0.000 0.000 0.071 0.000 0.000 0.000 0.000 0.000 0.929 0.000   
##   
## Node number 998: 32 observations  
## predicted class=4 expected loss=0.3125 P(node) =0.001269589  
## class counts: 0 0 1 2 22 1 0 3 0 3  
## probabilities: 0.000 0.000 0.031 0.062 0.688 0.031 0.000 0.094 0.000 0.094   
##   
## Node number 999: 60 observations, complexity param=0.0002232741  
## predicted class=9 expected loss=0.2833333 P(node) =0.00238048  
## class counts: 0 0 1 6 5 0 0 2 3 43  
## probabilities: 0.000 0.000 0.017 0.100 0.083 0.000 0.000 0.033 0.050 0.717   
## left son=1998 (7 obs) right son=1999 (53 obs)  
## Primary splits:  
## 623 < 10 to the right, improve=7.237916, (0 missing)  
## 375 < 20.5 to the left, improve=6.194771, (0 missing)  
## 624 < 9 to the right, improve=6.194771, (0 missing)  
## 567 < 11.5 to the right, improve=5.809344, (0 missing)  
## 595 < 33.5 to the right, improve=5.809344, (0 missing)  
## Surrogate splits:  
## 157 < 96 to the right, agree=0.983, adj=0.857, (0 split)  
## 158 < 25 to the right, agree=0.983, adj=0.857, (0 split)  
## 376 < 47.5 to the left, agree=0.967, adj=0.714, (0 split)  
## 494 < 248.5 to the right, agree=0.967, adj=0.714, (0 split)  
## 567 < 11.5 to the right, agree=0.967, adj=0.714, (0 split)  
##   
## Node number 1000: 39 observations  
## predicted class=1 expected loss=0.02564103 P(node) =0.001547312  
## class counts: 0 38 0 0 0 1 0 0 0 0  
## probabilities: 0.000 0.974 0.000 0.000 0.000 0.026 0.000 0.000 0.000 0.000   
##   
## Node number 1001: 15 observations  
## predicted class=6 expected loss=0.2666667 P(node) =0.00059512  
## class counts: 2 0 0 1 0 1 11 0 0 0  
## probabilities: 0.133 0.000 0.000 0.067 0.000 0.067 0.733 0.000 0.000 0.000   
##   
## Node number 1002: 25 observations  
## predicted class=2 expected loss=0.12 P(node) =0.0009918667  
## class counts: 0 1 22 0 0 0 0 2 0 0  
## probabilities: 0.000 0.040 0.880 0.000 0.000 0.000 0.000 0.080 0.000 0.000   
##   
## Node number 1003: 14 observations  
## predicted class=3 expected loss=0.7142857 P(node) =0.0005554453  
## class counts: 2 2 2 4 0 0 1 3 0 0  
## probabilities: 0.143 0.143 0.143 0.286 0.000 0.000 0.071 0.214 0.000 0.000   
##   
## Node number 1004: 12 observations  
## predicted class=2 expected loss=0.1666667 P(node) =0.000476096  
## class counts: 0 0 10 2 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.833 0.167 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1005: 11 observations  
## predicted class=6 expected loss=0.5454545 P(node) =0.0004364213  
## class counts: 0 3 0 0 1 0 5 1 1 0  
## probabilities: 0.000 0.273 0.000 0.000 0.091 0.000 0.455 0.091 0.091 0.000   
##   
## Node number 1006: 10 observations  
## predicted class=1 expected loss=0.2 P(node) =0.0003967467  
## class counts: 2 8 0 0 0 0 0 0 0 0  
## probabilities: 0.200 0.800 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1007: 1327 observations, complexity param=2.232741e-05  
## predicted class=7 expected loss=0.02411454 P(node) =0.05264828  
## class counts: 0 1 11 4 3 0 2 1295 0 11  
## probabilities: 0.000 0.001 0.008 0.003 0.002 0.000 0.002 0.976 0.000 0.008   
## left son=2014 (13 obs) right son=2015 (1314 obs)  
## Primary splits:  
## 553 < 6 to the right, improve=5.010716, (0 missing)  
## 608 < 40.5 to the right, improve=5.009198, (0 missing)  
## 552 < 87.5 to the right, improve=4.674842, (0 missing)  
## 525 < 93 to the right, improve=4.285472, (0 missing)  
## 609 < 50 to the right, improve=4.220859, (0 missing)  
## Surrogate splits:  
## 552 < 87.5 to the right, agree=0.998, adj=0.769, (0 split)  
## 581 < 1 to the right, agree=0.997, adj=0.692, (0 split)  
## 525 < 18.5 to the right, agree=0.996, adj=0.615, (0 split)  
## 580 < 161 to the right, agree=0.995, adj=0.538, (0 split)  
## 524 < 146 to the right, agree=0.995, adj=0.462, (0 split)  
##   
## Node number 1008: 11 observations  
## predicted class=4 expected loss=0.09090909 P(node) =0.0004364213  
## class counts: 1 0 0 0 10 0 0 0 0 0  
## probabilities: 0.091 0.000 0.000 0.000 0.909 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1009: 18 observations  
## predicted class=2 expected loss=0.5555556 P(node) =0.000714144  
## class counts: 0 1 8 0 1 1 3 1 1 2  
## probabilities: 0.000 0.056 0.444 0.000 0.056 0.056 0.167 0.056 0.056 0.111   
##   
## Node number 1010: 96 observations  
## predicted class=4 expected loss=0.04166667 P(node) =0.003808768  
## class counts: 0 0 0 0 92 0 3 0 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.958 0.000 0.031 0.000 0.000 0.010   
##   
## Node number 1011: 7 observations  
## predicted class=9 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 0 0 3 0 0 0 0 4  
## probabilities: 0.000 0.000 0.000 0.000 0.429 0.000 0.000 0.000 0.000 0.571   
##   
## Node number 1016: 8 observations  
## predicted class=2 expected loss=0.5 P(node) =0.0003173973  
## class counts: 0 0 4 0 1 0 0 1 0 2  
## probabilities: 0.000 0.000 0.500 0.000 0.125 0.000 0.000 0.125 0.000 0.250   
##   
## Node number 1017: 16 observations  
## predicted class=7 expected loss=0.0625 P(node) =0.0006347947  
## class counts: 0 0 0 0 1 0 0 15 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.062 0.000 0.000 0.937 0.000 0.000   
##   
## Node number 1018: 12 observations  
## predicted class=4 expected loss=0.25 P(node) =0.000476096  
## class counts: 0 0 0 0 9 0 0 0 2 1  
## probabilities: 0.000 0.000 0.000 0.000 0.750 0.000 0.000 0.000 0.167 0.083   
##   
## Node number 1019: 14 observations  
## predicted class=9 expected loss=0.1428571 P(node) =0.0005554453  
## class counts: 0 0 0 0 1 0 0 0 1 12  
## probabilities: 0.000 0.000 0.000 0.000 0.071 0.000 0.000 0.000 0.071 0.857   
##   
## Node number 1020: 17 observations  
## predicted class=4 expected loss=0.1764706 P(node) =0.0006744694  
## class counts: 0 0 1 0 14 0 0 1 0 1  
## probabilities: 0.000 0.000 0.059 0.000 0.824 0.000 0.000 0.059 0.000 0.059   
##   
## Node number 1021: 8 observations  
## predicted class=9 expected loss=0 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 0 0 0 0 8  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000   
##   
## Node number 1024: 2237 observations, complexity param=7.44247e-05  
## predicted class=1 expected loss=0.01430487 P(node) =0.08875223  
## class counts: 0 2205 1 2 1 4 4 5 14 1  
## probabilities: 0.000 0.986 0.000 0.001 0.000 0.002 0.002 0.002 0.006 0.000   
## left son=2048 (2230 obs) right son=2049 (7 obs)  
## Primary splits:  
## 219 < 22.5 to the left, improve=4.458432, (0 missing)  
## 493 < 64.5 to the left, improve=3.891068, (0 missing)  
## 492 < 253.5 to the left, improve=3.614926, (0 missing)  
## 538 < 5 to the left, improve=3.600392, (0 missing)  
## 539 < 97.5 to the left, improve=3.600392, (0 missing)  
## Surrogate splits:  
## 191 < 79 to the left, agree=1.000, adj=0.857, (0 split)  
## 220 < 2 to the left, agree=0.999, adj=0.714, (0 split)  
## 192 < 64 to the left, agree=0.999, adj=0.571, (0 split)  
## 164 < 1.5 to the left, agree=0.998, adj=0.429, (0 split)  
## 190 < 225.5 to the left, agree=0.998, adj=0.429, (0 split)  
##   
## Node number 1025: 12 observations  
## predicted class=8 expected loss=0.5833333 P(node) =0.000476096  
## class counts: 0 3 1 0 0 0 0 3 5 0  
## probabilities: 0.000 0.250 0.083 0.000 0.000 0.000 0.000 0.250 0.417 0.000   
##   
## Node number 1088: 16 observations  
## predicted class=1 expected loss=0.1875 P(node) =0.0006347947  
## class counts: 0 13 1 0 2 0 0 0 0 0  
## probabilities: 0.000 0.813 0.062 0.000 0.125 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1089: 9 observations  
## predicted class=3 expected loss=0.4444444 P(node) =0.000357072  
## class counts: 0 0 2 5 0 1 0 1 0 0  
## probabilities: 0.000 0.000 0.222 0.556 0.000 0.111 0.000 0.111 0.000 0.000   
##   
## Node number 1090: 12 observations  
## predicted class=0 expected loss=0.4166667 P(node) =0.000476096  
## class counts: 7 0 1 1 0 1 2 0 0 0  
## probabilities: 0.583 0.000 0.083 0.083 0.000 0.083 0.167 0.000 0.000 0.000   
##   
## Node number 1091: 56 observations, complexity param=0.0001339645  
## predicted class=6 expected loss=0.1428571 P(node) =0.002221781  
## class counts: 0 0 5 0 1 1 48 0 0 1  
## probabilities: 0.000 0.000 0.089 0.000 0.018 0.018 0.857 0.000 0.000 0.018   
## left son=2182 (7 obs) right son=2183 (49 obs)  
## Primary splits:  
## 95 < 41 to the right, improve=5.744898, (0 missing)  
## 122 < 243.5 to the right, improve=5.744898, (0 missing)  
## 123 < 124 to the right, improve=5.744898, (0 missing)  
## 150 < 193 to the right, improve=5.744898, (0 missing)  
## 151 < 71 to the right, improve=5.744898, (0 missing)  
## Surrogate splits:  
## 94 < 32 to the right, agree=0.982, adj=0.857, (0 split)  
## 121 < 117 to the right, agree=0.982, adj=0.857, (0 split)  
## 122 < 157 to the right, agree=0.982, adj=0.857, (0 split)  
## 123 < 192.5 to the right, agree=0.982, adj=0.857, (0 split)  
## 150 < 134.5 to the right, agree=0.982, adj=0.857, (0 split)  
##   
## Node number 1092: 13 observations  
## predicted class=2 expected loss=0 P(node) =0.0005157707  
## class counts: 0 0 13 0 0 0 0 0 0 0  
## probabilities: 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1093: 54 observations, complexity param=0.0002456015  
## predicted class=5 expected loss=0.6481481 P(node) =0.002142432  
## class counts: 5 6 8 6 4 19 1 0 5 0  
## probabilities: 0.093 0.111 0.148 0.111 0.074 0.352 0.019 0.000 0.093 0.000   
## left son=2186 (31 obs) right son=2187 (23 obs)  
## Primary splits:  
## 458 < 16.5 to the right, improve=7.384448, (0 missing)  
## 459 < 70.5 to the right, improve=7.209402, (0 missing)  
## 460 < 205 to the right, improve=7.043791, (0 missing)  
## 431 < 134.5 to the right, improve=5.979118, (0 missing)  
## 430 < 113.5 to the right, improve=5.956678, (0 missing)  
## Surrogate splits:  
## 459 < 27 to the right, agree=0.907, adj=0.783, (0 split)  
## 486 < 209.5 to the right, agree=0.889, adj=0.739, (0 split)  
## 457 < 11 to the right, agree=0.870, adj=0.696, (0 split)  
## 460 < 40.5 to the right, agree=0.833, adj=0.609, (0 split)  
## 485 < 171.5 to the right, agree=0.833, adj=0.609, (0 split)  
##   
## Node number 1094: 22 observations  
## predicted class=4 expected loss=0.09090909 P(node) =0.0008728427  
## class counts: 0 0 0 1 20 0 0 1 0 0  
## probabilities: 0.000 0.000 0.000 0.045 0.909 0.000 0.000 0.045 0.000 0.000   
##   
## Node number 1095: 70 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.5857143 P(node) =0.002777227  
## class counts: 0 14 1 1 13 2 3 6 1 29  
## probabilities: 0.000 0.200 0.014 0.014 0.186 0.029 0.043 0.086 0.014 0.414   
## left son=2190 (37 obs) right son=2191 (33 obs)  
## Primary splits:  
## 381 < 210.5 to the left, improve=7.800889, (0 missing)  
## 321 < 230 to the right, improve=7.766667, (0 missing)  
## 237 < 75 to the left, improve=7.444655, (0 missing)  
## 322 < 217 to the right, improve=7.150018, (0 missing)  
## 681 < 72 to the left, improve=7.022782, (0 missing)  
## Surrogate splits:  
## 353 < 249.5 to the left, agree=0.900, adj=0.788, (0 split)  
## 354 < 109 to the left, agree=0.886, adj=0.758, (0 split)  
## 382 < 15.5 to the left, agree=0.871, adj=0.727, (0 split)  
## 326 < 129.5 to the left, agree=0.857, adj=0.697, (0 split)  
## 408 < 230 to the left, agree=0.843, adj=0.667, (0 split)  
##   
## Node number 1110: 7 observations  
## predicted class=5 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 0 1 0 6 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.857 0.000 0.000 0.000 0.000   
##   
## Node number 1111: 21 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.6190476 P(node) =0.000833168  
## class counts: 2 1 0 2 1 0 2 0 8 5  
## probabilities: 0.095 0.048 0.000 0.095 0.048 0.000 0.095 0.000 0.381 0.238   
## left son=2222 (10 obs) right son=2223 (11 obs)  
## Primary splits:  
## 653 < 111.5 to the right, improve=3.477056, (0 missing)  
## 625 < 80 to the right, improve=3.383700, (0 missing)  
## 487 < 134 to the right, improve=3.373016, (0 missing)  
## 330 < 2.5 to the right, improve=3.095238, (0 missing)  
## 566 < 79.5 to the right, improve=3.095238, (0 missing)  
## Surrogate splits:  
## 623 < 19 to the right, agree=0.952, adj=0.9, (0 split)  
## 624 < 189 to the right, agree=0.952, adj=0.9, (0 split)  
## 625 < 151.5 to the right, agree=0.952, adj=0.9, (0 split)  
## 651 < 0.5 to the right, agree=0.952, adj=0.9, (0 split)  
## 652 < 53 to the right, agree=0.952, adj=0.9, (0 split)  
##   
## Node number 1112: 19 observations  
## predicted class=3 expected loss=0.3157895 P(node) =0.0007538187  
## class counts: 0 1 1 13 2 1 0 0 0 1  
## probabilities: 0.000 0.053 0.053 0.684 0.105 0.053 0.000 0.000 0.000 0.053   
##   
## Node number 1113: 18 observations  
## predicted class=8 expected loss=0.3333333 P(node) =0.000714144  
## class counts: 1 0 0 0 3 1 0 1 12 0  
## probabilities: 0.056 0.000 0.000 0.000 0.167 0.056 0.000 0.056 0.667 0.000   
##   
## Node number 1114: 8 observations  
## predicted class=4 expected loss=0.5 P(node) =0.0003173973  
## class counts: 0 0 0 1 4 0 0 0 3 0  
## probabilities: 0.000 0.000 0.000 0.125 0.500 0.000 0.000 0.000 0.375 0.000   
##   
## Node number 1115: 79 observations  
## predicted class=8 expected loss=0.06329114 P(node) =0.003134299  
## class counts: 0 2 0 1 0 1 0 0 74 1  
## probabilities: 0.000 0.025 0.000 0.013 0.000 0.013 0.000 0.000 0.937 0.013   
##   
## Node number 1172: 16 observations  
## predicted class=2 expected loss=0.3125 P(node) =0.0006347947  
## class counts: 0 0 11 1 0 0 3 1 0 0  
## probabilities: 0.000 0.000 0.688 0.062 0.000 0.000 0.188 0.062 0.000 0.000   
##   
## Node number 1173: 8 observations  
## predicted class=8 expected loss=0.25 P(node) =0.0003173973  
## class counts: 0 0 2 0 0 0 0 0 6 0  
## probabilities: 0.000 0.000 0.250 0.000 0.000 0.000 0.000 0.000 0.750 0.000   
##   
## Node number 1224: 24 observations  
## predicted class=2 expected loss=0.04166667 P(node) =0.000952192  
## class counts: 0 0 23 0 0 0 0 0 1 0  
## probabilities: 0.000 0.000 0.958 0.000 0.000 0.000 0.000 0.000 0.042 0.000   
##   
## Node number 1225: 10 observations  
## predicted class=3 expected loss=0.2 P(node) =0.0003967467  
## class counts: 0 1 1 8 0 0 0 0 0 0  
## probabilities: 0.000 0.100 0.100 0.800 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1248: 14 observations  
## predicted class=1 expected loss=0.07142857 P(node) =0.0005554453  
## class counts: 0 13 0 0 0 0 0 0 1 0  
## probabilities: 0.000 0.929 0.000 0.000 0.000 0.000 0.000 0.000 0.071 0.000   
##   
## Node number 1249: 12 observations  
## predicted class=8 expected loss=0.3333333 P(node) =0.000476096  
## class counts: 0 0 0 3 0 1 0 0 8 0  
## probabilities: 0.000 0.000 0.000 0.250 0.000 0.083 0.000 0.000 0.667 0.000   
##   
## Node number 1276: 13 observations  
## predicted class=4 expected loss=0.5384615 P(node) =0.0005157707  
## class counts: 0 0 0 1 6 0 1 1 2 2  
## probabilities: 0.000 0.000 0.000 0.077 0.462 0.000 0.077 0.077 0.154 0.154   
##   
## Node number 1277: 23 observations  
## predicted class=8 expected loss=0.1304348 P(node) =0.0009125174  
## class counts: 0 0 0 1 1 1 0 0 20 0  
## probabilities: 0.000 0.000 0.000 0.043 0.043 0.043 0.000 0.000 0.870 0.000   
##   
## Node number 1288: 1360 observations, complexity param=0.0002456015  
## predicted class=3 expected loss=0.02058824 P(node) =0.05395755  
## class counts: 0 2 8 1332 0 13 0 0 5 0  
## probabilities: 0.000 0.001 0.006 0.979 0.000 0.010 0.000 0.000 0.004 0.000   
## left son=2576 (1350 obs) right son=2577 (10 obs)  
## Primary splits:  
## 341 < 70 to the left, improve=12.981990, (0 missing)  
## 342 < 147.5 to the left, improve=11.016070, (0 missing)  
## 313 < 154 to the left, improve=10.020510, (0 missing)  
## 369 < 98 to the left, improve= 8.555135, (0 missing)  
## 314 < 160.5 to the left, improve= 8.256068, (0 missing)  
## Surrogate splits:  
## 313 < 154 to the left, agree=0.999, adj=0.8, (0 split)  
## 369 < 98 to the left, agree=0.998, adj=0.7, (0 split)  
## 314 < 160.5 to the left, agree=0.997, adj=0.6, (0 split)  
## 342 < 147.5 to the left, agree=0.997, adj=0.6, (0 split)  
## 340 < 5 to the left, agree=0.996, adj=0.5, (0 split)  
##   
## Node number 1289: 10 observations  
## predicted class=8 expected loss=0.3 P(node) =0.0003967467  
## class counts: 0 0 2 0 0 1 0 0 7 0  
## probabilities: 0.000 0.000 0.200 0.000 0.000 0.100 0.000 0.000 0.700 0.000   
##   
## Node number 1290: 16 observations  
## predicted class=5 expected loss=0.4375 P(node) =0.0006347947  
## class counts: 0 0 0 4 0 9 0 0 3 0  
## probabilities: 0.000 0.000 0.000 0.250 0.000 0.562 0.000 0.000 0.188 0.000   
##   
## Node number 1291: 7 observations  
## predicted class=9 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 0 1 0 0 0 0 1 5  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.000 0.000 0.000 0.143 0.714   
##   
## Node number 1294: 12 observations  
## predicted class=1 expected loss=0.5 P(node) =0.000476096  
## class counts: 0 6 0 4 0 0 0 1 1 0  
## probabilities: 0.000 0.500 0.000 0.333 0.000 0.000 0.000 0.083 0.083 0.000   
##   
## Node number 1295: 17 observations  
## predicted class=5 expected loss=0.1176471 P(node) =0.0006744694  
## class counts: 0 0 0 0 0 15 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.882 0.000 0.000 0.118 0.000   
##   
## Node number 1316: 7 observations  
## predicted class=1 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 0 3 1 0 0 1 2 0 0 0  
## probabilities: 0.000 0.429 0.143 0.000 0.000 0.143 0.286 0.000 0.000 0.000   
##   
## Node number 1317: 22 observations  
## predicted class=3 expected loss=0.09090909 P(node) =0.0008728427  
## class counts: 0 0 0 20 0 1 1 0 0 0  
## probabilities: 0.000 0.000 0.000 0.909 0.000 0.045 0.045 0.000 0.000 0.000   
##   
## Node number 1318: 7 observations  
## predicted class=0 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 5 0 0 1 0 0 0 1 0 0  
## probabilities: 0.714 0.000 0.000 0.143 0.000 0.000 0.000 0.143 0.000 0.000   
##   
## Node number 1319: 23 observations  
## predicted class=5 expected loss=0.173913 P(node) =0.0009125174  
## class counts: 0 0 0 1 0 19 0 2 1 0  
## probabilities: 0.000 0.000 0.000 0.043 0.000 0.826 0.000 0.087 0.043 0.000   
##   
## Node number 1324: 22 observations  
## predicted class=3 expected loss=0.2272727 P(node) =0.0008728427  
## class counts: 0 0 0 17 0 0 2 0 2 1  
## probabilities: 0.000 0.000 0.000 0.773 0.000 0.000 0.091 0.000 0.091 0.045   
##   
## Node number 1325: 8 observations  
## predicted class=5 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 5 0 1 0 2  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.625 0.000 0.125 0.000 0.250   
##   
## Node number 1326: 8 observations  
## predicted class=3 expected loss=0.25 P(node) =0.0003173973  
## class counts: 0 0 0 6 0 1 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.750 0.000 0.125 0.000 0.000 0.125 0.000   
##   
## Node number 1327: 93 observations  
## predicted class=5 expected loss=0.04301075 P(node) =0.003689744  
## class counts: 0 0 0 2 0 89 1 0 1 0  
## probabilities: 0.000 0.000 0.000 0.022 0.000 0.957 0.011 0.000 0.011 0.000   
##   
## Node number 1338: 7 observations  
## predicted class=3 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 0 4 0 2 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.571 0.000 0.286 0.000 0.000 0.143 0.000   
##   
## Node number 1339: 44 observations  
## predicted class=5 expected loss=0.06818182 P(node) =0.001745685  
## class counts: 0 0 1 0 0 41 1 1 0 0  
## probabilities: 0.000 0.000 0.023 0.000 0.000 0.932 0.023 0.023 0.000 0.000   
##   
## Node number 1340: 23 observations  
## predicted class=4 expected loss=0.04347826 P(node) =0.0009125174  
## class counts: 0 0 0 0 22 0 0 1 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.957 0.000 0.000 0.043 0.000 0.000   
##   
## Node number 1341: 20 observations, complexity param=0.0002456015  
## predicted class=7 expected loss=0.55 P(node) =0.0007934934  
## class counts: 0 0 0 6 4 0 1 9 0 0  
## probabilities: 0.000 0.000 0.000 0.300 0.200 0.000 0.050 0.450 0.000 0.000   
## left son=2682 (11 obs) right son=2683 (9 obs)  
## Primary splits:  
## 345 < 12 to the left, improve=7.118182, (0 missing)  
## 346 < 93 to the left, improve=6.700000, (0 missing)  
## 183 < 18 to the right, improve=6.047253, (0 missing)  
## 327 < 13.5 to the left, improve=5.800000, (0 missing)  
## 328 < 2.5 to the left, improve=5.800000, (0 missing)  
## Surrogate splits:  
## 327 < 13.5 to the left, agree=0.95, adj=0.889, (0 split)  
## 328 < 2.5 to the left, agree=0.95, adj=0.889, (0 split)  
## 343 < 18 to the left, agree=0.95, adj=0.889, (0 split)  
## 344 < 42.5 to the left, agree=0.95, adj=0.889, (0 split)  
## 346 < 93 to the left, agree=0.95, adj=0.889, (0 split)  
##   
## Node number 1342: 27 observations, complexity param=0.0002232741  
## predicted class=1 expected loss=0.7407407 P(node) =0.001071216  
## class counts: 0 7 0 3 2 5 6 0 4 0  
## probabilities: 0.000 0.259 0.000 0.111 0.074 0.185 0.222 0.000 0.148 0.000   
## left son=2684 (13 obs) right son=2685 (14 obs)  
## Primary splits:  
## 154 < 20 to the right, improve=4.016687, (0 missing)  
## 521 < 3.5 to the left, improve=4.016687, (0 missing)  
## 214 < 19.5 to the left, improve=3.962963, (0 missing)  
## 465 < 3 to the left, improve=3.862841, (0 missing)  
## 572 < 142 to the left, improve=3.806397, (0 missing)  
## Surrogate splits:  
## 465 < 3 to the left, agree=0.926, adj=0.846, (0 split)  
## 182 < 97.5 to the right, agree=0.889, adj=0.769, (0 split)  
## 437 < 11 to the left, agree=0.889, adj=0.769, (0 split)  
## 493 < 17 to the left, agree=0.852, adj=0.692, (0 split)  
## 155 < 75 to the right, agree=0.815, adj=0.615, (0 split)  
##   
## Node number 1343: 43 observations, complexity param=0.0001562919  
## predicted class=9 expected loss=0.2790698 P(node) =0.001706011  
## class counts: 0 0 0 7 2 0 0 1 2 31  
## probabilities: 0.000 0.000 0.000 0.163 0.047 0.000 0.000 0.023 0.047 0.721   
## left son=2686 (22 obs) right son=2687 (21 obs)  
## Primary splits:  
## 288 < 117 to the left, improve=4.484144, (0 missing)  
## 289 < 9 to the left, improve=4.084934, (0 missing)  
## 263 < 103 to the right, improve=3.881813, (0 missing)  
## 316 < 1.5 to the left, improve=3.774187, (0 missing)  
## 345 < 23.5 to the left, improve=3.774187, (0 missing)  
## Surrogate splits:  
## 289 < 9 to the left, agree=0.977, adj=0.952, (0 split)  
## 316 < 1.5 to the left, agree=0.977, adj=0.952, (0 split)  
## 261 < 133.5 to the left, agree=0.953, adj=0.905, (0 split)  
## 208 < 178.5 to the left, agree=0.907, adj=0.810, (0 split)  
## 260 < 21.5 to the left, agree=0.907, adj=0.810, (0 split)  
##   
## Node number 1352: 94 observations  
## predicted class=3 expected loss=0.106383 P(node) =0.003729419  
## class counts: 0 0 0 84 0 3 0 0 1 6  
## probabilities: 0.000 0.000 0.000 0.894 0.000 0.032 0.000 0.000 0.011 0.064   
##   
## Node number 1353: 7 observations  
## predicted class=8 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 0 2 0 0 0 0 5 0  
## probabilities: 0.000 0.000 0.000 0.286 0.000 0.000 0.000 0.000 0.714 0.000   
##   
## Node number 1356: 32 observations  
## predicted class=3 expected loss=0.03125 P(node) =0.001269589  
## class counts: 0 0 0 31 0 1 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.969 0.000 0.031 0.000 0.000 0.000 0.000   
##   
## Node number 1357: 8 observations  
## predicted class=5 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 0 1 0 5 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.125 0.000 0.625 0.000 0.000 0.250 0.000   
##   
## Node number 1358: 102 observations, complexity param=0.0004465482  
## predicted class=5 expected loss=0.4803922 P(node) =0.004046816  
## class counts: 5 1 1 25 0 53 2 3 3 9  
## probabilities: 0.049 0.010 0.010 0.245 0.000 0.520 0.020 0.029 0.029 0.088   
## left son=2716 (25 obs) right son=2717 (77 obs)  
## Primary splits:  
## 125 < 40.5 to the right, improve=8.196486, (0 missing)  
## 535 < 1.5 to the right, improve=7.889258, (0 missing)  
## 124 < 62.5 to the right, improve=7.225490, (0 missing)  
## 247 < 16.5 to the left, improve=7.091031, (0 missing)  
## 263 < 52.5 to the left, improve=6.857765, (0 missing)  
## Surrogate splits:  
## 124 < 0.5 to the right, agree=0.961, adj=0.84, (0 split)  
## 126 < 40 to the right, agree=0.922, adj=0.68, (0 split)  
## 123 < 8.5 to the right, agree=0.902, adj=0.60, (0 split)  
## 153 < 222 to the right, agree=0.892, adj=0.56, (0 split)  
## 127 < 163.5 to the right, agree=0.882, adj=0.52, (0 split)  
##   
## Node number 1359: 38 observations, complexity param=0.0003572385  
## predicted class=8 expected loss=0.5789474 P(node) =0.001507637  
## class counts: 0 0 0 2 0 6 0 0 16 14  
## probabilities: 0.000 0.000 0.000 0.053 0.000 0.158 0.000 0.000 0.421 0.368   
## left son=2718 (30 obs) right son=2719 (8 obs)  
## Primary splits:  
## 545 < 45.5 to the left, improve=6.119298, (0 missing)  
## 546 < 170 to the left, improve=6.119298, (0 missing)  
## 157 < 11 to the left, improve=5.778785, (0 missing)  
## 156 < 77.5 to the left, improve=5.692632, (0 missing)  
## 431 < 13 to the left, improve=5.684211, (0 missing)  
## Surrogate splits:  
## 546 < 170 to the left, agree=1.000, adj=1.000, (0 split)  
## 490 < 41 to the left, agree=0.974, adj=0.875, (0 split)  
## 518 < 32 to the left, agree=0.974, adj=0.875, (0 split)  
## 573 < 186 to the left, agree=0.974, adj=0.875, (0 split)  
## 464 < 247.5 to the left, agree=0.947, adj=0.750, (0 split)  
##   
## Node number 1374: 37 observations, complexity param=0.0001488494  
## predicted class=5 expected loss=0.3513514 P(node) =0.001467963  
## class counts: 0 0 0 12 0 24 1 0 0 0  
## probabilities: 0.000 0.000 0.000 0.324 0.000 0.649 0.027 0.000 0.000 0.000   
## left son=2748 (20 obs) right son=2749 (17 obs)  
## Primary splits:  
## 293 < 176 to the right, improve=7.213514, (0 missing)  
## 265 < 162.5 to the right, improve=6.465894, (0 missing)  
## 267 < 113.5 to the right, improve=6.407923, (0 missing)  
## 238 < 40.5 to the right, improve=5.786241, (0 missing)  
## 239 < 36 to the right, improve=5.786241, (0 missing)  
## Surrogate splits:  
## 292 < 128 to the right, agree=0.892, adj=0.765, (0 split)  
## 320 < 202 to the right, agree=0.892, adj=0.765, (0 split)  
## 239 < 148 to the right, agree=0.865, adj=0.706, (0 split)  
## 264 < 3.5 to the right, agree=0.865, adj=0.706, (0 split)  
## 265 < 162.5 to the right, agree=0.865, adj=0.706, (0 split)  
##   
## Node number 1375: 385 observations, complexity param=4.465482e-05  
## predicted class=5 expected loss=0.03116883 P(node) =0.01527475  
## class counts: 0 0 0 3 0 373 4 0 3 2  
## probabilities: 0.000 0.000 0.000 0.008 0.000 0.969 0.010 0.000 0.008 0.005   
## left son=2750 (378 obs) right son=2751 (7 obs)  
## Primary splits:  
## 299 < 67 to the left, improve=5.151611, (0 missing)  
## 298 < 14.5 to the left, improve=3.524606, (0 missing)  
## 300 < 6 to the left, improve=3.524606, (0 missing)  
## 484 < 252 to the left, improve=3.172775, (0 missing)  
## 456 < 253.5 to the left, improve=3.005389, (0 missing)  
## Surrogate splits:  
## 300 < 58.5 to the left, agree=0.997, adj=0.857, (0 split)  
## 271 < 253.5 to the left, agree=0.992, adj=0.571, (0 split)  
## 272 < 252.5 to the left, agree=0.990, adj=0.429, (0 split)  
## 298 < 14.5 to the left, agree=0.987, adj=0.286, (0 split)  
## 327 < 253 to the left, agree=0.987, adj=0.286, (0 split)  
##   
## Node number 1398: 17 observations  
## predicted class=4 expected loss=0.6470588 P(node) =0.0006744694  
## class counts: 0 2 0 2 6 1 0 1 2 3  
## probabilities: 0.000 0.118 0.000 0.118 0.353 0.059 0.000 0.059 0.118 0.176   
##   
## Node number 1399: 11 observations  
## predicted class=9 expected loss=0 P(node) =0.0004364213  
## class counts: 0 0 0 0 0 0 0 0 0 11  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000   
##   
## Node number 1406: 16 observations  
## predicted class=7 expected loss=0.5 P(node) =0.0006347947  
## class counts: 1 0 0 0 0 1 0 8 0 6  
## probabilities: 0.062 0.000 0.000 0.000 0.000 0.062 0.000 0.500 0.000 0.375   
##   
## Node number 1407: 222 observations  
## predicted class=9 expected loss=0.06306306 P(node) =0.008807776  
## class counts: 0 0 0 4 8 0 0 2 0 208  
## probabilities: 0.000 0.000 0.000 0.018 0.036 0.000 0.000 0.009 0.000 0.937   
##   
## Node number 1426: 17 observations  
## predicted class=4 expected loss=0.5294118 P(node) =0.0006744694  
## class counts: 0 1 0 0 8 0 6 0 1 1  
## probabilities: 0.000 0.059 0.000 0.000 0.471 0.000 0.353 0.000 0.059 0.059   
##   
## Node number 1427: 8 observations  
## predicted class=5 expected loss=0.125 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 7 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.875 0.000 0.000 0.125 0.000   
##   
## Node number 1430: 16 observations  
## predicted class=2 expected loss=0.3125 P(node) =0.0006347947  
## class counts: 0 0 11 1 1 0 1 0 1 1  
## probabilities: 0.000 0.000 0.688 0.062 0.062 0.000 0.062 0.000 0.062 0.062   
##   
## Node number 1431: 19 observations  
## predicted class=8 expected loss=0.3157895 P(node) =0.0007538187  
## class counts: 1 0 1 2 0 0 1 0 13 1  
## probabilities: 0.053 0.000 0.053 0.105 0.000 0.000 0.053 0.000 0.684 0.053   
##   
## Node number 1528: 17 observations  
## predicted class=2 expected loss=0.05882353 P(node) =0.0006744694  
## class counts: 0 0 16 0 0 0 1 0 0 0  
## probabilities: 0.000 0.000 0.941 0.000 0.000 0.000 0.059 0.000 0.000 0.000   
##   
## Node number 1529: 7 observations  
## predicted class=8 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 1 1 0 0 0 0 5 0  
## probabilities: 0.000 0.000 0.143 0.143 0.000 0.000 0.000 0.000 0.714 0.000   
##   
## Node number 1532: 11 observations  
## predicted class=3 expected loss=0.1818182 P(node) =0.0004364213  
## class counts: 0 0 0 9 0 0 1 0 1 0  
## probabilities: 0.000 0.000 0.000 0.818 0.000 0.000 0.091 0.000 0.091 0.000   
##   
## Node number 1533: 25 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.32 P(node) =0.0009918667  
## class counts: 0 0 0 1 0 5 1 0 17 1  
## probabilities: 0.000 0.000 0.000 0.040 0.000 0.200 0.040 0.000 0.680 0.040   
## left son=3066 (8 obs) right son=3067 (17 obs)  
## Primary splits:  
## 270 < 126 to the left, improve=5.937647, (0 missing)  
## 130 < 11 to the right, improve=5.510476, (0 missing)  
## 297 < 48 to the left, improve=5.510476, (0 missing)  
## 298 < 23.5 to the left, improve=5.510476, (0 missing)  
## 158 < 203.5 to the right, improve=4.889444, (0 missing)  
## Surrogate splits:  
## 298 < 180 to the left, agree=0.96, adj=0.875, (0 split)  
## 130 < 40.5 to the right, agree=0.92, adj=0.750, (0 split)  
## 129 < 80.5 to the right, agree=0.88, adj=0.625, (0 split)  
## 131 < 6 to the right, agree=0.88, adj=0.625, (0 split)  
## 242 < 112.5 to the left, agree=0.88, adj=0.625, (0 split)  
##   
## Node number 1534: 37 observations, complexity param=8.930964e-05  
## predicted class=8 expected loss=0.2432432 P(node) =0.001467963  
## class counts: 1 0 0 0 0 0 7 0 28 1  
## probabilities: 0.027 0.000 0.000 0.000 0.000 0.000 0.189 0.000 0.757 0.027   
## left son=3068 (7 obs) right son=3069 (30 obs)  
## Primary splits:  
## 131 < 50 to the right, improve=5.756242, (0 missing)  
## 403 < 252.5 to the right, improve=5.254655, (0 missing)  
## 375 < 251.5 to the right, improve=4.861004, (0 missing)  
## 130 < 33 to the right, improve=4.665191, (0 missing)  
## 347 < 159 to the right, improve=4.361920, (0 missing)  
## Surrogate splits:  
## 130 < 33 to the right, agree=0.973, adj=0.857, (0 split)  
## 132 < 0.5 to the right, agree=0.919, adj=0.571, (0 split)  
## 159 < 246 to the right, agree=0.919, adj=0.571, (0 split)  
## 129 < 163.5 to the right, agree=0.892, adj=0.429, (0 split)  
## 161 < 64.5 to the right, agree=0.892, adj=0.429, (0 split)  
##   
## Node number 1535: 272 observations  
## predicted class=8 expected loss=0.01838235 P(node) =0.01079151  
## class counts: 0 0 0 2 0 1 1 0 267 1  
## probabilities: 0.000 0.000 0.000 0.007 0.000 0.004 0.004 0.000 0.982 0.004   
##   
## Node number 1536: 1578 observations  
## predicted class=0 expected loss=0.004435995 P(node) =0.06260663  
## class counts: 1571 0 0 0 1 2 3 0 0 1  
## probabilities: 0.996 0.000 0.000 0.000 0.001 0.001 0.002 0.000 0.000 0.001   
##   
## Node number 1537: 25 observations, complexity param=2.232741e-05  
## predicted class=0 expected loss=0.2 P(node) =0.0009918667  
## class counts: 20 0 1 0 0 0 4 0 0 0  
## probabilities: 0.800 0.000 0.040 0.000 0.000 0.000 0.160 0.000 0.000 0.000   
## left son=3074 (18 obs) right son=3075 (7 obs)  
## Primary splits:  
## 244 < 5.5 to the right, improve=3.00254, (0 missing)  
## 272 < 26.5 to the right, improve=3.00254, (0 missing)  
## 300 < 26.5 to the right, improve=3.00254, (0 missing)  
## 301 < 3.5 to the right, improve=3.00254, (0 missing)  
## 329 < 87 to the right, improve=3.00254, (0 missing)  
## Surrogate splits:  
## 216 < 23.5 to the right, agree=0.92, adj=0.714, (0 split)  
## 272 < 54 to the right, agree=0.88, adj=0.571, (0 split)  
## 492 < 194.5 to the left, agree=0.88, adj=0.571, (0 split)  
## 496 < 74.5 to the right, agree=0.88, adj=0.571, (0 split)  
## 606 < 252.5 to the left, agree=0.88, adj=0.571, (0 split)  
##   
## Node number 1538: 13 observations  
## predicted class=0 expected loss=0 P(node) =0.0005157707  
## class counts: 13 0 0 0 0 0 0 0 0 0  
## probabilities: 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1539: 7 observations  
## predicted class=6 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 2 0 0 0 0 0 5 0 0 0  
## probabilities: 0.286 0.000 0.000 0.000 0.000 0.000 0.714 0.000 0.000 0.000   
##   
## Node number 1540: 267 observations, complexity param=0.000111637  
## predicted class=0 expected loss=0.05617978 P(node) =0.01059314  
## class counts: 252 0 7 1 0 2 3 1 0 1  
## probabilities: 0.944 0.000 0.026 0.004 0.000 0.007 0.011 0.004 0.000 0.004   
## left son=3080 (201 obs) right son=3081 (66 obs)  
## Primary splits:  
## 244 < 1 to the right, improve=2.428557, (0 missing)  
## 149 < 3 to the left, improve=2.381101, (0 missing)  
## 102 < 71.5 to the left, improve=2.254517, (0 missing)  
## 273 < 1.5 to the right, improve=2.247191, (0 missing)  
## 272 < 48.5 to the right, improve=2.134487, (0 missing)  
## Surrogate splits:  
## 215 < 10.5 to the right, agree=0.873, adj=0.485, (0 split)  
## 272 < 27.5 to the right, agree=0.873, adj=0.485, (0 split)  
## 273 < 4 to the right, agree=0.858, adj=0.424, (0 split)  
## 216 < 1.5 to the right, agree=0.839, adj=0.348, (0 split)  
## 326 < 131.5 to the left, agree=0.835, adj=0.333, (0 split)  
##   
## Node number 1541: 32 observations, complexity param=0.0001786193  
## predicted class=0 expected loss=0.625 P(node) =0.001269589  
## class counts: 12 0 2 6 0 12 0 0 0 0  
## probabilities: 0.375 0.000 0.062 0.188 0.000 0.375 0.000 0.000 0.000 0.000   
## left son=3082 (18 obs) right son=3083 (14 obs)  
## Primary splits:  
## 239 < 145 to the right, improve=8.511905, (0 missing)  
## 241 < 21 to the right, improve=8.250000, (0 missing)  
## 238 < 157 to the right, improve=7.750000, (0 missing)  
## 240 < 1.5 to the right, improve=6.816667, (0 missing)  
## 267 < 251 to the right, improve=6.575397, (0 missing)  
## Surrogate splits:  
## 212 < 30.5 to the right, agree=0.938, adj=0.857, (0 split)  
## 238 < 157 to the right, agree=0.938, adj=0.857, (0 split)  
## 240 < 61.5 to the right, agree=0.906, adj=0.786, (0 split)  
## 211 < 30 to the right, agree=0.875, adj=0.714, (0 split)  
## 241 < 26.5 to the right, agree=0.844, adj=0.643, (0 split)  
##   
## Node number 1542: 11 observations  
## predicted class=0 expected loss=0.09090909 P(node) =0.0004364213  
## class counts: 10 0 1 0 0 0 0 0 0 0  
## probabilities: 0.909 0.000 0.091 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1543: 22 observations, complexity param=4.465482e-05  
## predicted class=2 expected loss=0.3181818 P(node) =0.0008728427  
## class counts: 2 0 15 0 0 0 2 3 0 0  
## probabilities: 0.091 0.000 0.682 0.000 0.000 0.000 0.091 0.136 0.000 0.000   
## left son=3086 (14 obs) right son=3087 (8 obs)  
## Primary splits:  
## 544 < 170 to the right, improve=3.392857, (0 missing)  
## 152 < 20.5 to the right, improve=3.000000, (0 missing)  
## 265 < 23.5 to the left, improve=3.000000, (0 missing)  
## 291 < 41.5 to the left, improve=3.000000, (0 missing)  
## 292 < 11.5 to the left, improve=3.000000, (0 missing)  
## Surrogate splits:  
## 545 < 250.5 to the right, agree=0.909, adj=0.750, (0 split)  
## 543 < 21.5 to the right, agree=0.864, adj=0.625, (0 split)  
## 579 < 3 to the right, agree=0.864, adj=0.625, (0 split)  
## 183 < 253.5 to the left, agree=0.818, adj=0.500, (0 split)  
## 357 < 244.5 to the left, agree=0.818, adj=0.500, (0 split)  
##   
## Node number 1586: 36 observations, complexity param=4.465482e-05  
## predicted class=3 expected loss=0.1666667 P(node) =0.001428288  
## class counts: 2 0 0 30 0 4 0 0 0 0  
## probabilities: 0.056 0.000 0.000 0.833 0.000 0.111 0.000 0.000 0.000 0.000   
## left son=3172 (27 obs) right son=3173 (9 obs)  
## Primary splits:  
## 538 < 56 to the left, improve=4.666667, (0 missing)  
## 189 < 25.5 to the left, improve=4.044444, (0 missing)  
## 217 < 11.5 to the left, improve=4.044444, (0 missing)  
## 510 < 1.5 to the left, improve=4.044444, (0 missing)  
## 509 < 64 to the right, improve=3.941981, (0 missing)  
## Surrogate splits:  
## 510 < 1.5 to the left, agree=0.972, adj=0.889, (0 split)  
## 509 < 64 to the left, agree=0.944, adj=0.778, (0 split)  
## 537 < 140.5 to the left, agree=0.944, adj=0.778, (0 split)  
## 481 < 36.5 to the left, agree=0.917, adj=0.667, (0 split)  
## 566 < 169.5 to the left, agree=0.917, adj=0.667, (0 split)  
##   
## Node number 1587: 8 observations  
## predicted class=2 expected loss=0.5 P(node) =0.0003173973  
## class counts: 0 0 4 1 0 1 0 2 0 0  
## probabilities: 0.000 0.000 0.500 0.125 0.000 0.125 0.000 0.250 0.000 0.000   
##   
## Node number 1648: 10 observations  
## predicted class=2 expected loss=0.3 P(node) =0.0003967467  
## class counts: 0 0 7 1 0 0 2 0 0 0  
## probabilities: 0.000 0.000 0.700 0.100 0.000 0.000 0.200 0.000 0.000 0.000   
##   
## Node number 1649: 24 observations, complexity param=0.0001786193  
## predicted class=5 expected loss=0.5833333 P(node) =0.000952192  
## class counts: 4 0 1 2 1 10 3 0 3 0  
## probabilities: 0.167 0.000 0.042 0.083 0.042 0.417 0.125 0.000 0.125 0.000   
## left son=3298 (10 obs) right son=3299 (14 obs)  
## Primary splits:  
## 627 < 242 to the right, improve=4.195238, (0 missing)  
## 247 < 3 to the left, improve=4.049020, (0 missing)  
## 184 < 227 to the right, improve=4.000000, (0 missing)  
## 430 < 193.5 to the right, improve=3.528011, (0 missing)  
## 183 < 137.5 to the right, improve=3.131702, (0 missing)  
## Surrogate splits:  
## 214 < 148.5 to the right, agree=0.917, adj=0.8, (0 split)  
## 403 < 240 to the right, agree=0.917, adj=0.8, (0 split)  
## 184 < 240.5 to the right, agree=0.875, adj=0.7, (0 split)  
## 431 < 108.5 to the right, agree=0.875, adj=0.7, (0 split)  
## 183 < 219.5 to the right, agree=0.833, adj=0.6, (0 split)  
##   
## Node number 1694: 7 observations  
## predicted class=4 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 0 0 1 0 3 1 2 0 0 0  
## probabilities: 0.000 0.000 0.143 0.000 0.429 0.143 0.286 0.000 0.000 0.000   
##   
## Node number 1695: 113 observations  
## predicted class=6 expected loss=0.02654867 P(node) =0.004483237  
## class counts: 0 0 1 0 1 1 110 0 0 0  
## probabilities: 0.000 0.000 0.009 0.000 0.009 0.009 0.973 0.000 0.000 0.000   
##   
## Node number 1716: 7 observations  
## predicted class=3 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 0 5 1 0 0 0 0 1  
## probabilities: 0.000 0.000 0.000 0.714 0.143 0.000 0.000 0.000 0.000 0.143   
##   
## Node number 1717: 18 observations  
## predicted class=0 expected loss=0.7777778 P(node) =0.000714144  
## class counts: 4 0 4 0 0 0 4 1 1 4  
## probabilities: 0.222 0.000 0.222 0.000 0.000 0.000 0.222 0.056 0.056 0.222   
##   
## Node number 1726: 11 observations  
## predicted class=7 expected loss=0.4545455 P(node) =0.0004364213  
## class counts: 0 0 0 0 0 0 0 6 0 5  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.545 0.000 0.455   
##   
## Node number 1727: 62 observations  
## predicted class=9 expected loss=0.1129032 P(node) =0.002459829  
## class counts: 0 0 1 0 2 0 1 3 0 55  
## probabilities: 0.000 0.000 0.016 0.000 0.032 0.000 0.016 0.048 0.000 0.887   
##   
## Node number 1732: 18 observations  
## predicted class=1 expected loss=0.6666667 P(node) =0.000714144  
## class counts: 1 6 0 4 0 5 0 0 0 2  
## probabilities: 0.056 0.333 0.000 0.222 0.000 0.278 0.000 0.000 0.000 0.111   
##   
## Node number 1733: 10 observations  
## predicted class=6 expected loss=0.2 P(node) =0.0003967467  
## class counts: 0 1 0 0 0 1 8 0 0 0  
## probabilities: 0.000 0.100 0.000 0.000 0.000 0.100 0.800 0.000 0.000 0.000   
##   
## Node number 1790: 8 observations  
## predicted class=6 expected loss=0.625 P(node) =0.0003173973  
## class counts: 1 0 0 0 1 1 3 1 0 1  
## probabilities: 0.125 0.000 0.000 0.000 0.125 0.125 0.375 0.125 0.000 0.125   
##   
## Node number 1791: 614 observations  
## predicted class=7 expected loss=0.01465798 P(node) =0.02436025  
## class counts: 1 0 1 2 1 0 0 605 0 4  
## probabilities: 0.002 0.000 0.002 0.003 0.002 0.000 0.000 0.985 0.000 0.007   
##   
## Node number 1792: 869 observations, complexity param=8.930964e-05  
## predicted class=2 expected loss=0.01841197 P(node) =0.03447729  
## class counts: 0 0 853 12 0 0 0 3 1 0  
## probabilities: 0.000 0.000 0.982 0.014 0.000 0.000 0.000 0.003 0.001 0.000   
## left son=3584 (801 obs) right son=3585 (68 obs)  
## Primary splits:  
## 488 < 1.5 to the right, improve=2.531792, (0 missing)  
## 515 < 4.5 to the right, improve=2.489658, (0 missing)  
## 516 < 1.5 to the right, improve=2.454042, (0 missing)  
## 323 < 239 to the left, improve=1.846059, (0 missing)  
## 487 < 8 to the right, improve=1.798154, (0 missing)  
## Surrogate splits:  
## 489 < 1.5 to the right, agree=0.936, adj=0.176, (0 split)  
## 487 < 1 to the right, agree=0.930, adj=0.103, (0 split)  
## 377 < 254 to the left, agree=0.924, adj=0.029, (0 split)  
## 389 < 63.5 to the left, agree=0.924, adj=0.029, (0 split)  
## 416 < 242 to the left, agree=0.924, adj=0.029, (0 split)  
##   
## Node number 1793: 43 observations, complexity param=0.0001339645  
## predicted class=2 expected loss=0.3488372 P(node) =0.001706011  
## class counts: 0 0 28 3 0 0 0 9 3 0  
## probabilities: 0.000 0.000 0.651 0.070 0.000 0.000 0.000 0.209 0.070 0.000   
## left son=3586 (28 obs) right son=3587 (15 obs)  
## Primary splits:  
## 206 < 235.5 to the right, improve=8.298450, (0 missing)  
## 234 < 62 to the right, improve=7.864131, (0 missing)  
## 233 < 4.5 to the right, improve=7.731783, (0 missing)  
## 232 < 33.5 to the right, improve=6.922259, (0 missing)  
## 205 < 106 to the right, improve=6.775461, (0 missing)  
## Surrogate splits:  
## 232 < 33.5 to the right, agree=0.953, adj=0.867, (0 split)  
## 207 < 197 to the right, agree=0.930, adj=0.800, (0 split)  
## 233 < 38 to the right, agree=0.930, adj=0.800, (0 split)  
## 234 < 62 to the right, agree=0.930, adj=0.800, (0 split)  
## 204 < 2 to the right, agree=0.884, adj=0.667, (0 split)  
##   
## Node number 1800: 15 observations  
## predicted class=2 expected loss=0 P(node) =0.00059512  
## class counts: 0 0 15 0 0 0 0 0 0 0  
## probabilities: 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1801: 7 observations  
## predicted class=0 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 3 0 2 0 0 0 2 0 0 0  
## probabilities: 0.429 0.000 0.286 0.000 0.000 0.000 0.286 0.000 0.000 0.000   
##   
## Node number 1808: 107 observations, complexity param=0.0001339645  
## predicted class=1 expected loss=0.07476636 P(node) =0.004245189  
## class counts: 0 99 3 0 1 1 0 3 0 0  
## probabilities: 0.000 0.925 0.028 0.000 0.009 0.009 0.000 0.028 0.000 0.000   
## left son=3616 (100 obs) right son=3617 (7 obs)  
## Primary splits:  
## 411 < 14.5 to the left, improve=8.949239, (0 missing)  
## 412 < 2.5 to the left, improve=8.949239, (0 missing)  
## 437 < 122.5 to the left, improve=8.949239, (0 missing)  
## 438 < 30.5 to the left, improve=8.949239, (0 missing)  
## 439 < 25 to the left, improve=8.949239, (0 missing)  
## Surrogate splits:  
## 412 < 2.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 437 < 122.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 438 < 30.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 439 < 25 to the left, agree=1.000, adj=1.000, (0 split)  
## 410 < 161 to the left, agree=0.991, adj=0.857, (0 split)  
##   
## Node number 1809: 28 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.5 P(node) =0.001110891  
## class counts: 0 1 14 1 1 2 6 3 0 0  
## probabilities: 0.000 0.036 0.500 0.036 0.036 0.071 0.214 0.107 0.000 0.000   
## left son=3618 (14 obs) right son=3619 (14 obs)  
## Primary splits:  
## 431 < 8.5 to the right, improve=5.428571, (0 missing)  
## 410 < 3 to the right, improve=5.346066, (0 missing)  
## 331 < 48 to the left, improve=5.238095, (0 missing)  
## 359 < 14.5 to the left, improve=5.238095, (0 missing)  
## 387 < 42 to the left, improve=5.238095, (0 missing)  
## Surrogate splits:  
## 430 < 32.5 to the right, agree=0.964, adj=0.929, (0 split)  
## 429 < 11.5 to the right, agree=0.929, adj=0.857, (0 split)  
## 432 < 11.5 to the right, agree=0.893, adj=0.786, (0 split)  
## 458 < 149.5 to the right, agree=0.893, adj=0.786, (0 split)  
## 459 < 216 to the right, agree=0.893, adj=0.786, (0 split)  
##   
## Node number 1810: 72 observations, complexity param=0.0001786193  
## predicted class=4 expected loss=0.25 P(node) =0.002856576  
## class counts: 0 0 2 0 54 2 7 2 3 2  
## probabilities: 0.000 0.000 0.028 0.000 0.750 0.028 0.097 0.028 0.042 0.028   
## left son=3620 (63 obs) right son=3621 (9 obs)  
## Primary splits:  
## 292 < 124 to the left, improve=7.678571, (0 missing)  
## 293 < 96 to the left, improve=7.678571, (0 missing)  
## 294 < 33.5 to the left, improve=7.678571, (0 missing)  
## 265 < 89 to the left, improve=7.456349, (0 missing)  
## 266 < 56.5 to the left, improve=7.456349, (0 missing)  
## Surrogate splits:  
## 293 < 96 to the left, agree=1.000, adj=1.000, (0 split)  
## 294 < 33.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 320 < 14.5 to the left, agree=0.986, adj=0.889, (0 split)  
## 321 < 7.5 to the left, agree=0.986, adj=0.889, (0 split)  
## 265 < 89 to the left, agree=0.972, adj=0.778, (0 split)  
##   
## Node number 1811: 39 observations, complexity param=4.465482e-05  
## predicted class=6 expected loss=0.1025641 P(node) =0.001547312  
## class counts: 0 0 0 0 4 0 35 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.103 0.000 0.897 0.000 0.000 0.000   
## left son=3622 (7 obs) right son=3623 (32 obs)  
## Primary splits:  
## 576 < 114 to the left, improve=3.750916, (0 missing)  
## 628 < 38 to the right, improve=3.750916, (0 missing)  
## 244 < 161.5 to the right, improve=3.179487, (0 missing)  
## 263 < 76.5 to the right, improve=3.179487, (0 missing)  
## 358 < 6.5 to the left, improve=2.735043, (0 missing)  
## Surrogate splits:  
## 550 < 39.5 to the left, agree=0.974, adj=0.857, (0 split)  
## 188 < 6 to the right, agree=0.949, adj=0.714, (0 split)  
## 189 < 56 to the right, agree=0.949, adj=0.714, (0 split)  
## 190 < 4.5 to the right, agree=0.949, adj=0.714, (0 split)  
## 215 < 35 to the right, agree=0.949, adj=0.714, (0 split)  
##   
## Node number 1812: 127 observations, complexity param=0.0005805126  
## predicted class=2 expected loss=0.3622047 P(node) =0.005038683  
## class counts: 0 2 81 5 0 0 0 24 6 9  
## probabilities: 0.000 0.016 0.638 0.039 0.000 0.000 0.000 0.189 0.047 0.071   
## left son=3624 (109 obs) right son=3625 (18 obs)  
## Primary splits:  
## 712 < 40.5 to the left, improve=14.50879, (0 missing)  
## 713 < 7 to the left, improve=13.22317, (0 missing)  
## 568 < 142.5 to the right, improve=11.55354, (0 missing)  
## 569 < 17 to the right, improve=11.38362, (0 missing)  
## 566 < 74 to the right, improve=10.29529, (0 missing)  
## Surrogate splits:  
## 711 < 21.5 to the left, agree=0.953, adj=0.667, (0 split)  
## 710 < 1.5 to the left, agree=0.945, adj=0.611, (0 split)  
## 684 < 94.5 to the left, agree=0.937, adj=0.556, (0 split)  
## 713 < 149 to the left, agree=0.937, adj=0.556, (0 split)  
## 683 < 224.5 to the left, agree=0.921, adj=0.444, (0 split)  
##   
## Node number 1813: 23 observations  
## predicted class=7 expected loss=0.04347826 P(node) =0.0009125174  
## class counts: 0 0 0 0 1 0 0 22 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.043 0.000 0.000 0.957 0.000 0.000   
##   
## Node number 1814: 28 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.5357143 P(node) =0.001110891  
## class counts: 2 0 2 0 1 5 0 2 13 3  
## probabilities: 0.071 0.000 0.071 0.000 0.036 0.179 0.000 0.071 0.464 0.107   
## left son=3628 (14 obs) right son=3629 (14 obs)  
## Primary splits:  
## 467 < 4 to the right, improve=5.571429, (0 missing)  
## 398 < 105.5 to the right, improve=4.663492, (0 missing)  
## 487 < 1 to the left, improve=4.535714, (0 missing)  
## 496 < 49.5 to the right, improve=4.374603, (0 missing)  
## 426 < 17.5 to the right, improve=4.157059, (0 missing)  
## Surrogate splits:  
## 440 < 14.5 to the right, agree=0.893, adj=0.786, (0 split)  
## 468 < 16.5 to the right, agree=0.893, adj=0.786, (0 split)  
## 398 < 105.5 to the right, agree=0.857, adj=0.714, (0 split)  
## 439 < 12 to the right, agree=0.857, adj=0.714, (0 split)  
## 496 < 13.5 to the right, agree=0.857, adj=0.714, (0 split)  
##   
## Node number 1815: 63 observations  
## predicted class=9 expected loss=0.04761905 P(node) =0.002499504  
## class counts: 0 0 2 0 0 0 0 1 0 60  
## probabilities: 0.000 0.000 0.032 0.000 0.000 0.000 0.000 0.016 0.000 0.952   
##   
## Node number 1832: 18 observations  
## predicted class=2 expected loss=0.5 P(node) =0.000714144  
## class counts: 0 0 9 0 0 0 8 0 1 0  
## probabilities: 0.000 0.000 0.500 0.000 0.000 0.000 0.444 0.000 0.056 0.000   
##   
## Node number 1833: 114 observations, complexity param=0.0001339645  
## predicted class=4 expected loss=0.07017544 P(node) =0.004522912  
## class counts: 0 0 1 0 106 1 5 0 1 0  
## probabilities: 0.000 0.000 0.009 0.000 0.930 0.009 0.044 0.000 0.009 0.000   
## left son=3666 (107 obs) right son=3667 (7 obs)  
## Primary splits:  
## 124 < 172 to the left, improve=6.447989, (0 missing)  
## 152 < 239 to the left, improve=4.862824, (0 missing)  
## 123 < 71.5 to the left, improve=3.477296, (0 missing)  
## 153 < 137 to the left, improve=3.381662, (0 missing)  
## 574 < 243 to the left, improve=3.157948, (0 missing)  
## Surrogate splits:  
## 95 < 36 to the left, agree=0.991, adj=0.857, (0 split)  
## 96 < 20 to the left, agree=0.991, adj=0.857, (0 split)  
## 125 < 4 to the left, agree=0.991, adj=0.857, (0 split)  
## 97 < 2 to the left, agree=0.982, adj=0.714, (0 split)  
## 94 < 9.5 to the left, agree=0.974, adj=0.571, (0 split)  
##   
## Node number 1834: 8 observations  
## predicted class=8 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 3 0 0 0 0 0 5 0  
## probabilities: 0.000 0.000 0.375 0.000 0.000 0.000 0.000 0.000 0.625 0.000   
##   
## Node number 1835: 15 observations  
## predicted class=7 expected loss=0.1333333 P(node) =0.00059512  
## class counts: 0 0 0 0 0 0 0 13 0 2  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.867 0.000 0.133   
##   
## Node number 1836: 56 observations, complexity param=8.930964e-05  
## predicted class=2 expected loss=0.25 P(node) =0.002221781  
## class counts: 6 0 42 0 1 1 1 1 3 1  
## probabilities: 0.107 0.000 0.750 0.000 0.018 0.018 0.018 0.018 0.054 0.018   
## left son=3672 (43 obs) right son=3673 (13 obs)  
## Primary splits:  
## 346 < 236.5 to the left, improve=7.163493, (0 missing)  
## 347 < 227.5 to the left, improve=6.166492, (0 missing)  
## 435 < 109.5 to the left, improve=4.709184, (0 missing)  
## 294 < 231.5 to the right, improve=3.818525, (0 missing)  
## 321 < 124 to the right, improve=3.818525, (0 missing)  
## Surrogate splits:  
## 347 < 227.5 to the left, agree=0.893, adj=0.538, (0 split)  
## 331 < 34.5 to the left, agree=0.857, adj=0.385, (0 split)  
## 358 < 163 to the left, agree=0.857, adj=0.385, (0 split)  
## 359 < 18 to the left, agree=0.857, adj=0.385, (0 split)  
## 385 < 236 to the left, agree=0.857, adj=0.385, (0 split)  
##   
## Node number 1837: 29 observations, complexity param=0.0002679289  
## predicted class=8 expected loss=0.3103448 P(node) =0.001150565  
## class counts: 6 0 2 0 0 0 0 1 20 0  
## probabilities: 0.207 0.000 0.069 0.000 0.000 0.000 0.000 0.034 0.690 0.000   
## left son=3674 (9 obs) right son=3675 (20 obs)  
## Primary splits:  
## 492 < 236 to the right, improve=9.348659, (0 missing)  
## 464 < 251.5 to the right, improve=8.888342, (0 missing)  
## 520 < 247 to the right, improve=8.888342, (0 missing)  
## 406 < 18 to the left, improve=8.638342, (0 missing)  
## 438 < 232 to the right, improve=8.638342, (0 missing)  
## Surrogate splits:  
## 406 < 18 to the left, agree=0.966, adj=0.889, (0 split)  
## 438 < 232 to the right, agree=0.966, adj=0.889, (0 split)  
## 464 < 242.5 to the right, agree=0.966, adj=0.889, (0 split)  
## 520 < 247 to the right, agree=0.966, adj=0.889, (0 split)  
## 433 < 95.5 to the left, agree=0.931, adj=0.778, (0 split)  
##   
## Node number 1838: 71 observations, complexity param=0.000491203  
## predicted class=7 expected loss=0.5352113 P(node) =0.002816901  
## class counts: 1 0 6 0 5 0 1 33 9 16  
## probabilities: 0.014 0.000 0.085 0.000 0.070 0.000 0.014 0.465 0.127 0.225   
## left son=3676 (43 obs) right son=3677 (28 obs)  
## Primary splits:  
## 404 < 25 to the left, improve=12.44179, (0 missing)  
## 709 < 4 to the left, improve=11.68334, (0 missing)  
## 708 < 1 to the left, improve=11.53947, (0 missing)  
## 405 < 123.5 to the left, improve=10.77252, (0 missing)  
## 710 < 7.5 to the left, improve=10.09426, (0 missing)  
## Surrogate splits:  
## 376 < 40 to the left, agree=0.958, adj=0.893, (0 split)  
## 405 < 123.5 to the left, agree=0.958, adj=0.893, (0 split)  
## 377 < 15.5 to the left, agree=0.944, adj=0.857, (0 split)  
## 403 < 43 to the left, agree=0.930, adj=0.821, (0 split)  
## 432 < 13 to the left, agree=0.930, adj=0.821, (0 split)  
##   
## Node number 1839: 53 observations, complexity param=0.0002456015  
## predicted class=9 expected loss=0.3584906 P(node) =0.002102757  
## class counts: 1 0 3 0 13 0 0 0 2 34  
## probabilities: 0.019 0.000 0.057 0.000 0.245 0.000 0.000 0.000 0.038 0.642   
## left son=3678 (24 obs) right son=3679 (29 obs)  
## Primary splits:  
## 402 < 234.5 to the right, improve=8.051941, (0 missing)  
## 237 < 21 to the left, improve=7.578157, (0 missing)  
## 264 < 34 to the left, improve=7.493425, (0 missing)  
## 375 < 166.5 to the right, improve=6.766152, (0 missing)  
## 349 < 13 to the right, improve=6.300890, (0 missing)  
## Surrogate splits:  
## 375 < 60.5 to the right, agree=0.887, adj=0.750, (0 split)  
## 403 < 63.5 to the right, agree=0.868, adj=0.708, (0 split)  
## 374 < 227.5 to the right, agree=0.849, adj=0.667, (0 split)  
## 347 < 152.5 to the right, agree=0.830, adj=0.625, (0 split)  
## 376 < 9 to the right, agree=0.830, adj=0.625, (0 split)  
##   
## Node number 1844: 14 observations  
## predicted class=0 expected loss=0.2857143 P(node) =0.0005554453  
## class counts: 10 0 0 0 0 4 0 0 0 0  
## probabilities: 0.714 0.000 0.000 0.000 0.000 0.286 0.000 0.000 0.000 0.000   
##   
## Node number 1845: 22 observations, complexity param=0.0001339645  
## predicted class=8 expected loss=0.4090909 P(node) =0.0008728427  
## class counts: 0 0 1 0 0 4 4 0 13 0  
## probabilities: 0.000 0.000 0.045 0.000 0.000 0.182 0.182 0.000 0.591 0.000   
## left son=3690 (9 obs) right son=3691 (13 obs)  
## Primary splits:  
## 272 < 158.5 to the left, improve=4.972028, (0 missing)  
## 382 < 7 to the left, improve=4.972028, (0 missing)  
## 596 < 44.5 to the left, improve=4.139610, (0 missing)  
## 625 < 71.5 to the left, improve=4.139610, (0 missing)  
## 300 < 119.5 to the left, improve=3.984848, (0 missing)  
## Surrogate splits:  
## 273 < 151.5 to the left, agree=0.909, adj=0.778, (0 split)  
## 301 < 4.5 to the left, agree=0.909, adj=0.778, (0 split)  
## 382 < 7 to the left, agree=0.909, adj=0.778, (0 split)  
## 262 < 235.5 to the left, agree=0.864, adj=0.667, (0 split)  
## 271 < 109.5 to the left, agree=0.864, adj=0.667, (0 split)  
##   
## Node number 1848: 8 observations  
## predicted class=0 expected loss=0.5 P(node) =0.0003173973  
## class counts: 4 0 0 2 0 0 0 1 0 1  
## probabilities: 0.500 0.000 0.000 0.250 0.000 0.000 0.000 0.125 0.000 0.125   
##   
## Node number 1849: 12 observations  
## predicted class=5 expected loss=0.08333333 P(node) =0.000476096  
## class counts: 0 0 0 0 1 11 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.083 0.917 0.000 0.000 0.000 0.000   
##   
## Node number 1852: 15 observations  
## predicted class=7 expected loss=0.6 P(node) =0.00059512  
## class counts: 0 0 4 1 0 0 0 6 1 3  
## probabilities: 0.000 0.000 0.267 0.067 0.000 0.000 0.000 0.400 0.067 0.200   
##   
## Node number 1853: 18 observations  
## predicted class=8 expected loss=0.1666667 P(node) =0.000714144  
## class counts: 1 0 0 0 0 1 1 0 15 0  
## probabilities: 0.056 0.000 0.000 0.000 0.000 0.056 0.056 0.000 0.833 0.000   
##   
## Node number 1860: 268 observations, complexity param=4.465482e-05  
## predicted class=2 expected loss=0.05970149 P(node) =0.01063281  
## class counts: 0 3 252 2 3 0 1 4 3 0  
## probabilities: 0.000 0.011 0.940 0.007 0.011 0.000 0.004 0.015 0.011 0.000   
## left son=3720 (260 obs) right son=3721 (8 obs)  
## Primary splits:  
## 320 < 35.5 to the left, improve=5.607979, (0 missing)  
## 321 < 12.5 to the left, improve=4.915436, (0 missing)  
## 349 < 20.5 to the left, improve=4.876619, (0 missing)  
## 660 < 152 to the left, improve=3.514416, (0 missing)  
## 292 < 162 to the left, improve=3.054819, (0 missing)  
## Surrogate splits:  
## 321 < 12.5 to the left, agree=0.996, adj=0.875, (0 split)  
## 293 < 247 to the left, agree=0.989, adj=0.625, (0 split)  
## 348 < 84 to the left, agree=0.989, adj=0.625, (0 split)  
## 349 < 37.5 to the left, agree=0.989, adj=0.625, (0 split)  
## 292 < 162 to the left, agree=0.985, adj=0.500, (0 split)  
##   
## Node number 1861: 7 observations  
## predicted class=7 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 1 0 1 0 0 0 0 5 0 0  
## probabilities: 0.143 0.000 0.143 0.000 0.000 0.000 0.000 0.714 0.000 0.000   
##   
## Node number 1872: 18 observations  
## predicted class=4 expected loss=0 P(node) =0.000714144  
## class counts: 0 0 0 0 18 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1873: 9 observations  
## predicted class=9 expected loss=0.4444444 P(node) =0.000357072  
## class counts: 0 0 1 0 3 0 0 0 0 5  
## probabilities: 0.000 0.000 0.111 0.000 0.333 0.000 0.000 0.000 0.000 0.556   
##   
## Node number 1874: 10 observations  
## predicted class=2 expected loss=0.7 P(node) =0.0003967467  
## class counts: 0 1 3 0 0 1 0 2 3 0  
## probabilities: 0.000 0.100 0.300 0.000 0.000 0.100 0.000 0.200 0.300 0.000   
##   
## Node number 1875: 11 observations  
## predicted class=9 expected loss=0.4545455 P(node) =0.0004364213  
## class counts: 0 0 1 0 3 0 0 0 1 6  
## probabilities: 0.000 0.000 0.091 0.000 0.273 0.000 0.000 0.000 0.091 0.545   
##   
## Node number 1894: 15 observations  
## predicted class=6 expected loss=0.2666667 P(node) =0.00059512  
## class counts: 0 0 1 0 2 0 11 0 0 1  
## probabilities: 0.000 0.000 0.067 0.000 0.133 0.000 0.733 0.000 0.000 0.067   
##   
## Node number 1895: 17 observations  
## predicted class=8 expected loss=0.4705882 P(node) =0.0006744694  
## class counts: 0 1 1 0 0 0 1 1 9 4  
## probabilities: 0.000 0.059 0.059 0.000 0.000 0.000 0.059 0.059 0.529 0.235   
##   
## Node number 1910: 1478 observations, complexity param=0.0001339645  
## predicted class=6 expected loss=0.01826793 P(node) =0.05863916  
## class counts: 0 0 4 1 1 12 1451 0 7 2  
## probabilities: 0.000 0.000 0.003 0.001 0.001 0.008 0.982 0.000 0.005 0.001   
## left son=3820 (1471 obs) right son=3821 (7 obs)  
## Primary splits:  
## 651 < 2 to the left, improve=6.948752, (0 missing)  
## 652 < 132.5 to the left, improve=6.948752, (0 missing)  
## 653 < 122 to the left, improve=6.948752, (0 missing)  
## 624 < 225.5 to the left, improve=4.806803, (0 missing)  
## 654 < 73.5 to the left, improve=4.806803, (0 missing)  
## Surrogate splits:  
## 652 < 63 to the left, agree=0.999, adj=0.857, (0 split)  
## 653 < 122 to the left, agree=0.999, adj=0.714, (0 split)  
## 624 < 225.5 to the left, agree=0.997, adj=0.286, (0 split)  
## 650 < 23 to the left, agree=0.997, adj=0.286, (0 split)  
## 654 < 73.5 to the left, agree=0.997, adj=0.286, (0 split)  
##   
## Node number 1911: 7 observations  
## predicted class=9 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 0 0 1 2 0 0 0 4  
## probabilities: 0.000 0.000 0.000 0.000 0.143 0.286 0.000 0.000 0.000 0.571   
##   
## Node number 1916: 27 observations  
## predicted class=6 expected loss=0.07407407 P(node) =0.001071216  
## class counts: 0 0 0 0 0 0 25 0 2 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.926 0.000 0.074 0.000   
##   
## Node number 1917: 7 observations  
## predicted class=5 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 0 0 0 0 0 3 0 0 2 2  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.429 0.000 0.000 0.286 0.286   
##   
## Node number 1918: 29 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.5517241 P(node) =0.001150565  
## class counts: 0 0 1 2 0 13 6 1 6 0  
## probabilities: 0.000 0.000 0.034 0.069 0.000 0.448 0.207 0.034 0.207 0.000   
## left son=3836 (13 obs) right son=3837 (16 obs)  
## Primary splits:  
## 186 < 160 to the left, improve=5.098143, (0 missing)  
## 346 < 142 to the right, improve=4.416092, (0 missing)  
## 187 < 3 to the right, improve=4.412052, (0 missing)  
## 374 < 133 to the right, improve=4.319297, (0 missing)  
## 128 < 127 to the left, improve=4.261706, (0 missing)  
## Surrogate splits:  
## 214 < 41 to the left, agree=0.897, adj=0.769, (0 split)  
## 187 < 130 to the left, agree=0.862, adj=0.692, (0 split)  
## 374 < 133 to the left, agree=0.862, adj=0.692, (0 split)  
## 185 < 157 to the left, agree=0.828, adj=0.615, (0 split)  
## 402 < 132.5 to the left, agree=0.828, adj=0.615, (0 split)  
##   
## Node number 1919: 33 observations  
## predicted class=8 expected loss=0.1818182 P(node) =0.001309264  
## class counts: 0 0 1 0 0 3 0 0 27 2  
## probabilities: 0.000 0.000 0.030 0.000 0.000 0.091 0.000 0.000 0.818 0.061   
##   
## Node number 1936: 1325 observations, complexity param=0.0003572385  
## predicted class=4 expected loss=0.03924528 P(node) =0.05256893  
## class counts: 0 6 5 7 1273 0 14 0 5 15  
## probabilities: 0.000 0.005 0.004 0.005 0.961 0.000 0.011 0.000 0.004 0.011   
## left son=3872 (1313 obs) right son=3873 (12 obs)  
## Primary splits:  
## 95 < 32 to the left, improve=15.836140, (0 missing)  
## 96 < 2 to the left, improve=15.836140, (0 missing)  
## 94 < 3.5 to the left, improve=10.278060, (0 missing)  
## 437 < 1 to the right, improve=10.010500, (0 missing)  
## 123 < 251.5 to the left, improve= 9.190573, (0 missing)  
## Surrogate splits:  
## 94 < 3.5 to the left, agree=0.998, adj=0.750, (0 split)  
## 96 < 39 to the left, agree=0.998, adj=0.750, (0 split)  
## 67 < 11 to the left, agree=0.995, adj=0.500, (0 split)  
## 68 < 47 to the left, agree=0.995, adj=0.417, (0 split)  
## 123 < 251.5 to the left, agree=0.994, adj=0.333, (0 split)  
##   
## Node number 1937: 19 observations  
## predicted class=7 expected loss=0.4736842 P(node) =0.0007538187  
## class counts: 0 0 3 2 1 2 0 10 0 1  
## probabilities: 0.000 0.000 0.158 0.105 0.053 0.105 0.000 0.526 0.000 0.053   
##   
## Node number 1938: 48 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.625 P(node) =0.001904384  
## class counts: 0 0 5 7 8 18 0 0 6 4  
## probabilities: 0.000 0.000 0.104 0.146 0.167 0.375 0.000 0.000 0.125 0.083   
## left son=3876 (24 obs) right son=3877 (24 obs)  
## Primary splits:  
## 354 < 4 to the left, improve=6.458333, (0 missing)  
## 215 < 11 to the right, improve=6.229167, (0 missing)  
## 492 < 53.5 to the left, improve=6.136111, (0 missing)  
## 326 < 43 to the left, improve=5.991667, (0 missing)  
## 327 < 9.5 to the right, improve=5.901467, (0 missing)  
## Surrogate splits:  
## 326 < 43 to the left, agree=0.917, adj=0.833, (0 split)  
## 327 < 32 to the left, agree=0.875, adj=0.750, (0 split)  
## 382 < 23 to the left, agree=0.875, adj=0.750, (0 split)  
## 381 < 31 to the left, agree=0.854, adj=0.708, (0 split)  
## 298 < 5 to the left, agree=0.833, adj=0.667, (0 split)  
##   
## Node number 1939: 23 observations  
## predicted class=8 expected loss=0.1304348 P(node) =0.0009125174  
## class counts: 0 0 1 0 0 1 1 0 20 0  
## probabilities: 0.000 0.000 0.043 0.000 0.000 0.043 0.043 0.000 0.870 0.000   
##   
## Node number 1946: 32 observations, complexity param=0.0002232741  
## predicted class=4 expected loss=0.34375 P(node) =0.001269589  
## class counts: 0 0 1 1 21 2 0 0 0 7  
## probabilities: 0.000 0.000 0.031 0.031 0.656 0.062 0.000 0.000 0.000 0.219   
## left son=3892 (24 obs) right son=3893 (8 obs)  
## Primary splits:  
## 323 < 1 to the right, improve=6.083333, (0 missing)  
## 244 < 73.5 to the left, improve=5.435065, (0 missing)  
## 324 < 39 to the right, improve=4.884314, (0 missing)  
## 300 < 6.5 to the left, improve=4.833333, (0 missing)  
## 245 < 14 to the left, improve=4.637143, (0 missing)  
## Surrogate splits:  
## 295 < 90.5 to the right, agree=0.938, adj=0.750, (0 split)  
## 296 < 17 to the right, agree=0.938, adj=0.750, (0 split)  
## 244 < 73.5 to the left, agree=0.906, adj=0.625, (0 split)  
## 245 < 14 to the left, agree=0.906, adj=0.625, (0 split)  
## 265 < 186 to the left, agree=0.906, adj=0.625, (0 split)  
##   
## Node number 1947: 40 observations, complexity param=8.930964e-05  
## predicted class=9 expected loss=0.25 P(node) =0.001586987  
## class counts: 0 0 1 1 1 2 0 5 0 30  
## probabilities: 0.000 0.000 0.025 0.025 0.025 0.050 0.000 0.125 0.000 0.750   
## left son=3894 (9 obs) right son=3895 (31 obs)  
## Primary splits:  
## 468 < 101 to the right, improve=4.864875, (0 missing)  
## 373 < 47.5 to the left, improve=4.262724, (0 missing)  
## 441 < 27.5 to the right, improve=4.137500, (0 missing)  
## 442 < 2.5 to the right, improve=4.137500, (0 missing)  
## 470 < 14 to the right, improve=4.137500, (0 missing)  
## Surrogate splits:  
## 258 < 7 to the right, agree=0.925, adj=0.667, (0 split)  
## 286 < 154 to the right, agree=0.925, adj=0.667, (0 split)  
## 467 < 210 to the right, agree=0.925, adj=0.667, (0 split)  
## 469 < 5 to the right, agree=0.925, adj=0.667, (0 split)  
## 497 < 79.5 to the right, agree=0.925, adj=0.667, (0 split)  
##   
## Node number 1952: 24 observations, complexity param=0.0003125837  
## predicted class=3 expected loss=0.3333333 P(node) =0.000952192  
## class counts: 0 0 0 16 0 8 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.667 0.000 0.333 0.000 0.000 0.000 0.000   
## left son=3904 (15 obs) right son=3905 (9 obs)  
## Primary splits:  
## 265 < 169.5 to the left, improve=8.888889, (0 missing)  
## 179 < 3.5 to the right, improve=8.784314, (0 missing)  
## 180 < 3.5 to the right, improve=8.784314, (0 missing)  
## 217 < 48.5 to the left, improve=8.784314, (0 missing)  
## 218 < 38.5 to the left, improve=8.784314, (0 missing)  
## Surrogate splits:  
## 264 < 8.5 to the left, agree=0.958, adj=0.889, (0 split)  
## 573 < 56 to the left, agree=0.958, adj=0.889, (0 split)  
## 574 < 126 to the left, agree=0.958, adj=0.889, (0 split)  
## 179 < 3.5 to the right, agree=0.917, adj=0.778, (0 split)  
## 180 < 3.5 to the right, agree=0.917, adj=0.778, (0 split)  
##   
## Node number 1953: 470 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.08085106 P(node) =0.01864709  
## class counts: 0 0 1 19 1 432 0 1 0 16  
## probabilities: 0.000 0.000 0.002 0.040 0.002 0.919 0.000 0.002 0.000 0.034   
## left son=3906 (9 obs) right son=3907 (461 obs)  
## Primary splits:  
## 123 < 180.5 to the right, improve=9.456185, (0 missing)  
## 718 < 37 to the left, improve=8.900252, (0 missing)  
## 188 < 2 to the right, improve=8.580909, (0 missing)  
## 215 < 27 to the left, improve=8.377046, (0 missing)  
## 216 < 1.5 to the left, improve=7.969778, (0 missing)  
## Surrogate splits:  
## 122 < 11 to the right, agree=0.998, adj=0.889, (0 split)  
## 124 < 251.5 to the right, agree=0.994, adj=0.667, (0 split)  
## 121 < 13 to the right, agree=0.991, adj=0.556, (0 split)  
## 125 < 121.5 to the right, agree=0.991, adj=0.556, (0 split)  
## 120 < 1.5 to the right, agree=0.989, adj=0.444, (0 split)  
##   
## Node number 1956: 18 observations  
## predicted class=2 expected loss=0.2777778 P(node) =0.000714144  
## class counts: 3 0 13 0 0 0 2 0 0 0  
## probabilities: 0.167 0.000 0.722 0.000 0.000 0.000 0.111 0.000 0.000 0.000   
##   
## Node number 1957: 7 observations  
## predicted class=8 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 0 1 0 0 0 0 6 0  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.000 0.000 0.000 0.857 0.000   
##   
## Node number 1958: 11 observations  
## predicted class=4 expected loss=0.5454545 P(node) =0.0004364213  
## class counts: 0 0 0 0 5 2 0 0 3 1  
## probabilities: 0.000 0.000 0.000 0.000 0.455 0.182 0.000 0.000 0.273 0.091   
##   
## Node number 1959: 24 observations  
## predicted class=9 expected loss=0.08333333 P(node) =0.000952192  
## class counts: 0 0 0 1 0 1 0 0 0 22  
## probabilities: 0.000 0.000 0.000 0.042 0.000 0.042 0.000 0.000 0.000 0.917   
##   
## Node number 1964: 60 observations, complexity param=0.000491203  
## predicted class=7 expected loss=0.5666667 P(node) =0.00238048  
## class counts: 0 1 3 14 1 0 1 26 4 10  
## probabilities: 0.000 0.017 0.050 0.233 0.017 0.000 0.017 0.433 0.067 0.167   
## left son=3928 (23 obs) right son=3929 (37 obs)  
## Primary splits:  
## 377 < 4 to the right, improve=10.137090, (0 missing)  
## 406 < 243 to the right, improve= 9.846812, (0 missing)  
## 405 < 95.5 to the right, improve= 9.406748, (0 missing)  
## 574 < 18.5 to the left, improve= 8.147813, (0 missing)  
## 546 < 8 to the left, improve= 7.998405, (0 missing)  
## Surrogate splits:  
## 405 < 163 to the right, agree=0.917, adj=0.783, (0 split)  
## 378 < 142.5 to the right, agree=0.867, adj=0.652, (0 split)  
## 406 < 223.5 to the right, agree=0.867, adj=0.652, (0 split)  
## 376 < 17.5 to the right, agree=0.850, adj=0.609, (0 split)  
## 461 < 124 to the left, agree=0.833, adj=0.565, (0 split)  
##   
## Node number 1965: 67 observations, complexity param=0.0005805126  
## predicted class=9 expected loss=0.4179104 P(node) =0.002658203  
## class counts: 0 0 0 2 19 0 0 2 5 39  
## probabilities: 0.000 0.000 0.000 0.030 0.284 0.000 0.000 0.030 0.075 0.582   
## left son=3930 (13 obs) right son=3931 (54 obs)  
## Primary splits:  
## 454 < 2 to the right, improve=13.86235, (0 missing)  
## 455 < 101.5 to the right, improve=13.86235, (0 missing)  
## 483 < 11.5 to the right, improve=13.86235, (0 missing)  
## 482 < 3 to the right, improve=12.56336, (0 missing)  
## 456 < 226.5 to the right, improve=12.10794, (0 missing)  
## Surrogate splits:  
## 455 < 101.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 483 < 11.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 456 < 226.5 to the right, agree=0.985, adj=0.923, (0 split)  
## 482 < 3 to the right, agree=0.985, adj=0.923, (0 split)  
## 484 < 82.5 to the right, agree=0.970, adj=0.846, (0 split)  
##   
## Node number 1968: 77 observations  
## predicted class=3 expected loss=0.05194805 P(node) =0.003054949  
## class counts: 0 0 1 73 0 0 0 0 1 2  
## probabilities: 0.000 0.000 0.013 0.948 0.000 0.000 0.000 0.000 0.013 0.026   
##   
## Node number 1969: 22 observations, complexity param=0.0002679289  
## predicted class=9 expected loss=0.6363636 P(node) =0.0008728427  
## class counts: 1 0 1 3 1 7 0 0 1 8  
## probabilities: 0.045 0.000 0.045 0.136 0.045 0.318 0.000 0.000 0.045 0.364   
## left son=3938 (14 obs) right son=3939 (8 obs)  
## Primary splits:  
## 188 < 3.5 to the right, improve=6.701299, (0 missing)  
## 376 < 110 to the right, improve=6.187257, (0 missing)  
## 160 < 85.5 to the right, improve=5.951299, (0 missing)  
## 467 < 194 to the right, improve=5.951299, (0 missing)  
## 161 < 68.5 to the right, improve=5.708625, (0 missing)  
## Surrogate splits:  
## 376 < 110 to the right, agree=0.955, adj=0.875, (0 split)  
## 681 < 6.5 to the left, agree=0.955, adj=0.875, (0 split)  
## 158 < 65 to the right, agree=0.909, adj=0.750, (0 split)  
## 159 < 16 to the right, agree=0.909, adj=0.750, (0 split)  
## 187 < 96 to the right, agree=0.909, adj=0.750, (0 split)  
##   
## Node number 1970: 46 observations, complexity param=8.930964e-05  
## predicted class=2 expected loss=0.1521739 P(node) =0.001825035  
## class counts: 0 0 39 4 0 1 0 0 1 1  
## probabilities: 0.000 0.000 0.848 0.087 0.000 0.022 0.000 0.000 0.022 0.022   
## left son=3940 (38 obs) right son=3941 (8 obs)  
## Primary splits:  
## 351 < 9 to the left, improve=5.324371, (0 missing)  
## 380 < 249.5 to the left, improve=5.324371, (0 missing)  
## 379 < 226.5 to the left, improve=4.675585, (0 missing)  
## 680 < 15.5 to the left, improve=4.675585, (0 missing)  
## 681 < 21 to the left, improve=4.675585, (0 missing)  
## Surrogate splits:  
## 379 < 155 to the left, agree=0.978, adj=0.875, (0 split)  
## 350 < 3.5 to the left, agree=0.957, adj=0.750, (0 split)  
## 380 < 236 to the left, agree=0.957, adj=0.750, (0 split)  
## 655 < 250.5 to the left, agree=0.957, adj=0.750, (0 split)  
## 656 < 173.5 to the left, agree=0.957, adj=0.750, (0 split)  
##   
## Node number 1971: 33 observations, complexity param=4.465482e-05  
## predicted class=8 expected loss=0.2727273 P(node) =0.001309264  
## class counts: 1 0 3 2 0 0 3 0 24 0  
## probabilities: 0.030 0.000 0.091 0.061 0.000 0.000 0.091 0.000 0.727 0.000   
## left son=3942 (10 obs) right son=3943 (23 obs)  
## Primary splits:  
## 549 < 71 to the right, improve=5.535441, (0 missing)  
## 522 < 67.5 to the right, improve=5.338485, (0 missing)  
## 550 < 113.5 to the right, improve=5.338485, (0 missing)  
## 377 < 85.5 to the left, improve=4.848485, (0 missing)  
## 576 < 71 to the right, improve=4.757576, (0 missing)  
## Surrogate splits:  
## 521 < 6.5 to the right, agree=0.970, adj=0.9, (0 split)  
## 577 < 119.5 to the right, agree=0.970, adj=0.9, (0 split)  
## 522 < 67.5 to the right, agree=0.939, adj=0.8, (0 split)  
## 550 < 113.5 to the right, agree=0.939, adj=0.8, (0 split)  
## 376 < 42.5 to the left, agree=0.909, adj=0.7, (0 split)  
##   
## Node number 1972: 90 observations  
## predicted class=4 expected loss=0.1 P(node) =0.00357072  
## class counts: 0 0 3 0 81 0 1 0 0 5  
## probabilities: 0.000 0.000 0.033 0.000 0.900 0.000 0.011 0.000 0.000 0.056   
##   
## Node number 1973: 48 observations, complexity param=0.0003572385  
## predicted class=9 expected loss=0.5625 P(node) =0.001904384  
## class counts: 0 0 2 7 11 2 0 0 5 21  
## probabilities: 0.000 0.000 0.042 0.146 0.229 0.042 0.000 0.000 0.104 0.438   
## left son=3946 (10 obs) right son=3947 (38 obs)  
## Primary splits:  
## 183 < 239 to the left, improve=6.762281, (0 missing)  
## 403 < 157 to the right, improve=6.670290, (0 missing)  
## 376 < 2.5 to the right, improve=5.578042, (0 missing)  
## 372 < 11.5 to the left, improve=5.352564, (0 missing)  
## 178 < 250 to the right, improve=5.238386, (0 missing)  
## Surrogate splits:  
## 182 < 34.5 to the left, agree=0.896, adj=0.5, (0 split)  
## 181 < 15.5 to the left, agree=0.875, adj=0.4, (0 split)  
## 155 < 33 to the left, agree=0.854, adj=0.3, (0 split)  
## 156 < 9 to the left, agree=0.854, adj=0.3, (0 split)  
## 208 < 31.5 to the left, agree=0.854, adj=0.3, (0 split)  
##   
## Node number 1974: 50 observations, complexity param=0.0003572385  
## predicted class=9 expected loss=0.64 P(node) =0.001983733  
## class counts: 0 0 3 9 9 2 0 1 8 18  
## probabilities: 0.000 0.000 0.060 0.180 0.180 0.040 0.000 0.020 0.160 0.360   
## left son=3948 (14 obs) right son=3949 (36 obs)  
## Primary splits:  
## 374 < 58 to the left, improve=5.950159, (0 missing)  
## 407 < 139.5 to the left, improve=5.825263, (0 missing)  
## 179 < 239 to the right, improve=5.676341, (0 missing)  
## 151 < 8 to the right, improve=5.131765, (0 missing)  
## 178 < 62.5 to the right, improve=5.131765, (0 missing)  
## Surrogate splits:  
## 346 < 8 to the left, agree=0.98, adj=0.929, (0 split)  
## 318 < 4 to the left, agree=0.94, adj=0.786, (0 split)  
## 375 < 4 to the left, agree=0.94, adj=0.786, (0 split)  
## 347 < 3.5 to the left, agree=0.90, adj=0.643, (0 split)  
## 402 < 2.5 to the left, agree=0.90, adj=0.643, (0 split)  
##   
## Node number 1975: 40 observations  
## predicted class=8 expected loss=0.075 P(node) =0.001586987  
## class counts: 1 0 1 0 0 0 0 0 37 1  
## probabilities: 0.025 0.000 0.025 0.000 0.000 0.000 0.000 0.000 0.925 0.025   
##   
## Node number 1976: 119 observations, complexity param=0.0006698223  
## predicted class=3 expected loss=0.5798319 P(node) =0.004721285  
## class counts: 1 0 16 50 6 0 0 39 2 5  
## probabilities: 0.008 0.000 0.134 0.420 0.050 0.000 0.000 0.328 0.017 0.042   
## left son=3952 (66 obs) right son=3953 (53 obs)  
## Primary splits:  
## 518 < 96.5 to the left, improve=20.87927, (0 missing)  
## 545 < 130.5 to the left, improve=18.94055, (0 missing)  
## 573 < 90.5 to the left, improve=18.81878, (0 missing)  
## 577 < 10.5 to the right, improve=18.25678, (0 missing)  
## 550 < 3 to the right, improve=18.11945, (0 missing)  
## Surrogate splits:  
## 546 < 101 to the left, agree=0.924, adj=0.830, (0 split)  
## 517 < 1.5 to the left, agree=0.882, adj=0.736, (0 split)  
## 490 < 217.5 to the left, agree=0.874, adj=0.717, (0 split)  
## 545 < 7.5 to the left, agree=0.866, adj=0.698, (0 split)  
## 573 < 160 to the left, agree=0.824, adj=0.604, (0 split)  
##   
## Node number 1977: 57 observations, complexity param=4.465482e-05  
## predicted class=9 expected loss=0.1403509 P(node) =0.002261456  
## class counts: 0 0 1 1 2 0 0 0 4 49  
## probabilities: 0.000 0.000 0.018 0.018 0.035 0.000 0.000 0.000 0.070 0.860   
## left son=3954 (10 obs) right son=3955 (47 obs)  
## Primary splits:  
## 546 < 49 to the right, improve=5.333781, (0 missing)  
## 519 < 57.5 to the right, improve=4.716525, (0 missing)  
## 518 < 35.5 to the right, improve=4.202339, (0 missing)  
## 374 < 168.5 to the right, improve=4.171784, (0 missing)  
## 375 < 130.5 to the right, improve=4.159799, (0 missing)  
## Surrogate splits:  
## 518 < 79 to the right, agree=0.982, adj=0.9, (0 split)  
## 519 < 57.5 to the right, agree=0.982, adj=0.9, (0 split)  
## 517 < 134 to the right, agree=0.965, adj=0.8, (0 split)  
## 545 < 34.5 to the right, agree=0.947, adj=0.7, (0 split)  
## 574 < 53.5 to the right, agree=0.947, adj=0.7, (0 split)  
##   
## Node number 1978: 20 observations, complexity param=0.0001339645  
## predicted class=4 expected loss=0.35 P(node) =0.0007934934  
## class counts: 0 0 0 1 13 1 0 0 0 5  
## probabilities: 0.000 0.000 0.000 0.050 0.650 0.050 0.000 0.000 0.000 0.250   
## left son=3956 (11 obs) right son=3957 (9 obs)  
## Primary splits:  
## 213 < 128 to the left, improve=4.644444, (0 missing)  
## 214 < 111.5 to the left, improve=4.068132, (0 missing)  
## 463 < 187.5 to the right, improve=4.068132, (0 missing)  
## 491 < 201.5 to the right, improve=4.068132, (0 missing)  
## 466 < 35.5 to the right, improve=3.270707, (0 missing)  
## Surrogate splits:  
## 214 < 69 to the left, agree=0.95, adj=0.889, (0 split)  
## 185 < 52 to the left, agree=0.90, adj=0.778, (0 split)  
## 186 < 72 to the left, agree=0.90, adj=0.778, (0 split)  
## 212 < 179.5 to the left, agree=0.90, adj=0.778, (0 split)  
## 240 < 144.5 to the left, agree=0.90, adj=0.778, (0 split)  
##   
## Node number 1979: 97 observations, complexity param=0.0001339645  
## predicted class=9 expected loss=0.1340206 P(node) =0.003848443  
## class counts: 0 0 0 0 2 0 0 4 7 84  
## probabilities: 0.000 0.000 0.000 0.000 0.021 0.000 0.000 0.041 0.072 0.866   
## left son=3958 (12 obs) right son=3959 (85 obs)  
## Primary splits:  
## 436 < 152 to the left, improve=7.540509, (0 missing)  
## 464 < 25 to the left, improve=7.106645, (0 missing)  
## 218 < 20 to the right, improve=6.037965, (0 missing)  
## 485 < 89.5 to the right, improve=5.667027, (0 missing)  
## 437 < 2 to the left, improve=5.221091, (0 missing)  
## Surrogate splits:  
## 464 < 6 to the left, agree=0.969, adj=0.750, (0 split)  
## 483 < 1 to the right, agree=0.928, adj=0.417, (0 split)  
## 484 < 47 to the right, agree=0.928, adj=0.417, (0 split)  
## 511 < 42 to the right, agree=0.928, adj=0.417, (0 split)  
## 512 < 8 to the right, agree=0.928, adj=0.417, (0 split)  
##   
## Node number 1980: 31 observations  
## predicted class=4 expected loss=0.03225806 P(node) =0.001229915  
## class counts: 0 0 0 0 30 0 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.000 0.968 0.000 0.000 0.000 0.032 0.000   
##   
## Node number 1981: 35 observations, complexity param=4.465482e-05  
## predicted class=9 expected loss=0.1714286 P(node) =0.001388613  
## class counts: 0 0 0 0 4 0 0 1 1 29  
## probabilities: 0.000 0.000 0.000 0.000 0.114 0.000 0.000 0.029 0.029 0.829   
## left son=3962 (7 obs) right son=3963 (28 obs)  
## Primary splits:  
## 518 < 79.5 to the right, improve=3.671429, (0 missing)  
## 384 < 47 to the right, improve=3.242857, (0 missing)  
## 411 < 221 to the right, improve=3.242857, (0 missing)  
## 412 < 4.5 to the right, improve=3.242857, (0 missing)  
## 546 < 101 to the right, improve=3.031217, (0 missing)  
## Surrogate splits:  
## 546 < 79 to the right, agree=0.943, adj=0.714, (0 split)  
## 190 < 1.5 to the right, agree=0.914, adj=0.571, (0 split)  
## 218 < 66.5 to the right, agree=0.914, adj=0.571, (0 split)  
## 233 < 8 to the left, agree=0.914, adj=0.571, (0 split)  
## 266 < 8.5 to the left, agree=0.914, adj=0.571, (0 split)  
##   
## Node number 1982: 72 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.4305556 P(node) =0.002856576  
## class counts: 0 0 0 4 5 2 0 3 17 41  
## probabilities: 0.000 0.000 0.000 0.056 0.069 0.028 0.000 0.042 0.236 0.569   
## left son=3964 (24 obs) right son=3965 (48 obs)  
## Primary splits:  
## 438 < 130.5 to the left, improve=15.34722, (0 missing)  
## 400 < 25 to the left, improve=14.57825, (0 missing)  
## 544 < 138 to the left, improve=14.19766, (0 missing)  
## 429 < 19.5 to the left, improve=13.87868, (0 missing)  
## 517 < 198 to the right, improve=13.83532, (0 missing)  
## Surrogate splits:  
## 410 < 165 to the left, agree=0.875, adj=0.625, (0 split)  
## 466 < 75 to the left, agree=0.875, adj=0.625, (0 split)  
## 544 < 107.5 to the right, agree=0.861, adj=0.583, (0 split)  
## 411 < 13.5 to the left, agree=0.847, adj=0.542, (0 split)  
## 430 < 45.5 to the left, agree=0.847, adj=0.542, (0 split)  
##   
## Node number 1983: 1014 observations, complexity param=0.0001339645  
## predicted class=9 expected loss=0.06213018 P(node) =0.04023011  
## class counts: 0 0 1 6 30 4 0 7 15 951  
## probabilities: 0.000 0.000 0.001 0.006 0.030 0.004 0.000 0.007 0.015 0.938   
## left son=3966 (7 obs) right son=3967 (1007 obs)  
## Primary splits:  
## 595 < 21.5 to the right, improve=8.816440, (0 missing)  
## 623 < 69 to the right, improve=8.816440, (0 missing)  
## 219 < 193 to the right, improve=6.776719, (0 missing)  
## 348 < 250.5 to the right, improve=6.691927, (0 missing)  
## 470 < 5 to the right, improve=6.633264, (0 missing)  
## Surrogate splits:  
## 623 < 69 to the right, agree=1.000, adj=1.000, (0 split)  
## 596 < 36.5 to the right, agree=0.999, adj=0.857, (0 split)  
## 567 < 38 to the right, agree=0.998, adj=0.714, (0 split)  
## 568 < 17.5 to the right, agree=0.998, adj=0.714, (0 split)  
## 594 < 4 to the right, agree=0.998, adj=0.714, (0 split)  
##   
## Node number 1988: 16 observations  
## predicted class=3 expected loss=0.25 P(node) =0.0006347947  
## class counts: 0 1 2 12 0 0 0 0 1 0  
## probabilities: 0.000 0.062 0.125 0.750 0.000 0.000 0.000 0.000 0.062 0.000   
##   
## Node number 1989: 9 observations  
## predicted class=5 expected loss=0 P(node) =0.000357072  
## class counts: 0 0 0 0 0 9 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000   
##   
## Node number 1998: 7 observations  
## predicted class=3 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 0 6 0 0 0 0 0 1  
## probabilities: 0.000 0.000 0.000 0.857 0.000 0.000 0.000 0.000 0.000 0.143   
##   
## Node number 1999: 53 observations, complexity param=4.465482e-05  
## predicted class=9 expected loss=0.2075472 P(node) =0.002102757  
## class counts: 0 0 1 0 5 0 0 2 3 42  
## probabilities: 0.000 0.000 0.019 0.000 0.094 0.000 0.000 0.038 0.057 0.792   
## left son=3998 (7 obs) right son=3999 (46 obs)  
## Primary splits:  
## 379 < 57 to the left, improve=4.335169, (0 missing)  
## 320 < 198.5 to the right, improve=3.708405, (0 missing)  
## 214 < 41 to the left, improve=3.136557, (0 missing)  
## 213 < 51 to the left, improve=3.109510, (0 missing)  
## 181 < 18 to the right, improve=3.023556, (0 missing)  
## Surrogate splits:  
## 378 < 110 to the left, agree=0.925, adj=0.429, (0 split)  
## 428 < 120 to the right, agree=0.925, adj=0.429, (0 split)  
## 149 < 1.5 to the right, agree=0.906, adj=0.286, (0 split)  
## 150 < 38.5 to the right, agree=0.906, adj=0.286, (0 split)  
## 151 < 105.5 to the right, agree=0.906, adj=0.286, (0 split)  
##   
## Node number 2014: 13 observations  
## predicted class=7 expected loss=0.5384615 P(node) =0.0005157707  
## class counts: 0 0 4 2 0 0 0 6 0 1  
## probabilities: 0.000 0.000 0.308 0.154 0.000 0.000 0.000 0.462 0.000 0.077   
##   
## Node number 2015: 1314 observations, complexity param=2.232741e-05  
## predicted class=7 expected loss=0.01902588 P(node) =0.05213251  
## class counts: 0 1 7 2 3 0 2 1289 0 10  
## probabilities: 0.000 0.001 0.005 0.002 0.002 0.000 0.002 0.981 0.000 0.008   
## left son=4030 (7 obs) right son=4031 (1307 obs)  
## Primary splits:  
## 482 < 134.5 to the right, improve=1.888461, (0 missing)  
## 265 < 10.5 to the left, improve=1.728205, (0 missing)  
## 488 < 106 to the right, improve=1.711924, (0 missing)  
## 512 < 2 to the left, improve=1.628118, (0 missing)  
## 664 < 3.5 to the right, improve=1.623524, (0 missing)  
## Surrogate splits:  
## 483 < 252.5 to the right, agree=0.998, adj=0.571, (0 split)  
## 510 < 24.5 to the right, agree=0.998, adj=0.571, (0 split)  
## 454 < 217.5 to the right, agree=0.997, adj=0.429, (0 split)  
## 481 < 68 to the right, agree=0.997, adj=0.429, (0 split)  
## 509 < 24.5 to the right, agree=0.997, adj=0.429, (0 split)  
##   
## Node number 2048: 2230 observations, complexity param=7.44247e-05  
## predicted class=1 expected loss=0.01255605 P(node) =0.08847451  
## class counts: 0 2202 1 2 1 0 4 5 14 1  
## probabilities: 0.000 0.987 0.000 0.001 0.000 0.000 0.002 0.002 0.006 0.000   
## left son=4096 (2198 obs) right son=4097 (32 obs)  
## Primary splits:  
## 493 < 64.5 to the left, improve=3.924876, (0 missing)  
## 492 < 253.5 to the left, improve=3.631965, (0 missing)  
## 494 < 9 to the left, improve=3.600578, (0 missing)  
## 300 < 1 to the left, improve=3.237390, (0 missing)  
## 433 < 2.5 to the right, improve=3.201928, (0 missing)  
## Surrogate splits:  
## 521 < 56 to the left, agree=0.995, adj=0.625, (0 split)  
## 465 < 56 to the left, agree=0.993, adj=0.500, (0 split)  
## 492 < 252.5 to the left, agree=0.991, adj=0.375, (0 split)  
## 549 < 146.5 to the left, agree=0.989, adj=0.219, (0 split)  
## 494 < 21.5 to the left, agree=0.988, adj=0.188, (0 split)  
##   
## Node number 2049: 7 observations  
## predicted class=5 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 3 0 0 0 4 0 0 0 0  
## probabilities: 0.000 0.429 0.000 0.000 0.000 0.571 0.000 0.000 0.000 0.000   
##   
## Node number 2182: 7 observations  
## predicted class=2 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 5 0 0 0 2 0 0 0  
## probabilities: 0.000 0.000 0.714 0.000 0.000 0.000 0.286 0.000 0.000 0.000   
##   
## Node number 2183: 49 observations  
## predicted class=6 expected loss=0.06122449 P(node) =0.001944059  
## class counts: 0 0 0 0 1 1 46 0 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.020 0.020 0.939 0.000 0.000 0.020   
##   
## Node number 2186: 31 observations, complexity param=0.0002456015  
## predicted class=2 expected loss=0.7741935 P(node) =0.001229915  
## class counts: 4 6 7 3 4 2 1 0 4 0  
## probabilities: 0.129 0.194 0.226 0.097 0.129 0.065 0.032 0.000 0.129 0.000   
## left son=4372 (20 obs) right son=4373 (11 obs)  
## Primary splits:  
## 652 < 147 to the left, improve=4.476246, (0 missing)  
## 653 < 128.5 to the left, improve=4.476246, (0 missing)  
## 654 < 14 to the left, improve=4.476246, (0 missing)  
## 160 < 49.5 to the left, improve=4.155500, (0 missing)  
## 626 < 149 to the left, improve=4.126486, (0 missing)  
## Surrogate splits:  
## 653 < 128.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 654 < 14 to the left, agree=1.000, adj=1.000, (0 split)  
## 626 < 149 to the left, agree=0.968, adj=0.909, (0 split)  
## 160 < 49.5 to the left, agree=0.935, adj=0.818, (0 split)  
## 651 < 34 to the left, agree=0.935, adj=0.818, (0 split)  
##   
## Node number 2187: 23 observations, complexity param=8.930964e-05  
## predicted class=5 expected loss=0.2608696 P(node) =0.0009125174  
## class counts: 1 0 1 3 0 17 0 0 1 0  
## probabilities: 0.043 0.000 0.043 0.130 0.000 0.739 0.000 0.000 0.043 0.000   
## left son=4374 (7 obs) right son=4375 (16 obs)  
## Primary splits:  
## 157 < 20.5 to the right, improve=4.770186, (0 missing)  
## 158 < 9 to the right, improve=4.770186, (0 missing)  
## 155 < 20.5 to the right, improve=3.180901, (0 missing)  
## 184 < 22 to the right, improve=2.713043, (0 missing)  
## 185 < 57 to the right, improve=2.713043, (0 missing)  
## Surrogate splits:  
## 158 < 9 to the right, agree=1.000, adj=1.000, (0 split)  
## 155 < 20.5 to the right, agree=0.913, adj=0.714, (0 split)  
## 156 < 165.5 to the right, agree=0.913, adj=0.714, (0 split)  
## 159 < 14 to the right, agree=0.913, adj=0.714, (0 split)  
## 125 < 10.5 to the right, agree=0.870, adj=0.571, (0 split)  
##   
## Node number 2190: 37 observations, complexity param=0.0003125837  
## predicted class=1 expected loss=0.6756757 P(node) =0.001467963  
## class counts: 0 12 1 1 8 2 3 5 0 5  
## probabilities: 0.000 0.324 0.027 0.027 0.216 0.054 0.081 0.135 0.000 0.135   
## left son=4380 (15 obs) right son=4381 (22 obs)  
## Primary splits:  
## 405 < 205.5 to the right, improve=6.039803, (0 missing)  
## 377 < 245 to the right, improve=5.747548, (0 missing)  
## 349 < 248 to the right, improve=5.137150, (0 missing)  
## 321 < 189.5 to the right, improve=4.770690, (0 missing)  
## 375 < 155 to the left, improve=4.407336, (0 missing)  
## Surrogate splits:  
## 377 < 62 to the right, agree=0.838, adj=0.600, (0 split)  
## 180 < 54 to the right, agree=0.811, adj=0.533, (0 split)  
## 433 < 240.5 to the right, agree=0.811, adj=0.533, (0 split)  
## 153 < 159.5 to the right, agree=0.784, adj=0.467, (0 split)  
## 181 < 97.5 to the right, agree=0.784, adj=0.467, (0 split)  
##   
## Node number 2191: 33 observations, complexity param=4.465482e-05  
## predicted class=9 expected loss=0.2727273 P(node) =0.001309264  
## class counts: 0 2 0 0 5 0 0 1 1 24  
## probabilities: 0.000 0.061 0.000 0.000 0.152 0.000 0.000 0.030 0.030 0.727   
## left son=4382 (9 obs) right son=4383 (24 obs)  
## Primary splits:  
## 238 < 175.5 to the left, improve=4.050505, (0 missing)  
## 237 < 81 to the left, improve=3.869797, (0 missing)  
## 212 < 23 to the left, improve=3.452214, (0 missing)  
## 213 < 110.5 to the left, improve=3.452214, (0 missing)  
## 211 < 42 to the left, improve=2.671995, (0 missing)  
## Surrogate splits:  
## 211 < 98 to the left, agree=0.909, adj=0.667, (0 split)  
## 237 < 52.5 to the left, agree=0.909, adj=0.667, (0 split)  
## 239 < 21 to the left, agree=0.909, adj=0.667, (0 split)  
## 212 < 23 to the left, agree=0.879, adj=0.556, (0 split)  
## 264 < 66.5 to the left, agree=0.879, adj=0.556, (0 split)  
##   
## Node number 2222: 10 observations  
## predicted class=8 expected loss=0.3 P(node) =0.0003967467  
## class counts: 1 1 0 0 1 0 0 0 7 0  
## probabilities: 0.100 0.100 0.000 0.000 0.100 0.000 0.000 0.000 0.700 0.000   
##   
## Node number 2223: 11 observations  
## predicted class=9 expected loss=0.5454545 P(node) =0.0004364213  
## class counts: 1 0 0 2 0 0 2 0 1 5  
## probabilities: 0.091 0.000 0.000 0.182 0.000 0.000 0.182 0.000 0.091 0.455   
##   
## Node number 2576: 1350 observations  
## predicted class=3 expected loss=0.01407407 P(node) =0.0535608  
## class counts: 0 2 8 1331 0 6 0 0 3 0  
## probabilities: 0.000 0.001 0.006 0.986 0.000 0.004 0.000 0.000 0.002 0.000   
##   
## Node number 2577: 10 observations  
## predicted class=5 expected loss=0.3 P(node) =0.0003967467  
## class counts: 0 0 0 1 0 7 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.100 0.000 0.700 0.000 0.000 0.200 0.000   
##   
## Node number 2682: 11 observations  
## predicted class=3 expected loss=0.4545455 P(node) =0.0004364213  
## class counts: 0 0 0 6 4 0 1 0 0 0  
## probabilities: 0.000 0.000 0.000 0.545 0.364 0.000 0.091 0.000 0.000 0.000   
##   
## Node number 2683: 9 observations  
## predicted class=7 expected loss=0 P(node) =0.000357072  
## class counts: 0 0 0 0 0 0 0 9 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000   
##   
## Node number 2684: 13 observations  
## predicted class=1 expected loss=0.4615385 P(node) =0.0005157707  
## class counts: 0 7 0 0 0 0 2 0 4 0  
## probabilities: 0.000 0.538 0.000 0.000 0.000 0.000 0.154 0.000 0.308 0.000   
##   
## Node number 2685: 14 observations  
## predicted class=5 expected loss=0.6428571 P(node) =0.0005554453  
## class counts: 0 0 0 3 2 5 4 0 0 0  
## probabilities: 0.000 0.000 0.000 0.214 0.143 0.357 0.286 0.000 0.000 0.000   
##   
## Node number 2686: 22 observations, complexity param=0.0001562919  
## predicted class=9 expected loss=0.5454545 P(node) =0.0008728427  
## class counts: 0 0 0 7 2 0 0 1 2 10  
## probabilities: 0.000 0.000 0.000 0.318 0.091 0.000 0.000 0.045 0.091 0.455   
## left son=5372 (9 obs) right son=5373 (13 obs)  
## Primary splits:  
## 292 < 132 to the left, improve=6.783994, (0 missing)  
## 491 < 243.5 to the left, improve=6.783994, (0 missing)  
## 518 < 73.5 to the left, improve=6.718182, (0 missing)  
## 291 < 60.5 to the left, improve=6.639610, (0 missing)  
## 319 < 57 to the left, improve=6.639610, (0 missing)  
## Surrogate splits:  
## 491 < 243.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 208 < 56 to the right, agree=0.955, adj=0.889, (0 split)  
## 235 < 83.5 to the right, agree=0.955, adj=0.889, (0 split)  
## 291 < 60.5 to the left, agree=0.955, adj=0.889, (0 split)  
## 318 < 3 to the left, agree=0.955, adj=0.889, (0 split)  
##   
## Node number 2687: 21 observations  
## predicted class=9 expected loss=0 P(node) =0.000833168  
## class counts: 0 0 0 0 0 0 0 0 0 21  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000   
##   
## Node number 2716: 25 observations, complexity param=0.0002232741  
## predicted class=3 expected loss=0.36 P(node) =0.0009918667  
## class counts: 0 1 1 16 0 6 0 0 1 0  
## probabilities: 0.000 0.040 0.040 0.640 0.000 0.240 0.000 0.000 0.040 0.000   
## left son=5432 (16 obs) right son=5433 (9 obs)  
## Primary splits:  
## 270 < 13.5 to the right, improve=6.658333, (0 missing)  
## 269 < 88.5 to the right, improve=6.302941, (0 missing)  
## 262 < 248 to the left, improve=6.302941, (0 missing)  
## 268 < 65.5 to the right, improve=6.152381, (0 missing)  
## 242 < 122 to the right, improve=5.533333, (0 missing)  
## Surrogate splits:  
## 242 < 122 to the right, agree=0.96, adj=0.889, (0 split)  
## 269 < 88.5 to the right, agree=0.96, adj=0.889, (0 split)  
## 261 < 103 to the left, agree=0.92, adj=0.778, (0 split)  
## 268 < 65.5 to the right, agree=0.92, adj=0.778, (0 split)  
## 296 < 233.5 to the right, agree=0.92, adj=0.778, (0 split)  
##   
## Node number 2717: 77 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.3896104 P(node) =0.003054949  
## class counts: 5 0 0 9 0 47 2 3 2 9  
## probabilities: 0.065 0.000 0.000 0.117 0.000 0.610 0.026 0.039 0.026 0.117   
## left son=5434 (8 obs) right son=5435 (69 obs)  
## Primary splits:  
## 455 < 193.5 to the right, improve=6.716685, (0 missing)  
## 329 < 218.5 to the right, improve=6.662338, (0 missing)  
## 358 < 11 to the right, improve=6.509649, (0 missing)  
## 482 < 197 to the right, improve=6.348052, (0 missing)  
## 597 < 38.5 to the right, improve=6.068789, (0 missing)  
## Surrogate splits:  
## 456 < 196.5 to the right, agree=0.987, adj=0.875, (0 split)  
## 428 < 246.5 to the right, agree=0.974, adj=0.750, (0 split)  
## 454 < 80 to the right, agree=0.961, adj=0.625, (0 split)  
## 483 < 167.5 to the right, agree=0.961, adj=0.625, (0 split)  
## 484 < 251.5 to the right, agree=0.961, adj=0.625, (0 split)  
##   
## Node number 2718: 30 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.4666667 P(node) =0.00119024  
## class counts: 0 0 0 2 0 6 0 0 16 6  
## probabilities: 0.000 0.000 0.000 0.067 0.000 0.200 0.000 0.000 0.533 0.200   
## left son=5436 (14 obs) right son=5437 (16 obs)  
## Primary splits:  
## 431 < 10.5 to the left, improve=5.719048, (0 missing)  
## 433 < 9 to the left, improve=4.869985, (0 missing)  
## 432 < 92 to the left, improve=4.851885, (0 missing)  
## 405 < 194.5 to the left, improve=4.560128, (0 missing)  
## 466 < 105.5 to the right, improve=4.526094, (0 missing)  
## Surrogate splits:  
## 432 < 27.5 to the left, agree=0.867, adj=0.714, (0 split)  
## 402 < 249.5 to the left, agree=0.833, adj=0.643, (0 split)  
## 403 < 161.5 to the left, agree=0.833, adj=0.643, (0 split)  
## 430 < 160 to the left, agree=0.833, adj=0.643, (0 split)  
## 458 < 13 to the left, agree=0.833, adj=0.643, (0 split)  
##   
## Node number 2719: 8 observations  
## predicted class=9 expected loss=0 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 0 0 0 0 8  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000   
##   
## Node number 2748: 20 observations, complexity param=0.0001488494  
## predicted class=3 expected loss=0.4 P(node) =0.0007934934  
## class counts: 0 0 0 12 0 7 1 0 0 0  
## probabilities: 0.000 0.000 0.000 0.600 0.000 0.350 0.050 0.000 0.000 0.000   
## left son=5496 (13 obs) right son=5497 (7 obs)  
## Primary splits:  
## 551 < 62.5 to the right, improve=5.047253, (0 missing)  
## 601 < 160 to the left, improve=3.800000, (0 missing)  
## 578 < 83.5 to the right, improve=3.800000, (0 missing)  
## 152 < 10.5 to the right, improve=3.772527, (0 missing)  
## 153 < 58.5 to the right, improve=3.772527, (0 missing)  
## Surrogate splits:  
## 374 < 240 to the left, agree=0.9, adj=0.714, (0 split)  
## 492 < 32 to the left, agree=0.9, adj=0.714, (0 split)  
## 493 < 181.5 to the left, agree=0.9, adj=0.714, (0 split)  
## 520 < 126.5 to the left, agree=0.9, adj=0.714, (0 split)  
## 578 < 134 to the right, agree=0.9, adj=0.714, (0 split)  
##   
## Node number 2749: 17 observations  
## predicted class=5 expected loss=0 P(node) =0.0006744694  
## class counts: 0 0 0 0 0 17 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000   
##   
## Node number 2750: 378 observations  
## predicted class=5 expected loss=0.01851852 P(node) =0.01499702  
## class counts: 0 0 0 3 0 371 4 0 0 0  
## probabilities: 0.000 0.000 0.000 0.008 0.000 0.981 0.011 0.000 0.000 0.000   
##   
## Node number 2751: 7 observations  
## predicted class=8 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 0 0 0 0 0 2 0 0 3 2  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.286 0.000 0.000 0.429 0.286   
##   
## Node number 3066: 8 observations  
## predicted class=5 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 5 1 0 1 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.625 0.125 0.000 0.125 0.125   
##   
## Node number 3067: 17 observations  
## predicted class=8 expected loss=0.05882353 P(node) =0.0006744694  
## class counts: 0 0 0 1 0 0 0 0 16 0  
## probabilities: 0.000 0.000 0.000 0.059 0.000 0.000 0.000 0.000 0.941 0.000   
##   
## Node number 3068: 7 observations  
## predicted class=6 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 1 0 0 0 0 0 5 0 1 0  
## probabilities: 0.143 0.000 0.000 0.000 0.000 0.000 0.714 0.000 0.143 0.000   
##   
## Node number 3069: 30 observations  
## predicted class=8 expected loss=0.1 P(node) =0.00119024  
## class counts: 0 0 0 0 0 0 2 0 27 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.067 0.000 0.900 0.033   
##   
## Node number 3074: 18 observations  
## predicted class=0 expected loss=0.05555556 P(node) =0.000714144  
## class counts: 17 0 1 0 0 0 0 0 0 0  
## probabilities: 0.944 0.000 0.056 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3075: 7 observations  
## predicted class=6 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 3 0 0 0 0 0 4 0 0 0  
## probabilities: 0.429 0.000 0.000 0.000 0.000 0.000 0.571 0.000 0.000 0.000   
##   
## Node number 3080: 201 observations  
## predicted class=0 expected loss=0.009950249 P(node) =0.007974608  
## class counts: 199 0 0 0 0 1 0 1 0 0  
## probabilities: 0.990 0.000 0.000 0.000 0.000 0.005 0.000 0.005 0.000 0.000   
##   
## Node number 3081: 66 observations, complexity param=0.000111637  
## predicted class=0 expected loss=0.1969697 P(node) =0.002618528  
## class counts: 53 0 7 1 0 1 3 0 0 1  
## probabilities: 0.803 0.000 0.106 0.015 0.000 0.015 0.045 0.000 0.000 0.015   
## left son=6162 (56 obs) right son=6163 (10 obs)  
## Primary splits:  
## 149 < 10.5 to the left, improve=8.979437, (0 missing)  
## 176 < 55 to the left, improve=6.457040, (0 missing)  
## 203 < 17.5 to the left, improve=6.457040, (0 missing)  
## 177 < 158 to the left, improve=5.836789, (0 missing)  
## 150 < 43.5 to the left, improve=5.824955, (0 missing)  
## Surrogate splits:  
## 122 < 14.5 to the left, agree=0.955, adj=0.7, (0 split)  
## 123 < 92.5 to the left, agree=0.939, adj=0.6, (0 split)  
## 150 < 131.5 to the left, agree=0.939, adj=0.6, (0 split)  
## 148 < 2 to the left, agree=0.924, adj=0.5, (0 split)  
## 177 < 114 to the left, agree=0.924, adj=0.5, (0 split)  
##   
## Node number 3082: 18 observations  
## predicted class=0 expected loss=0.3888889 P(node) =0.000714144  
## class counts: 11 0 2 5 0 0 0 0 0 0  
## probabilities: 0.611 0.000 0.111 0.278 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3083: 14 observations  
## predicted class=5 expected loss=0.1428571 P(node) =0.0005554453  
## class counts: 1 0 0 1 0 12 0 0 0 0  
## probabilities: 0.071 0.000 0.000 0.071 0.000 0.857 0.000 0.000 0.000 0.000   
##   
## Node number 3086: 14 observations  
## predicted class=2 expected loss=0.07142857 P(node) =0.0005554453  
## class counts: 1 0 13 0 0 0 0 0 0 0  
## probabilities: 0.071 0.000 0.929 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3087: 8 observations  
## predicted class=7 expected loss=0.625 P(node) =0.0003173973  
## class counts: 1 0 2 0 0 0 2 3 0 0  
## probabilities: 0.125 0.000 0.250 0.000 0.000 0.000 0.250 0.375 0.000 0.000   
##   
## Node number 3172: 27 observations  
## predicted class=3 expected loss=0 P(node) =0.001071216  
## class counts: 0 0 0 27 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3173: 9 observations  
## predicted class=5 expected loss=0.5555556 P(node) =0.000357072  
## class counts: 2 0 0 3 0 4 0 0 0 0  
## probabilities: 0.222 0.000 0.000 0.333 0.000 0.444 0.000 0.000 0.000 0.000   
##   
## Node number 3298: 10 observations  
## predicted class=0 expected loss=0.6 P(node) =0.0003967467  
## class counts: 4 0 1 1 0 0 2 0 2 0  
## probabilities: 0.400 0.000 0.100 0.100 0.000 0.000 0.200 0.000 0.200 0.000   
##   
## Node number 3299: 14 observations  
## predicted class=5 expected loss=0.2857143 P(node) =0.0005554453  
## class counts: 0 0 0 1 1 10 1 0 1 0  
## probabilities: 0.000 0.000 0.000 0.071 0.071 0.714 0.071 0.000 0.071 0.000   
##   
## Node number 3584: 801 observations  
## predicted class=2 expected loss=0.007490637 P(node) =0.03177941  
## class counts: 0 0 795 2 0 0 0 3 1 0  
## probabilities: 0.000 0.000 0.993 0.002 0.000 0.000 0.000 0.004 0.001 0.000   
##   
## Node number 3585: 68 observations, complexity param=8.930964e-05  
## predicted class=2 expected loss=0.1470588 P(node) =0.002697877  
## class counts: 0 0 58 10 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.853 0.147 0.000 0.000 0.000 0.000 0.000 0.000   
## left son=7170 (56 obs) right son=7171 (12 obs)  
## Primary splits:  
## 351 < 38.5 to the left, improve=7.868347, (0 missing)  
## 352 < 222.5 to the left, improve=7.868347, (0 missing)  
## 379 < 213 to the left, improve=7.868347, (0 missing)  
## 380 < 170 to the left, improve=6.582633, (0 missing)  
## 601 < 244 to the left, improve=6.149733, (0 missing)  
## Surrogate splits:  
## 379 < 165 to the left, agree=0.985, adj=0.917, (0 split)  
## 350 < 8.5 to the left, agree=0.941, adj=0.667, (0 split)  
## 352 < 108 to the left, agree=0.941, adj=0.667, (0 split)  
## 380 < 243 to the left, agree=0.941, adj=0.667, (0 split)  
## 323 < 19 to the left, agree=0.897, adj=0.417, (0 split)  
##   
## Node number 3586: 28 observations  
## predicted class=2 expected loss=0.1071429 P(node) =0.001110891  
## class counts: 0 0 25 2 0 0 0 0 1 0  
## probabilities: 0.000 0.000 0.893 0.071 0.000 0.000 0.000 0.000 0.036 0.000   
##   
## Node number 3587: 15 observations  
## predicted class=7 expected loss=0.4 P(node) =0.00059512  
## class counts: 0 0 3 1 0 0 0 9 2 0  
## probabilities: 0.000 0.000 0.200 0.067 0.000 0.000 0.000 0.600 0.133 0.000   
##   
## Node number 3616: 100 observations  
## predicted class=1 expected loss=0.01 P(node) =0.003967467  
## class counts: 0 99 0 0 0 1 0 0 0 0  
## probabilities: 0.000 0.990 0.000 0.000 0.000 0.010 0.000 0.000 0.000 0.000   
##   
## Node number 3617: 7 observations  
## predicted class=2 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 0 0 3 0 1 0 0 3 0 0  
## probabilities: 0.000 0.000 0.429 0.000 0.143 0.000 0.000 0.429 0.000 0.000   
##   
## Node number 3618: 14 observations  
## predicted class=2 expected loss=0.1428571 P(node) =0.0005554453  
## class counts: 0 0 12 1 1 0 0 0 0 0  
## probabilities: 0.000 0.000 0.857 0.071 0.071 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3619: 14 observations  
## predicted class=6 expected loss=0.5714286 P(node) =0.0005554453  
## class counts: 0 1 2 0 0 2 6 3 0 0  
## probabilities: 0.000 0.071 0.143 0.000 0.000 0.143 0.429 0.214 0.000 0.000   
##   
## Node number 3620: 63 observations, complexity param=0.0001786193  
## predicted class=4 expected loss=0.1428571 P(node) =0.002499504  
## class counts: 0 0 1 0 54 0 7 0 0 1  
## probabilities: 0.000 0.000 0.016 0.000 0.857 0.000 0.111 0.000 0.000 0.016   
## left son=7240 (56 obs) right son=7241 (7 obs)  
## Primary splits:  
## 94 < 7.5 to the left, improve=8.404762, (0 missing)  
## 438 < 65 to the right, improve=5.231293, (0 missing)  
## 121 < 54 to the left, improve=4.680986, (0 missing)  
## 410 < 16.5 to the right, improve=4.640147, (0 missing)  
## 489 < 80.5 to the right, improve=4.554762, (0 missing)  
## Surrogate splits:  
## 93 < 1.5 to the left, agree=0.984, adj=0.857, (0 split)  
## 95 < 19 to the left, agree=0.984, adj=0.857, (0 split)  
## 542 < 252.5 to the left, agree=0.952, adj=0.571, (0 split)  
## 39 < 55 to the left, agree=0.937, adj=0.429, (0 split)  
## 40 < 5 to the left, agree=0.937, adj=0.429, (0 split)  
##   
## Node number 3621: 9 observations  
## predicted class=8 expected loss=0.6666667 P(node) =0.000357072  
## class counts: 0 0 1 0 0 2 0 2 3 1  
## probabilities: 0.000 0.000 0.111 0.000 0.000 0.222 0.000 0.222 0.333 0.111   
##   
## Node number 3622: 7 observations  
## predicted class=4 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 0 0 4 0 3 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.571 0.000 0.429 0.000 0.000 0.000   
##   
## Node number 3623: 32 observations  
## predicted class=6 expected loss=0 P(node) =0.001269589  
## class counts: 0 0 0 0 0 0 32 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000   
##   
## Node number 3624: 109 observations, complexity param=0.0001339645  
## predicted class=2 expected loss=0.266055 P(node) =0.004324539  
## class counts: 0 2 80 5 0 0 0 10 4 8  
## probabilities: 0.000 0.018 0.734 0.046 0.000 0.000 0.000 0.092 0.037 0.073   
## left son=7248 (78 obs) right son=7249 (31 obs)  
## Primary splits:  
## 569 < 4.5 to the right, improve=7.479462, (0 missing)  
## 715 < 29.5 to the left, improve=7.120306, (0 missing)  
## 570 < 7.5 to the right, improve=6.973724, (0 missing)  
## 372 < 115 to the left, improve=6.386580, (0 missing)  
## 716 < 30 to the left, improve=6.316467, (0 missing)  
## Surrogate splits:  
## 570 < 7.5 to the right, agree=0.917, adj=0.710, (0 split)  
## 568 < 20.5 to the right, agree=0.890, adj=0.613, (0 split)  
## 715 < 1.5 to the left, agree=0.807, adj=0.323, (0 split)  
## 716 < 0.5 to the left, agree=0.807, adj=0.323, (0 split)  
## 571 < 3.5 to the right, agree=0.798, adj=0.290, (0 split)  
##   
## Node number 3625: 18 observations  
## predicted class=7 expected loss=0.2222222 P(node) =0.000714144  
## class counts: 0 0 1 0 0 0 0 14 2 1  
## probabilities: 0.000 0.000 0.056 0.000 0.000 0.000 0.000 0.778 0.111 0.056   
##   
## Node number 3628: 14 observations  
## predicted class=5 expected loss=0.6428571 P(node) =0.0005554453  
## class counts: 2 0 1 0 1 5 0 2 1 2  
## probabilities: 0.143 0.000 0.071 0.000 0.071 0.357 0.000 0.143 0.071 0.143   
##   
## Node number 3629: 14 observations  
## predicted class=8 expected loss=0.1428571 P(node) =0.0005554453  
## class counts: 0 0 1 0 0 0 0 0 12 1  
## probabilities: 0.000 0.000 0.071 0.000 0.000 0.000 0.000 0.000 0.857 0.071   
##   
## Node number 3666: 107 observations  
## predicted class=4 expected loss=0.02803738 P(node) =0.004245189  
## class counts: 0 0 1 0 104 1 0 0 1 0  
## probabilities: 0.000 0.000 0.009 0.000 0.972 0.009 0.000 0.000 0.009 0.000   
##   
## Node number 3667: 7 observations  
## predicted class=6 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 0 0 2 0 5 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.286 0.000 0.714 0.000 0.000 0.000   
##   
## Node number 3672: 43 observations  
## predicted class=2 expected loss=0.06976744 P(node) =0.001706011  
## class counts: 2 0 40 0 0 0 0 0 1 0  
## probabilities: 0.047 0.000 0.930 0.000 0.000 0.000 0.000 0.000 0.023 0.000   
##   
## Node number 3673: 13 observations  
## predicted class=0 expected loss=0.6923077 P(node) =0.0005157707  
## class counts: 4 0 2 0 1 1 1 1 2 1  
## probabilities: 0.308 0.000 0.154 0.000 0.077 0.077 0.077 0.077 0.154 0.077   
##   
## Node number 3674: 9 observations  
## predicted class=0 expected loss=0.3333333 P(node) =0.000357072  
## class counts: 6 0 2 0 0 0 0 1 0 0  
## probabilities: 0.667 0.000 0.222 0.000 0.000 0.000 0.000 0.111 0.000 0.000   
##   
## Node number 3675: 20 observations  
## predicted class=8 expected loss=0 P(node) =0.0007934934  
## class counts: 0 0 0 0 0 0 0 0 20 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000   
##   
## Node number 3676: 43 observations, complexity param=0.0001786193  
## predicted class=7 expected loss=0.255814 P(node) =0.001706011  
## class counts: 1 0 4 0 1 0 1 32 0 4  
## probabilities: 0.023 0.000 0.093 0.000 0.023 0.000 0.023 0.744 0.000 0.093   
## left son=7352 (10 obs) right son=7353 (33 obs)  
## Primary splits:  
## 680 < 83 to the left, improve=9.232699, (0 missing)  
## 708 < 1 to the left, improve=8.162943, (0 missing)  
## 513 < 26 to the right, improve=8.162943, (0 missing)  
## 540 < 25 to the right, improve=8.162943, (0 missing)  
## 709 < 4 to the left, improve=7.014517, (0 missing)  
## Surrogate splits:  
## 708 < 1 to the left, agree=0.977, adj=0.9, (0 split)  
## 709 < 4 to the left, agree=0.953, adj=0.8, (0 split)  
## 513 < 26 to the right, agree=0.930, adj=0.7, (0 split)  
## 540 < 25 to the right, agree=0.930, adj=0.7, (0 split)  
## 154 < 1.5 to the right, agree=0.907, adj=0.6, (0 split)  
##   
## Node number 3677: 28 observations, complexity param=0.0003572385  
## predicted class=9 expected loss=0.5714286 P(node) =0.001110891  
## class counts: 0 0 2 0 4 0 0 1 9 12  
## probabilities: 0.000 0.000 0.071 0.000 0.143 0.000 0.000 0.036 0.321 0.429   
## left son=7354 (15 obs) right son=7355 (13 obs)  
## Primary splits:  
## 655 < 18.5 to the right, improve=6.875824, (0 missing)  
## 706 < 57.5 to the left, improve=6.056391, (0 missing)  
## 707 < 23.5 to the left, improve=5.839286, (0 missing)  
## 651 < 14.5 to the left, improve=5.642857, (0 missing)  
## 683 < 35.5 to the left, improve=5.564286, (0 missing)  
## Surrogate splits:  
## 627 < 117 to the right, agree=0.964, adj=0.923, (0 split)  
## 654 < 196 to the right, agree=0.929, adj=0.846, (0 split)  
## 182 < 1.5 to the right, agree=0.893, adj=0.769, (0 split)  
## 183 < 92.5 to the right, agree=0.893, adj=0.769, (0 split)  
## 679 < 35.5 to the left, agree=0.857, adj=0.692, (0 split)  
##   
## Node number 3678: 24 observations, complexity param=0.0002456015  
## predicted class=4 expected loss=0.4583333 P(node) =0.000952192  
## class counts: 1 0 1 0 13 0 0 0 1 8  
## probabilities: 0.042 0.000 0.042 0.000 0.542 0.000 0.000 0.000 0.042 0.333   
## left son=7356 (15 obs) right son=7357 (9 obs)  
## Primary splits:  
## 456 < 71 to the right, improve=5.633333, (0 missing)  
## 455 < 68.5 to the right, improve=5.117716, (0 missing)  
## 427 < 6.5 to the right, improve=4.628205, (0 missing)  
## 428 < 180.5 to the right, improve=4.628205, (0 missing)  
## 485 < 54 to the right, improve=4.423810, (0 missing)  
## Surrogate splits:  
## 428 < 91.5 to the right, agree=0.958, adj=0.889, (0 split)  
## 429 < 245.5 to the right, agree=0.958, adj=0.889, (0 split)  
## 455 < 8.5 to the right, agree=0.958, adj=0.889, (0 split)  
## 400 < 14.5 to the right, agree=0.917, adj=0.778, (0 split)  
## 401 < 191 to the right, agree=0.917, adj=0.778, (0 split)  
##   
## Node number 3679: 29 observations  
## predicted class=9 expected loss=0.1034483 P(node) =0.001150565  
## class counts: 0 0 2 0 0 0 0 0 1 26  
## probabilities: 0.000 0.000 0.069 0.000 0.000 0.000 0.000 0.000 0.034 0.897   
##   
## Node number 3690: 9 observations  
## predicted class=5 expected loss=0.5555556 P(node) =0.000357072  
## class counts: 0 0 1 0 0 4 3 0 1 0  
## probabilities: 0.000 0.000 0.111 0.000 0.000 0.444 0.333 0.000 0.111 0.000   
##   
## Node number 3691: 13 observations  
## predicted class=8 expected loss=0.07692308 P(node) =0.0005157707  
## class counts: 0 0 0 0 0 0 1 0 12 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.077 0.000 0.923 0.000   
##   
## Node number 3720: 260 observations  
## predicted class=2 expected loss=0.03846154 P(node) =0.01031541  
## class counts: 0 3 250 1 1 0 1 4 0 0  
## probabilities: 0.000 0.012 0.962 0.004 0.004 0.000 0.004 0.015 0.000 0.000   
##   
## Node number 3721: 8 observations  
## predicted class=8 expected loss=0.625 P(node) =0.0003173973  
## class counts: 0 0 2 1 2 0 0 0 3 0  
## probabilities: 0.000 0.000 0.250 0.125 0.250 0.000 0.000 0.000 0.375 0.000   
##   
## Node number 3820: 1471 observations  
## predicted class=6 expected loss=0.01495581 P(node) =0.05836144  
## class counts: 0 0 4 1 1 12 1449 0 2 2  
## probabilities: 0.000 0.000 0.003 0.001 0.001 0.008 0.985 0.000 0.001 0.001   
##   
## Node number 3821: 7 observations  
## predicted class=8 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 0 0 0 0 2 0 5 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.286 0.000 0.714 0.000   
##   
## Node number 3836: 13 observations  
## predicted class=6 expected loss=0.5384615 P(node) =0.0005157707  
## class counts: 0 0 1 2 0 1 6 1 2 0  
## probabilities: 0.000 0.000 0.077 0.154 0.000 0.077 0.462 0.077 0.154 0.000   
##   
## Node number 3837: 16 observations  
## predicted class=5 expected loss=0.25 P(node) =0.0006347947  
## class counts: 0 0 0 0 0 12 0 0 4 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.750 0.000 0.000 0.250 0.000   
##   
## Node number 3872: 1313 observations, complexity param=8.930964e-05  
## predicted class=4 expected loss=0.03198781 P(node) =0.05209284  
## class counts: 0 6 5 7 1271 0 4 0 5 15  
## probabilities: 0.000 0.005 0.004 0.005 0.968 0.000 0.003 0.000 0.004 0.011   
## left son=7744 (1269 obs) right son=7745 (44 obs)  
## Primary splits:  
## 437 < 1 to the right, improve=8.008192, (0 missing)  
## 349 < 225.5 to the right, improve=6.747305, (0 missing)  
## 436 < 49.5 to the right, improve=5.412877, (0 missing)  
## 464 < 1 to the right, improve=4.583927, (0 missing)  
## 322 < 88 to the left, improve=4.414886, (0 missing)  
## Surrogate splits:  
## 436 < 4 to the right, agree=0.970, adj=0.114, (0 split)  
## 92 < 88 to the left, agree=0.968, adj=0.045, (0 split)  
## 349 < 252.5 to the left, agree=0.967, adj=0.023, (0 split)  
##   
## Node number 3873: 12 observations  
## predicted class=6 expected loss=0.1666667 P(node) =0.000476096  
## class counts: 0 0 0 0 2 0 10 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.167 0.000 0.833 0.000 0.000 0.000   
##   
## Node number 3876: 24 observations, complexity param=4.465482e-05  
## predicted class=5 expected loss=0.2916667 P(node) =0.000952192  
## class counts: 0 0 1 2 2 17 0 0 1 1  
## probabilities: 0.000 0.000 0.042 0.083 0.083 0.708 0.000 0.000 0.042 0.042   
## left son=7752 (17 obs) right son=7753 (7 obs)  
## Primary splits:  
## 658 < 50.5 to the right, improve=3.903361, (0 missing)  
## 659 < 22.5 to the right, improve=3.125000, (0 missing)  
## 631 < 104.5 to the left, improve=2.954545, (0 missing)  
## 214 < 6.5 to the left, improve=2.542017, (0 missing)  
## 656 < 26 to the right, improve=2.542017, (0 missing)  
## Surrogate splits:  
## 657 < 80 to the right, agree=0.958, adj=0.857, (0 split)  
## 659 < 22.5 to the right, agree=0.958, adj=0.857, (0 split)  
## 656 < 1 to the right, agree=0.917, adj=0.714, (0 split)  
## 520 < 241 to the left, agree=0.875, adj=0.571, (0 split)  
## 216 < 169.5 to the left, agree=0.833, adj=0.429, (0 split)  
##   
## Node number 3877: 24 observations, complexity param=0.0002232741  
## predicted class=4 expected loss=0.75 P(node) =0.000952192  
## class counts: 0 0 4 5 6 1 0 0 5 3  
## probabilities: 0.000 0.000 0.167 0.208 0.250 0.042 0.000 0.000 0.208 0.125   
## left son=7754 (7 obs) right son=7755 (17 obs)  
## Primary splits:  
## 461 < 201.5 to the right, improve=4.677871, (0 missing)  
## 460 < 94 to the right, improve=4.333333, (0 missing)  
## 378 < 199.5 to the right, improve=4.123249, (0 missing)  
## 186 < 26.5 to the left, improve=4.083333, (0 missing)  
## 351 < 17 to the right, improve=3.958333, (0 missing)  
## Surrogate splits:  
## 185 < 71 to the left, agree=0.917, adj=0.714, (0 split)  
## 186 < 29 to the left, agree=0.917, adj=0.714, (0 split)  
## 207 < 5 to the left, agree=0.917, adj=0.714, (0 split)  
## 488 < 14.5 to the right, agree=0.917, adj=0.714, (0 split)  
## 153 < 43 to the left, agree=0.875, adj=0.571, (0 split)  
##   
## Node number 3892: 24 observations  
## predicted class=4 expected loss=0.1666667 P(node) =0.000952192  
## class counts: 0 0 1 1 20 1 0 0 0 1  
## probabilities: 0.000 0.000 0.042 0.042 0.833 0.042 0.000 0.000 0.000 0.042   
##   
## Node number 3893: 8 observations  
## predicted class=9 expected loss=0.25 P(node) =0.0003173973  
## class counts: 0 0 0 0 1 1 0 0 0 6  
## probabilities: 0.000 0.000 0.000 0.000 0.125 0.125 0.000 0.000 0.000 0.750   
##   
## Node number 3894: 9 observations  
## predicted class=7 expected loss=0.5555556 P(node) =0.000357072  
## class counts: 0 0 0 1 0 2 0 4 0 2  
## probabilities: 0.000 0.000 0.000 0.111 0.000 0.222 0.000 0.444 0.000 0.222   
##   
## Node number 3895: 31 observations  
## predicted class=9 expected loss=0.09677419 P(node) =0.001229915  
## class counts: 0 0 1 0 1 0 0 1 0 28  
## probabilities: 0.000 0.000 0.032 0.000 0.032 0.000 0.000 0.032 0.000 0.903   
##   
## Node number 3904: 15 observations  
## predicted class=3 expected loss=0 P(node) =0.00059512  
## class counts: 0 0 0 15 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3905: 9 observations  
## predicted class=5 expected loss=0.1111111 P(node) =0.000357072  
## class counts: 0 0 0 1 0 8 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.111 0.000 0.889 0.000 0.000 0.000 0.000   
##   
## Node number 3906: 9 observations  
## predicted class=3 expected loss=0.2222222 P(node) =0.000357072  
## class counts: 0 0 0 7 0 2 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.778 0.000 0.222 0.000 0.000 0.000 0.000   
##   
## Node number 3907: 461 observations, complexity param=0.0001786193  
## predicted class=5 expected loss=0.06724512 P(node) =0.01829002  
## class counts: 0 0 1 12 1 430 0 1 0 16  
## probabilities: 0.000 0.000 0.002 0.026 0.002 0.933 0.000 0.002 0.000 0.035   
## left son=7814 (450 obs) right son=7815 (11 obs)  
## Primary splits:  
## 718 < 37 to the left, improve=9.084851, (0 missing)  
## 326 < 7.5 to the left, improve=7.839553, (0 missing)  
## 717 < 195.5 to the left, improve=6.760310, (0 missing)  
## 628 < 0.5 to the right, improve=6.449194, (0 missing)  
## 627 < 0.5 to the right, improve=6.242185, (0 missing)  
## Surrogate splits:  
## 717 < 195.5 to the left, agree=0.993, adj=0.727, (0 split)  
## 719 < 15 to the left, agree=0.989, adj=0.545, (0 split)  
## 326 < 163.5 to the left, agree=0.980, adj=0.182, (0 split)  
## 691 < 252.5 to the left, agree=0.980, adj=0.182, (0 split)  
## 720 < 14 to the left, agree=0.980, adj=0.182, (0 split)  
##   
## Node number 3928: 23 observations, complexity param=0.0002679289  
## predicted class=3 expected loss=0.5217391 P(node) =0.0009125174  
## class counts: 0 1 0 11 1 0 1 0 2 7  
## probabilities: 0.000 0.043 0.000 0.478 0.043 0.000 0.043 0.000 0.087 0.304   
## left son=7856 (11 obs) right son=7857 (12 obs)  
## Primary splits:  
## 180 < 95 to the right, improve=5.986166, (0 missing)  
## 179 < 36 to the right, improve=4.888963, (0 missing)  
## 347 < 13 to the left, improve=4.748792, (0 missing)  
## 350 < 42.5 to the right, improve=4.713439, (0 missing)  
## 292 < 5 to the left, improve=4.531621, (0 missing)  
## Surrogate splits:  
## 179 < 36 to the right, agree=0.957, adj=0.909, (0 split)  
## 292 < 5 to the left, agree=0.957, adj=0.909, (0 split)  
## 181 < 110.5 to the right, agree=0.913, adj=0.818, (0 split)  
## 265 < 22 to the left, agree=0.913, adj=0.818, (0 split)  
## 152 < 2 to the right, agree=0.870, adj=0.727, (0 split)  
##   
## Node number 3929: 37 observations  
## predicted class=7 expected loss=0.2972973 P(node) =0.001467963  
## class counts: 0 0 3 3 0 0 0 26 2 3  
## probabilities: 0.000 0.000 0.081 0.081 0.000 0.000 0.000 0.703 0.054 0.081   
##   
## Node number 3930: 13 observations  
## predicted class=4 expected loss=0 P(node) =0.0005157707  
## class counts: 0 0 0 0 13 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3931: 54 observations  
## predicted class=9 expected loss=0.2777778 P(node) =0.002142432  
## class counts: 0 0 0 2 6 0 0 2 5 39  
## probabilities: 0.000 0.000 0.000 0.037 0.111 0.000 0.000 0.037 0.093 0.722   
##   
## Node number 3938: 14 observations  
## predicted class=5 expected loss=0.5 P(node) =0.0005554453  
## class counts: 1 0 1 3 1 7 0 0 1 0  
## probabilities: 0.071 0.000 0.071 0.214 0.071 0.500 0.000 0.000 0.071 0.000   
##   
## Node number 3939: 8 observations  
## predicted class=9 expected loss=0 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 0 0 0 0 8  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000   
##   
## Node number 3940: 38 observations  
## predicted class=2 expected loss=0.02631579 P(node) =0.001507637  
## class counts: 0 0 37 0 0 0 0 0 0 1  
## probabilities: 0.000 0.000 0.974 0.000 0.000 0.000 0.000 0.000 0.000 0.026   
##   
## Node number 3941: 8 observations  
## predicted class=3 expected loss=0.5 P(node) =0.0003173973  
## class counts: 0 0 2 4 0 1 0 0 1 0  
## probabilities: 0.000 0.000 0.250 0.500 0.000 0.125 0.000 0.000 0.125 0.000   
##   
## Node number 3942: 10 observations  
## predicted class=2 expected loss=0.7 P(node) =0.0003967467  
## class counts: 0 0 3 2 0 0 3 0 2 0  
## probabilities: 0.000 0.000 0.300 0.200 0.000 0.000 0.300 0.000 0.200 0.000   
##   
## Node number 3943: 23 observations  
## predicted class=8 expected loss=0.04347826 P(node) =0.0009125174  
## class counts: 1 0 0 0 0 0 0 0 22 0  
## probabilities: 0.043 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.957 0.000   
##   
## Node number 3946: 10 observations  
## predicted class=4 expected loss=0.2 P(node) =0.0003967467  
## class counts: 0 0 1 1 8 0 0 0 0 0  
## probabilities: 0.000 0.000 0.100 0.100 0.800 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3947: 38 observations, complexity param=0.0002679289  
## predicted class=9 expected loss=0.4473684 P(node) =0.001507637  
## class counts: 0 0 1 6 3 2 0 0 5 21  
## probabilities: 0.000 0.000 0.026 0.158 0.079 0.053 0.000 0.000 0.132 0.553   
## left son=7894 (8 obs) right son=7895 (30 obs)  
## Primary splits:  
## 372 < 11.5 to the left, improve=6.837719, (0 missing)  
## 378 < 85.5 to the right, improve=6.051305, (0 missing)  
## 178 < 250 to the right, improve=5.951007, (0 missing)  
## 151 < 9.5 to the right, improve=5.861529, (0 missing)  
## 316 < 22 to the left, improve=5.740918, (0 missing)  
## Surrogate splits:  
## 400 < 35.5 to the left, agree=0.974, adj=0.875, (0 split)  
## 316 < 22 to the left, agree=0.921, adj=0.625, (0 split)  
## 317 < 32 to the left, agree=0.921, adj=0.625, (0 split)  
## 344 < 10 to the left, agree=0.921, adj=0.625, (0 split)  
## 345 < 18.5 to the left, agree=0.921, adj=0.625, (0 split)  
##   
## Node number 3948: 14 observations  
## predicted class=3 expected loss=0.4285714 P(node) =0.0005554453  
## class counts: 0 0 2 8 1 0 0 1 2 0  
## probabilities: 0.000 0.000 0.143 0.571 0.071 0.000 0.000 0.071 0.143 0.000   
##   
## Node number 3949: 36 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.5 P(node) =0.001428288  
## class counts: 0 0 1 1 8 2 0 0 6 18  
## probabilities: 0.000 0.000 0.028 0.028 0.222 0.056 0.000 0.000 0.167 0.500   
## left son=7898 (9 obs) right son=7899 (27 obs)  
## Primary splits:  
## 407 < 122 to the left, improve=6.796296, (0 missing)  
## 379 < 5.5 to the left, improve=5.553737, (0 missing)  
## 353 < 227.5 to the left, improve=5.236508, (0 missing)  
## 242 < 2 to the left, improve=5.081530, (0 missing)  
## 297 < 28 to the left, improve=4.893651, (0 missing)  
## Surrogate splits:  
## 379 < 5.5 to the left, agree=0.944, adj=0.778, (0 split)  
## 212 < 85.5 to the left, agree=0.889, adj=0.556, (0 split)  
## 380 < 116 to the left, agree=0.889, adj=0.556, (0 split)  
## 408 < 188 to the left, agree=0.889, adj=0.556, (0 split)  
## 184 < 166 to the left, agree=0.861, adj=0.444, (0 split)  
##   
## Node number 3952: 66 observations, complexity param=0.000491203  
## predicted class=3 expected loss=0.3484848 P(node) =0.002618528  
## class counts: 0 0 14 43 1 0 0 3 1 4  
## probabilities: 0.000 0.000 0.212 0.652 0.015 0.000 0.000 0.045 0.015 0.061   
## left son=7904 (12 obs) right son=7905 (54 obs)  
## Primary splits:  
## 512 < 30 to the right, improve=13.66162, (0 missing)  
## 658 < 0.5 to the right, improve=11.47786, (0 missing)  
## 685 < 8 to the right, improve=10.72371, (0 missing)  
## 513 < 19.5 to the right, improve=10.60606, (0 missing)  
## 511 < 3 to the right, improve=10.55051, (0 missing)  
## Surrogate splits:  
## 513 < 19.5 to the right, agree=0.970, adj=0.833, (0 split)  
## 511 < 10.5 to the right, agree=0.955, adj=0.750, (0 split)  
## 485 < 175 to the right, agree=0.939, adj=0.667, (0 split)  
## 539 < 25.5 to the right, agree=0.924, adj=0.583, (0 split)  
## 540 < 24 to the right, agree=0.924, adj=0.583, (0 split)  
##   
## Node number 3953: 53 observations, complexity param=0.0002232741  
## predicted class=7 expected loss=0.3207547 P(node) =0.002102757  
## class counts: 1 0 2 7 5 0 0 36 1 1  
## probabilities: 0.019 0.000 0.038 0.132 0.094 0.000 0.000 0.679 0.019 0.019   
## left son=7906 (9 obs) right son=7907 (44 obs)  
## Primary splits:  
## 209 < 29 to the left, improve=7.831999, (0 missing)  
## 348 < 108 to the right, improve=7.496646, (0 missing)  
## 349 < 38 to the right, improve=7.496646, (0 missing)  
## 320 < 66 to the right, improve=7.223837, (0 missing)  
## 321 < 125 to the right, improve=7.223837, (0 missing)  
## Surrogate splits:  
## 348 < 108 to the right, agree=0.981, adj=0.889, (0 split)  
## 349 < 38 to the right, agree=0.981, adj=0.889, (0 split)  
## 320 < 66 to the right, agree=0.962, adj=0.778, (0 split)  
## 321 < 125 to the right, agree=0.962, adj=0.778, (0 split)  
## 347 < 52.5 to the right, agree=0.962, adj=0.778, (0 split)  
##   
## Node number 3954: 10 observations  
## predicted class=8 expected loss=0.6 P(node) =0.0003967467  
## class counts: 0 0 1 1 1 0 0 0 4 3  
## probabilities: 0.000 0.000 0.100 0.100 0.100 0.000 0.000 0.000 0.400 0.300   
##   
## Node number 3955: 47 observations  
## predicted class=9 expected loss=0.0212766 P(node) =0.001864709  
## class counts: 0 0 0 0 1 0 0 0 0 46  
## probabilities: 0.000 0.000 0.000 0.000 0.021 0.000 0.000 0.000 0.000 0.979   
##   
## Node number 3956: 11 observations  
## predicted class=4 expected loss=0 P(node) =0.0004364213  
## class counts: 0 0 0 0 11 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3957: 9 observations  
## predicted class=9 expected loss=0.4444444 P(node) =0.000357072  
## class counts: 0 0 0 1 2 1 0 0 0 5  
## probabilities: 0.000 0.000 0.000 0.111 0.222 0.111 0.000 0.000 0.000 0.556   
##   
## Node number 3958: 12 observations  
## predicted class=8 expected loss=0.4166667 P(node) =0.000476096  
## class counts: 0 0 0 0 1 0 0 0 7 4  
## probabilities: 0.000 0.000 0.000 0.000 0.083 0.000 0.000 0.000 0.583 0.333   
##   
## Node number 3959: 85 observations  
## predicted class=9 expected loss=0.05882353 P(node) =0.003372347  
## class counts: 0 0 0 0 1 0 0 4 0 80  
## probabilities: 0.000 0.000 0.000 0.000 0.012 0.000 0.000 0.047 0.000 0.941   
##   
## Node number 3962: 7 observations  
## predicted class=4 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 0 0 0 0 3 0 0 1 1 2  
## probabilities: 0.000 0.000 0.000 0.000 0.429 0.000 0.000 0.143 0.143 0.286   
##   
## Node number 3963: 28 observations  
## predicted class=9 expected loss=0.03571429 P(node) =0.001110891  
## class counts: 0 0 0 0 1 0 0 0 0 27  
## probabilities: 0.000 0.000 0.000 0.000 0.036 0.000 0.000 0.000 0.000 0.964   
##   
## Node number 3964: 24 observations, complexity param=4.465482e-05  
## predicted class=8 expected loss=0.3333333 P(node) =0.000952192  
## class counts: 0 0 0 2 3 0 0 1 16 2  
## probabilities: 0.000 0.000 0.000 0.083 0.125 0.000 0.000 0.042 0.667 0.083   
## left son=7928 (10 obs) right son=7929 (14 obs)  
## Primary splits:  
## 544 < 138 to the left, improve=4.783333, (0 missing)  
## 268 < 245.5 to the right, improve=4.196779, (0 missing)  
## 271 < 33 to the left, improve=4.196779, (0 missing)  
## 295 < 62.5 to the right, improve=4.196779, (0 missing)  
## 296 < 209.5 to the right, improve=4.196779, (0 missing)  
## Surrogate splits:  
## 516 < 22 to the left, agree=0.958, adj=0.9, (0 split)  
## 572 < 67 to the left, agree=0.958, adj=0.9, (0 split)  
## 600 < 16 to the left, agree=0.958, adj=0.9, (0 split)  
## 657 < 73.5 to the left, agree=0.958, adj=0.9, (0 split)  
## 214 < 38 to the left, agree=0.917, adj=0.8, (0 split)  
##   
## Node number 3965: 48 observations, complexity param=4.465482e-05  
## predicted class=9 expected loss=0.1875 P(node) =0.001904384  
## class counts: 0 0 0 2 2 2 0 2 1 39  
## probabilities: 0.000 0.000 0.000 0.042 0.042 0.042 0.000 0.042 0.021 0.812   
## left son=7930 (8 obs) right son=7931 (40 obs)  
## Primary splits:  
## 400 < 26 to the left, improve=5.608333, (0 missing)  
## 315 < 29.5 to the left, improve=4.822445, (0 missing)  
## 343 < 15 to the left, improve=4.778846, (0 missing)  
## 318 < 189.5 to the right, improve=4.778846, (0 missing)  
## 429 < 19.5 to the left, improve=4.058333, (0 missing)  
## Surrogate splits:  
## 344 < 51 to the left, agree=0.958, adj=0.750, (0 split)  
## 372 < 64 to the left, agree=0.938, adj=0.625, (0 split)  
## 316 < 23 to the left, agree=0.917, adj=0.500, (0 split)  
## 371 < 1.5 to the left, agree=0.917, adj=0.500, (0 split)  
## 401 < 71 to the left, agree=0.917, adj=0.500, (0 split)  
##   
## Node number 3966: 7 observations  
## predicted class=5 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 0 0 0 1 0 3 0 0 3 0  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.429 0.000 0.000 0.429 0.000   
##   
## Node number 3967: 1007 observations, complexity param=3.721235e-05  
## predicted class=9 expected loss=0.05561072 P(node) =0.03995239  
## class counts: 0 0 1 5 30 1 0 7 12 951  
## probabilities: 0.000 0.000 0.001 0.005 0.030 0.001 0.000 0.007 0.012 0.944   
## left son=7934 (18 obs) right son=7935 (989 obs)  
## Primary splits:  
## 470 < 5 to the right, improve=6.184662, (0 missing)  
## 415 < 2 to the right, improve=6.140252, (0 missing)  
## 516 < 232 to the right, improve=5.854557, (0 missing)  
## 469 < 43.5 to the right, improve=5.795852, (0 missing)  
## 409 < 32 to the left, improve=5.627309, (0 missing)  
## Surrogate splits:  
## 498 < 12.5 to the right, agree=0.995, adj=0.722, (0 split)  
## 442 < 12 to the right, agree=0.994, adj=0.667, (0 split)  
## 471 < 0.5 to the right, agree=0.990, adj=0.444, (0 split)  
## 414 < 94 to the right, agree=0.988, adj=0.333, (0 split)  
## 441 < 183.5 to the right, agree=0.988, adj=0.333, (0 split)  
##   
## Node number 3998: 7 observations  
## predicted class=4 expected loss=0.7142857 P(node) =0.0002777227  
## class counts: 0 0 1 0 2 0 0 1 2 1  
## probabilities: 0.000 0.000 0.143 0.000 0.286 0.000 0.000 0.143 0.286 0.143   
##   
## Node number 3999: 46 observations  
## predicted class=9 expected loss=0.1086957 P(node) =0.001825035  
## class counts: 0 0 0 0 3 0 0 1 1 41  
## probabilities: 0.000 0.000 0.000 0.000 0.065 0.000 0.000 0.022 0.022 0.891   
##   
## Node number 4030: 7 observations  
## predicted class=7 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 0 0 1 0 2 4 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.143 0.000 0.286 0.571 0.000 0.000   
##   
## Node number 4031: 1307 observations, complexity param=2.232741e-05  
## predicted class=7 expected loss=0.01683244 P(node) =0.05185479  
## class counts: 0 1 7 2 2 0 0 1285 0 10  
## probabilities: 0.000 0.001 0.005 0.002 0.002 0.000 0.000 0.983 0.000 0.008   
## left son=8062 (22 obs) right son=8063 (1285 obs)  
## Primary splits:  
## 488 < 106 to the right, improve=1.732287, (0 missing)  
## 664 < 3.5 to the right, improve=1.637552, (0 missing)  
## 461 < 206.5 to the right, improve=1.451330, (0 missing)  
## 265 < 10.5 to the left, improve=1.405136, (0 missing)  
## 182 < 181 to the right, improve=1.336482, (0 missing)  
## Surrogate splits:  
## 487 < 4 to the right, agree=0.989, adj=0.318, (0 split)  
## 460 < 12.5 to the right, agree=0.988, adj=0.273, (0 split)  
## 516 < 250 to the right, agree=0.985, adj=0.136, (0 split)  
## 515 < 20.5 to the right, agree=0.985, adj=0.091, (0 split)  
## 496 < 196.5 to the right, agree=0.984, adj=0.045, (0 split)  
##   
## Node number 4096: 2198 observations, complexity param=4.465482e-05  
## predicted class=1 expected loss=0.008189263 P(node) =0.08720492  
## class counts: 0 2180 1 2 1 0 1 2 10 1  
## probabilities: 0.000 0.992 0.000 0.001 0.000 0.000 0.000 0.001 0.005 0.000   
## left son=8192 (2190 obs) right son=8193 (8 obs)  
## Primary splits:  
## 433 < 2.5 to the right, improve=2.431318, (0 missing)  
## 300 < 1 to the left, improve=2.396220, (0 missing)  
## 271 < 246 to the left, improve=1.707422, (0 missing)  
## 430 < 132 to the left, improve=1.666540, (0 missing)  
## 378 < 141.5 to the right, improve=1.660150, (0 missing)  
## Surrogate splits:  
## 461 < 16.5 to the right, agree=0.998, adj=0.375, (0 split)  
## 317 < 13 to the left, agree=0.997, adj=0.250, (0 split)  
## 318 < 76.5 to the left, agree=0.997, adj=0.250, (0 split)  
## 346 < 26.5 to the left, agree=0.997, adj=0.250, (0 split)  
## 262 < 22.5 to the left, agree=0.997, adj=0.125, (0 split)  
##   
## Node number 4097: 32 observations, complexity param=7.44247e-05  
## predicted class=1 expected loss=0.3125 P(node) =0.001269589  
## class counts: 0 22 0 0 0 0 3 3 4 0  
## probabilities: 0.000 0.688 0.000 0.000 0.000 0.000 0.094 0.094 0.125 0.000   
## left son=8194 (24 obs) right son=8195 (8 obs)  
## Primary splits:  
## 546 < 193.5 to the right, improve=7.395833, (0 missing)  
## 490 < 151 to the right, improve=7.103929, (0 missing)  
## 518 < 153 to the right, improve=7.103929, (0 missing)  
## 574 < 164.5 to the right, improve=7.103929, (0 missing)  
## 463 < 243 to the right, improve=5.851147, (0 missing)  
## Surrogate splits:  
## 574 < 164.5 to the right, agree=0.969, adj=0.875, (0 split)  
## 294 < 242.5 to the right, agree=0.906, adj=0.625, (0 split)  
## 295 < 93.5 to the right, agree=0.906, adj=0.625, (0 split)  
## 463 < 243 to the right, agree=0.906, adj=0.625, (0 split)  
## 491 < 207 to the right, agree=0.906, adj=0.625, (0 split)  
##   
## Node number 4372: 20 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.65 P(node) =0.0007934934  
## class counts: 3 0 7 3 4 2 1 0 0 0  
## probabilities: 0.150 0.000 0.350 0.150 0.200 0.100 0.050 0.000 0.000 0.000   
## left son=8744 (8 obs) right son=8745 (12 obs)  
## Primary splits:  
## 405 < 210 to the right, improve=4.683333, (0 missing)  
## 266 < 187 to the left, improve=3.400000, (0 missing)  
## 321 < 228 to the left, improve=3.400000, (0 missing)  
## 349 < 252.5 to the left, improve=3.400000, (0 missing)  
## 432 < 63 to the right, improve=3.400000, (0 missing)  
## Surrogate splits:  
## 265 < 4 to the left, agree=0.9, adj=0.75, (0 split)  
## 266 < 156.5 to the left, agree=0.9, adj=0.75, (0 split)  
## 293 < 65 to the left, agree=0.9, adj=0.75, (0 split)  
## 321 < 124.5 to the left, agree=0.9, adj=0.75, (0 split)  
## 349 < 252.5 to the left, agree=0.9, adj=0.75, (0 split)  
##   
## Node number 4373: 11 observations  
## predicted class=1 expected loss=0.4545455 P(node) =0.0004364213  
## class counts: 1 6 0 0 0 0 0 0 4 0  
## probabilities: 0.091 0.545 0.000 0.000 0.000 0.000 0.000 0.000 0.364 0.000   
##   
## Node number 4374: 7 observations  
## predicted class=3 expected loss=0.5714286 P(node) =0.0002777227  
## class counts: 1 0 1 3 0 1 0 0 1 0  
## probabilities: 0.143 0.000 0.143 0.429 0.000 0.143 0.000 0.000 0.143 0.000   
##   
## Node number 4375: 16 observations  
## predicted class=5 expected loss=0 P(node) =0.0006347947  
## class counts: 0 0 0 0 0 16 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000   
##   
## Node number 4380: 15 observations  
## predicted class=1 expected loss=0.2666667 P(node) =0.00059512  
## class counts: 0 11 0 0 0 0 2 0 0 2  
## probabilities: 0.000 0.733 0.000 0.000 0.000 0.000 0.133 0.000 0.000 0.133   
##   
## Node number 4381: 22 observations, complexity param=0.0001339645  
## predicted class=4 expected loss=0.6363636 P(node) =0.0008728427  
## class counts: 0 1 1 1 8 2 1 5 0 3  
## probabilities: 0.000 0.045 0.045 0.045 0.364 0.091 0.045 0.227 0.000 0.136   
## left son=8762 (7 obs) right son=8763 (15 obs)  
## Primary splits:  
## 403 < 204.5 to the right, improve=3.334199, (0 missing)  
## 375 < 120.5 to the left, improve=3.250194, (0 missing)  
## 431 < 212 to the right, improve=3.233100, (0 missing)  
## 321 < 202 to the right, improve=2.818182, (0 missing)  
## 316 < 1 to the left, improve=2.646104, (0 missing)  
## Surrogate splits:  
## 431 < 212 to the right, agree=0.909, adj=0.714, (0 split)  
## 459 < 125 to the right, agree=0.909, adj=0.714, (0 split)  
## 292 < 40 to the left, agree=0.864, adj=0.571, (0 split)  
## 319 < 76 to the left, agree=0.864, adj=0.571, (0 split)  
## 375 < 217 to the right, agree=0.864, adj=0.571, (0 split)  
##   
## Node number 4382: 9 observations  
## predicted class=4 expected loss=0.6666667 P(node) =0.000357072  
## class counts: 0 2 0 0 3 0 0 1 1 2  
## probabilities: 0.000 0.222 0.000 0.000 0.333 0.000 0.000 0.111 0.111 0.222   
##   
## Node number 4383: 24 observations  
## predicted class=9 expected loss=0.08333333 P(node) =0.000952192  
## class counts: 0 0 0 0 2 0 0 0 0 22  
## probabilities: 0.000 0.000 0.000 0.000 0.083 0.000 0.000 0.000 0.000 0.917   
##   
## Node number 5372: 9 observations  
## predicted class=3 expected loss=0.2222222 P(node) =0.000357072  
## class counts: 0 0 0 7 0 0 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.778 0.000 0.000 0.000 0.000 0.222 0.000   
##   
## Node number 5373: 13 observations  
## predicted class=9 expected loss=0.2307692 P(node) =0.0005157707  
## class counts: 0 0 0 0 2 0 0 1 0 10  
## probabilities: 0.000 0.000 0.000 0.000 0.154 0.000 0.000 0.077 0.000 0.769   
##   
## Node number 5432: 16 observations  
## predicted class=3 expected loss=0.0625 P(node) =0.0006347947  
## class counts: 0 0 1 15 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.062 0.937 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 5433: 9 observations  
## predicted class=5 expected loss=0.3333333 P(node) =0.000357072  
## class counts: 0 1 0 1 0 6 0 0 1 0  
## probabilities: 0.000 0.111 0.000 0.111 0.000 0.667 0.000 0.000 0.111 0.000   
##   
## Node number 5434: 8 observations  
## predicted class=0 expected loss=0.375 P(node) =0.0003173973  
## class counts: 5 0 0 0 0 0 2 0 0 1  
## probabilities: 0.625 0.000 0.000 0.000 0.000 0.000 0.250 0.000 0.000 0.125   
##   
## Node number 5435: 69 observations, complexity param=0.0001786193  
## predicted class=5 expected loss=0.3188406 P(node) =0.002737552  
## class counts: 0 0 0 9 0 47 0 3 2 8  
## probabilities: 0.000 0.000 0.000 0.130 0.000 0.681 0.000 0.043 0.029 0.116   
## left son=10870 (54 obs) right son=10871 (15 obs)  
## Primary splits:  
## 597 < 38.5 to the right, improve=7.369726, (0 missing)  
## 598 < 61 to the right, improve=7.113953, (0 missing)  
## 596 < 2.5 to the right, improve=6.577728, (0 missing)  
## 568 < 77 to the right, improve=5.824031, (0 missing)  
## 570 < 7 to the right, improve=5.577185, (0 missing)  
## Surrogate splits:  
## 596 < 2.5 to the right, agree=0.928, adj=0.667, (0 split)  
## 568 < 2.5 to the right, agree=0.913, adj=0.600, (0 split)  
## 625 < 74 to the right, agree=0.913, adj=0.600, (0 split)  
## 598 < 32 to the right, agree=0.899, adj=0.533, (0 split)  
## 710 < 158.5 to the left, agree=0.884, adj=0.467, (0 split)  
##   
## Node number 5436: 14 observations  
## predicted class=9 expected loss=0.5714286 P(node) =0.0005554453  
## class counts: 0 0 0 2 0 4 0 0 2 6  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.286 0.000 0.000 0.143 0.429   
##   
## Node number 5437: 16 observations  
## predicted class=8 expected loss=0.125 P(node) =0.0006347947  
## class counts: 0 0 0 0 0 2 0 0 14 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.125 0.000 0.000 0.875 0.000   
##   
## Node number 5496: 13 observations  
## predicted class=3 expected loss=0.1538462 P(node) =0.0005157707  
## class counts: 0 0 0 11 0 1 1 0 0 0  
## probabilities: 0.000 0.000 0.000 0.846 0.000 0.077 0.077 0.000 0.000 0.000   
##   
## Node number 5497: 7 observations  
## predicted class=5 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 0 1 0 6 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.857 0.000 0.000 0.000 0.000   
##   
## Node number 6162: 56 observations  
## predicted class=0 expected loss=0.07142857 P(node) =0.002221781  
## class counts: 52 0 1 0 0 0 3 0 0 0  
## probabilities: 0.929 0.000 0.018 0.000 0.000 0.000 0.054 0.000 0.000 0.000   
##   
## Node number 6163: 10 observations  
## predicted class=2 expected loss=0.4 P(node) =0.0003967467  
## class counts: 1 0 6 1 0 1 0 0 0 1  
## probabilities: 0.100 0.000 0.600 0.100 0.000 0.100 0.000 0.000 0.000 0.100   
##   
## Node number 7170: 56 observations  
## predicted class=2 expected loss=0.03571429 P(node) =0.002221781  
## class counts: 0 0 54 2 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.964 0.036 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 7171: 12 observations  
## predicted class=3 expected loss=0.3333333 P(node) =0.000476096  
## class counts: 0 0 4 8 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.333 0.667 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 7240: 56 observations  
## predicted class=4 expected loss=0.05357143 P(node) =0.002221781  
## class counts: 0 0 1 0 53 0 1 0 0 1  
## probabilities: 0.000 0.000 0.018 0.000 0.946 0.000 0.018 0.000 0.000 0.018   
##   
## Node number 7241: 7 observations  
## predicted class=6 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 0 0 1 0 6 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.143 0.000 0.857 0.000 0.000 0.000   
##   
## Node number 7248: 78 observations  
## predicted class=2 expected loss=0.1282051 P(node) =0.003094624  
## class counts: 0 2 68 3 0 0 0 2 2 1  
## probabilities: 0.000 0.026 0.872 0.038 0.000 0.000 0.000 0.026 0.026 0.013   
##   
## Node number 7249: 31 observations, complexity param=0.0001339645  
## predicted class=2 expected loss=0.6129032 P(node) =0.001229915  
## class counts: 0 0 12 2 0 0 0 8 2 7  
## probabilities: 0.000 0.000 0.387 0.065 0.000 0.000 0.000 0.258 0.065 0.226   
## left son=14498 (19 obs) right son=14499 (12 obs)  
## Primary splits:  
## 575 < 111.5 to the left, improve=5.504244, (0 missing)  
## 602 < 16 to the left, improve=5.504244, (0 missing)  
## 630 < 5 to the left, improve=5.504244, (0 missing)  
## 603 < 105 to the left, improve=5.232315, (0 missing)  
## 263 < 131 to the left, improve=5.216319, (0 missing)  
## Surrogate splits:  
## 547 < 229 to the left, agree=0.903, adj=0.750, (0 split)  
## 574 < 69.5 to the left, agree=0.903, adj=0.750, (0 split)  
## 231 < 105 to the left, agree=0.871, adj=0.667, (0 split)  
## 603 < 45.5 to the left, agree=0.871, adj=0.667, (0 split)  
## 232 < 44 to the left, agree=0.839, adj=0.583, (0 split)  
##   
## Node number 7352: 10 observations  
## predicted class=2 expected loss=0.6 P(node) =0.0003967467  
## class counts: 1 0 4 0 1 0 1 0 0 3  
## probabilities: 0.100 0.000 0.400 0.000 0.100 0.000 0.100 0.000 0.000 0.300   
##   
## Node number 7353: 33 observations  
## predicted class=7 expected loss=0.03030303 P(node) =0.001309264  
## class counts: 0 0 0 0 0 0 0 32 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.970 0.000 0.030   
##   
## Node number 7354: 15 observations  
## predicted class=8 expected loss=0.4 P(node) =0.00059512  
## class counts: 0 0 1 0 3 0 0 1 9 1  
## probabilities: 0.000 0.000 0.067 0.000 0.200 0.000 0.000 0.067 0.600 0.067   
##   
## Node number 7355: 13 observations  
## predicted class=9 expected loss=0.1538462 P(node) =0.0005157707  
## class counts: 0 0 1 0 1 0 0 0 0 11  
## probabilities: 0.000 0.000 0.077 0.000 0.077 0.000 0.000 0.000 0.000 0.846   
##   
## Node number 7356: 15 observations  
## predicted class=4 expected loss=0.2 P(node) =0.00059512  
## class counts: 1 0 1 0 12 0 0 0 0 1  
## probabilities: 0.067 0.000 0.067 0.000 0.800 0.000 0.000 0.000 0.000 0.067   
##   
## Node number 7357: 9 observations  
## predicted class=9 expected loss=0.2222222 P(node) =0.000357072  
## class counts: 0 0 0 0 1 0 0 0 1 7  
## probabilities: 0.000 0.000 0.000 0.000 0.111 0.000 0.000 0.000 0.111 0.778   
##   
## Node number 7744: 1269 observations  
## predicted class=4 expected loss=0.01891253 P(node) =0.05034715  
## class counts: 0 0 5 5 1245 0 1 0 2 11  
## probabilities: 0.000 0.000 0.004 0.004 0.981 0.000 0.001 0.000 0.002 0.009   
##   
## Node number 7745: 44 observations, complexity param=8.930964e-05  
## predicted class=4 expected loss=0.4090909 P(node) =0.001745685  
## class counts: 0 6 0 2 26 0 3 0 3 4  
## probabilities: 0.000 0.136 0.000 0.045 0.591 0.000 0.068 0.000 0.068 0.091   
## left son=15490 (16 obs) right son=15491 (28 obs)  
## Primary splits:  
## 402 < 20 to the left, improve=7.365260, (0 missing)  
## 374 < 53.5 to the right, improve=7.204545, (0 missing)  
## 401 < 8.5 to the left, improve=6.475243, (0 missing)  
## 431 < 1 to the left, improve=5.982323, (0 missing)  
## 430 < 8.5 to the left, improve=5.793831, (0 missing)  
## Surrogate splits:  
## 401 < 8.5 to the left, agree=0.932, adj=0.812, (0 split)  
## 430 < 26.5 to the left, agree=0.932, adj=0.812, (0 split)  
## 373 < 12 to the left, agree=0.886, adj=0.688, (0 split)  
## 374 < 14.5 to the left, agree=0.886, adj=0.688, (0 split)  
## 403 < 3 to the left, agree=0.864, adj=0.625, (0 split)  
##   
## Node number 7752: 17 observations  
## predicted class=5 expected loss=0.05882353 P(node) =0.0006744694  
## class counts: 0 0 0 1 0 16 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.059 0.000 0.941 0.000 0.000 0.000 0.000   
##   
## Node number 7753: 7 observations  
## predicted class=4 expected loss=0.7142857 P(node) =0.0002777227  
## class counts: 0 0 1 1 2 1 0 0 1 1  
## probabilities: 0.000 0.000 0.143 0.143 0.286 0.143 0.000 0.000 0.143 0.143   
##   
## Node number 7754: 7 observations  
## predicted class=4 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 1 0 6 0 0 0 0 0  
## probabilities: 0.000 0.000 0.143 0.000 0.857 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 7755: 17 observations  
## predicted class=3 expected loss=0.7058824 P(node) =0.0006744694  
## class counts: 0 0 3 5 0 1 0 0 5 3  
## probabilities: 0.000 0.000 0.176 0.294 0.000 0.059 0.000 0.000 0.294 0.176   
##   
## Node number 7814: 450 observations, complexity param=8.930964e-05  
## predicted class=5 expected loss=0.05111111 P(node) =0.0178536  
## class counts: 0 0 1 12 1 427 0 0 0 9  
## probabilities: 0.000 0.000 0.002 0.027 0.002 0.949 0.000 0.000 0.000 0.020   
## left son=15628 (433 obs) right son=15629 (17 obs)  
## Primary splits:  
## 714 < 237 to the left, improve=4.274897, (0 missing)  
## 353 < 9.5 to the left, improve=4.092332, (0 missing)  
## 176 < 19 to the right, improve=4.071495, (0 missing)  
## 201 < 34 to the right, improve=4.038155, (0 missing)  
## 229 < 119 to the right, improve=4.038155, (0 missing)  
## Surrogate splits:  
## 715 < 119 to the left, agree=0.982, adj=0.529, (0 split)  
## 716 < 3.5 to the left, agree=0.976, adj=0.353, (0 split)  
## 713 < 249 to the left, agree=0.967, adj=0.118, (0 split)  
## 177 < 254.5 to the left, agree=0.964, adj=0.059, (0 split)  
## 718 < 3.5 to the left, agree=0.964, adj=0.059, (0 split)  
##   
## Node number 7815: 11 observations  
## predicted class=9 expected loss=0.3636364 P(node) =0.0004364213  
## class counts: 0 0 0 0 0 3 0 1 0 7  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.273 0.000 0.091 0.000 0.636   
##   
## Node number 7856: 11 observations  
## predicted class=3 expected loss=0.09090909 P(node) =0.0004364213  
## class counts: 0 0 0 10 0 0 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.909 0.000 0.000 0.000 0.000 0.091 0.000   
##   
## Node number 7857: 12 observations  
## predicted class=9 expected loss=0.4166667 P(node) =0.000476096  
## class counts: 0 1 0 1 1 0 1 0 1 7  
## probabilities: 0.000 0.083 0.000 0.083 0.083 0.000 0.083 0.000 0.083 0.583   
##   
## Node number 7894: 8 observations  
## predicted class=3 expected loss=0.25 P(node) =0.0003173973  
## class counts: 0 0 1 6 0 0 0 0 1 0  
## probabilities: 0.000 0.000 0.125 0.750 0.000 0.000 0.000 0.000 0.125 0.000   
##   
## Node number 7895: 30 observations, complexity param=8.930964e-05  
## predicted class=9 expected loss=0.3 P(node) =0.00119024  
## class counts: 0 0 0 0 3 2 0 0 4 21  
## probabilities: 0.000 0.000 0.000 0.000 0.100 0.067 0.000 0.000 0.133 0.700   
## left son=15790 (8 obs) right son=15791 (22 obs)  
## Primary splits:  
## 152 < 117 to the right, improve=4.151515, (0 missing)  
## 375 < 53.5 to the right, improve=4.047619, (0 missing)  
## 376 < 3.5 to the right, improve=4.047619, (0 missing)  
## 238 < 201 to the right, improve=3.997930, (0 missing)  
## 403 < 159 to the right, improve=3.952381, (0 missing)  
## Surrogate splits:  
## 151 < 3 to the right, agree=0.967, adj=0.875, (0 split)  
## 179 < 233 to the right, agree=0.967, adj=0.875, (0 split)  
## 177 < 29.5 to the right, agree=0.933, adj=0.750, (0 split)  
## 178 < 30 to the right, agree=0.933, adj=0.750, (0 split)  
## 205 < 168.5 to the right, agree=0.933, adj=0.750, (0 split)  
##   
## Node number 7898: 9 observations  
## predicted class=4 expected loss=0.2222222 P(node) =0.000357072  
## class counts: 0 0 0 0 7 1 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.000 0.778 0.111 0.000 0.000 0.111 0.000   
##   
## Node number 7899: 27 observations, complexity param=0.0001786193  
## predicted class=9 expected loss=0.3333333 P(node) =0.001071216  
## class counts: 0 0 1 1 1 1 0 0 5 18  
## probabilities: 0.000 0.000 0.037 0.037 0.037 0.037 0.000 0.000 0.185 0.667   
## left son=15798 (8 obs) right son=15799 (19 obs)  
## Primary splits:  
## 551 < 139 to the right, improve=5.741715, (0 missing)  
## 552 < 7.5 to the right, improve=5.741715, (0 missing)  
## 579 < 150 to the right, improve=5.741715, (0 missing)  
## 580 < 7.5 to the right, improve=5.741715, (0 missing)  
## 495 < 29.5 to the right, improve=5.383069, (0 missing)  
## Surrogate splits:  
## 552 < 7.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 579 < 150 to the right, agree=1.000, adj=1.000, (0 split)  
## 580 < 7.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 205 < 123.5 to the right, agree=0.963, adj=0.875, (0 split)  
## 495 < 29.5 to the right, agree=0.963, adj=0.875, (0 split)  
##   
## Node number 7904: 12 observations  
## predicted class=2 expected loss=0.08333333 P(node) =0.000476096  
## class counts: 0 0 11 0 0 0 0 0 1 0  
## probabilities: 0.000 0.000 0.917 0.000 0.000 0.000 0.000 0.000 0.083 0.000   
##   
## Node number 7905: 54 observations, complexity param=4.465482e-05  
## predicted class=3 expected loss=0.2037037 P(node) =0.002142432  
## class counts: 0 0 3 43 1 0 0 3 0 4  
## probabilities: 0.000 0.000 0.056 0.796 0.019 0.000 0.000 0.056 0.000 0.074   
## left son=15810 (41 obs) right son=15811 (13 obs)  
## Primary splits:  
## 405 < 138.5 to the right, improve=7.467584, (0 missing)  
## 406 < 111 to the right, improve=6.429293, (0 missing)  
## 658 < 0.5 to the right, improve=6.287582, (0 missing)  
## 404 < 7 to the right, improve=6.089372, (0 missing)  
## 379 < 9.5 to the right, improve=5.377778, (0 missing)  
## Surrogate splits:  
## 406 < 146.5 to the right, agree=0.963, adj=0.846, (0 split)  
## 379 < 27 to the right, agree=0.944, adj=0.769, (0 split)  
## 404 < 51.5 to the right, agree=0.926, adj=0.692, (0 split)  
## 378 < 0.5 to the right, agree=0.907, adj=0.615, (0 split)  
## 380 < 176 to the right, agree=0.889, adj=0.538, (0 split)  
##   
## Node number 7906: 9 observations  
## predicted class=4 expected loss=0.4444444 P(node) =0.000357072  
## class counts: 1 0 1 0 5 0 0 0 1 1  
## probabilities: 0.111 0.000 0.111 0.000 0.556 0.000 0.000 0.000 0.111 0.111   
##   
## Node number 7907: 44 observations, complexity param=0.0001786193  
## predicted class=7 expected loss=0.1818182 P(node) =0.001745685  
## class counts: 0 0 1 7 0 0 0 36 0 0  
## probabilities: 0.000 0.000 0.023 0.159 0.000 0.000 0.000 0.818 0.000 0.000   
## left son=15814 (9 obs) right son=15815 (35 obs)  
## Primary splits:  
## 437 < 4 to the left, improve=7.021789, (0 missing)  
## 464 < 12.5 to the left, improve=6.482450, (0 missing)  
## 436 < 201 to the left, improve=6.067914, (0 missing)  
## 576 < 152.5 to the right, improve=6.067914, (0 missing)  
## 463 < 212.5 to the left, improve=5.381313, (0 missing)  
## Surrogate splits:  
## 436 < 201 to the left, agree=0.977, adj=0.889, (0 split)  
## 464 < 38.5 to the left, agree=0.977, adj=0.889, (0 split)  
## 463 < 235 to the left, agree=0.955, adj=0.778, (0 split)  
## 410 < 3 to the left, agree=0.932, adj=0.667, (0 split)  
## 438 < 12.5 to the left, agree=0.932, adj=0.667, (0 split)  
##   
## Node number 7928: 10 observations  
## predicted class=4 expected loss=0.7 P(node) =0.0003967467  
## class counts: 0 0 0 2 3 0 0 1 2 2  
## probabilities: 0.000 0.000 0.000 0.200 0.300 0.000 0.000 0.100 0.200 0.200   
##   
## Node number 7929: 14 observations  
## predicted class=8 expected loss=0 P(node) =0.0005554453  
## class counts: 0 0 0 0 0 0 0 0 14 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000   
##   
## Node number 7930: 8 observations  
## predicted class=3 expected loss=0.75 P(node) =0.0003173973  
## class counts: 0 0 0 2 1 1 0 2 1 1  
## probabilities: 0.000 0.000 0.000 0.250 0.125 0.125 0.000 0.250 0.125 0.125   
##   
## Node number 7931: 40 observations  
## predicted class=9 expected loss=0.05 P(node) =0.001586987  
## class counts: 0 0 0 0 1 1 0 0 0 38  
## probabilities: 0.000 0.000 0.000 0.000 0.025 0.025 0.000 0.000 0.000 0.950   
##   
## Node number 7934: 18 observations  
## predicted class=9 expected loss=0.5 P(node) =0.000714144  
## class counts: 0 0 0 0 7 0 0 2 0 9  
## probabilities: 0.000 0.000 0.000 0.000 0.389 0.000 0.000 0.111 0.000 0.500   
##   
## Node number 7935: 989 observations, complexity param=3.721235e-05  
## predicted class=9 expected loss=0.04752275 P(node) =0.03923825  
## class counts: 0 0 1 5 23 1 0 5 12 942  
## probabilities: 0.000 0.000 0.001 0.005 0.023 0.001 0.000 0.005 0.012 0.952   
## left son=15870 (18 obs) right son=15871 (971 obs)  
## Primary splits:  
## 409 < 32 to the left, improve=5.765945, (0 missing)  
## 320 < 253.5 to the right, improve=5.291096, (0 missing)  
## 437 < 2.5 to the left, improve=5.152832, (0 missing)  
## 219 < 179 to the right, improve=4.625875, (0 missing)  
## 516 < 232 to the right, improve=4.593280, (0 missing)  
## Surrogate splits:  
## 437 < 2.5 to the left, agree=0.984, adj=0.111, (0 split)  
## 381 < 3 to the left, agree=0.983, adj=0.056, (0 split)  
##   
## Node number 8062: 22 observations, complexity param=2.232741e-05  
## predicted class=7 expected loss=0.2272727 P(node) =0.0008728427  
## class counts: 0 0 4 1 0 0 0 17 0 0  
## probabilities: 0.000 0.000 0.182 0.045 0.000 0.000 0.000 0.773 0.000 0.000   
## left son=16124 (7 obs) right son=16125 (15 obs)  
## Primary splits:  
## 182 < 59 to the right, improve=4.090909, (0 missing)  
## 183 < 20.5 to the right, improve=4.090909, (0 missing)  
## 295 < 27 to the left, improve=4.090909, (0 missing)  
## 180 < 14.5 to the right, improve=3.340909, (0 missing)  
## 181 < 71 to the right, improve=3.340909, (0 missing)  
## Surrogate splits:  
## 183 < 20.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 180 < 14.5 to the right, agree=0.955, adj=0.857, (0 split)  
## 181 < 71 to the right, agree=0.955, adj=0.857, (0 split)  
## 208 < 231 to the right, agree=0.955, adj=0.857, (0 split)  
## 184 < 6 to the right, agree=0.909, adj=0.714, (0 split)  
##   
## Node number 8063: 1285 observations, complexity param=1.11637e-05  
## predicted class=7 expected loss=0.01322957 P(node) =0.05098195  
## class counts: 0 1 3 1 2 0 0 1268 0 10  
## probabilities: 0.000 0.001 0.002 0.001 0.002 0.000 0.000 0.987 0.000 0.008   
## left son=16126 (8 obs) right son=16127 (1277 obs)  
## Primary splits:  
## 664 < 3.5 to the right, improve=1.670529, (0 missing)  
## 691 < 13 to the right, improve=1.344728, (0 missing)  
## 321 < 253.5 to the left, improve=1.175881, (0 missing)  
## 720 < 35 to the right, improve=1.088241, (0 missing)  
## 270 < 26.5 to the left, improve=1.052566, (0 missing)  
## Surrogate splits:  
## 636 < 2.5 to the right, agree=0.997, adj=0.500, (0 split)  
## 635 < 133.5 to the right, agree=0.996, adj=0.375, (0 split)  
## 663 < 188 to the right, agree=0.996, adj=0.375, (0 split)  
## 692 < 168.5 to the right, agree=0.996, adj=0.375, (0 split)  
## 608 < 11.5 to the right, agree=0.995, adj=0.250, (0 split)  
##   
## Node number 8192: 2190 observations, complexity param=4.465482e-05  
## predicted class=1 expected loss=0.006392694 P(node) =0.08688752  
## class counts: 0 2176 1 1 0 0 1 2 9 0  
## probabilities: 0.000 0.994 0.000 0.000 0.000 0.000 0.000 0.001 0.004 0.000   
## left son=16384 (2170 obs) right son=16385 (20 obs)  
## Primary splits:  
## 300 < 1 to the left, improve=2.418246, (0 missing)  
## 271 < 251.5 to the left, improve=1.642583, (0 missing)  
## 299 < 169 to the left, improve=1.211290, (0 missing)  
## 406 < 117 to the right, improve=1.104794, (0 missing)  
## 326 < 221 to the left, improve=1.034851, (0 missing)  
## Surrogate splits:  
## 271 < 250 to the left, agree=0.993, adj=0.20, (0 split)  
## 272 < 150 to the left, agree=0.992, adj=0.10, (0 split)  
## 539 < 107.5 to the left, agree=0.992, adj=0.10, (0 split)  
## 327 < 180 to the left, agree=0.991, adj=0.05, (0 split)  
## 621 < 135 to the left, agree=0.991, adj=0.05, (0 split)  
##   
## Node number 8193: 8 observations  
## predicted class=1 expected loss=0.5 P(node) =0.0003173973  
## class counts: 0 4 0 1 1 0 0 0 1 1  
## probabilities: 0.000 0.500 0.000 0.125 0.125 0.000 0.000 0.000 0.125 0.125   
##   
## Node number 8194: 24 observations  
## predicted class=1 expected loss=0.08333333 P(node) =0.000952192  
## class counts: 0 22 0 0 0 0 2 0 0 0  
## probabilities: 0.000 0.917 0.000 0.000 0.000 0.000 0.083 0.000 0.000 0.000   
##   
## Node number 8195: 8 observations  
## predicted class=8 expected loss=0.5 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 0 1 3 4 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.125 0.375 0.500 0.000   
##   
## Node number 8744: 8 observations  
## predicted class=2 expected loss=0.125 P(node) =0.0003173973  
## class counts: 0 0 7 1 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.875 0.125 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 8745: 12 observations  
## predicted class=4 expected loss=0.6666667 P(node) =0.000476096  
## class counts: 3 0 0 2 4 2 1 0 0 0  
## probabilities: 0.250 0.000 0.000 0.167 0.333 0.167 0.083 0.000 0.000 0.000   
##   
## Node number 8762: 7 observations  
## predicted class=4 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 0 0 6 1 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.857 0.143 0.000 0.000 0.000 0.000   
##   
## Node number 8763: 15 observations  
## predicted class=7 expected loss=0.6666667 P(node) =0.00059512  
## class counts: 0 1 1 1 2 1 1 5 0 3  
## probabilities: 0.000 0.067 0.067 0.067 0.133 0.067 0.067 0.333 0.000 0.200   
##   
## Node number 10870: 54 observations  
## predicted class=5 expected loss=0.1851852 P(node) =0.002142432  
## class counts: 0 0 0 8 0 44 0 0 1 1  
## probabilities: 0.000 0.000 0.000 0.148 0.000 0.815 0.000 0.000 0.019 0.019   
##   
## Node number 10871: 15 observations  
## predicted class=9 expected loss=0.5333333 P(node) =0.00059512  
## class counts: 0 0 0 1 0 3 0 3 1 7  
## probabilities: 0.000 0.000 0.000 0.067 0.000 0.200 0.000 0.200 0.067 0.467   
##   
## Node number 14498: 19 observations  
## predicted class=2 expected loss=0.4736842 P(node) =0.0007538187  
## class counts: 0 0 10 0 0 0 0 0 2 7  
## probabilities: 0.000 0.000 0.526 0.000 0.000 0.000 0.000 0.000 0.105 0.368   
##   
## Node number 14499: 12 observations  
## predicted class=7 expected loss=0.3333333 P(node) =0.000476096  
## class counts: 0 0 2 2 0 0 0 8 0 0  
## probabilities: 0.000 0.000 0.167 0.167 0.000 0.000 0.000 0.667 0.000 0.000   
##   
## Node number 15490: 16 observations  
## predicted class=1 expected loss=0.625 P(node) =0.0006347947  
## class counts: 0 6 0 2 2 0 1 0 2 3  
## probabilities: 0.000 0.375 0.000 0.125 0.125 0.000 0.062 0.000 0.125 0.188   
##   
## Node number 15491: 28 observations  
## predicted class=4 expected loss=0.1428571 P(node) =0.001110891  
## class counts: 0 0 0 0 24 0 2 0 1 1  
## probabilities: 0.000 0.000 0.000 0.000 0.857 0.000 0.071 0.000 0.036 0.036   
##   
## Node number 15628: 433 observations, complexity param=8.930964e-05  
## predicted class=5 expected loss=0.0369515 P(node) =0.01717913  
## class counts: 0 0 1 11 1 417 0 0 0 3  
## probabilities: 0.000 0.000 0.002 0.025 0.002 0.963 0.000 0.000 0.000 0.007   
## left son=31256 (26 obs) right son=31257 (407 obs)  
## Primary splits:  
## 176 < 19 to the right, improve=4.233391, (0 missing)  
## 175 < 134 to the right, improve=3.140614, (0 missing)  
## 229 < 4 to the right, improve=3.140614, (0 missing)  
## 470 < 17 to the right, improve=2.763267, (0 missing)  
## 178 < 227 to the right, improve=2.596915, (0 missing)  
## Surrogate splits:  
## 204 < 200 to the right, agree=0.986, adj=0.769, (0 split)  
## 175 < 5.5 to the right, agree=0.977, adj=0.615, (0 split)  
## 177 < 213 to the right, agree=0.977, adj=0.615, (0 split)  
## 148 < 8.5 to the right, agree=0.972, adj=0.538, (0 split)  
## 205 < 237.5 to the right, agree=0.972, adj=0.538, (0 split)  
##   
## Node number 15629: 17 observations  
## predicted class=5 expected loss=0.4117647 P(node) =0.0006744694  
## class counts: 0 0 0 1 0 10 0 0 0 6  
## probabilities: 0.000 0.000 0.000 0.059 0.000 0.588 0.000 0.000 0.000 0.353   
##   
## Node number 15790: 8 observations  
## predicted class=8 expected loss=0.5 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 2 0 0 4 2  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.250 0.000 0.000 0.500 0.250   
##   
## Node number 15791: 22 observations  
## predicted class=9 expected loss=0.1363636 P(node) =0.0008728427  
## class counts: 0 0 0 0 3 0 0 0 0 19  
## probabilities: 0.000 0.000 0.000 0.000 0.136 0.000 0.000 0.000 0.000 0.864   
##   
## Node number 15798: 8 observations  
## predicted class=8 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 0 1 0 1 0 0 5 1  
## probabilities: 0.000 0.000 0.000 0.125 0.000 0.125 0.000 0.000 0.625 0.125   
##   
## Node number 15799: 19 observations  
## predicted class=9 expected loss=0.1052632 P(node) =0.0007538187  
## class counts: 0 0 1 0 1 0 0 0 0 17  
## probabilities: 0.000 0.000 0.053 0.000 0.053 0.000 0.000 0.000 0.000 0.895   
##   
## Node number 15810: 41 observations  
## predicted class=3 expected loss=0.02439024 P(node) =0.001626661  
## class counts: 0 0 0 40 1 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.976 0.024 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 15811: 13 observations  
## predicted class=9 expected loss=0.6923077 P(node) =0.0005157707  
## class counts: 0 0 3 3 0 0 0 3 0 4  
## probabilities: 0.000 0.000 0.231 0.231 0.000 0.000 0.000 0.231 0.000 0.308   
##   
## Node number 15814: 9 observations  
## predicted class=3 expected loss=0.3333333 P(node) =0.000357072  
## class counts: 0 0 1 6 0 0 0 2 0 0  
## probabilities: 0.000 0.000 0.111 0.667 0.000 0.000 0.000 0.222 0.000 0.000   
##   
## Node number 15815: 35 observations  
## predicted class=7 expected loss=0.02857143 P(node) =0.001388613  
## class counts: 0 0 0 1 0 0 0 34 0 0  
## probabilities: 0.000 0.000 0.000 0.029 0.000 0.000 0.000 0.971 0.000 0.000   
##   
## Node number 15870: 18 observations  
## predicted class=9 expected loss=0.5 P(node) =0.000714144  
## class counts: 0 0 0 1 1 1 0 0 6 9  
## probabilities: 0.000 0.000 0.000 0.056 0.056 0.056 0.000 0.000 0.333 0.500   
##   
## Node number 15871: 971 observations, complexity param=3.721235e-05  
## predicted class=9 expected loss=0.03913491 P(node) =0.0385241  
## class counts: 0 0 1 4 22 0 0 5 6 933  
## probabilities: 0.000 0.000 0.001 0.004 0.023 0.000 0.000 0.005 0.006 0.961   
## left son=31742 (13 obs) right son=31743 (958 obs)  
## Primary splits:  
## 320 < 253.5 to the right, improve=4.890087, (0 missing)  
## 219 < 179 to the right, improve=4.720953, (0 missing)  
## 263 < 65.5 to the left, improve=4.558863, (0 missing)  
## 248 < 108 to the right, improve=4.121700, (0 missing)  
## 220 < 2 to the right, improve=3.996210, (0 missing)  
## Surrogate splits:  
## 293 < 254.5 to the right, agree=0.992, adj=0.385, (0 split)  
## 347 < 254.5 to the right, agree=0.992, adj=0.385, (0 split)  
## 247 < 253.5 to the right, agree=0.991, adj=0.308, (0 split)  
## 321 < 253.5 to the right, agree=0.991, adj=0.308, (0 split)  
## 294 < 254.5 to the right, agree=0.990, adj=0.231, (0 split)  
##   
## Node number 16124: 7 observations  
## predicted class=2 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 4 1 0 0 0 2 0 0  
## probabilities: 0.000 0.000 0.571 0.143 0.000 0.000 0.000 0.286 0.000 0.000   
##   
## Node number 16125: 15 observations  
## predicted class=7 expected loss=0 P(node) =0.00059512  
## class counts: 0 0 0 0 0 0 0 15 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000   
##   
## Node number 16126: 8 observations  
## predicted class=7 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 2 0 1 0 0 5 0 0  
## probabilities: 0.000 0.000 0.250 0.000 0.125 0.000 0.000 0.625 0.000 0.000   
##   
## Node number 16127: 1277 observations, complexity param=1.11637e-05  
## predicted class=7 expected loss=0.01096319 P(node) =0.05066455  
## class counts: 0 1 1 1 1 0 0 1263 0 10  
## probabilities: 0.000 0.001 0.001 0.001 0.001 0.000 0.000 0.989 0.000 0.008   
## left son=32254 (1263 obs) right son=32255 (14 obs)  
## Primary splits:  
## 321 < 253.5 to the left, improve=1.1885560, (0 missing)  
## 349 < 74.5 to the left, improve=0.8473116, (0 missing)  
## 322 < 253.5 to the left, improve=0.8211557, (0 missing)  
## 270 < 26.5 to the right, improve=0.7557122, (0 missing)  
## 350 < 60 to the left, improve=0.7428425, (0 missing)  
## Surrogate splits:  
## 322 < 254.5 to the left, agree=0.991, adj=0.143, (0 split)  
##   
## Node number 16384: 2170 observations  
## predicted class=1 expected loss=0.004147465 P(node) =0.08609403  
## class counts: 0 2161 1 1 0 0 1 2 4 0  
## probabilities: 0.000 0.996 0.000 0.000 0.000 0.000 0.000 0.001 0.002 0.000   
##   
## Node number 16385: 20 observations, complexity param=4.465482e-05  
## predicted class=1 expected loss=0.25 P(node) =0.0007934934  
## class counts: 0 15 0 0 0 0 0 0 5 0  
## probabilities: 0.000 0.750 0.000 0.000 0.000 0.000 0.000 0.000 0.250 0.000   
## left son=32770 (13 obs) right son=32771 (7 obs)  
## Primary splits:  
## 160 < 17.5 to the right, improve=4.642857, (0 missing)  
## 268 < 62 to the right, improve=4.642857, (0 missing)  
## 269 < 231.5 to the right, improve=4.642857, (0 missing)  
## 156 < 44.5 to the left, improve=4.642857, (0 missing)  
## 238 < 11.5 to the left, improve=4.642857, (0 missing)  
## Surrogate splits:  
## 268 < 62 to the right, agree=1.00, adj=1.000, (0 split)  
## 269 < 200.5 to the right, agree=0.95, adj=0.857, (0 split)  
## 295 < 18.5 to the right, agree=0.95, adj=0.857, (0 split)  
## 296 < 178 to the right, agree=0.95, adj=0.857, (0 split)  
## 323 < 212 to the right, agree=0.95, adj=0.857, (0 split)  
##   
## Node number 31256: 26 observations, complexity param=8.930964e-05  
## predicted class=5 expected loss=0.3076923 P(node) =0.001031541  
## class counts: 0 0 0 8 0 18 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.308 0.000 0.692 0.000 0.000 0.000 0.000   
## left son=62512 (10 obs) right son=62513 (16 obs)  
## Primary splits:  
## 292 < 135.5 to the right, improve=7.876923, (0 missing)  
## 320 < 4.5 to the right, improve=7.876923, (0 missing)  
## 347 < 232.5 to the right, improve=7.438034, (0 missing)  
## 348 < 135 to the right, improve=7.438034, (0 missing)  
## 293 < 33 to the right, improve=6.713287, (0 missing)  
## Surrogate splits:  
## 320 < 4.5 to the right, agree=1.000, adj=1.0, (0 split)  
## 293 < 33 to the right, agree=0.962, adj=0.9, (0 split)  
## 265 < 135 to the right, agree=0.923, adj=0.8, (0 split)  
## 266 < 198 to the right, agree=0.923, adj=0.8, (0 split)  
## 294 < 17.5 to the right, agree=0.923, adj=0.8, (0 split)  
##   
## Node number 31257: 407 observations  
## predicted class=5 expected loss=0.01965602 P(node) =0.01614759  
## class counts: 0 0 1 3 1 399 0 0 0 3  
## probabilities: 0.000 0.000 0.002 0.007 0.002 0.980 0.000 0.000 0.000 0.007   
##   
## Node number 31742: 13 observations  
## predicted class=9 expected loss=0.4615385 P(node) =0.0005157707  
## class counts: 0 0 0 0 6 0 0 0 0 7  
## probabilities: 0.000 0.000 0.000 0.000 0.462 0.000 0.000 0.000 0.000 0.538   
##   
## Node number 31743: 958 observations, complexity param=3.721235e-05  
## predicted class=9 expected loss=0.03340292 P(node) =0.03800833  
## class counts: 0 0 1 4 16 0 0 5 6 926  
## probabilities: 0.000 0.000 0.001 0.004 0.017 0.000 0.000 0.005 0.006 0.967   
## left son=63486 (10 obs) right son=63487 (948 obs)  
## Primary splits:  
## 524 < 139 to the right, improve=3.241535, (0 missing)  
## 263 < 65.5 to the left, improve=2.640287, (0 missing)  
## 552 < 148.5 to the right, improve=2.619930, (0 missing)  
## 437 < 2.5 to the left, improve=2.486148, (0 missing)  
## 237 < 2 to the left, improve=2.347475, (0 missing)  
## Surrogate splits:  
## 552 < 116 to the right, agree=0.997, adj=0.7, (0 split)  
## 496 < 198.5 to the right, agree=0.995, adj=0.5, (0 split)  
## 525 < 114.5 to the right, agree=0.994, adj=0.4, (0 split)  
## 580 < 186 to the right, agree=0.993, adj=0.3, (0 split)  
## 497 < 199.5 to the right, agree=0.992, adj=0.2, (0 split)  
##   
## Node number 32254: 1263 observations, complexity param=1.11637e-05  
## predicted class=7 expected loss=0.008709422 P(node) =0.05010911  
## class counts: 0 1 1 1 1 0 0 1252 0 7  
## probabilities: 0.000 0.001 0.001 0.001 0.001 0.000 0.000 0.991 0.000 0.006   
## left son=64508 (1155 obs) right son=64509 (108 obs)  
## Primary splits:  
## 270 < 26.5 to the right, improve=0.8170668, (0 missing)  
## 298 < 13 to the right, improve=0.6474661, (0 missing)  
## 242 < 12 to the left, improve=0.6368836, (0 missing)  
## 326 < 0.5 to the right, improve=0.5940123, (0 missing)  
## 461 < 211.5 to the right, improve=0.5675799, (0 missing)  
## Surrogate splits:  
## 298 < 0.5 to the right, agree=0.952, adj=0.435, (0 split)  
## 326 < 3.5 to the right, agree=0.942, adj=0.324, (0 split)  
## 242 < 0.5 to the right, agree=0.937, adj=0.269, (0 split)  
## 269 < 1 to the right, agree=0.926, adj=0.139, (0 split)  
## 241 < 6.5 to the right, agree=0.920, adj=0.065, (0 split)  
##   
## Node number 32255: 14 observations  
## predicted class=7 expected loss=0.2142857 P(node) =0.0005554453  
## class counts: 0 0 0 0 0 0 0 11 0 3  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.786 0.000 0.214   
##   
## Node number 32770: 13 observations  
## predicted class=1 expected loss=0 P(node) =0.0005157707  
## class counts: 0 13 0 0 0 0 0 0 0 0  
## probabilities: 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 32771: 7 observations  
## predicted class=8 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 2 0 0 0 0 0 0 5 0  
## probabilities: 0.000 0.286 0.000 0.000 0.000 0.000 0.000 0.000 0.714 0.000   
##   
## Node number 62512: 10 observations  
## predicted class=3 expected loss=0.2 P(node) =0.0003967467  
## class counts: 0 0 0 8 0 2 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.800 0.000 0.200 0.000 0.000 0.000 0.000   
##   
## Node number 62513: 16 observations  
## predicted class=5 expected loss=0 P(node) =0.0006347947  
## class counts: 0 0 0 0 0 16 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000   
##   
## Node number 63486: 10 observations  
## predicted class=9 expected loss=0.5 P(node) =0.0003967467  
## class counts: 0 0 1 0 1 0 0 0 3 5  
## probabilities: 0.000 0.000 0.100 0.000 0.100 0.000 0.000 0.000 0.300 0.500   
##   
## Node number 63487: 948 observations, complexity param=3.721235e-05  
## predicted class=9 expected loss=0.02848101 P(node) =0.03761159  
## class counts: 0 0 0 4 15 0 0 5 3 921  
## probabilities: 0.000 0.000 0.000 0.004 0.016 0.000 0.000 0.005 0.003 0.972   
## left son=126974 (76 obs) right son=126975 (872 obs)  
## Primary splits:  
## 263 < 65.5 to the left, improve=2.768910, (0 missing)  
## 237 < 2 to the left, improve=2.400426, (0 missing)  
## 236 < 0.5 to the left, improve=2.134096, (0 missing)  
## 290 < 23.5 to the left, improve=2.019205, (0 missing)  
## 262 < 1.5 to the left, improve=1.866636, (0 missing)  
## Surrogate splits:  
## 290 < 36 to the left, agree=0.953, adj=0.408, (0 split)  
## 236 < 32 to the left, agree=0.948, adj=0.355, (0 split)  
## 264 < 1 to the left, agree=0.935, adj=0.184, (0 split)  
## 210 < 17.5 to the left, agree=0.934, adj=0.171, (0 split)  
## 237 < 31.5 to the left, agree=0.928, adj=0.105, (0 split)  
##   
## Node number 64508: 1155 observations  
## predicted class=7 expected loss=0.002597403 P(node) =0.04582424  
## class counts: 0 1 0 1 0 0 0 1152 0 1  
## probabilities: 0.000 0.001 0.000 0.001 0.000 0.000 0.000 0.997 0.000 0.001   
##   
## Node number 64509: 108 observations, complexity param=1.11637e-05  
## predicted class=7 expected loss=0.07407407 P(node) =0.004284864  
## class counts: 0 0 1 0 1 0 0 100 0 6  
## probabilities: 0.000 0.000 0.009 0.000 0.009 0.000 0.000 0.926 0.000 0.056   
## left son=129018 (101 obs) right son=129019 (7 obs)  
## Primary splits:  
## 321 < 173.5 to the left, improve=3.844806, (0 missing)  
## 320 < 215 to the left, improve=3.028025, (0 missing)  
## 347 < 45.5 to the left, improve=2.310990, (0 missing)  
## 348 < 44.5 to the left, improve=1.983420, (0 missing)  
## 319 < 80 to the left, improve=1.897957, (0 missing)  
## Surrogate splits:  
## 349 < 7 to the left, agree=0.972, adj=0.571, (0 split)  
## 320 < 250 to the left, agree=0.963, adj=0.429, (0 split)  
## 275 < 149 to the left, agree=0.954, adj=0.286, (0 split)  
## 302 < 201.5 to the left, agree=0.954, adj=0.286, (0 split)  
## 322 < 237 to the left, agree=0.954, adj=0.286, (0 split)  
##   
## Node number 126974: 76 observations, complexity param=3.721235e-05  
## predicted class=9 expected loss=0.1578947 P(node) =0.003015275  
## class counts: 0 0 0 0 11 0 0 0 1 64  
## probabilities: 0.000 0.000 0.000 0.000 0.145 0.000 0.000 0.000 0.013 0.842   
## left son=253948 (9 obs) right son=253949 (67 obs)  
## Primary splits:  
## 403 < 253.5 to the right, improve=8.015755, (0 missing)  
## 402 < 253.5 to the right, improve=6.055245, (0 missing)  
## 354 < 172 to the left, improve=5.925000, (0 missing)  
## 382 < 51.5 to the left, improve=4.889234, (0 missing)  
## 297 < 253.5 to the right, improve=4.889234, (0 missing)  
## Surrogate splits:  
## 297 < 253.5 to the right, agree=0.947, adj=0.556, (0 split)  
## 402 < 253.5 to the right, agree=0.947, adj=0.556, (0 split)  
## 404 < 253.5 to the right, agree=0.947, adj=0.556, (0 split)  
## 405 < 253.5 to the right, agree=0.921, adj=0.333, (0 split)  
## 603 < 253.5 to the right, agree=0.921, adj=0.333, (0 split)  
##   
## Node number 126975: 872 observations  
## predicted class=9 expected loss=0.01720183 P(node) =0.03459631  
## class counts: 0 0 0 4 4 0 0 5 2 857  
## probabilities: 0.000 0.000 0.000 0.005 0.005 0.000 0.000 0.006 0.002 0.983   
##   
## Node number 129018: 101 observations  
## predicted class=7 expected loss=0.03960396 P(node) =0.004007141  
## class counts: 0 0 1 0 1 0 0 97 0 2  
## probabilities: 0.000 0.000 0.010 0.000 0.010 0.000 0.000 0.960 0.000 0.020   
##   
## Node number 129019: 7 observations  
## predicted class=9 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 0 0 0 0 0 3 0 4  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.429 0.000 0.571   
##   
## Node number 253948: 9 observations  
## predicted class=4 expected loss=0.2222222 P(node) =0.000357072  
## class counts: 0 0 0 0 7 0 0 0 0 2  
## probabilities: 0.000 0.000 0.000 0.000 0.778 0.000 0.000 0.000 0.000 0.222   
##   
## Node number 253949: 67 observations  
## predicted class=9 expected loss=0.07462687 P(node) =0.002658203  
## class counts: 0 0 0 0 4 0 0 0 1 62  
## probabilities: 0.000 0.000 0.000 0.000 0.060 0.000 0.000 0.000 0.015 0.925

##   
## Classification tree:  
## rpart(formula = label ~ ., data = trainDF, method = "class",   
## control = rpart.control(cp = 0))  
##   
## Variables actually used in tree construction:  
## [1] 101 103 121 123 124 125 126 127 131 149 150 152 153 154 155 156 157 158  
## [19] 159 160 176 179 180 182 183 185 186 188 202 204 205 206 207 208 209 210  
## [37] 211 212 213 214 215 217 218 219 220 231 233 234 235 237 238 239 240 241  
## [55] 242 243 244 247 263 264 265 266 267 268 269 270 271 272 273 274 276 287  
## [73] 288 289 290 291 292 293 294 295 296 297 299 300 301 315 317 318 319 320  
## [91] 321 322 323 324 325 326 327 328 329 341 342 343 344 345 346 347 348 349  
## [109] 350 351 352 353 354 355 356 359 370 371 372 373 374 375 376 377 378 379  
## [127] 380 381 382 384 386 398 400 401 402 403 404 405 406 407 408 409 410 411  
## [145] 412 413 427 428 429 431 432 433 434 435 436 437 438 439 441 442 454 455  
## [163] 456 457 458 459 460 461 462 463 464 465 466 467 468 470 482 484 486 487  
## [181] 488 489 490 491 492 493 494 512 513 514 515 516 518 520 522 524 527 537  
## [199] 538 539 541 542 543 544 545 546 549 550 551 552 553 555 567 568 569 570  
## [217] 572 573 574 575 576 580 584 595 596 597 599 600 601 602 603 608 623 624  
## [235] 626 627 628 651 652 653 654 655 656 657 658 662 664 678 680 681 683 685  
## [253] 686 709 711 712 714 717 718 94 95 96 98   
##   
## Root node error: 22394/25205 = 0.88847  
##   
## n= 25205   
##   
## CP nsplit rel error xerror xstd  
## 1 9.7794e-02 0 1.00000 1.00000 0.0022316  
## 2 8.2567e-02 1 0.90221 0.90301 0.0028235  
## 3 8.0200e-02 2 0.81964 0.84822 0.0030549  
## 4 5.9570e-02 3 0.73944 0.72783 0.0033888  
## 5 5.1934e-02 4 0.67987 0.66040 0.0034910  
## 6 4.5727e-02 5 0.62794 0.61914 0.0035269  
## 7 4.5057e-02 6 0.58221 0.58337 0.0035423  
## 8 2.5453e-02 7 0.53715 0.53456 0.0035403  
## 9 2.1390e-02 8 0.51170 0.51112 0.0035298  
## 10 1.8666e-02 9 0.49031 0.49361 0.0035179  
## 11 1.5763e-02 10 0.47164 0.48102 0.0035071  
## 12 1.5495e-02 11 0.45588 0.46745 0.0034935  
## 13 1.3307e-02 12 0.44039 0.45159 0.0034749  
## 14 1.1074e-02 13 0.42708 0.43391 0.0034506  
## 15 8.3505e-03 14 0.41600 0.42051 0.0034296  
## 16 6.9662e-03 15 0.40765 0.41547 0.0034211  
## 17 6.1177e-03 16 0.40069 0.40350 0.0033998  
## 18 4.8227e-03 17 0.39457 0.39149 0.0033766  
## 19 4.7781e-03 18 0.38975 0.37470 0.0033409  
## 20 4.7334e-03 19 0.38497 0.37113 0.0033329  
## 21 4.6888e-03 21 0.37550 0.36916 0.0033284  
## 22 4.6441e-03 22 0.37081 0.36800 0.0033257  
## 23 4.4208e-03 23 0.36617 0.36461 0.0033177  
## 24 4.2869e-03 24 0.36175 0.35679 0.0032988  
## 25 3.9296e-03 25 0.35746 0.35286 0.0032889  
## 26 3.7957e-03 26 0.35353 0.34710 0.0032741  
## 27 3.7510e-03 29 0.34215 0.34594 0.0032711  
## 28 3.4831e-03 30 0.33839 0.34183 0.0032601  
## 29 3.3938e-03 31 0.33491 0.33661 0.0032459  
## 30 3.3491e-03 32 0.33152 0.33647 0.0032455  
## 31 3.3045e-03 33 0.32817 0.33647 0.0032455  
## 32 2.8579e-03 34 0.32486 0.33174 0.0032323  
## 33 2.8356e-03 37 0.31629 0.32218 0.0032045  
## 34 2.6346e-03 39 0.31062 0.31705 0.0031890  
## 35 2.5900e-03 40 0.30798 0.31312 0.0031769  
## 36 2.5453e-03 41 0.30539 0.31053 0.0031687  
## 37 2.5007e-03 42 0.30285 0.30977 0.0031663  
## 38 2.4560e-03 43 0.30035 0.30848 0.0031622  
## 39 2.3890e-03 44 0.29789 0.30731 0.0031585  
## 40 2.3667e-03 46 0.29311 0.30450 0.0031494  
## 41 2.2774e-03 47 0.29075 0.30383 0.0031472  
## 42 2.0541e-03 52 0.27932 0.29401 0.0031144  
## 43 2.0095e-03 53 0.27726 0.28539 0.0030843  
## 44 1.8308e-03 59 0.26520 0.28320 0.0030764  
## 45 1.6969e-03 60 0.26337 0.27713 0.0030542  
## 46 1.6746e-03 62 0.25998 0.27396 0.0030423  
## 47 1.6299e-03 64 0.25663 0.27226 0.0030359  
## 48 1.6076e-03 66 0.25337 0.26936 0.0030248  
## 49 1.4736e-03 69 0.24855 0.26704 0.0030158  
## 50 1.4066e-03 70 0.24708 0.26230 0.0029972  
## 51 1.3843e-03 72 0.24426 0.26007 0.0029883  
## 52 1.2950e-03 76 0.23872 0.25677 0.0029749  
## 53 1.2503e-03 77 0.23743 0.25431 0.0029648  
## 54 1.1610e-03 79 0.23493 0.25230 0.0029565  
## 55 1.1164e-03 81 0.23261 0.24993 0.0029466  
## 56 1.0940e-03 83 0.23037 0.24931 0.0029439  
## 57 1.0717e-03 86 0.22689 0.24779 0.0029375  
## 58 1.0271e-03 88 0.22475 0.24761 0.0029368  
## 59 9.8241e-04 90 0.22269 0.24493 0.0029253  
## 60 9.3775e-04 91 0.22171 0.24221 0.0029135  
## 61 8.9310e-04 98 0.21515 0.23846 0.0028969  
## 62 8.7077e-04 100 0.21336 0.23636 0.0028876  
## 63 8.4844e-04 102 0.21162 0.23524 0.0028826  
## 64 8.0379e-04 105 0.20907 0.23095 0.0028630  
## 65 7.5913e-04 111 0.20425 0.22694 0.0028444  
## 66 7.3680e-04 116 0.20046 0.22595 0.0028398  
## 67 7.1448e-04 118 0.19898 0.22417 0.0028313  
## 68 6.6982e-04 124 0.19470 0.22109 0.0028166  
## 69 6.2517e-04 131 0.18938 0.21966 0.0028097  
## 70 5.8051e-04 136 0.18626 0.21537 0.0027887  
## 71 5.3586e-04 147 0.17987 0.21149 0.0027694  
## 72 4.9120e-04 151 0.17773 0.20693 0.0027462  
## 73 4.6888e-04 159 0.17380 0.20340 0.0027279  
## 74 4.4655e-04 161 0.17286 0.20157 0.0027183  
## 75 4.2422e-04 177 0.16562 0.19764 0.0026974  
## 76 4.0189e-04 183 0.16259 0.19644 0.0026909  
## 77 3.7957e-04 197 0.15696 0.19273 0.0026707  
## 78 3.5724e-04 202 0.15504 0.19170 0.0026650  
## 79 3.3491e-04 216 0.15004 0.18773 0.0026429  
## 80 3.1258e-04 218 0.14937 0.18733 0.0026406  
## 81 2.9770e-04 240 0.14245 0.18639 0.0026353  
## 82 2.9026e-04 246 0.14066 0.18295 0.0026157  
## 83 2.6793e-04 250 0.13950 0.18241 0.0026126  
## 84 2.4560e-04 270 0.13414 0.18116 0.0026053  
## 85 2.3444e-04 286 0.13017 0.17933 0.0025946  
## 86 2.2327e-04 290 0.12923 0.17916 0.0025936  
## 87 2.0839e-04 320 0.12253 0.17857 0.0025902  
## 88 2.0095e-04 323 0.12191 0.17857 0.0025902  
## 89 1.7862e-04 325 0.12151 0.17670 0.0025791  
## 90 1.5629e-04 376 0.11226 0.17643 0.0025775  
## 91 1.4885e-04 380 0.11164 0.17648 0.0025778  
## 92 1.3396e-04 383 0.11119 0.17665 0.0025788  
## 93 1.1164e-04 415 0.10690 0.17674 0.0025794  
## 94 8.9310e-05 424 0.10583 0.17679 0.0025796  
## 95 7.4425e-05 460 0.10262 0.17741 0.0025833  
## 96 6.6982e-05 463 0.10239 0.17706 0.0025812  
## 97 4.4655e-05 465 0.10226 0.17732 0.0025828  
## 98 3.7212e-05 501 0.10065 0.17840 0.0025891  
## 99 2.2327e-05 507 0.10043 0.17857 0.0025902  
## 100 1.1164e-05 513 0.10029 0.17889 0.0025920  
## 101 0.0000e+00 517 0.10025 0.17893 0.0025923

## Warning in rsq.rpart(treeModel): may not be applicable for this method



## TrueDigits  
## Predicted 0 1 2 3 4 5 6 7 8 9  
## 0 1494 1 24 12 10 44 35 5 33 14  
## 1 2 1751 15 16 10 16 18 8 29 7  
## 2 17 22 1377 57 20 31 53 43 51 22  
## 3 14 23 42 1400 9 88 6 20 62 29  
## 4 15 14 36 18 1351 34 29 17 27 88  
## 5 49 4 16 94 10 1166 41 10 53 38  
## 6 23 13 36 17 19 39 1430 6 38 3  
## 7 9 25 47 28 22 15 7 1574 23 52  
## 8 20 18 54 47 38 39 28 16 1232 45  
## 9 9 2 23 51 139 46 7 61 77 1377  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 8.426317e-01 8.250834e-01 8.370355e-01 8.481091e-01 1.115213e-01   
## AccuracyPValue McnemarPValue   
## 0.000000e+00 3.572480e-08



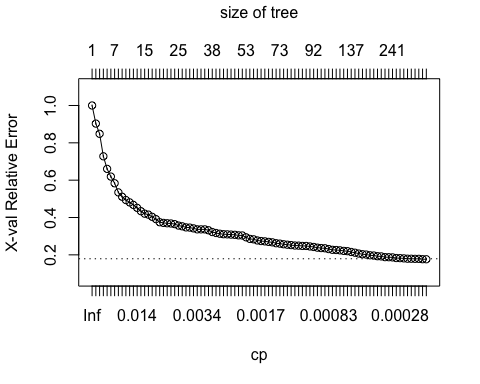
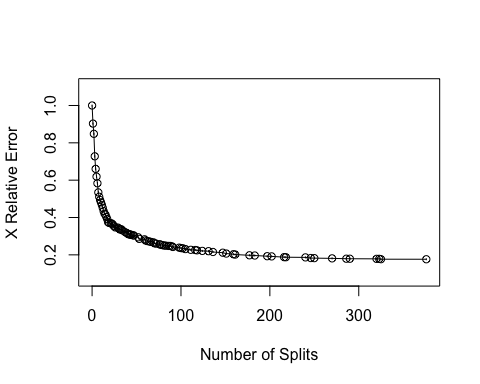
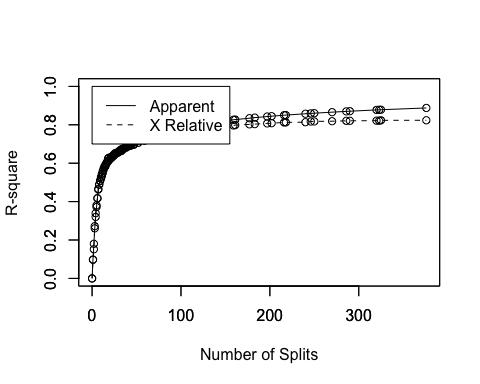
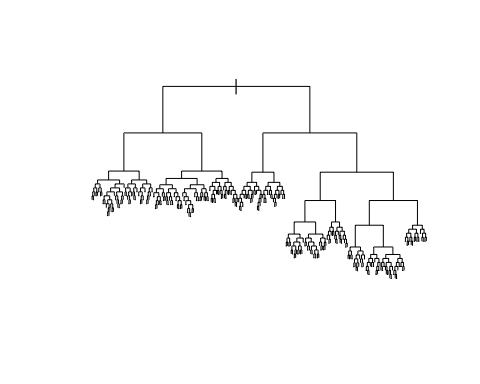
## n= 25205   
##   
## node), split, n, loss, yval, (yprob)  
## \* denotes terminal node  
##   
## 1) root 25205 22394 1 (0.098 0.11 0.099 0.1 0.097 0.09 0.099 0.1 0.097 0.1)   
## 2) 350>=120.5 9068 6479 1 (0.021 0.29 0.053 0.23 0.026 0.11 0.056 0.025 0.13 0.059)   
## 4) 489>=44.5 4400 1969 1 (0.0064 0.55 0.077 0.036 0.025 0.024 0.063 0.027 0.15 0.036)   
## 8) 234< 0.5 3250 861 1 (0.0055 0.74 0.048 0.017 0.023 0.028 0.049 0.0074 0.066 0.021)   
## 16) 347< 1.5 2607 328 1 (0.00038 0.87 0.047 0.0077 0.0054 0.0092 0.012 0.0035 0.038 0.0027)   
## 32) 550< 0.5 2456 189 1 (0 0.92 0.013 0.0049 0.0041 0.0098 0.0033 0.0033 0.037 0.0024)   
## 64) 300< 21.5 2312 96 1 (0 0.96 0.013 0.003 0.003 0.0043 0.0035 0.0035 0.01 0.00087)   
## 128) 608< 6 2291 77 1 (0 0.97 0.0052 0.0026 0.0031 0.0044 0.0035 0.0035 0.01 0.00087)   
## 256) 484< 8 2260 51 1 (0 0.98 0.0018 0.0027 0.00088 0.0022 0.0022 0.0035 0.0084 0.00088)   
## 512) 406>=48 2249 41 1 (0 0.98 0.00089 0.00089 0.00044 0.0018 0.0018 0.0036 0.0084 0.00044)   
## 1024) 410< 32 2237 32 1 (0 0.99 0.00045 0.00089 0.00045 0.0018 0.0018 0.0022 0.0063 0.00045)   
## 2048) 219< 22.5 2230 28 1 (0 0.99 0.00045 0.0009 0.00045 0 0.0018 0.0022 0.0063 0.00045)   
## 4096) 493< 64.5 2198 18 1 (0 0.99 0.00045 0.00091 0.00045 0 0.00045 0.00091 0.0045 0.00045)   
## 8192) 433>=2.5 2190 14 1 (0 0.99 0.00046 0.00046 0 0 0.00046 0.00091 0.0041 0)   
## 16384) 300< 1 2170 9 1 (0 1 0.00046 0.00046 0 0 0.00046 0.00092 0.0018 0) \*  
## 16385) 300>=1 20 5 1 (0 0.75 0 0 0 0 0 0 0.25 0)   
## 32770) 160>=17.5 13 0 1 (0 1 0 0 0 0 0 0 0 0) \*  
## 32771) 160< 17.5 7 2 8 (0 0.29 0 0 0 0 0 0 0.71 0) \*  
## 8193) 433< 2.5 8 4 1 (0 0.5 0 0.12 0.12 0 0 0 0.12 0.12) \*  
## 4097) 493>=64.5 32 10 1 (0 0.69 0 0 0 0 0.094 0.094 0.12 0)   
## 8194) 546>=193.5 24 2 1 (0 0.92 0 0 0 0 0.083 0 0 0) \*  
## 8195) 546< 193.5 8 4 8 (0 0 0 0 0 0 0.12 0.38 0.5 0) \*  
## 2049) 219>=22.5 7 3 5 (0 0.43 0 0 0 0.57 0 0 0 0) \*  
## 1025) 410>=32 12 7 8 (0 0.25 0.083 0 0 0 0 0.25 0.42 0) \*  
## 513) 406< 48 11 7 3 (0 0.091 0.18 0.36 0.091 0.091 0.091 0 0 0.091) \*  
## 257) 484>=8 31 23 2 (0 0.16 0.26 0 0.16 0.16 0.097 0 0.16 0)   
## 514) 623< 14.5 19 11 2 (0 0 0.42 0 0.26 0.21 0.11 0 0 0) \*  
## 515) 623>=14.5 12 7 1 (0 0.42 0 0 0 0.083 0.083 0 0.42 0) \*  
## 129) 608>=6 21 3 2 (0 0.095 0.86 0.048 0 0 0 0 0 0) \*  
## 65) 300>=21.5 144 78 8 (0 0.35 0.0069 0.035 0.021 0.097 0 0 0.46 0.028)   
## 130) 265< 1.5 72 21 1 (0 0.71 0.014 0.028 0.014 0.18 0 0 0.056 0)   
## 260) 487>=145 55 4 1 (0 0.93 0.018 0.018 0 0.018 0 0 0.018 0) \*  
## 261) 487< 145 17 5 5 (0 0 0 0.059 0.059 0.71 0 0 0.18 0) \*  
## 131) 265>=1.5 72 10 8 (0 0 0 0.042 0.028 0.014 0 0 0.86 0.056) \*  
## 33) 550>=0.5 151 59 2 (0.0066 0.079 0.61 0.053 0.026 0 0.15 0.0066 0.066 0.0066)   
## 66) 152>=12 108 25 2 (0 0.1 0.77 0.046 0.0093 0 0 0 0.074 0)   
## 132) 292< 58.5 91 9 2 (0 0.022 0.9 0.055 0 0 0 0 0.022 0)   
## 264) 543>=24.5 83 3 2 (0 0.024 0.96 0 0 0 0 0 0.012 0) \*  
## 265) 543< 24.5 8 3 3 (0 0 0.25 0.62 0 0 0 0 0.12 0) \*  
## 133) 292>=58.5 17 8 1 (0 0.53 0.059 0 0.059 0 0 0 0.35 0) \*  
## 67) 152< 12 43 21 6 (0.023 0.023 0.21 0.07 0.07 0 0.51 0.023 0.047 0.023)   
## 134) 212>=22 24 16 2 (0.042 0.042 0.33 0.12 0.12 0 0.21 0.042 0.083 0)   
## 268) 349< 206.5 13 5 2 (0.077 0 0.62 0 0.23 0 0 0.077 0 0) \*  
## 269) 349>=206.5 11 6 6 (0 0.091 0 0.27 0 0 0.45 0 0.18 0) \*  
## 135) 212< 22 19 2 6 (0 0 0.053 0 0 0 0.89 0 0 0.053) \*  
## 17) 347>=1.5 643 515 6 (0.026 0.17 0.053 0.056 0.096 0.1 0.2 0.023 0.18 0.093)   
## 34) 103< 1.5 564 451 8 (0.028 0.19 0.059 0.059 0.11 0.12 0.1 0.027 0.2 0.11)   
## 68) 657< 1.5 286 232 5 (0.042 0.12 0.11 0.049 0.15 0.19 0.19 0.028 0.028 0.1)   
## 136) 276< 44.5 252 198 6 (0.048 0.13 0.12 0.056 0.16 0.095 0.21 0.032 0.024 0.12)   
## 272) 574>=233 93 43 6 (0.075 0.14 0.097 0.065 0.032 0.032 0.54 0.011 0 0.011)   
## 544) 486< 67.5 25 12 1 (0 0.52 0.12 0.2 0.08 0.04 0 0.04 0 0)   
## 1088) 603>=181 16 3 1 (0 0.81 0.062 0 0.12 0 0 0 0 0) \*  
## 1089) 603< 181 9 4 3 (0 0 0.22 0.56 0 0.11 0 0.11 0 0) \*  
## 545) 486>=67.5 68 18 6 (0.1 0 0.088 0.015 0.015 0.029 0.74 0 0 0.015)   
## 1090) 244>=56 12 5 0 (0.58 0 0.083 0.083 0 0.083 0.17 0 0 0) \*  
## 1091) 244< 56 56 8 6 (0 0 0.089 0 0.018 0.018 0.86 0 0 0.018)   
## 2182) 95>=41 7 2 2 (0 0 0.71 0 0 0 0.29 0 0 0) \*  
## 2183) 95< 41 49 3 6 (0 0 0 0 0.02 0.02 0.94 0 0 0.02) \*  
## 273) 574< 233 159 122 4 (0.031 0.13 0.14 0.05 0.23 0.13 0.025 0.044 0.038 0.18)   
## 546) 539>=2 67 46 2 (0.075 0.09 0.31 0.09 0.06 0.28 0.015 0 0.075 0)   
## 1092) 552>=26 13 0 2 (0 0 1 0 0 0 0 0 0 0) \*  
## 1093) 552< 26 54 35 5 (0.093 0.11 0.15 0.11 0.074 0.35 0.019 0 0.093 0)   
## 2186) 458>=16.5 31 24 2 (0.13 0.19 0.23 0.097 0.13 0.065 0.032 0 0.13 0)   
## 4372) 652< 147 20 13 2 (0.15 0 0.35 0.15 0.2 0.1 0.05 0 0 0)   
## 8744) 405>=210 8 1 2 (0 0 0.88 0.12 0 0 0 0 0 0) \*  
## 8745) 405< 210 12 8 4 (0.25 0 0 0.17 0.33 0.17 0.083 0 0 0) \*  
## 4373) 652>=147 11 5 1 (0.091 0.55 0 0 0 0 0 0 0.36 0) \*  
## 2187) 458< 16.5 23 6 5 (0.043 0 0.043 0.13 0 0.74 0 0 0.043 0)   
## 4374) 157>=20.5 7 4 3 (0.14 0 0.14 0.43 0 0.14 0 0 0.14 0) \*  
## 4375) 157< 20.5 16 0 5 (0 0 0 0 0 1 0 0 0 0) \*  
## 547) 539< 2 92 59 4 (0 0.15 0.011 0.022 0.36 0.022 0.033 0.076 0.011 0.32)   
## 1094) 456>=13.5 22 2 4 (0 0 0 0.045 0.91 0 0 0.045 0 0) \*  
## 1095) 456< 13.5 70 41 9 (0 0.2 0.014 0.014 0.19 0.029 0.043 0.086 0.014 0.41)   
## 2190) 381< 210.5 37 25 1 (0 0.32 0.027 0.027 0.22 0.054 0.081 0.14 0 0.14)   
## 4380) 405>=205.5 15 4 1 (0 0.73 0 0 0 0 0.13 0 0 0.13) \*  
## 4381) 405< 205.5 22 14 4 (0 0.045 0.045 0.045 0.36 0.091 0.045 0.23 0 0.14)   
## 8762) 403>=204.5 7 1 4 (0 0 0 0 0.86 0.14 0 0 0 0) \*  
## 8763) 403< 204.5 15 10 7 (0 0.067 0.067 0.067 0.13 0.067 0.067 0.33 0 0.2) \*  
## 2191) 381>=210.5 33 9 9 (0 0.061 0 0 0.15 0 0 0.03 0.03 0.73)   
## 4382) 238< 175.5 9 6 4 (0 0.22 0 0 0.33 0 0 0.11 0.11 0.22) \*  
## 4383) 238>=175.5 24 2 9 (0 0 0 0 0.083 0 0 0 0 0.92) \*  
## 137) 276>=44.5 34 4 5 (0 0 0 0 0.059 0.88 0 0 0.059 0) \*  
## 69) 657>=1.5 278 173 8 (0.014 0.27 0.0072 0.068 0.068 0.043 0.014 0.025 0.38 0.11)   
## 138) 294>=216 134 61 1 (0.022 0.54 0.0075 0.03 0.075 0.067 0.03 0.03 0.12 0.075)   
## 276) 429< 10.5 95 23 1 (0.011 0.76 0.011 0.011 0 0.032 0.011 0.042 0.084 0.042)   
## 552) 299< 31 77 7 1 (0 0.91 0.013 0 0 0.013 0.013 0.026 0.013 0.013) \*  
## 553) 299>=31 18 11 8 (0.056 0.11 0 0.056 0 0.11 0 0.11 0.39 0.17) \*  
## 277) 429>=10.5 39 29 4 (0.051 0.026 0 0.077 0.26 0.15 0.077 0 0.21 0.15)   
## 554) 627< 5.5 11 2 4 (0 0 0 0 0.82 0 0.091 0 0 0.091) \*  
## 555) 627>=5.5 28 20 8 (0.071 0.036 0 0.11 0.036 0.21 0.071 0 0.29 0.18)   
## 1110) 379< 17.5 7 1 5 (0 0 0 0.14 0 0.86 0 0 0 0) \*  
## 1111) 379>=17.5 21 13 8 (0.095 0.048 0 0.095 0.048 0 0.095 0 0.38 0.24)   
## 2222) 653>=111.5 10 3 8 (0.1 0.1 0 0 0.1 0 0 0 0.7 0) \*  
## 2223) 653< 111.5 11 6 9 (0.091 0 0 0.18 0 0 0.18 0 0.091 0.45) \*  
## 139) 294< 216 144 55 8 (0.0069 0.021 0.0069 0.1 0.062 0.021 0 0.021 0.62 0.14)   
## 278) 711< 94.5 124 35 8 (0.0081 0.024 0.0081 0.12 0.073 0.024 0 0.0081 0.72 0.016)   
## 556) 265< 15.5 37 24 3 (0.027 0.027 0.027 0.35 0.14 0.054 0 0.027 0.32 0.027)   
## 1112) 317< 4.5 19 6 3 (0 0.053 0.053 0.68 0.11 0.053 0 0 0 0.053) \*  
## 1113) 317>=4.5 18 6 8 (0.056 0 0 0 0.17 0.056 0 0.056 0.67 0) \*  
## 557) 265>=15.5 87 10 8 (0 0.023 0 0.023 0.046 0.011 0 0 0.89 0.011)   
## 1114) 401>=186 8 4 4 (0 0 0 0.12 0.5 0 0 0 0.38 0) \*  
## 1115) 401< 186 79 5 8 (0 0.025 0 0.013 0 0.013 0 0 0.94 0.013) \*  
## 279) 711>=94.5 20 2 9 (0 0 0 0 0 0 0 0.1 0 0.9) \*  
## 35) 103>=1.5 79 9 6 (0.013 0.013 0.013 0.038 0.013 0.013 0.89 0 0.013 0)   
## 70) 271>=74.5 7 5 3 (0.14 0 0.14 0.29 0.14 0 0.14 0 0.14 0) \*  
## 71) 271< 74.5 72 3 6 (0 0.014 0 0.014 0 0.014 0.96 0 0 0) \*  
## 9) 234>=0.5 1150 690 8 (0.0087 0.037 0.16 0.09 0.031 0.012 0.1 0.083 0.4 0.079)   
## 18) 658< 13.5 434 291 2 (0.012 0.044 0.33 0.035 0.03 0.014 0.26 0.065 0.085 0.12)   
## 36) 345< 18 228 94 2 (0 0.075 0.59 0.066 0.0044 0.0044 0.039 0.092 0.088 0.044)   
## 72) 541>=1.5 142 23 2 (0 0 0.84 0.014 0 0.007 0.042 0.014 0.077 0.007)   
## 144) 301< 3.5 122 6 2 (0 0 0.95 0.0082 0 0.0082 0.0082 0.016 0.0082 0) \*  
## 145) 301>=3.5 20 10 8 (0 0 0.15 0.05 0 0 0.25 0 0.5 0.05)   
## 290) 291< 86 9 4 6 (0 0 0.33 0.11 0 0 0.56 0 0 0) \*  
## 291) 291>=86 11 1 8 (0 0 0 0 0 0 0 0 0.91 0.091) \*  
## 73) 541< 1.5 86 67 7 (0 0.2 0.17 0.15 0.012 0 0.035 0.22 0.1 0.1)   
## 146) 683< 18 57 40 1 (0 0.3 0.26 0.18 0 0 0.053 0.035 0.14 0.035)   
## 292) 459< 5.5 21 4 1 (0 0.81 0.095 0 0 0 0 0 0.048 0.048) \*  
## 293) 459>=5.5 36 23 2 (0 0 0.36 0.28 0 0 0.083 0.056 0.19 0.028)   
## 586) 516>=7 24 11 2 (0 0 0.54 0.042 0 0 0.12 0.042 0.25 0)   
## 1172) 270< 4.5 16 5 2 (0 0 0.69 0.062 0 0 0.19 0.062 0 0) \*  
## 1173) 270>=4.5 8 2 8 (0 0 0.25 0 0 0 0 0 0.75 0) \*  
## 587) 516< 7 12 3 3 (0 0 0 0.75 0 0 0 0.083 0.083 0.083) \*  
## 147) 683>=18 29 12 7 (0 0 0 0.1 0.034 0 0 0.59 0.034 0.24)   
## 294) 349< 102.5 17 1 7 (0 0 0 0.059 0 0 0 0.94 0 0) \*  
## 295) 349>=102.5 12 5 9 (0 0 0 0.17 0.083 0 0 0.083 0.083 0.58) \*  
## 37) 345>=18 206 101 6 (0.024 0.0097 0.044 0 0.058 0.024 0.51 0.034 0.083 0.21)   
## 74) 575>=51.5 144 39 6 (0.035 0.014 0.021 0 0.021 0.035 0.73 0.035 0.069 0.042)   
## 148) 213< 25.5 112 13 6 (0.0089 0.018 0 0 0.027 0.018 0.88 0.036 0 0.0089)   
## 296) 266>=154 14 10 7 (0.071 0.14 0 0 0.14 0.071 0.21 0.29 0 0.071) \*  
## 297) 266< 154 98 2 6 (0 0 0 0 0.01 0.01 0.98 0 0 0) \*  
## 149) 213>=25.5 32 22 8 (0.12 0 0.094 0 0 0.094 0.19 0.031 0.31 0.16)   
## 298) 442>=27 12 6 6 (0.33 0 0.17 0 0 0 0.5 0 0 0) \*  
## 299) 442< 27 20 10 8 (0 0 0.05 0 0 0.15 0 0.05 0.5 0.25)   
## 598) 432< 47.5 9 5 9 (0 0 0.11 0 0 0.33 0 0.11 0 0.44) \*  
## 599) 432>=47.5 11 1 8 (0 0 0 0 0 0 0 0 0.91 0.091) \*  
## 75) 575< 51.5 62 24 9 (0 0 0.097 0 0.15 0 0 0.032 0.11 0.61)   
## 150) 210< 21.5 19 10 4 (0 0 0.16 0 0.47 0 0 0.053 0.16 0.16) \*  
## 151) 210>=21.5 43 8 9 (0 0 0.07 0 0 0 0 0.023 0.093 0.81) \*  
## 19) 658>=13.5 716 293 8 (0.007 0.032 0.052 0.12 0.032 0.011 0.007 0.094 0.59 0.052)   
## 38) 319< 2 218 154 3 (0.0046 0.041 0.16 0.29 0.023 0.0046 0.014 0.2 0.23 0.032)   
## 76) 344< 24 162 100 3 (0 0.056 0.2 0.38 0 0 0 0.27 0.08 0.0062)   
## 152) 404>=228 59 10 3 (0 0 0.12 0.83 0 0 0 0.034 0.017 0)   
## 304) 527>=25.5 7 1 2 (0 0 0.86 0.14 0 0 0 0 0 0) \*  
## 305) 527< 25.5 52 4 3 (0 0 0.019 0.92 0 0 0 0.038 0.019 0) \*  
## 153) 404< 228 103 61 7 (0 0.087 0.25 0.13 0 0 0 0.41 0.12 0.0097)   
## 306) 153>=121 47 23 2 (0 0.085 0.51 0.17 0 0 0 0 0.23 0)   
## 612) 321< 195 34 10 2 (0 0.029 0.71 0.24 0 0 0 0 0.029 0)   
## 1224) 543>=81 24 1 2 (0 0 0.96 0 0 0 0 0 0.042 0) \*  
## 1225) 543< 81 10 2 3 (0 0.1 0.1 0.8 0 0 0 0 0 0) \*  
## 613) 321>=195 13 3 8 (0 0.23 0 0 0 0 0 0 0.77 0) \*  
## 307) 153< 121 56 14 7 (0 0.089 0.036 0.089 0 0 0 0.75 0.018 0.018)   
## 614) 546< 15 7 2 3 (0 0 0 0.71 0 0 0 0.14 0.14 0) \*  
## 615) 546>=15 49 8 7 (0 0.1 0.041 0 0 0 0 0.84 0 0.02) \*  
## 77) 344>=24 56 19 8 (0.018 0 0.018 0.036 0.089 0.018 0.054 0 0.66 0.11)   
## 154) 516< 53 14 8 9 (0 0 0 0.071 0.36 0 0 0 0.14 0.43) \*  
## 155) 516>=53 42 7 8 (0.024 0 0.024 0.024 0 0.024 0.071 0 0.83 0)   
## 310) 356>=118.5 7 4 6 (0.14 0 0 0.14 0 0 0.43 0 0.29 0) \*  
## 311) 356< 118.5 35 2 8 (0 0 0.029 0 0 0.029 0 0 0.94 0) \*  
## 39) 319>=2 498 125 8 (0.008 0.028 0.006 0.048 0.036 0.014 0.004 0.046 0.75 0.06)   
## 78) 543< 9.5 124 79 8 (0.0081 0.1 0.0081 0.13 0.056 0.016 0 0.097 0.36 0.22)   
## 156) 401< 173 80 39 8 (0 0.16 0.013 0.075 0.05 0.013 0 0.1 0.51 0.075)   
## 312) 294>=148.5 35 22 1 (0 0.37 0 0.086 0 0.029 0 0.23 0.26 0.029)   
## 624) 180>=118.5 26 13 1 (0 0.5 0 0.12 0 0.038 0 0 0.35 0)   
## 1248) 269< 25.5 14 1 1 (0 0.93 0 0 0 0 0 0 0.071 0) \*  
## 1249) 269>=25.5 12 4 8 (0 0 0 0.25 0 0.083 0 0 0.67 0) \*  
## 625) 180< 118.5 9 1 7 (0 0 0 0 0 0 0 0.89 0 0.11) \*  
## 313) 294< 148.5 45 13 8 (0 0 0.022 0.067 0.089 0 0 0 0.71 0.11)   
## 626) 461< 62.5 8 4 9 (0 0 0 0 0.38 0 0 0 0.12 0.5) \*  
## 627) 461>=62.5 37 6 8 (0 0 0.027 0.081 0.027 0 0 0 0.84 0.027) \*  
## 157) 401>=173 44 23 9 (0.023 0 0 0.23 0.068 0.023 0 0.091 0.091 0.48)   
## 314) 206>=125 18 8 3 (0 0 0 0.56 0 0.056 0 0.17 0.17 0.056) \*  
## 315) 206< 125 26 6 9 (0.038 0 0 0 0.12 0 0 0.038 0.038 0.77)   
## 630) 325< 213.5 7 4 4 (0.14 0 0 0 0.43 0 0 0 0.14 0.29) \*  
## 631) 325>=213.5 19 1 9 (0 0 0 0 0 0 0 0.053 0 0.95) \*  
## 79) 543>=9.5 374 46 8 (0.008 0.0027 0.0053 0.021 0.029 0.013 0.0053 0.029 0.88 0.008)   
## 158) 470>=156.5 19 13 7 (0.11 0 0.053 0.21 0.053 0.16 0 0.32 0.11 0) \*  
## 159) 470< 156.5 355 29 8 (0.0028 0.0028 0.0028 0.011 0.028 0.0056 0.0056 0.014 0.92 0.0085)   
## 318) 461< 43.5 7 4 7 (0 0 0 0.14 0.29 0.14 0 0.43 0 0) \*  
## 319) 461>=43.5 348 22 8 (0.0029 0.0029 0.0029 0.0086 0.023 0.0029 0.0057 0.0057 0.94 0.0086)   
## 638) 401>=218.5 36 14 8 (0 0 0 0.056 0.19 0.028 0.028 0.028 0.61 0.056)   
## 1276) 269>=252.5 13 7 4 (0 0 0 0.077 0.46 0 0.077 0.077 0.15 0.15) \*  
## 1277) 269< 252.5 23 3 8 (0 0 0 0.043 0.043 0.043 0 0 0.87 0) \*  
## 639) 401< 218.5 312 8 8 (0.0032 0.0032 0.0032 0.0032 0.0032 0 0.0032 0.0032 0.97 0.0032) \*  
## 5) 489< 44.5 4668 2714 3 (0.036 0.034 0.032 0.42 0.027 0.18 0.05 0.024 0.11 0.082)   
## 10) 486< 76.5 3675 1787 3 (0.027 0.038 0.006 0.51 0.031 0.22 0.0095 0.03 0.031 0.094)   
## 20) 290< 42.5 2318 665 3 (0.015 0.057 0.0082 0.71 0.016 0.12 0.0082 0.013 0.023 0.028)   
## 40) 179>=1.5 1626 234 3 (0.0018 0.025 0.008 0.86 0.0031 0.065 0.0012 0.0043 0.019 0.017)   
## 80) 315< 84.5 1502 128 3 (0 0.027 0.0087 0.91 0 0.026 0 0.0047 0.015 0.0033)   
## 160) 490>=139.5 64 31 1 (0 0.52 0.047 0.31 0 0.016 0 0.078 0.031 0)   
## 320) 297< 26.5 39 6 1 (0 0.85 0.077 0 0 0.026 0 0.051 0 0)   
## 640) 264>=27.5 32 1 1 (0 0.97 0 0 0 0.031 0 0 0 0) \*  
## 641) 264< 27.5 7 4 2 (0 0.29 0.43 0 0 0 0 0.29 0 0) \*  
## 321) 297>=26.5 25 5 3 (0 0 0 0.8 0 0 0 0.12 0.08 0)   
## 642) 628>=164 18 0 3 (0 0 0 1 0 0 0 0 0 0) \*  
## 643) 628< 164 7 4 7 (0 0 0 0.29 0 0 0 0.43 0.29 0) \*  
## 161) 490< 139.5 1438 84 3 (0 0.0056 0.007 0.94 0 0.026 0 0.0014 0.015 0.0035)   
## 322) 264< 244.5 1393 56 3 (0 0.0014 0.0072 0.96 0 0.017 0 0 0.011 0.0036)   
## 644) 317< 206 1370 38 3 (0 0.0015 0.0073 0.97 0 0.01 0 0 0.0088 0)   
## 1288) 487< 148 1360 28 3 (0 0.0015 0.0059 0.98 0 0.0096 0 0 0.0037 0)   
## 2576) 341< 70 1350 19 3 (0 0.0015 0.0059 0.99 0 0.0044 0 0 0.0022 0) \*  
## 2577) 341>=70 10 3 5 (0 0 0 0.1 0 0.7 0 0 0.2 0) \*  
## 1289) 487>=148 10 3 8 (0 0 0.2 0 0 0.1 0 0 0.7 0) \*  
## 645) 317>=206 23 14 5 (0 0 0 0.22 0 0.39 0 0 0.17 0.22)   
## 1290) 524>=20 16 7 5 (0 0 0 0.25 0 0.56 0 0 0.19 0) \*  
## 1291) 524< 20 7 2 9 (0 0 0 0.14 0 0 0 0 0.14 0.71) \*  
## 323) 264>=244.5 45 28 3 (0 0.13 0 0.38 0 0.33 0 0.044 0.11 0)   
## 646) 296>=124.5 16 3 3 (0 0 0 0.81 0 0 0 0.062 0.12 0) \*  
## 647) 296< 124.5 29 14 5 (0 0.21 0 0.14 0 0.52 0 0.034 0.1 0)   
## 1294) 185< 63.5 12 6 1 (0 0.5 0 0.33 0 0 0 0.083 0.083 0) \*  
## 1295) 185>=63.5 17 2 5 (0 0 0 0 0 0.88 0 0 0.12 0) \*  
## 81) 315>=84.5 124 58 5 (0.024 0 0 0.15 0.04 0.53 0.016 0 0.065 0.18)   
## 162) 296< 54 78 17 5 (0.013 0 0 0.038 0.051 0.78 0 0 0.051 0.064)   
## 324) 300< 6 62 5 5 (0.016 0 0 0.032 0.032 0.92 0 0 0 0) \*  
## 325) 300>=6 16 11 9 (0 0 0 0.062 0.12 0.25 0 0 0.25 0.31) \*  
## 163) 296>=54 46 29 9 (0.043 0 0 0.33 0.022 0.11 0.043 0 0.087 0.37)   
## 326) 493< 1 25 13 3 (0.08 0 0 0.48 0 0.2 0.04 0 0.16 0.04)   
## 652) 401< 112.5 13 1 3 (0.077 0 0 0.92 0 0 0 0 0 0) \*  
## 653) 401>=112.5 12 7 5 (0.083 0 0 0 0 0.42 0.083 0 0.33 0.083) \*  
## 327) 493>=1 21 5 9 (0 0 0 0.14 0.048 0 0.048 0 0 0.76) \*  
## 41) 179< 1.5 692 431 3 (0.045 0.13 0.0087 0.38 0.045 0.25 0.025 0.033 0.032 0.055)   
## 82) 626>=19.5 417 182 3 (0.062 0.0096 0.012 0.56 0 0.29 0.019 0.0096 0.029 0.0096)   
## 164) 265< 148 261 51 3 (0.027 0.015 0.019 0.8 0 0.088 0.011 0.011 0.019 0.0038)   
## 328) 155>=3 202 14 3 (0.0099 0.005 0.02 0.93 0 0.0099 0 0 0.02 0.005)   
## 656) 428>=205 9 5 2 (0.11 0 0.44 0.22 0 0.11 0 0 0.11 0) \*  
## 657) 428< 205 193 7 3 (0.0052 0.0052 0 0.96 0 0.0052 0 0 0.016 0.0052) \*  
## 329) 155< 3 59 37 3 (0.085 0.051 0.017 0.37 0 0.36 0.051 0.051 0.017 0)   
## 658) 348< 235 29 9 3 (0 0.1 0.034 0.69 0 0.069 0.1 0 0 0)   
## 1316) 486>=1 7 4 1 (0 0.43 0.14 0 0 0.14 0.29 0 0 0) \*  
## 1317) 486< 1 22 2 3 (0 0 0 0.91 0 0.045 0.045 0 0 0) \*  
## 659) 348>=235 30 11 5 (0.17 0 0 0.067 0 0.63 0 0.1 0.033 0)   
## 1318) 412>=5.5 7 2 0 (0.71 0 0 0.14 0 0 0 0.14 0 0) \*  
## 1319) 412< 5.5 23 4 5 (0 0 0 0.043 0 0.83 0 0.087 0.043 0) \*  
## 165) 265>=148 156 60 5 (0.12 0 0 0.16 0 0.62 0.032 0.0064 0.045 0.019)   
## 330) 456>=235.5 25 6 0 (0.76 0 0 0 0 0.04 0.08 0 0.12 0)   
## 660) 214>=169 18 0 0 (1 0 0 0 0 0 0 0 0 0) \*  
## 661) 214< 169 7 4 8 (0.14 0 0 0 0 0.14 0.29 0 0.43 0) \*  
## 331) 456< 235.5 131 36 5 (0 0 0 0.19 0 0.73 0.023 0.0076 0.031 0.023)   
## 662) 299>=40 30 13 3 (0 0 0 0.57 0 0.17 0.067 0.033 0.067 0.1)   
## 1324) 324>=153.5 22 5 3 (0 0 0 0.77 0 0 0.091 0 0.091 0.045) \*  
## 1325) 324< 153.5 8 3 5 (0 0 0 0 0 0.62 0 0.12 0 0.25) \*  
## 663) 299< 40 101 11 5 (0 0 0 0.079 0 0.89 0.0099 0 0.02 0)   
## 1326) 124>=83 8 2 3 (0 0 0 0.75 0 0.12 0 0 0.12 0) \*  
## 1327) 124< 83 93 4 5 (0 0 0 0.022 0 0.96 0.011 0 0.011 0) \*  
## 83) 626< 19.5 275 188 1 (0.018 0.32 0.0036 0.095 0.11 0.19 0.033 0.069 0.036 0.12)   
## 166) 376< 20 104 24 1 (0 0.77 0 0.038 0.0096 0.048 0.0096 0.067 0.029 0.029)   
## 332) 462>=85.5 85 6 1 (0 0.93 0 0 0.012 0 0.012 0.047 0 0)   
## 664) 324< 109.5 77 0 1 (0 1 0 0 0 0 0 0 0 0) \*  
## 665) 324>=109.5 8 4 7 (0 0.25 0 0 0.12 0 0.12 0.5 0 0) \*  
## 333) 462< 85.5 19 14 5 (0 0.053 0 0.21 0 0.26 0 0.16 0.16 0.16) \*  
## 167) 376>=20 171 123 5 (0.029 0.041 0.0058 0.13 0.18 0.28 0.047 0.07 0.041 0.18)   
## 334) 539>=54.5 58 15 5 (0.086 0 0.017 0.1 0 0.74 0.017 0.017 0.017 0)   
## 668) 413>=194 7 2 0 (0.71 0 0 0.29 0 0 0 0 0 0) \*  
## 669) 413< 194 51 8 5 (0 0 0.02 0.078 0 0.84 0.02 0.02 0.02 0)   
## 1338) 352>=251.5 7 3 3 (0 0 0 0.57 0 0.29 0 0 0.14 0) \*  
## 1339) 352< 251.5 44 3 5 (0 0 0.023 0 0 0.93 0.023 0.023 0 0) \*  
## 335) 539< 54.5 113 82 9 (0 0.062 0 0.14 0.27 0.044 0.062 0.097 0.053 0.27)   
## 670) 237< 2 43 17 4 (0 0 0 0.14 0.6 0 0.023 0.23 0 0)   
## 1340) 231>=13 23 1 4 (0 0 0 0 0.96 0 0 0.043 0 0) \*  
## 1341) 231< 13 20 11 7 (0 0 0 0.3 0.2 0 0.05 0.45 0 0)   
## 2682) 345< 12 11 5 3 (0 0 0 0.55 0.36 0 0.091 0 0 0) \*  
## 2683) 345>=12 9 0 7 (0 0 0 0 0 0 0 1 0 0) \*  
## 671) 237>=2 70 39 9 (0 0.1 0 0.14 0.057 0.071 0.086 0.014 0.086 0.44)   
## 1342) 325< 5 27 20 1 (0 0.26 0 0.11 0.074 0.19 0.22 0 0.15 0)   
## 2684) 154>=20 13 6 1 (0 0.54 0 0 0 0 0.15 0 0.31 0) \*  
## 2685) 154< 20 14 9 5 (0 0 0 0.21 0.14 0.36 0.29 0 0 0) \*  
## 1343) 325>=5 43 12 9 (0 0 0 0.16 0.047 0 0 0.023 0.047 0.72)   
## 2686) 288< 117 22 12 9 (0 0 0 0.32 0.091 0 0 0.045 0.091 0.45)   
## 5372) 292< 132 9 2 3 (0 0 0 0.78 0 0 0 0 0.22 0) \*  
## 5373) 292>=132 13 3 9 (0 0 0 0 0.15 0 0 0.077 0 0.77) \*  
## 2687) 288>=117 21 0 9 (0 0 0 0 0 0 0 0 0 1) \*  
## 21) 290>=42.5 1357 824 5 (0.049 0.0044 0.0022 0.17 0.057 0.39 0.012 0.058 0.044 0.21)   
## 42) 626>=10.5 836 360 5 (0.071 0.0012 0.0012 0.24 0.0012 0.57 0.011 0.006 0.059 0.044)   
## 84) 297>=29.5 324 179 3 (0.1 0.0031 0.0031 0.45 0 0.21 0.0093 0.015 0.12 0.09)   
## 168) 359>=77 32 4 0 (0.88 0 0 0 0 0 0.031 0.062 0.031 0) \*  
## 169) 359< 77 292 147 3 (0.017 0.0034 0.0034 0.5 0 0.24 0.0068 0.01 0.13 0.099)   
## 338) 318< 219.5 112 26 3 (0 0 0 0.77 0 0.036 0 0 0.14 0.054)   
## 676) 484< 186 101 15 3 (0 0 0 0.85 0 0.03 0 0 0.059 0.059)   
## 1352) 488< 57.5 94 10 3 (0 0 0 0.89 0 0.032 0 0 0.011 0.064) \*  
## 1353) 488>=57.5 7 2 8 (0 0 0 0.29 0 0 0 0 0.71 0) \*  
## 677) 484>=186 11 1 8 (0 0 0 0 0 0.091 0 0 0.91 0) \*  
## 339) 318>=219.5 180 115 5 (0.028 0.0056 0.0056 0.33 0 0.36 0.011 0.017 0.12 0.13)   
## 678) 176>=79.5 40 8 3 (0 0 0 0.8 0 0.15 0 0 0.05 0)   
## 1356) 288< 216 32 1 3 (0 0 0 0.97 0 0.031 0 0 0 0) \*  
## 1357) 288>=216 8 3 5 (0 0 0 0.12 0 0.62 0 0 0.25 0) \*  
## 679) 176< 79.5 140 81 5 (0.036 0.0071 0.0071 0.19 0 0.42 0.014 0.021 0.14 0.16)   
## 1358) 294>=3 102 49 5 (0.049 0.0098 0.0098 0.25 0 0.52 0.02 0.029 0.029 0.088)   
## 2716) 125>=40.5 25 9 3 (0 0.04 0.04 0.64 0 0.24 0 0 0.04 0)   
## 5432) 270>=13.5 16 1 3 (0 0 0.062 0.94 0 0 0 0 0 0) \*  
## 5433) 270< 13.5 9 3 5 (0 0.11 0 0.11 0 0.67 0 0 0.11 0) \*  
## 2717) 125< 40.5 77 30 5 (0.065 0 0 0.12 0 0.61 0.026 0.039 0.026 0.12)   
## 5434) 455>=193.5 8 3 0 (0.62 0 0 0 0 0 0.25 0 0 0.12) \*  
## 5435) 455< 193.5 69 22 5 (0 0 0 0.13 0 0.68 0 0.043 0.029 0.12)   
## 10870) 597>=38.5 54 10 5 (0 0 0 0.15 0 0.81 0 0 0.019 0.019) \*  
## 10871) 597< 38.5 15 8 9 (0 0 0 0.067 0 0.2 0 0.2 0.067 0.47) \*  
## 1359) 294< 3 38 22 8 (0 0 0 0.053 0 0.16 0 0 0.42 0.37)   
## 2718) 545< 45.5 30 14 8 (0 0 0 0.067 0 0.2 0 0 0.53 0.2)   
## 5436) 431< 10.5 14 8 9 (0 0 0 0.14 0 0.29 0 0 0.14 0.43) \*  
## 5437) 431>=10.5 16 2 8 (0 0 0 0 0 0.12 0 0 0.88 0) \*  
## 2719) 545>=45.5 8 0 9 (0 0 0 0 0 0 0 0 0 1) \*  
## 85) 297< 29.5 512 105 5 (0.051 0 0 0.1 0.002 0.79 0.012 0 0.021 0.016)   
## 170) 301>=74 39 15 0 (0.62 0 0 0.077 0.026 0.026 0 0 0.13 0.13)   
## 340) 293>=187 23 0 0 (1 0 0 0 0 0 0 0 0 0) \*  
## 341) 293< 187 16 11 8 (0.062 0 0 0.19 0.062 0.062 0 0 0.31 0.31) \*  
## 171) 301< 74 473 67 5 (0.0042 0 0 0.11 0 0.86 0.013 0 0.013 0.0063)   
## 342) 295>=219 33 11 3 (0.061 0 0 0.67 0 0.15 0.03 0 0.061 0.03)   
## 684) 214< 206 23 2 3 (0 0 0 0.91 0 0 0 0 0.043 0.043) \*  
## 685) 214>=206 10 5 5 (0.2 0 0 0.1 0 0.5 0.1 0 0.1 0) \*  
## 343) 295< 219 440 39 5 (0 0 0 0.064 0 0.91 0.011 0 0.0091 0.0045)   
## 686) 121>=122.5 18 5 3 (0 0 0 0.72 0 0.22 0 0 0.056 0) \*  
## 687) 121< 122.5 422 25 5 (0 0 0 0.036 0 0.94 0.012 0 0.0071 0.0047)   
## 1374) 235< 1 37 13 5 (0 0 0 0.32 0 0.65 0.027 0 0 0)   
## 2748) 293>=176 20 8 3 (0 0 0 0.6 0 0.35 0.05 0 0 0)   
## 5496) 551>=62.5 13 2 3 (0 0 0 0.85 0 0.077 0.077 0 0 0) \*  
## 5497) 551< 62.5 7 1 5 (0 0 0 0.14 0 0.86 0 0 0 0) \*  
## 2749) 293< 176 17 0 5 (0 0 0 0 0 1 0 0 0 0) \*  
## 1375) 235>=1 385 12 5 (0 0 0 0.0078 0 0.97 0.01 0 0.0078 0.0052)   
## 2750) 299< 67 378 7 5 (0 0 0 0.0079 0 0.98 0.011 0 0 0) \*  
## 2751) 299>=67 7 4 8 (0 0 0 0 0 0.29 0 0 0.43 0.29) \*  
## 43) 626< 10.5 521 277 9 (0.015 0.0096 0.0038 0.071 0.15 0.11 0.013 0.14 0.021 0.47)   
## 86) 210< 1 164 102 7 (0.024 0.018 0 0.055 0.35 0.067 0.024 0.38 0.018 0.061)   
## 172) 321< 202 85 27 4 (0 0 0 0.047 0.68 0.082 0.047 0.035 0.012 0.094)   
## 344) 266< 36 70 13 4 (0 0 0 0.014 0.81 0.043 0.057 0.029 0 0.043)   
## 688) 124< 37 63 6 4 (0 0 0 0.016 0.9 0 0 0.032 0 0.048) \*  
## 689) 124>=37 7 3 6 (0 0 0 0 0 0.43 0.57 0 0 0) \*  
## 345) 266>=36 15 10 9 (0 0 0 0.2 0.067 0.27 0 0.067 0.067 0.33) \*  
## 173) 321>=202 79 20 7 (0.051 0.038 0 0.063 0 0.051 0 0.75 0.025 0.025)   
## 346) 570>=2 12 8 0 (0.33 0 0 0.17 0 0.33 0 0 0.17 0) \*  
## 347) 570< 2 67 8 7 (0 0.045 0 0.045 0 0 0 0.88 0 0.03) \*  
## 87) 210>=1 357 123 9 (0.011 0.0056 0.0056 0.078 0.05 0.13 0.0084 0.034 0.022 0.66)   
## 174) 297< 5.5 100 56 5 (0 0.02 0 0.16 0.1 0.44 0.03 0.02 0.03 0.2)   
## 348) 295< 99 63 20 5 (0 0 0 0.079 0.063 0.68 0.048 0.016 0.016 0.095)   
## 696) 491< 144 52 10 5 (0 0 0 0.096 0 0.81 0.058 0 0 0.038) \*  
## 697) 491>=144 11 7 4 (0 0 0 0 0.36 0.091 0 0.091 0.091 0.36) \*  
## 349) 295>=99 37 23 9 (0 0.054 0 0.3 0.16 0.027 0 0.027 0.054 0.38)   
## 698) 468>=26 9 0 3 (0 0 0 1 0 0 0 0 0 0) \*  
## 699) 468< 26 28 14 9 (0 0.071 0 0.071 0.21 0.036 0 0.036 0.071 0.5)   
## 1398) 294>=197.5 17 11 4 (0 0.12 0 0.12 0.35 0.059 0 0.059 0.12 0.18) \*  
## 1399) 294< 197.5 11 0 9 (0 0 0 0 0 0 0 0 0 1) \*  
## 175) 297>=5.5 257 43 9 (0.016 0 0.0078 0.047 0.031 0.0078 0 0.039 0.019 0.83)   
## 350) 680>=29 10 2 3 (0.1 0 0 0.8 0 0.1 0 0 0 0) \*  
## 351) 680< 29 247 33 9 (0.012 0 0.0081 0.016 0.032 0.004 0 0.04 0.02 0.87)   
## 702) 515>=44 9 4 8 (0.22 0 0.22 0 0 0 0 0 0.56 0) \*  
## 703) 515< 44 238 24 9 (0.0042 0 0 0.017 0.034 0.0042 0 0.042 0 0.9)   
## 1406) 377< 21.5 16 8 7 (0.062 0 0 0 0 0.062 0 0.5 0 0.38) \*  
## 1407) 377>=21.5 222 14 9 (0 0 0 0.018 0.036 0 0 0.009 0 0.94) \*  
## 11) 486>=76.5 993 580 8 (0.065 0.02 0.13 0.066 0.014 0.053 0.2 0.001 0.42 0.035)   
## 22) 657< 5.5 423 238 6 (0.031 0.047 0.23 0.035 0.033 0.054 0.44 0 0.069 0.061)   
## 44) 270>=51.5 173 104 2 (0.052 0.087 0.4 0.046 0.052 0.04 0.081 0 0.13 0.11)   
## 88) 126>=10 73 16 2 (0 0.014 0.78 0.068 0 0 0.055 0 0.082 0)   
## 176) 466< 39.5 60 5 2 (0 0.017 0.92 0.033 0 0 0.033 0 0 0) \*  
## 177) 466>=39.5 13 7 8 (0 0 0.15 0.23 0 0 0.15 0 0.46 0) \*  
## 89) 126< 10 100 81 9 (0.09 0.14 0.12 0.03 0.09 0.07 0.1 0 0.17 0.19)   
## 178) 717< 5 83 67 8 (0.11 0.17 0.14 0.036 0.11 0.084 0.12 0 0.19 0.036)   
## 356) 211< 22.5 39 25 1 (0 0.36 0 0 0.21 0.18 0.18 0 0.051 0.026)   
## 712) 457< 14.5 14 1 1 (0 0.93 0 0 0 0 0.071 0 0 0) \*  
## 713) 457>=14.5 25 17 4 (0 0.04 0 0 0.32 0.28 0.24 0 0.08 0.04)   
## 1426) 293< 127.5 17 9 4 (0 0.059 0 0 0.47 0 0.35 0 0.059 0.059) \*  
## 1427) 293>=127.5 8 1 5 (0 0 0 0 0 0.88 0 0 0.12 0) \*  
## 357) 211>=22.5 44 30 8 (0.2 0 0.27 0.068 0.023 0 0.068 0 0.32 0.045)   
## 714) 406< 98 9 1 0 (0.89 0 0 0 0 0 0.11 0 0 0) \*  
## 715) 406>=98 35 21 8 (0.029 0 0.34 0.086 0.029 0 0.057 0 0.4 0.057)   
## 1430) 550>=139 16 5 2 (0 0 0.69 0.062 0.062 0 0.062 0 0.062 0.062) \*  
## 1431) 550< 139 19 6 8 (0.053 0 0.053 0.11 0 0 0.053 0 0.68 0.053) \*  
## 179) 717>=5 17 1 9 (0 0 0 0 0 0 0 0 0.059 0.94) \*  
## 45) 270< 51.5 250 79 6 (0.016 0.02 0.12 0.028 0.02 0.064 0.68 0 0.024 0.028)   
## 90) 601< 36.5 41 32 2 (0.049 0.12 0.22 0.073 0.12 0.098 0.098 0 0.049 0.17)   
## 180) 380< 19.5 18 9 2 (0.056 0.28 0.5 0 0 0.11 0.056 0 0 0) \*  
## 181) 380>=19.5 23 16 9 (0.043 0 0 0.13 0.22 0.087 0.13 0 0.087 0.3)   
## 362) 428< 201 13 9 4 (0 0 0 0.23 0.31 0.077 0.23 0 0.15 0) \*  
## 363) 428>=201 10 3 9 (0.1 0 0 0 0.1 0.1 0 0 0 0.7) \*  
## 91) 601>=36.5 209 42 6 (0.0096 0 0.096 0.019 0 0.057 0.8 0 0.019 0)   
## 182) 584>=8 16 3 2 (0 0 0.81 0 0 0 0.19 0 0 0) \*  
## 183) 584< 8 193 29 6 (0.01 0 0.036 0.021 0 0.062 0.85 0 0.021 0)   
## 366) 431< 1 21 11 5 (0 0 0 0.14 0 0.48 0.38 0 0 0)   
## 732) 321>=93.5 14 4 5 (0 0 0 0.21 0 0.71 0.071 0 0 0) \*  
## 733) 321< 93.5 7 0 6 (0 0 0 0 0 0 1 0 0 0) \*  
## 367) 431>=1 172 16 6 (0.012 0 0.041 0.0058 0 0.012 0.91 0 0.023 0)   
## 734) 273>=58.5 7 4 8 (0.29 0 0 0.14 0 0.14 0 0 0.43 0) \*  
## 735) 273< 58.5 165 9 6 (0 0 0.042 0 0 0.0061 0.95 0 0.0061 0) \*  
## 23) 657>=5.5 570 186 8 (0.091 0 0.049 0.089 0 0.053 0.026 0.0018 0.67 0.016)   
## 46) 407< 1.5 97 53 0 (0.45 0 0.082 0.062 0 0.15 0.031 0 0.22 0)   
## 92) 329>=11 41 4 0 (0.9 0 0 0.024 0 0.049 0 0 0.024 0) \*  
## 93) 329< 11 56 36 8 (0.12 0 0.14 0.089 0 0.23 0.054 0 0.36 0)   
## 186) 347>=0.5 40 27 5 (0.17 0 0 0.12 0 0.33 0.075 0 0.3 0)   
## 372) 351< 190 12 5 0 (0.58 0 0 0.083 0 0.25 0.083 0 0 0) \*  
## 373) 351>=190 28 16 8 (0 0 0 0.14 0 0.36 0.071 0 0.43 0)   
## 746) 297< 178 16 6 5 (0 0 0 0.12 0 0.62 0.062 0 0.19 0) \*  
## 747) 297>=178 12 3 8 (0 0 0 0.17 0 0 0.083 0 0.75 0) \*  
## 187) 347< 0.5 16 8 2 (0 0 0.5 0 0 0 0 0 0.5 0) \*  
## 47) 407>=1.5 473 110 8 (0.017 0 0.042 0.095 0 0.032 0.025 0.0021 0.77 0.019)   
## 94) 514< 1 43 21 3 (0 0 0.023 0.51 0 0.047 0 0 0.3 0.12)   
## 188) 512< 70.5 27 6 3 (0 0 0 0.78 0 0.037 0 0 0 0.19)   
## 376) 320< 71.5 20 0 3 (0 0 0 1 0 0 0 0 0 0) \*  
## 377) 320>=71.5 7 2 9 (0 0 0 0.14 0 0.14 0 0 0 0.71) \*  
## 189) 512>=70.5 16 3 8 (0 0 0.062 0.062 0 0.062 0 0 0.81 0) \*  
## 95) 514>=1 430 80 8 (0.019 0 0.044 0.053 0 0.03 0.028 0.0023 0.81 0.0093)   
## 190) 432< 1 28 20 3 (0.21 0 0.036 0.29 0 0.21 0.036 0 0.18 0.036)   
## 380) 429>=101.5 13 7 0 (0.46 0 0.077 0 0 0 0.077 0 0.38 0) \*  
## 381) 429< 101.5 15 7 3 (0 0 0 0.53 0 0.4 0 0 0 0.067) \*  
## 191) 432>=1 402 57 8 (0.005 0 0.045 0.037 0 0.017 0.027 0.0025 0.86 0.0075)   
## 382) 436< 7 57 25 8 (0.018 0 0.32 0.053 0 0.018 0.018 0.018 0.56 0)   
## 764) 126>=44.5 24 7 2 (0 0 0.71 0.042 0 0 0.042 0 0.21 0)   
## 1528) 602>=175 17 1 2 (0 0 0.94 0 0 0 0.059 0 0 0) \*  
## 1529) 602< 175 7 2 8 (0 0 0.14 0.14 0 0 0 0 0.71 0) \*  
## 765) 126< 44.5 33 6 8 (0.03 0 0.03 0.061 0 0.03 0 0.03 0.82 0) \*  
## 383) 436>=7 345 32 8 (0.0029 0 0 0.035 0 0.017 0.029 0 0.91 0.0087)   
## 766) 439>=250.5 36 18 8 (0 0 0 0.28 0 0.14 0.056 0 0.5 0.028)   
## 1532) 289< 1.5 11 2 3 (0 0 0 0.82 0 0 0.091 0 0.091 0) \*  
## 1533) 289>=1.5 25 8 8 (0 0 0 0.04 0 0.2 0.04 0 0.68 0.04)   
## 3066) 270< 126 8 3 5 (0 0 0 0 0 0.62 0.12 0 0.12 0.12) \*  
## 3067) 270>=126 17 1 8 (0 0 0 0.059 0 0 0 0 0.94 0) \*  
## 767) 439< 250.5 309 14 8 (0.0032 0 0 0.0065 0 0.0032 0.026 0 0.95 0.0065)   
## 1534) 406< 171.5 37 9 8 (0.027 0 0 0 0 0 0.19 0 0.76 0.027)   
## 3068) 131>=50 7 2 6 (0.14 0 0 0 0 0 0.71 0 0.14 0) \*  
## 3069) 131< 50 30 3 8 (0 0 0 0 0 0 0.067 0 0.9 0.033) \*  
## 1535) 406>=171.5 272 5 8 (0 0 0 0.0074 0 0.0037 0.0037 0 0.98 0.0037) \*  
## 3) 350< 120.5 16137 13725 7 (0.14 0.014 0.13 0.031 0.14 0.081 0.12 0.15 0.077 0.12)   
## 6) 435< 0.5 4294 2072 0 (0.52 0.004 0.066 0.03 0.039 0.086 0.053 0.15 0.0086 0.042)   
## 12) 597>=1.5 2737 684 0 (0.75 0.0022 0.084 0.031 0.0018 0.08 0.03 0.0058 0.011 0.0033)   
## 24) 489< 0.5 2295 319 0 (0.86 0.00044 0.021 0.033 0.00087 0.053 0.02 0.0052 0.0026 0.0026)   
## 48) 380< 1.5 2072 142 0 (0.93 0 0.015 0.015 0.00048 0.021 0.01 0.0048 0.00048 0.00097)   
## 96) 324< 172 1973 88 0 (0.96 0 0.015 0.0035 0.00051 0.0096 0.0091 0.0051 0.00051 0.001)   
## 192) 463< 80 1955 73 0 (0.96 0 0.013 0.0036 0.00051 0.0082 0.0087 0.002 0 0.001)   
## 384) 400>=3.5 1623 17 0 (0.99 0 0.00062 0 0.00062 0.0012 0.0074 0 0 0.00062)   
## 768) 96< 93.5 1603 12 0 (0.99 0 0.00062 0 0.00062 0.0012 0.0044 0 0 0.00062)   
## 1536) 101< 189 1578 7 0 (1 0 0 0 0.00063 0.0013 0.0019 0 0 0.00063) \*  
## 1537) 101>=189 25 5 0 (0.8 0 0.04 0 0 0 0.16 0 0 0)   
## 3074) 244>=5.5 18 1 0 (0.94 0 0.056 0 0 0 0 0 0 0) \*  
## 3075) 244< 5.5 7 3 6 (0.43 0 0 0 0 0 0.57 0 0 0) \*  
## 769) 96>=93.5 20 5 0 (0.75 0 0 0 0 0 0.25 0 0 0)   
## 1538) 183>=24.5 13 0 0 (1 0 0 0 0 0 0 0 0 0) \*  
## 1539) 183< 24.5 7 2 6 (0.29 0 0 0 0 0 0.71 0 0 0) \*  
## 385) 400< 3.5 332 56 0 (0.83 0 0.075 0.021 0 0.042 0.015 0.012 0 0.003)   
## 770) 545< 198.5 299 35 0 (0.88 0 0.03 0.023 0 0.047 0.01 0.0033 0 0.0033)   
## 1540) 296< 135 267 15 0 (0.94 0 0.026 0.0037 0 0.0075 0.011 0.0037 0 0.0037)   
## 3080) 244>=1 201 2 0 (0.99 0 0 0 0 0.005 0 0.005 0 0) \*  
## 3081) 244< 1 66 13 0 (0.8 0 0.11 0.015 0 0.015 0.045 0 0 0.015)   
## 6162) 149< 10.5 56 4 0 (0.93 0 0.018 0 0 0 0.054 0 0 0) \*  
## 6163) 149>=10.5 10 4 2 (0.1 0 0.6 0.1 0 0.1 0 0 0 0.1) \*  
## 1541) 296>=135 32 20 0 (0.38 0 0.062 0.19 0 0.38 0 0 0 0)   
## 3082) 239>=145 18 7 0 (0.61 0 0.11 0.28 0 0 0 0 0 0) \*  
## 3083) 239< 145 14 2 5 (0.071 0 0 0.071 0 0.86 0 0 0 0) \*  
## 771) 545>=198.5 33 17 2 (0.36 0 0.48 0 0 0 0.061 0.091 0 0)   
## 1542) 455>=4 11 1 0 (0.91 0 0.091 0 0 0 0 0 0 0) \*  
## 1543) 455< 4 22 7 2 (0.091 0 0.68 0 0 0 0.091 0.14 0 0)   
## 3086) 544>=170 14 1 2 (0.071 0 0.93 0 0 0 0 0 0 0) \*  
## 3087) 544< 170 8 5 7 (0.12 0 0.25 0 0 0 0.25 0.38 0 0) \*  
## 193) 463>=80 18 12 7 (0.17 0 0.22 0 0 0.17 0.056 0.33 0.056 0) \*  
## 97) 324>=172 99 54 0 (0.45 0 0.02 0.24 0 0.25 0.03 0 0 0)   
## 194) 427>=40 42 2 0 (0.95 0 0 0.024 0 0.024 0 0 0 0) \*  
## 195) 427< 40 57 33 5 (0.088 0 0.035 0.4 0 0.42 0.053 0 0 0)   
## 390) 240>=64.5 30 9 3 (0.13 0 0.033 0.7 0 0.13 0 0 0 0)   
## 780) 209>=148.5 11 7 0 (0.36 0 0.091 0.18 0 0.36 0 0 0 0) \*  
## 781) 209< 148.5 19 0 3 (0 0 0 1 0 0 0 0 0 0) \*  
## 391) 240< 64.5 27 7 5 (0.037 0 0.037 0.074 0 0.74 0.11 0 0 0)   
## 782) 541>=148 7 4 6 (0.14 0 0.14 0 0 0.29 0.43 0 0 0) \*  
## 783) 541< 148 20 2 5 (0 0 0 0.1 0 0.9 0 0 0 0) \*  
## 49) 380>=1.5 223 146 5 (0.21 0.0045 0.076 0.2 0.0045 0.35 0.12 0.009 0.022 0.018)   
## 98) 484>=42 84 45 0 (0.46 0 0.071 0.024 0.012 0.13 0.26 0 0.024 0.012)   
## 196) 270>=21.5 45 9 0 (0.8 0 0.067 0 0.022 0.044 0 0 0.044 0.022)   
## 392) 378< 76.5 38 2 0 (0.95 0 0 0 0.026 0 0 0 0 0.026) \*  
## 393) 378>=76.5 7 4 2 (0 0 0.43 0 0 0.29 0 0 0.29 0) \*  
## 197) 270< 21.5 39 17 6 (0.077 0 0.077 0.051 0 0.23 0.56 0 0 0)   
## 394) 325>=145 13 7 5 (0.15 0 0.23 0.15 0 0.46 0 0 0 0) \*  
## 395) 325< 145 26 4 6 (0.038 0 0 0 0 0.12 0.85 0 0 0) \*  
## 99) 484< 42 139 73 5 (0.05 0.0072 0.079 0.3 0 0.47 0.029 0.014 0.022 0.022)   
## 198) 375< 95 65 34 3 (0.046 0.015 0.15 0.48 0 0.22 0.046 0.031 0.015 0)   
## 396) 287< 38.5 55 24 3 (0.055 0.018 0.18 0.56 0 0.13 0.018 0.036 0 0)   
## 792) 514>=4 11 5 2 (0.091 0.091 0.55 0 0 0.18 0.091 0 0 0) \*  
## 793) 514< 4 44 13 3 (0.045 0 0.091 0.7 0 0.11 0 0.045 0 0)   
## 1586) 544< 35 36 6 3 (0.056 0 0 0.83 0 0.11 0 0 0 0)   
## 3172) 538< 56 27 0 3 (0 0 0 1 0 0 0 0 0 0) \*  
## 3173) 538>=56 9 5 5 (0.22 0 0 0.33 0 0.44 0 0 0 0) \*  
## 1587) 544>=35 8 4 2 (0 0 0.5 0.12 0 0.12 0 0.25 0 0) \*  
## 397) 287>=38.5 10 3 5 (0 0 0 0 0 0.7 0.2 0 0.1 0) \*  
## 199) 375>=95 74 22 5 (0.054 0 0.014 0.15 0 0.7 0.014 0 0.027 0.041)   
## 398) 326>=3.5 21 15 5 (0.19 0 0.048 0.19 0 0.29 0.048 0 0.095 0.14)   
## 796) 381>=215.5 13 9 0 (0.31 0 0.077 0.31 0 0.077 0 0 0 0.23) \*  
## 797) 381< 215.5 8 3 5 (0 0 0 0 0 0.62 0.12 0 0.25 0) \*  
## 399) 326< 3.5 53 7 5 (0 0 0 0.13 0 0.87 0 0 0 0)   
## 798) 202>=10 7 2 3 (0 0 0 0.71 0 0.29 0 0 0 0) \*  
## 799) 202< 10 46 2 5 (0 0 0 0.043 0 0.96 0 0 0 0) \*  
## 25) 489>=0.5 442 261 2 (0.17 0.011 0.41 0.023 0.0068 0.22 0.081 0.009 0.054 0.0068)   
## 50) 347< 2.5 218 48 2 (0.032 0.023 0.78 0.028 0.0092 0.046 0.032 0.014 0.028 0.0092)   
## 100) 344< 154.5 192 23 2 (0 0.026 0.88 0.031 0.0052 0.01 0.0052 0.016 0.026 0)   
## 200) 520>=34 169 7 2 (0 0 0.96 0.012 0.0059 0 0.0059 0.018 0 0) \*  
## 201) 520< 34 23 16 2 (0 0.22 0.3 0.17 0 0.087 0 0 0.22 0)   
## 402) 351>=171.5 11 5 2 (0 0.45 0.55 0 0 0 0 0 0 0) \*  
## 403) 351< 171.5 12 7 8 (0 0 0.083 0.33 0 0.17 0 0 0.42 0) \*  
## 101) 344>=154.5 26 18 5 (0.27 0 0.038 0 0.038 0.31 0.23 0 0.038 0.077)   
## 202) 512>=14.5 17 10 0 (0.41 0 0.059 0 0.059 0 0.29 0 0.059 0.12) \*  
## 203) 512< 14.5 9 1 5 (0 0 0 0 0 0.89 0.11 0 0 0) \*  
## 51) 347>=2.5 224 135 5 (0.31 0 0.049 0.018 0.0045 0.4 0.13 0.0045 0.08 0.0045)   
## 102) 386>=3.5 73 9 0 (0.88 0 0.014 0 0 0 0.068 0.014 0.014 0.014)   
## 204) 243>=2 64 3 0 (0.95 0 0.016 0 0 0 0 0.016 0.016 0) \*  
## 205) 243< 2 9 4 6 (0.33 0 0 0 0 0 0.56 0 0 0.11) \*  
## 103) 386< 3.5 151 62 5 (0.04 0 0.066 0.026 0.0066 0.59 0.16 0 0.11 0)   
## 206) 513>=12.5 64 41 6 (0.078 0 0.14 0.062 0.016 0.16 0.36 0 0.19 0)   
## 412) 131< 89 44 32 8 (0.091 0 0.18 0.068 0.023 0.23 0.14 0 0.27 0)   
## 824) 407< 63 34 24 5 (0.12 0 0.24 0.088 0.029 0.29 0.15 0 0.088 0)   
## 1648) 580>=144 10 3 2 (0 0 0.7 0.1 0 0 0.2 0 0 0) \*  
## 1649) 580< 144 24 14 5 (0.17 0 0.042 0.083 0.042 0.42 0.12 0 0.12 0)   
## 3298) 627>=242 10 6 0 (0.4 0 0.1 0.1 0 0 0.2 0 0.2 0) \*  
## 3299) 627< 242 14 4 5 (0 0 0 0.071 0.071 0.71 0.071 0 0.071 0) \*  
## 825) 407>=63 10 1 8 (0 0 0 0 0 0 0.1 0 0.9 0) \*  
## 413) 131>=89 20 3 6 (0.05 0 0.05 0.05 0 0 0.85 0 0 0) \*  
## 207) 513< 12.5 87 8 5 (0.011 0 0.011 0 0 0.91 0.011 0 0.057 0) \*  
## 13) 597< 1.5 1557 909 7 (0.11 0.0071 0.033 0.029 0.1 0.095 0.094 0.42 0.0045 0.11)   
## 26) 486>=0.5 603 470 6 (0.18 0.0017 0.073 0.018 0.21 0.1 0.22 0.043 0.0083 0.15)   
## 52) 572>=5.5 309 186 6 (0.32 0.0032 0.097 0.019 0.029 0.061 0.4 0.0097 0.0097 0.052)   
## 104) 241>=12 151 61 0 (0.6 0 0.11 0.02 0.02 0.093 0.033 0.02 0.013 0.099)   
## 208) 518< 102 93 13 0 (0.86 0 0.032 0.011 0 0.022 0.022 0.022 0.011 0.022)   
## 416) 322< 103 86 7 0 (0.92 0 0.023 0.012 0 0 0 0.023 0 0.023) \*  
## 417) 322>=103 7 5 5 (0.14 0 0.14 0 0 0.29 0.29 0 0.14 0) \*  
## 209) 518>=102 58 45 2 (0.17 0 0.22 0.034 0.052 0.21 0.052 0.017 0.017 0.22)   
## 418) 438< 23.5 25 13 5 (0.32 0 0 0.04 0 0.48 0.12 0 0.04 0)   
## 836) 370>=3 8 0 0 (1 0 0 0 0 0 0 0 0 0) \*  
## 837) 370< 3 17 5 5 (0 0 0 0.059 0 0.71 0.18 0 0.059 0) \*  
## 419) 438>=23.5 33 20 2 (0.061 0 0.39 0.03 0.091 0 0 0.03 0 0.39)   
## 838) 343< 29 19 6 2 (0.11 0 0.68 0.053 0.11 0 0 0 0 0.053) \*  
## 839) 343>=29 14 2 9 (0 0 0 0 0.071 0 0 0.071 0 0.86) \*  
## 105) 241< 12 158 40 6 (0.057 0.0063 0.089 0.019 0.038 0.032 0.75 0 0.0063 0.0063)   
## 210) 215>=15 15 8 0 (0.47 0 0.2 0 0.13 0 0.067 0 0.067 0.067) \*  
## 211) 215< 15 143 26 6 (0.014 0.007 0.077 0.021 0.028 0.035 0.82 0 0 0)   
## 422) 322>=99.5 15 11 2 (0.13 0.067 0.27 0.2 0 0.2 0.13 0 0 0) \*  
## 423) 322< 99.5 128 13 6 (0 0 0.055 0 0.031 0.016 0.9 0 0 0)   
## 846) 555>=194 8 3 2 (0 0 0.62 0 0 0 0.38 0 0 0) \*  
## 847) 555< 194 120 8 6 (0 0 0.017 0 0.033 0.017 0.93 0 0 0)   
## 1694) 657>=4.5 7 4 4 (0 0 0.14 0 0.43 0.14 0.29 0 0 0) \*  
## 1695) 657< 4.5 113 3 6 (0 0 0.0088 0 0.0088 0.0088 0.97 0 0 0) \*  
## 53) 572< 5.5 294 178 4 (0.031 0 0.048 0.017 0.39 0.14 0.034 0.078 0.0068 0.25)   
## 106) 211< 8 119 27 4 (0.017 0 0.05 0 0.77 0.025 0.042 0.05 0 0.042)   
## 212) 294< 30.5 103 11 4 (0.0097 0 0.029 0 0.89 0 0.049 0 0 0.019)   
## 424) 125>=149.5 7 4 2 (0 0 0.43 0 0.29 0 0.29 0 0 0) \*  
## 425) 125< 149.5 96 6 4 (0.01 0 0 0 0.94 0 0.031 0 0 0.021) \*  
## 213) 294>=30.5 16 10 7 (0.062 0 0.19 0 0 0.19 0 0.38 0 0.19) \*  
## 107) 211>=8 175 106 9 (0.04 0 0.046 0.029 0.14 0.22 0.029 0.097 0.011 0.39)   
## 214) 465< 104 69 31 5 (0.087 0 0.072 0.072 0.014 0.55 0.058 0.058 0.014 0.072)   
## 428) 218>=1.5 35 3 5 (0.057 0 0.029 0 0 0.91 0 0 0 0) \*  
## 429) 218< 1.5 34 28 5 (0.12 0 0.12 0.15 0.029 0.18 0.12 0.12 0.029 0.15)   
## 858) 345< 146 25 20 3 (0.16 0 0.16 0.2 0.04 0 0.16 0.04 0.04 0.2)   
## 1716) 324>=5.5 7 2 3 (0 0 0 0.71 0.14 0 0 0 0 0.14) \*  
## 1717) 324< 5.5 18 14 0 (0.22 0 0.22 0 0 0 0.22 0.056 0.056 0.22) \*  
## 859) 345>=146 9 3 5 (0 0 0 0 0 0.67 0 0.33 0 0) \*  
## 215) 465>=104 106 42 9 (0.0094 0 0.028 0 0.22 0 0.0094 0.12 0.0094 0.6)   
## 430) 208< 2.5 24 7 4 (0.042 0 0.042 0 0.71 0 0 0.083 0 0.12)   
## 860) 328< 97.5 17 1 4 (0 0 0 0 0.94 0 0 0 0 0.059) \*  
## 861) 328>=97.5 7 5 7 (0.14 0 0.14 0 0.14 0 0 0.29 0 0.29) \*  
## 431) 208>=2.5 82 21 9 (0 0 0.024 0 0.073 0 0.012 0.13 0.012 0.74)   
## 862) 375>=62.5 9 5 4 (0 0 0.11 0 0.44 0 0 0.22 0.11 0.11) \*  
## 863) 375< 62.5 73 13 9 (0 0 0.014 0 0.027 0 0.014 0.12 0 0.82)   
## 1726) 408>=130.5 11 5 7 (0 0 0 0 0 0 0 0.55 0 0.45) \*  
## 1727) 408< 130.5 62 7 9 (0 0 0.016 0 0.032 0 0.016 0.048 0 0.89) \*  
## 27) 486< 0.5 954 332 7 (0.064 0.01 0.0084 0.036 0.038 0.092 0.014 0.65 0.0021 0.084)   
## 54) 404>=1 208 143 9 (0.019 0.034 0.014 0.12 0.11 0.3 0.043 0.043 0.0096 0.31)   
## 108) 354< 26 106 47 5 (0.019 0.066 0 0.16 0.019 0.56 0.085 0.019 0.019 0.057)   
## 216) 290< 0.5 53 36 3 (0.019 0.13 0 0.32 0.019 0.32 0.15 0 0 0.038)   
## 432) 205>=9.5 16 3 3 (0 0 0 0.81 0.062 0.12 0 0 0 0) \*  
## 433) 205< 9.5 37 22 5 (0.027 0.19 0 0.11 0 0.41 0.22 0 0 0.054)   
## 866) 541< 12 28 20 6 (0.036 0.25 0 0.14 0 0.21 0.29 0 0 0.071)   
## 1732) 515< 28.5 18 12 1 (0.056 0.33 0 0.22 0 0.28 0 0 0 0.11) \*  
## 1733) 515>=28.5 10 2 6 (0 0.1 0 0 0 0.1 0.8 0 0 0) \*  
## 867) 541>=12 9 0 5 (0 0 0 0 0 1 0 0 0 0) \*  
## 217) 290>=0.5 53 11 5 (0.019 0 0 0 0.019 0.79 0.019 0.038 0.038 0.075)   
## 434) 464< 87 46 5 5 (0.022 0 0 0 0 0.89 0.022 0.022 0.043 0) \*  
## 435) 464>=87 7 3 9 (0 0 0 0 0.14 0.14 0 0.14 0 0.57) \*  
## 109) 354>=26 102 43 9 (0.02 0 0.029 0.078 0.2 0.029 0 0.069 0 0.58)   
## 218) 239< 1.5 31 12 4 (0 0 0.032 0.13 0.61 0.032 0 0.097 0 0.097)   
## 436) 155>=78.5 7 3 3 (0 0 0.14 0.57 0 0 0 0 0 0.29) \*  
## 437) 155< 78.5 24 5 4 (0 0 0 0 0.79 0.042 0 0.12 0 0.042) \*  
## 219) 239>=1.5 71 15 9 (0.028 0 0.028 0.056 0.014 0.028 0 0.056 0 0.79) \*  
## 55) 404< 1 746 133 7 (0.076 0.004 0.0067 0.012 0.019 0.035 0.0054 0.82 0 0.02)   
## 110) 538>=1 68 19 0 (0.72 0 0 0.015 0.029 0.13 0 0.059 0 0.044)   
## 220) 323< 203 59 10 0 (0.83 0 0 0 0.034 0.051 0 0.034 0 0.051)   
## 440) 518< 37.5 51 3 0 (0.94 0 0 0 0 0.02 0 0.039 0 0) \*  
## 441) 518>=37.5 8 5 9 (0.12 0 0 0 0.25 0.25 0 0 0 0.38) \*  
## 221) 323>=203 9 3 5 (0 0 0 0.11 0 0.67 0 0.22 0 0) \*  
## 111) 538< 1 678 69 7 (0.012 0.0044 0.0074 0.012 0.018 0.025 0.0059 0.9 0 0.018)   
## 222) 460>=13 30 20 5 (0 0.067 0.033 0.033 0.27 0.33 0.033 0.067 0 0.17)   
## 444) 381< 10.5 14 4 5 (0 0.14 0 0.071 0 0.71 0.071 0 0 0) \*  
## 445) 381>=10.5 16 8 4 (0 0 0.062 0 0.5 0 0 0.12 0 0.31) \*  
## 223) 460< 13 648 41 7 (0.012 0.0015 0.0062 0.011 0.0062 0.011 0.0046 0.94 0 0.011)   
## 446) 153>=27 19 14 3 (0.16 0.053 0.16 0.26 0 0.21 0 0.053 0 0.11) \*  
## 447) 153< 27 629 23 7 (0.0079 0 0.0016 0.0032 0.0064 0.0048 0.0048 0.96 0 0.0079)   
## 894) 158>=2 7 4 0 (0.43 0 0 0 0.29 0.29 0 0 0 0) \*  
## 895) 158< 2 622 16 7 (0.0032 0 0.0016 0.0032 0.0032 0.0016 0.0048 0.97 0 0.008)   
## 1790) 542>=123 8 5 6 (0.12 0 0 0 0.12 0.12 0.38 0.12 0 0.12) \*  
## 1791) 542< 123 614 9 7 (0.0016 0 0.0016 0.0033 0.0016 0 0 0.99 0 0.0065) \*  
## 7) 435>=0.5 11843 9804 4 (0.0054 0.017 0.15 0.031 0.17 0.079 0.15 0.15 0.1 0.15)   
## 14) 542>=1.5 5226 3621 6 (0.0094 0.025 0.28 0.0077 0.052 0.045 0.31 0.054 0.18 0.038)   
## 28) 271>=0.5 2838 1751 2 (0.014 0.036 0.38 0.0099 0.076 0.046 0.027 0.088 0.26 0.057)   
## 56) 347< 1.5 1644 635 2 (0.003 0.062 0.61 0.014 0.04 0.0073 0.03 0.12 0.057 0.055)   
## 112) 155>=1 1021 119 2 (0.0029 0 0.88 0.016 0.002 0.002 0.002 0.012 0.065 0.016)   
## 224) 344< 82 936 54 2 (0 0 0.94 0.016 0 0.0011 0 0.013 0.027 0.0011)   
## 448) 349< 134.5 922 40 2 (0 0 0.96 0.016 0 0.0011 0 0.013 0.012 0.0011)   
## 896) 345< 104.5 912 31 2 (0 0 0.97 0.016 0 0 0 0.013 0.0044 0)   
## 1792) 681< 37 869 16 2 (0 0 0.98 0.014 0 0 0 0.0035 0.0012 0)   
## 3584) 488>=1.5 801 6 2 (0 0 0.99 0.0025 0 0 0 0.0037 0.0012 0) \*  
## 3585) 488< 1.5 68 10 2 (0 0 0.85 0.15 0 0 0 0 0 0)   
## 7170) 351< 38.5 56 2 2 (0 0 0.96 0.036 0 0 0 0 0 0) \*  
## 7171) 351>=38.5 12 4 3 (0 0 0.33 0.67 0 0 0 0 0 0) \*  
## 1793) 681>=37 43 15 2 (0 0 0.65 0.07 0 0 0 0.21 0.07 0)   
## 3586) 206>=235.5 28 3 2 (0 0 0.89 0.071 0 0 0 0 0.036 0) \*  
## 3587) 206< 235.5 15 6 7 (0 0 0.2 0.067 0 0 0 0.6 0.13 0) \*  
## 897) 345>=104.5 10 3 8 (0 0 0.1 0 0 0.1 0 0 0.7 0.1) \*  
## 449) 349>=134.5 14 0 8 (0 0 0 0 0 0 0 0 1 0) \*  
## 225) 344>=82 85 44 8 (0.035 0 0.24 0.012 0.024 0.012 0.024 0 0.48 0.18)   
## 450) 402< 51.5 35 18 2 (0.086 0 0.49 0 0.057 0 0.057 0 0 0.31)   
## 900) 570>=169.5 22 5 2 (0.14 0 0.77 0 0 0 0.091 0 0 0)   
## 1800) 372< 138 15 0 2 (0 0 1 0 0 0 0 0 0 0) \*  
## 1801) 372>=138 7 4 0 (0.43 0 0.29 0 0 0 0.29 0 0 0) \*  
## 901) 570< 169.5 13 2 9 (0 0 0 0 0.15 0 0 0 0 0.85) \*  
## 451) 402>=51.5 50 9 8 (0 0 0.06 0.02 0 0.02 0 0 0.82 0.08)   
## 902) 318>=167.5 7 5 2 (0 0 0.29 0.14 0 0.14 0 0 0.14 0.29) \*  
## 903) 318< 167.5 43 3 8 (0 0 0.023 0 0 0 0 0 0.93 0.047) \*  
## 113) 155< 1 623 442 7 (0.0032 0.16 0.17 0.011 0.1 0.016 0.077 0.29 0.045 0.12)   
## 226) 709< 1.5 487 383 2 (0.0041 0.21 0.21 0.012 0.13 0.021 0.099 0.12 0.045 0.15)   
## 452) 211< 1 246 146 1 (0 0.41 0.077 0.0041 0.24 0.02 0.2 0.033 0.012 0.0081)   
## 904) 344< 1.5 135 35 1 (0 0.74 0.13 0.0074 0.015 0.022 0.044 0.044 0 0)   
## 1808) 520< 3 107 8 1 (0 0.93 0.028 0 0.0093 0.0093 0 0.028 0 0)   
## 3616) 411< 14.5 100 1 1 (0 0.99 0 0 0 0.01 0 0 0 0) \*  
## 3617) 411>=14.5 7 4 2 (0 0 0.43 0 0.14 0 0 0.43 0 0) \*  
## 1809) 520>=3 28 14 2 (0 0.036 0.5 0.036 0.036 0.071 0.21 0.11 0 0)   
## 3618) 431>=8.5 14 2 2 (0 0 0.86 0.071 0.071 0 0 0 0 0) \*  
## 3619) 431< 8.5 14 8 6 (0 0.071 0.14 0 0 0.14 0.43 0.21 0 0) \*  
## 905) 344>=1.5 111 53 4 (0 0 0.018 0 0.52 0.018 0.38 0.018 0.027 0.018)   
## 1810) 573< 221 72 18 4 (0 0 0.028 0 0.75 0.028 0.097 0.028 0.042 0.028)   
## 3620) 292< 124 63 9 4 (0 0 0.016 0 0.86 0 0.11 0 0 0.016)   
## 7240) 94< 7.5 56 3 4 (0 0 0.018 0 0.95 0 0.018 0 0 0.018) \*  
## 7241) 94>=7.5 7 1 6 (0 0 0 0 0.14 0 0.86 0 0 0) \*  
## 3621) 292>=124 9 6 8 (0 0 0.11 0 0 0.22 0 0.22 0.33 0.11) \*  
## 1811) 573>=221 39 4 6 (0 0 0 0 0.1 0 0.9 0 0 0)   
## 3622) 576< 114 7 3 4 (0 0 0 0 0.57 0 0.43 0 0 0) \*  
## 3623) 576>=114 32 0 6 (0 0 0 0 0 0 1 0 0 0) \*  
## 453) 211>=1 241 156 2 (0.0083 0.0083 0.35 0.021 0.0083 0.021 0 0.2 0.079 0.3)   
## 906) 371< 1.5 150 69 2 (0 0.013 0.54 0.033 0.0067 0 0 0.31 0.04 0.06)   
## 1812) 678< 45.5 127 46 2 (0 0.016 0.64 0.039 0 0 0 0.19 0.047 0.071)   
## 3624) 712< 40.5 109 29 2 (0 0.018 0.73 0.046 0 0 0 0.092 0.037 0.073)   
## 7248) 569>=4.5 78 10 2 (0 0.026 0.87 0.038 0 0 0 0.026 0.026 0.013) \*  
## 7249) 569< 4.5 31 19 2 (0 0 0.39 0.065 0 0 0 0.26 0.065 0.23)   
## 14498) 575< 111.5 19 9 2 (0 0 0.53 0 0 0 0 0 0.11 0.37) \*  
## 14499) 575>=111.5 12 4 7 (0 0 0.17 0.17 0 0 0 0.67 0 0) \*  
## 3625) 712>=40.5 18 4 7 (0 0 0.056 0 0 0 0 0.78 0.11 0.056) \*  
## 1813) 678>=45.5 23 1 7 (0 0 0 0 0.043 0 0 0.96 0 0) \*  
## 907) 371>=1.5 91 28 9 (0.022 0 0.044 0 0.011 0.055 0 0.033 0.14 0.69)   
## 1814) 599>=6.5 28 15 8 (0.071 0 0.071 0 0.036 0.18 0 0.071 0.46 0.11)   
## 3628) 467>=4 14 9 5 (0.14 0 0.071 0 0.071 0.36 0 0.14 0.071 0.14) \*  
## 3629) 467< 4 14 2 8 (0 0 0.071 0 0 0 0 0 0.86 0.071) \*  
## 1815) 599< 6.5 63 3 9 (0 0 0.032 0 0 0 0 0.016 0 0.95) \*  
## 227) 709>=1.5 136 12 7 (0 0 0.022 0.0074 0.0074 0 0 0.91 0.044 0.0074)   
## 454) 373< 182.5 128 4 7 (0 0 0.023 0.0078 0 0 0 0.97 0 0) \*  
## 455) 373>=182.5 8 2 8 (0 0 0 0 0.12 0 0 0 0.75 0.12) \*  
## 57) 347>=1.5 1194 546 8 (0.03 0 0.065 0.0042 0.13 0.1 0.023 0.047 0.54 0.06)   
## 114) 657< 15 485 357 4 (0.039 0 0.15 0 0.26 0.2 0.039 0.099 0.1 0.11)   
## 228) 354< 1 121 27 5 (0.041 0 0.058 0 0.025 0.78 0.033 0 0.066 0)   
## 456) 384>=14 20 14 8 (0.25 0 0.25 0 0.05 0 0.15 0 0.3 0)   
## 912) 522>=13.5 13 8 0 (0.38 0 0.38 0 0 0 0.23 0 0 0) \*  
## 913) 522< 13.5 7 1 8 (0 0 0 0 0.14 0 0 0 0.86 0) \*  
## 457) 384< 14 101 7 5 (0 0 0.02 0 0.02 0.93 0.0099 0 0.02 0)   
## 914) 352>=52.5 7 5 2 (0 0 0.29 0 0.29 0.14 0 0 0.29 0) \*  
## 915) 352< 52.5 94 1 5 (0 0 0 0 0 0.99 0.011 0 0 0) \*  
## 229) 354>=1 364 239 4 (0.038 0 0.18 0 0.34 0.0055 0.041 0.13 0.11 0.15)   
## 458) 212< 1.5 155 49 4 (0 0 0.084 0 0.68 0.0065 0.084 0.084 0.045 0.013)   
## 916) 268< 136 132 26 4 (0 0 0.076 0 0.8 0.0076 0.098 0 0.015 0)   
## 1832) 127>=2.5 18 9 2 (0 0 0.5 0 0 0 0.44 0 0.056 0) \*  
## 1833) 127< 2.5 114 8 4 (0 0 0.0088 0 0.93 0.0088 0.044 0 0.0088 0)   
## 3666) 124< 172 107 3 4 (0 0 0.0093 0 0.97 0.0093 0 0 0.0093 0) \*  
## 3667) 124>=172 7 2 6 (0 0 0 0 0.29 0 0.71 0 0 0) \*  
## 917) 268>=136 23 10 7 (0 0 0.13 0 0 0 0 0.57 0.22 0.087)   
## 1834) 486>=162.5 8 3 8 (0 0 0.38 0 0 0 0 0 0.62 0) \*  
## 1835) 486< 162.5 15 2 7 (0 0 0 0 0 0 0 0.87 0 0.13) \*  
## 459) 212>=1.5 209 156 2 (0.067 0 0.25 0 0.091 0.0048 0.0096 0.17 0.16 0.24)   
## 918) 567>=25 85 41 2 (0.14 0 0.52 0 0.012 0.012 0.012 0.024 0.27 0.012)   
## 1836) 654< 33 56 14 2 (0.11 0 0.75 0 0.018 0.018 0.018 0.018 0.054 0.018)   
## 3672) 346< 236.5 43 3 2 (0.047 0 0.93 0 0 0 0 0 0.023 0) \*  
## 3673) 346>=236.5 13 9 0 (0.31 0 0.15 0 0.077 0.077 0.077 0.077 0.15 0.077) \*  
## 1837) 654>=33 29 9 8 (0.21 0 0.069 0 0 0 0 0.034 0.69 0)   
## 3674) 492>=236 9 3 0 (0.67 0 0.22 0 0 0 0 0.11 0 0) \*  
## 3675) 492< 236 20 0 8 (0 0 0 0 0 0 0 0 1 0) \*  
## 919) 567< 25 124 74 9 (0.016 0 0.073 0 0.15 0 0.0081 0.27 0.089 0.4)   
## 1838) 458< 5 71 38 7 (0.014 0 0.085 0 0.07 0 0.014 0.46 0.13 0.23)   
## 3676) 404< 25 43 11 7 (0.023 0 0.093 0 0.023 0 0.023 0.74 0 0.093)   
## 7352) 680< 83 10 6 2 (0.1 0 0.4 0 0.1 0 0.1 0 0 0.3) \*  
## 7353) 680>=83 33 1 7 (0 0 0 0 0 0 0 0.97 0 0.03) \*  
## 3677) 404>=25 28 16 9 (0 0 0.071 0 0.14 0 0 0.036 0.32 0.43)   
## 7354) 655>=18.5 15 6 8 (0 0 0.067 0 0.2 0 0 0.067 0.6 0.067) \*  
## 7355) 655< 18.5 13 2 9 (0 0 0.077 0 0.077 0 0 0 0 0.85) \*  
## 1839) 458>=5 53 19 9 (0.019 0 0.057 0 0.25 0 0 0 0.038 0.64)   
## 3678) 402>=234.5 24 11 4 (0.042 0 0.042 0 0.54 0 0 0 0.042 0.33)   
## 7356) 456>=71 15 3 4 (0.067 0 0.067 0 0.8 0 0 0 0 0.067) \*  
## 7357) 456< 71 9 2 9 (0 0 0 0 0.11 0 0 0 0.11 0.78) \*  
## 3679) 402< 234.5 29 3 9 (0 0 0.069 0 0 0 0 0 0.034 0.9) \*  
## 115) 657>=15 709 110 8 (0.024 0 0.0071 0.0071 0.034 0.032 0.013 0.011 0.84 0.027)   
## 230) 428>=111.5 74 53 4 (0.14 0 0.014 0 0.28 0.12 0.068 0 0.2 0.18)   
## 460) 212< 40.5 21 2 4 (0 0 0 0 0.9 0 0 0 0.095 0) \*  
## 461) 212>=40.5 53 40 8 (0.19 0 0.019 0 0.038 0.17 0.094 0 0.25 0.25)   
## 922) 597>=24.5 36 23 8 (0.28 0 0.028 0 0 0.22 0.11 0 0.36 0)   
## 1844) 266>=251.5 14 4 0 (0.71 0 0 0 0 0.29 0 0 0 0) \*  
## 1845) 266< 251.5 22 9 8 (0 0 0.045 0 0 0.18 0.18 0 0.59 0)   
## 3690) 272< 158.5 9 5 5 (0 0 0.11 0 0 0.44 0.33 0 0.11 0) \*  
## 3691) 272>=158.5 13 1 8 (0 0 0 0 0 0 0.077 0 0.92 0) \*  
## 923) 597< 24.5 17 4 9 (0 0 0 0 0.12 0.059 0.059 0 0 0.76) \*  
## 231) 428< 111.5 635 51 8 (0.011 0 0.0063 0.0079 0.0047 0.022 0.0063 0.013 0.92 0.0094)   
## 462) 488< 14.5 47 24 8 (0.085 0 0 0.043 0.021 0.26 0.021 0.043 0.49 0.043)   
## 924) 600>=214 20 9 5 (0.2 0 0 0.1 0.05 0.55 0 0.05 0 0.05)   
## 1848) 327>=46.5 8 4 0 (0.5 0 0 0.25 0 0 0 0.12 0 0.12) \*  
## 1849) 327< 46.5 12 1 5 (0 0 0 0 0.083 0.92 0 0 0 0) \*  
## 925) 600< 214 27 4 8 (0 0 0 0 0 0.037 0.037 0.037 0.85 0.037) \*  
## 463) 488>=14.5 588 27 8 (0.0051 0 0.0068 0.0051 0.0034 0.0034 0.0051 0.01 0.95 0.0068)   
## 926) 404< 2 33 17 8 (0.03 0 0.12 0.03 0 0.03 0.03 0.18 0.48 0.091)   
## 1852) 294>=13 15 9 7 (0 0 0.27 0.067 0 0 0 0.4 0.067 0.2) \*  
## 1853) 294< 13 18 3 8 (0.056 0 0 0 0 0.056 0.056 0 0.83 0) \*  
## 927) 404>=2 555 10 8 (0.0036 0 0 0.0036 0.0036 0.0018 0.0036 0 0.98 0.0018) \*  
## 29) 271< 0.5 2388 861 6 (0.0034 0.012 0.16 0.005 0.023 0.044 0.64 0.015 0.086 0.014)   
## 58) 297>=53.5 447 177 2 (0.011 0.058 0.6 0.0089 0.076 0.0022 0.049 0.069 0.083 0.038)   
## 116) 346< 7.5 344 84 2 (0.0087 0.073 0.76 0.012 0.029 0 0.0087 0.078 0.017 0.017)   
## 232) 686< 2.5 318 58 2 (0.0063 0.079 0.82 0.0063 0.025 0 0.0094 0.028 0.013 0.016)   
## 464) 159>=0.5 32 10 1 (0.031 0.69 0.22 0 0.031 0 0 0 0.031 0)   
## 928) 127< 5 24 2 1 (0 0.92 0 0 0.042 0 0 0 0.042 0) \*  
## 929) 127>=5 8 1 2 (0.12 0 0.88 0 0 0 0 0 0 0) \*  
## 465) 159< 0.5 286 33 2 (0.0035 0.01 0.88 0.007 0.024 0 0.01 0.031 0.01 0.017)   
## 930) 398< 100.5 275 22 2 (0.0036 0.011 0.92 0.0073 0.011 0 0.0036 0.033 0.011 0)   
## 1860) 681< 13 268 16 2 (0 0.011 0.94 0.0075 0.011 0 0.0037 0.015 0.011 0)   
## 3720) 320< 35.5 260 10 2 (0 0.012 0.96 0.0038 0.0038 0 0.0038 0.015 0 0) \*  
## 3721) 320>=35.5 8 5 8 (0 0 0.25 0.12 0.25 0 0 0 0.38 0) \*  
## 1861) 681>=13 7 2 7 (0.14 0 0.14 0 0 0 0 0.71 0 0) \*  
## 931) 398>=100.5 11 6 9 (0 0 0 0 0.36 0 0.18 0 0 0.45) \*  
## 233) 686>=2.5 26 8 7 (0.038 0 0 0.077 0.077 0 0 0.69 0.077 0.038) \*  
## 117) 346>=7.5 103 72 8 (0.019 0.0097 0.097 0 0.23 0.0097 0.18 0.039 0.3 0.11)   
## 234) 656< 105 73 49 4 (0 0.014 0.12 0 0.33 0.014 0.26 0.055 0.055 0.15)   
## 468) 573< 214 48 24 4 (0 0.021 0.1 0 0.5 0.021 0 0.042 0.083 0.23)   
## 936) 465>=250 27 6 4 (0 0 0.037 0 0.78 0 0 0 0 0.19)   
## 1872) 209< 225.5 18 0 4 (0 0 0 0 1 0 0 0 0 0) \*  
## 1873) 209>=225.5 9 4 9 (0 0 0.11 0 0.33 0 0 0 0 0.56) \*  
## 937) 465< 250 21 15 9 (0 0.048 0.19 0 0.14 0.048 0 0.095 0.19 0.29)   
## 1874) 429< 5 10 7 2 (0 0.1 0.3 0 0 0.1 0 0.2 0.3 0) \*  
## 1875) 429>=5 11 5 9 (0 0 0.091 0 0.27 0 0 0 0.091 0.55) \*  
## 469) 573>=214 25 6 6 (0 0 0.16 0 0 0 0.76 0.08 0 0)   
## 938) 441< 2.5 7 3 2 (0 0 0.57 0 0 0 0.14 0.29 0 0) \*  
## 939) 441>=2.5 18 0 6 (0 0 0 0 0 0 1 0 0 0) \*  
## 235) 656>=105 30 3 8 (0.067 0 0.033 0 0 0 0 0 0.9 0) \*  
## 59) 297< 53.5 1941 436 6 (0.0015 0.0015 0.057 0.0041 0.01 0.053 0.78 0.0021 0.087 0.0082)   
## 118) 274>=2.5 241 122 8 (0.012 0.0041 0.32 0.012 0.062 0.0041 0.058 0.0083 0.49 0.021)   
## 236) 655< 30.5 127 55 2 (0.024 0.0079 0.57 0.024 0.094 0.0079 0.11 0.0079 0.12 0.039)   
## 472) 537>=23.5 83 13 2 (0.036 0 0.84 0.036 0 0 0.024 0 0.06 0) \*  
## 473) 537< 23.5 44 32 4 (0 0.023 0.045 0 0.27 0.023 0.27 0.023 0.23 0.11)   
## 946) 220>=30 12 2 4 (0 0 0 0 0.83 0.083 0 0 0.083 0) \*  
## 947) 220< 30 32 20 6 (0 0.031 0.062 0 0.062 0 0.38 0.031 0.28 0.16)   
## 1894) 494>=33.5 15 4 6 (0 0 0.067 0 0.13 0 0.73 0 0 0.067) \*  
## 1895) 494< 33.5 17 8 8 (0 0.059 0.059 0 0 0 0.059 0.059 0.53 0.24) \*  
## 237) 655>=30.5 114 10 8 (0 0 0.053 0 0.026 0 0 0.0088 0.91 0)   
## 474) 404< 4.5 20 10 8 (0 0 0.3 0 0.15 0 0 0.05 0.5 0)   
## 948) 626>=244 10 4 2 (0 0 0.6 0 0.2 0 0 0.1 0.1 0) \*  
## 949) 626< 244 10 1 8 (0 0 0 0 0.1 0 0 0 0.9 0) \*  
## 475) 404>=4.5 94 0 8 (0 0 0 0 0 0 0 0 1 0) \*  
## 119) 274< 2.5 1700 209 6 (0 0.0012 0.019 0.0029 0.0029 0.06 0.88 0.0012 0.029 0.0065)   
## 238) 658< 1.5 1537 83 6 (0 0.0013 0.02 0.00065 0.0026 0.018 0.95 0.00065 0.0072 0.0046)   
## 476) 323>=161.5 34 8 2 (0 0.059 0.76 0 0.059 0 0.029 0.029 0.059 0) \*  
## 477) 323< 161.5 1503 50 6 (0 0 0.0027 0.00067 0.0013 0.018 0.97 0 0.006 0.0047)   
## 954) 217>=164 18 5 5 (0 0 0 0 0 0.72 0.11 0 0.11 0.056) \*  
## 955) 217< 164 1485 34 6 (0 0 0.0027 0.00067 0.0013 0.0094 0.98 0 0.0047 0.004)   
## 1910) 662< 2 1478 27 6 (0 0 0.0027 0.00068 0.00068 0.0081 0.98 0 0.0047 0.0014)   
## 3820) 651< 2 1471 22 6 (0 0 0.0027 0.00068 0.00068 0.0082 0.99 0 0.0014 0.0014) \*  
## 3821) 651>=2 7 2 8 (0 0 0 0 0 0 0.29 0 0.71 0) \*  
## 1911) 662>=2 7 3 9 (0 0 0 0 0.14 0.29 0 0 0 0.57) \*  
## 239) 658>=1.5 163 88 5 (0 0 0.012 0.025 0.0061 0.46 0.23 0.0061 0.24 0.025)   
## 478) 515< 12.5 67 11 5 (0 0 0 0.03 0.015 0.84 0.09 0 0.03 0)   
## 956) 456< 140 58 3 5 (0 0 0 0.034 0 0.95 0 0 0.017 0) \*  
## 957) 456>=140 9 3 6 (0 0 0 0 0.11 0.11 0.67 0 0.11 0) \*  
## 479) 515>=12.5 96 59 8 (0 0 0.021 0.021 0 0.2 0.32 0.01 0.39 0.042)   
## 958) 457>=103 34 9 6 (0 0 0 0 0 0.088 0.74 0 0.12 0.059)   
## 1916) 243< 11.5 27 2 6 (0 0 0 0 0 0 0.93 0 0.074 0) \*  
## 1917) 243>=11.5 7 4 5 (0 0 0 0 0 0.43 0 0 0.29 0.29) \*  
## 959) 457< 103 62 29 8 (0 0 0.032 0.032 0 0.26 0.097 0.016 0.53 0.032)   
## 1918) 354< 0.5 29 16 5 (0 0 0.034 0.069 0 0.45 0.21 0.034 0.21 0)   
## 3836) 186< 160 13 7 6 (0 0 0.077 0.15 0 0.077 0.46 0.077 0.15 0) \*  
## 3837) 186>=160 16 4 5 (0 0 0 0 0 0.75 0 0 0.25 0) \*  
## 1919) 354>=0.5 33 6 8 (0 0 0.03 0 0 0.091 0 0 0.82 0.061) \*  
## 15) 542< 1.5 6617 4849 4 (0.0023 0.011 0.041 0.05 0.27 0.11 0.021 0.22 0.038 0.24)   
## 30) 432>=0.5 4489 2890 4 (0.0016 0.0018 0.045 0.058 0.36 0.13 0.022 0.029 0.048 0.31)   
## 60) 211< 31.5 1830 519 4 (0 0.0033 0.061 0.024 0.72 0.067 0.037 0.024 0.031 0.037)   
## 120) 596>=1.5 221 133 2 (0 0 0.4 0.11 0.018 0.37 0.009 0 0.1 0)   
## 240) 346< 3 109 25 2 (0 0 0.77 0.16 0 0.018 0 0 0.055 0)   
## 480) 379< 151.5 87 5 2 (0 0 0.94 0.023 0 0.023 0 0 0.011 0) \*  
## 481) 379>=151.5 22 7 3 (0 0 0.091 0.68 0 0 0 0 0.23 0)   
## 962) 484< 42.5 15 0 3 (0 0 0 1 0 0 0 0 0 0) \*  
## 963) 484>=42.5 7 2 8 (0 0 0.29 0 0 0 0 0 0.71 0) \*  
## 241) 346>=3 112 33 5 (0 0 0.036 0.062 0.036 0.71 0.018 0 0.14 0)   
## 482) 355< 10 87 9 5 (0 0 0.023 0.057 0 0.9 0.011 0 0.011 0)   
## 964) 126>=110 9 5 3 (0 0 0.22 0.44 0 0.33 0 0 0 0) \*  
## 965) 126< 110 78 3 5 (0 0 0 0.013 0 0.96 0.013 0 0.013 0) \*  
## 483) 355>=10 25 10 8 (0 0 0.08 0.08 0.16 0.04 0.04 0 0.6 0)   
## 966) 400>=192 7 3 4 (0 0 0.29 0.14 0.57 0 0 0 0 0) \*  
## 967) 400< 192 18 3 8 (0 0 0 0.056 0 0.056 0.056 0 0.83 0) \*  
## 121) 596< 1.5 1609 302 4 (0 0.0037 0.014 0.012 0.81 0.026 0.041 0.027 0.021 0.042)   
## 242) 267< 139 1469 186 4 (0 0.0041 0.011 0.011 0.87 0.014 0.045 0.0068 0.021 0.014)   
## 484) 98< 3 1415 133 4 (0 0.0042 0.0099 0.011 0.91 0.015 0.011 0.0071 0.022 0.014)   
## 968) 155< 120.5 1344 70 4 (0 0.0045 0.006 0.0067 0.95 0.0015 0.01 0.0074 0.0037 0.012)   
## 1936) 295< 222 1325 52 4 (0 0.0045 0.0038 0.0053 0.96 0 0.011 0 0.0038 0.011)   
## 3872) 95< 32 1313 42 4 (0 0.0046 0.0038 0.0053 0.97 0 0.003 0 0.0038 0.011)   
## 7744) 437>=1 1269 24 4 (0 0 0.0039 0.0039 0.98 0 0.00079 0 0.0016 0.0087) \*  
## 7745) 437< 1 44 18 4 (0 0.14 0 0.045 0.59 0 0.068 0 0.068 0.091)   
## 15490) 402< 20 16 10 1 (0 0.38 0 0.12 0.12 0 0.062 0 0.12 0.19) \*  
## 15491) 402>=20 28 4 4 (0 0 0 0 0.86 0 0.071 0 0.036 0.036) \*  
## 3873) 95>=32 12 2 6 (0 0 0 0 0.17 0 0.83 0 0 0) \*  
## 1937) 295>=222 19 9 7 (0 0 0.16 0.11 0.053 0.11 0 0.53 0 0.053) \*  
## 969) 155>=120.5 71 45 8 (0 0 0.085 0.099 0.11 0.27 0.014 0 0.37 0.056)   
## 1938) 516< 47 48 30 5 (0 0 0.1 0.15 0.17 0.38 0 0 0.12 0.083)   
## 3876) 354< 4 24 7 5 (0 0 0.042 0.083 0.083 0.71 0 0 0.042 0.042)   
## 7752) 658>=50.5 17 1 5 (0 0 0 0.059 0 0.94 0 0 0 0) \*  
## 7753) 658< 50.5 7 5 4 (0 0 0.14 0.14 0.29 0.14 0 0 0.14 0.14) \*  
## 3877) 354>=4 24 18 4 (0 0 0.17 0.21 0.25 0.042 0 0 0.21 0.12)   
## 7754) 461>=201.5 7 1 4 (0 0 0.14 0 0.86 0 0 0 0 0) \*  
## 7755) 461< 201.5 17 12 3 (0 0 0.18 0.29 0 0.059 0 0 0.29 0.18) \*  
## 1939) 516>=47 23 3 8 (0 0 0.043 0 0 0.043 0.043 0 0.87 0) \*  
## 485) 98>=3 54 3 6 (0 0 0.037 0 0.019 0 0.94 0 0 0) \*  
## 243) 267>=139 140 93 9 (0 0 0.05 0.029 0.17 0.15 0 0.24 0.021 0.34)   
## 486) 401>=2.5 93 54 9 (0 0 0.022 0.022 0.26 0.22 0 0.054 0.011 0.42)   
## 972) 247>=1.5 21 5 5 (0 0 0 0 0.095 0.76 0 0 0.048 0.095) \*  
## 973) 247< 1.5 72 35 9 (0 0 0.028 0.028 0.31 0.056 0 0.069 0 0.51)   
## 1946) 237< 23.5 32 11 4 (0 0 0.031 0.031 0.66 0.062 0 0 0 0.22)   
## 3892) 323>=1 24 4 4 (0 0 0.042 0.042 0.83 0.042 0 0 0 0.042) \*  
## 3893) 323< 1 8 2 9 (0 0 0 0 0.12 0.12 0 0 0 0.75) \*  
## 1947) 237>=23.5 40 10 9 (0 0 0.025 0.025 0.025 0.05 0 0.12 0 0.75)   
## 3894) 468>=101 9 5 7 (0 0 0 0.11 0 0.22 0 0.44 0 0.22) \*  
## 3895) 468< 101 31 3 9 (0 0 0.032 0 0.032 0 0 0.032 0 0.9) \*  
## 487) 401< 2.5 47 18 7 (0 0 0.11 0.043 0 0.021 0 0.62 0.043 0.17)   
## 974) 455< 81.5 36 7 7 (0 0 0.056 0.056 0 0 0 0.81 0.056 0.028) \*  
## 975) 455>=81.5 11 4 9 (0 0 0.27 0 0 0.091 0 0 0 0.64) \*  
## 61) 211>=31.5 2659 1347 9 (0.0026 0.00075 0.034 0.081 0.11 0.17 0.012 0.033 0.061 0.49)   
## 122) 354< 2.5 808 363 5 (0.0037 0.0025 0.024 0.068 0.12 0.55 0.035 0.041 0.046 0.11)   
## 244) 352< 55 581 136 5 (0.0052 0 0.024 0.064 0.01 0.77 0.045 0.0017 0.015 0.069)   
## 488) 384< 17.5 521 79 5 (0 0 0.0019 0.067 0.0019 0.85 0.046 0.0019 0 0.033)   
## 976) 516< 166.5 494 54 5 (0 0 0.002 0.071 0.002 0.89 0 0.002 0 0.032)   
## 1952) 322>=187.5 24 8 3 (0 0 0 0.67 0 0.33 0 0 0 0)   
## 3904) 265< 169.5 15 0 3 (0 0 0 1 0 0 0 0 0 0) \*  
## 3905) 265>=169.5 9 1 5 (0 0 0 0.11 0 0.89 0 0 0 0) \*  
## 1953) 322< 187.5 470 38 5 (0 0 0.0021 0.04 0.0021 0.92 0 0.0021 0 0.034)   
## 3906) 123>=180.5 9 2 3 (0 0 0 0.78 0 0.22 0 0 0 0) \*  
## 3907) 123< 180.5 461 31 5 (0 0 0.0022 0.026 0.0022 0.93 0 0.0022 0 0.035)   
## 7814) 718< 37 450 23 5 (0 0 0.0022 0.027 0.0022 0.95 0 0 0 0.02)   
## 15628) 714< 237 433 16 5 (0 0 0.0023 0.025 0.0023 0.96 0 0 0 0.0069)   
## 31256) 176>=19 26 8 5 (0 0 0 0.31 0 0.69 0 0 0 0)   
## 62512) 292>=135.5 10 2 3 (0 0 0 0.8 0 0.2 0 0 0 0) \*  
## 62513) 292< 135.5 16 0 5 (0 0 0 0 0 1 0 0 0 0) \*  
## 31257) 176< 19 407 8 5 (0 0 0.0025 0.0074 0.0025 0.98 0 0 0 0.0074) \*  
## 15629) 714>=237 17 7 5 (0 0 0 0.059 0 0.59 0 0 0 0.35) \*  
## 7815) 718>=37 11 4 9 (0 0 0 0 0 0.27 0 0.091 0 0.64) \*  
## 977) 516>=166.5 27 3 6 (0 0 0 0 0 0.074 0.89 0 0 0.037) \*  
## 489) 384>=17.5 60 37 9 (0.05 0 0.22 0.033 0.083 0.05 0.033 0 0.15 0.38)   
## 978) 596>=14 25 12 2 (0.12 0 0.52 0.04 0 0 0.08 0 0.24 0)   
## 1956) 685< 1.5 18 5 2 (0.17 0 0.72 0 0 0 0.11 0 0 0) \*  
## 1957) 685>=1.5 7 1 8 (0 0 0 0.14 0 0 0 0 0.86 0) \*  
## 979) 596< 14 35 12 9 (0 0 0 0.029 0.14 0.086 0 0 0.086 0.66)   
## 1958) 242< 14.5 11 6 4 (0 0 0 0 0.45 0.18 0 0 0.27 0.091) \*  
## 1959) 242>=14.5 24 2 9 (0 0 0 0.042 0 0.042 0 0 0 0.92) \*  
## 245) 352>=55 227 139 4 (0 0.0088 0.022 0.079 0.39 0 0.0088 0.14 0.12 0.23)   
## 490) 209< 16.5 79 11 4 (0 0.013 0.013 0.013 0.86 0 0 0.051 0.013 0.038)   
## 980) 265< 248 71 5 4 (0 0.014 0.014 0.014 0.93 0 0 0 0.014 0.014) \*  
## 981) 265>=248 8 4 7 (0 0 0 0 0.25 0 0 0.5 0 0.25) \*  
## 491) 209>=16.5 148 99 9 (0 0.0068 0.027 0.11 0.14 0 0.014 0.19 0.18 0.33)   
## 982) 544< 172.5 127 78 9 (0 0.0079 0.024 0.13 0.16 0 0.0079 0.22 0.071 0.39)   
## 1964) 373< 9.5 60 34 7 (0 0.017 0.05 0.23 0.017 0 0.017 0.43 0.067 0.17)   
## 3928) 377>=4 23 12 3 (0 0.043 0 0.48 0.043 0 0.043 0 0.087 0.3)   
## 7856) 180>=95 11 1 3 (0 0 0 0.91 0 0 0 0 0.091 0) \*  
## 7857) 180< 95 12 5 9 (0 0.083 0 0.083 0.083 0 0.083 0 0.083 0.58) \*  
## 3929) 377< 4 37 11 7 (0 0 0.081 0.081 0 0 0 0.7 0.054 0.081) \*  
## 1965) 373>=9.5 67 28 9 (0 0 0 0.03 0.28 0 0 0.03 0.075 0.58)   
## 3930) 454>=2 13 0 4 (0 0 0 0 1 0 0 0 0 0) \*  
## 3931) 454< 2 54 15 9 (0 0 0 0.037 0.11 0 0 0.037 0.093 0.72) \*  
## 983) 544>=172.5 21 3 8 (0 0 0.048 0.048 0 0 0.048 0 0.86 0) \*  
## 123) 354>=2.5 1851 631 9 (0.0022 0 0.038 0.086 0.1 0.01 0.0022 0.03 0.067 0.66)   
## 246) 156>=0.5 406 304 4 (0.0074 0 0.13 0.24 0.25 0.03 0.0099 0.0025 0.19 0.14)   
## 492) 624>=1 178 96 3 (0.011 0 0.25 0.46 0.0056 0.045 0.017 0 0.15 0.062)   
## 984) 484< 46 99 23 3 (0.01 0 0.02 0.77 0.01 0.071 0 0 0.02 0.1)   
## 1968) 373< 63 77 4 3 (0 0 0.013 0.95 0 0 0 0 0.013 0.026) \*  
## 1969) 373>=63 22 14 9 (0.045 0 0.045 0.14 0.045 0.32 0 0 0.045 0.36)   
## 3938) 188>=3.5 14 7 5 (0.071 0 0.071 0.21 0.071 0.5 0 0 0.071 0) \*  
## 3939) 188< 3.5 8 0 9 (0 0 0 0 0 0 0 0 0 1) \*  
## 985) 484>=46 79 37 2 (0.013 0 0.53 0.076 0 0.013 0.038 0 0.32 0.013)   
## 1970) 465>=96.5 46 7 2 (0 0 0.85 0.087 0 0.022 0 0 0.022 0.022)   
## 3940) 351< 9 38 1 2 (0 0 0.97 0 0 0 0 0 0 0.026) \*  
## 3941) 351>=9 8 4 3 (0 0 0.25 0.5 0 0.12 0 0 0.12 0) \*  
## 1971) 465< 96.5 33 9 8 (0.03 0 0.091 0.061 0 0 0.091 0 0.73 0)   
## 3942) 549>=71 10 7 2 (0 0 0.3 0.2 0 0 0.3 0 0.2 0) \*  
## 3943) 549< 71 23 1 8 (0.043 0 0 0 0 0 0 0 0.96 0) \*  
## 493) 624< 1 228 127 4 (0.0044 0 0.039 0.07 0.44 0.018 0.0044 0.0044 0.22 0.2)   
## 986) 428>=25 138 46 4 (0 0 0.036 0.051 0.67 0.014 0.0072 0 0.036 0.19)   
## 1972) 207< 10 90 9 4 (0 0 0.033 0 0.9 0 0.011 0 0 0.056) \*  
## 1973) 207>=10 48 27 9 (0 0 0.042 0.15 0.23 0.042 0 0 0.1 0.44)   
## 3946) 183< 239 10 2 4 (0 0 0.1 0.1 0.8 0 0 0 0 0) \*  
## 3947) 183>=239 38 17 9 (0 0 0.026 0.16 0.079 0.053 0 0 0.13 0.55)   
## 7894) 372< 11.5 8 2 3 (0 0 0.12 0.75 0 0 0 0 0.12 0) \*  
## 7895) 372>=11.5 30 9 9 (0 0 0 0 0.1 0.067 0 0 0.13 0.7)   
## 15790) 152>=117 8 4 8 (0 0 0 0 0 0.25 0 0 0.5 0.25) \*  
## 15791) 152< 117 22 3 9 (0 0 0 0 0.14 0 0 0 0 0.86) \*  
## 987) 428< 25 90 45 8 (0.011 0 0.044 0.1 0.1 0.022 0 0.011 0.5 0.21)   
## 1974) 544< 147 50 32 9 (0 0 0.06 0.18 0.18 0.04 0 0.02 0.16 0.36)   
## 3948) 374< 58 14 6 3 (0 0 0.14 0.57 0.071 0 0 0.071 0.14 0) \*  
## 3949) 374>=58 36 18 9 (0 0 0.028 0.028 0.22 0.056 0 0 0.17 0.5)   
## 7898) 407< 122 9 2 4 (0 0 0 0 0.78 0.11 0 0 0.11 0) \*  
## 7899) 407>=122 27 9 9 (0 0 0.037 0.037 0.037 0.037 0 0 0.19 0.67)   
## 15798) 551>=139 8 3 8 (0 0 0 0.12 0 0.12 0 0 0.62 0.12) \*  
## 15799) 551< 139 19 2 9 (0 0 0.053 0 0.053 0 0 0 0 0.89) \*  
## 1975) 544>=147 40 3 8 (0.025 0 0.025 0 0 0 0 0 0.93 0.025) \*  
## 247) 156< 0.5 1445 281 9 (0.00069 0 0.012 0.043 0.064 0.0048 0 0.037 0.033 0.81)   
## 494) 317< 1 293 150 9 (0.0034 0 0.058 0.18 0.078 0.0034 0 0.15 0.044 0.49)   
## 988) 319< 108.5 176 122 9 (0.0057 0 0.097 0.29 0.045 0 0 0.22 0.034 0.31)   
## 1976) 342< 10 119 69 3 (0.0084 0 0.13 0.42 0.05 0 0 0.33 0.017 0.042)   
## 3952) 518< 96.5 66 23 3 (0 0 0.21 0.65 0.015 0 0 0.045 0.015 0.061)   
## 7904) 512>=30 12 1 2 (0 0 0.92 0 0 0 0 0 0.083 0) \*  
## 7905) 512< 30 54 11 3 (0 0 0.056 0.8 0.019 0 0 0.056 0 0.074)   
## 15810) 405>=138.5 41 1 3 (0 0 0 0.98 0.024 0 0 0 0 0) \*  
## 15811) 405< 138.5 13 9 9 (0 0 0.23 0.23 0 0 0 0.23 0 0.31) \*  
## 3953) 518>=96.5 53 17 7 (0.019 0 0.038 0.13 0.094 0 0 0.68 0.019 0.019)   
## 7906) 209< 29 9 4 4 (0.11 0 0.11 0 0.56 0 0 0 0.11 0.11) \*  
## 7907) 209>=29 44 8 7 (0 0 0.023 0.16 0 0 0 0.82 0 0)   
## 15814) 437< 4 9 3 3 (0 0 0.11 0.67 0 0 0 0.22 0 0) \*  
## 15815) 437>=4 35 1 7 (0 0 0 0.029 0 0 0 0.97 0 0) \*  
## 1977) 342>=10 57 8 9 (0 0 0.018 0.018 0.035 0 0 0 0.07 0.86)   
## 3954) 546>=49 10 6 8 (0 0 0.1 0.1 0.1 0 0 0 0.4 0.3) \*  
## 3955) 546< 49 47 1 9 (0 0 0 0 0.021 0 0 0 0 0.98) \*  
## 989) 319>=108.5 117 28 9 (0 0 0 0.0085 0.13 0.0085 0 0.034 0.06 0.76)   
## 1978) 428>=71.5 20 7 4 (0 0 0 0.05 0.65 0.05 0 0 0 0.25)   
## 3956) 213< 128 11 0 4 (0 0 0 0 1 0 0 0 0 0) \*  
## 3957) 213>=128 9 4 9 (0 0 0 0.11 0.22 0.11 0 0 0 0.56) \*  
## 1979) 428< 71.5 97 13 9 (0 0 0 0 0.021 0 0 0.041 0.072 0.87)   
## 3958) 436< 152 12 5 8 (0 0 0 0 0.083 0 0 0 0.58 0.33) \*  
## 3959) 436>=152 85 5 9 (0 0 0 0 0.012 0 0 0.047 0 0.94) \*  
## 495) 317>=1 1152 131 9 (0 0 0.00087 0.0087 0.06 0.0052 0 0.0095 0.03 0.89)   
## 990) 212< 14 66 32 4 (0 0 0 0 0.52 0 0 0.015 0.03 0.44)   
## 1980) 319>=195 31 1 4 (0 0 0 0 0.97 0 0 0 0.032 0) \*  
## 1981) 319< 195 35 6 9 (0 0 0 0 0.11 0 0 0.029 0.029 0.83)   
## 3962) 518>=79.5 7 4 4 (0 0 0 0 0.43 0 0 0.14 0.14 0.29) \*  
## 3963) 518< 79.5 28 1 9 (0 0 0 0 0.036 0 0 0 0 0.96) \*  
## 991) 212>=14 1086 94 9 (0 0 0.00092 0.0092 0.032 0.0055 0 0.0092 0.029 0.91)   
## 1982) 204>=10.5 72 31 9 (0 0 0 0.056 0.069 0.028 0 0.042 0.24 0.57)   
## 3964) 438< 130.5 24 8 8 (0 0 0 0.083 0.12 0 0 0.042 0.67 0.083)   
## 7928) 544< 138 10 7 4 (0 0 0 0.2 0.3 0 0 0.1 0.2 0.2) \*  
## 7929) 544>=138 14 0 8 (0 0 0 0 0 0 0 0 1 0) \*  
## 3965) 438>=130.5 48 9 9 (0 0 0 0.042 0.042 0.042 0 0.042 0.021 0.81)   
## 7930) 400< 26 8 6 3 (0 0 0 0.25 0.12 0.12 0 0.25 0.12 0.12) \*  
## 7931) 400>=26 40 2 9 (0 0 0 0 0.025 0.025 0 0 0 0.95) \*  
## 1983) 204< 10.5 1014 63 9 (0 0 0.00099 0.0059 0.03 0.0039 0 0.0069 0.015 0.94)   
## 3966) 595>=21.5 7 4 5 (0 0 0 0.14 0 0.43 0 0 0.43 0) \*  
## 3967) 595< 21.5 1007 56 9 (0 0 0.00099 0.005 0.03 0.00099 0 0.007 0.012 0.94)   
## 7934) 470>=5 18 9 9 (0 0 0 0 0.39 0 0 0.11 0 0.5) \*  
## 7935) 470< 5 989 47 9 (0 0 0.001 0.0051 0.023 0.001 0 0.0051 0.012 0.95)   
## 15870) 409< 32 18 9 9 (0 0 0 0.056 0.056 0.056 0 0 0.33 0.5) \*  
## 15871) 409>=32 971 38 9 (0 0 0.001 0.0041 0.023 0 0 0.0051 0.0062 0.96)   
## 31742) 320>=253.5 13 6 9 (0 0 0 0 0.46 0 0 0 0 0.54) \*  
## 31743) 320< 253.5 958 32 9 (0 0 0.001 0.0042 0.017 0 0 0.0052 0.0063 0.97)   
## 63486) 524>=139 10 5 9 (0 0 0.1 0 0.1 0 0 0 0.3 0.5) \*  
## 63487) 524< 139 948 27 9 (0 0 0 0.0042 0.016 0 0 0.0053 0.0032 0.97)   
## 126974) 263< 65.5 76 12 9 (0 0 0 0 0.14 0 0 0 0.013 0.84)   
## 253948) 403>=253.5 9 2 4 (0 0 0 0 0.78 0 0 0 0 0.22) \*  
## 253949) 403< 253.5 67 5 9 (0 0 0 0 0.06 0 0 0 0.015 0.93) \*  
## 126975) 263>=65.5 872 15 9 (0 0 0 0.0046 0.0046 0 0 0.0057 0.0023 0.98) \*  
## 31) 432< 0.5 2128 796 7 (0.0038 0.031 0.034 0.032 0.079 0.056 0.017 0.63 0.017 0.1)   
## 62) 487< 75.5 1766 457 7 (0.004 0.037 0.03 0.039 0.019 0.067 0.012 0.74 0.018 0.034)   
## 124) 377>=6.5 313 197 5 (0.0032 0.038 0.026 0.18 0.096 0.37 0.0064 0.026 0.096 0.16)   
## 248) 353< 1 175 60 5 (0.0057 0.04 0.023 0.23 0.017 0.66 0.011 0 0.0057 0.011)   
## 496) 323>=1.5 40 16 3 (0.025 0.15 0 0.6 0.075 0.1 0.025 0 0 0.025)   
## 992) 490< 1 26 2 3 (0 0 0 0.92 0.038 0.038 0 0 0 0) \*  
## 993) 490>=1 14 8 1 (0.071 0.43 0 0 0.14 0.21 0.071 0 0 0.071) \*  
## 497) 323< 1.5 135 24 5 (0 0.0074 0.03 0.12 0 0.82 0.0074 0 0.0074 0.0074)   
## 994) 150>=65 25 13 3 (0 0.04 0.08 0.48 0 0.36 0 0 0.04 0)   
## 1988) 233< 6 16 4 3 (0 0.062 0.12 0.75 0 0 0 0 0.062 0) \*  
## 1989) 233>=6 9 0 5 (0 0 0 0 0 1 0 0 0 0) \*  
## 995) 150< 65 110 8 5 (0 0 0.018 0.036 0 0.93 0.0091 0 0 0.0091) \*  
## 249) 353>=1 138 91 9 (0 0.036 0.029 0.12 0.2 0.0072 0 0.058 0.21 0.34)   
## 498) 434>=208.5 46 20 8 (0 0.11 0.043 0.2 0 0 0 0.065 0.57 0.022)   
## 996) 348< 11.5 18 9 3 (0 0.28 0 0.5 0 0 0 0.17 0 0.056) \*  
## 997) 348>=11.5 28 2 8 (0 0 0.071 0 0 0 0 0 0.93 0) \*  
## 499) 434< 208.5 92 46 9 (0 0 0.022 0.087 0.29 0.011 0 0.054 0.033 0.5)   
## 998) 210< 49 32 10 4 (0 0 0.031 0.062 0.69 0.031 0 0.094 0 0.094) \*  
## 999) 210>=49 60 17 9 (0 0 0.017 0.1 0.083 0 0 0.033 0.05 0.72)   
## 1998) 623>=10 7 1 3 (0 0 0 0.86 0 0 0 0 0 0.14) \*  
## 1999) 623< 10 53 11 9 (0 0 0.019 0 0.094 0 0 0.038 0.057 0.79)   
## 3998) 379< 57 7 5 4 (0 0 0.14 0 0.29 0 0 0.14 0.29 0.14) \*  
## 3999) 379>=57 46 5 9 (0 0 0 0 0.065 0 0 0.022 0.022 0.89) \*  
## 125) 377< 6.5 1453 152 7 (0.0041 0.036 0.031 0.0076 0.0028 0.0014 0.013 0.9 0.00069 0.0076)   
## 250) 156>=0.5 93 52 1 (0.043 0.44 0.26 0.054 0 0.022 0.13 0.054 0 0)   
## 500) 179< 7 54 16 1 (0.037 0.7 0 0.019 0 0.037 0.2 0 0 0)   
## 1000) 568< 14 39 1 1 (0 0.97 0 0 0 0.026 0 0 0 0) \*  
## 1001) 568>=14 15 4 6 (0.13 0 0 0.067 0 0.067 0.73 0 0 0) \*  
## 501) 179>=7 39 15 2 (0.051 0.077 0.62 0.1 0 0 0.026 0.13 0 0)   
## 1002) 545>=104 25 3 2 (0 0.04 0.88 0 0 0 0 0.08 0 0) \*  
## 1003) 545< 104 14 10 3 (0.14 0.14 0.14 0.29 0 0 0.071 0.21 0 0) \*  
## 251) 156< 0.5 1360 64 7 (0.0015 0.0088 0.015 0.0044 0.0029 0 0.0051 0.95 0.00074 0.0081)   
## 502) 153>=57 23 13 2 (0 0.13 0.43 0.087 0.043 0 0.22 0.043 0.043 0)   
## 1004) 176>=25.5 12 2 2 (0 0 0.83 0.17 0 0 0 0 0 0) \*  
## 1005) 176< 25.5 11 6 6 (0 0.27 0 0 0.091 0 0.45 0.091 0.091 0) \*  
## 503) 153< 57 1337 42 7 (0.0015 0.0067 0.0082 0.003 0.0022 0 0.0015 0.97 0 0.0082)   
## 1006) 158>=54 10 2 1 (0.2 0.8 0 0 0 0 0 0 0 0) \*  
## 1007) 158< 54 1327 32 7 (0 0.00075 0.0083 0.003 0.0023 0 0.0015 0.98 0 0.0083)   
## 2014) 553>=6 13 7 7 (0 0 0.31 0.15 0 0 0 0.46 0 0.077) \*  
## 2015) 553< 6 1314 25 7 (0 0.00076 0.0053 0.0015 0.0023 0 0.0015 0.98 0 0.0076)   
## 4030) 482>=134.5 7 3 7 (0 0 0 0 0.14 0 0.29 0.57 0 0) \*  
## 4031) 482< 134.5 1307 22 7 (0 0.00077 0.0054 0.0015 0.0015 0 0 0.98 0 0.0077)   
## 8062) 488>=106 22 5 7 (0 0 0.18 0.045 0 0 0 0.77 0 0)   
## 16124) 182>=59 7 3 2 (0 0 0.57 0.14 0 0 0 0.29 0 0) \*  
## 16125) 182< 59 15 0 7 (0 0 0 0 0 0 0 1 0 0) \*  
## 8063) 488< 106 1285 17 7 (0 0.00078 0.0023 0.00078 0.0016 0 0 0.99 0 0.0078)   
## 16126) 664>=3.5 8 3 7 (0 0 0.25 0 0.12 0 0 0.62 0 0) \*  
## 16127) 664< 3.5 1277 14 7 (0 0.00078 0.00078 0.00078 0.00078 0 0 0.99 0 0.0078)   
## 32254) 321< 253.5 1263 11 7 (0 0.00079 0.00079 0.00079 0.00079 0 0 0.99 0 0.0055)   
## 64508) 270>=26.5 1155 3 7 (0 0.00087 0 0.00087 0 0 0 1 0 0.00087) \*  
## 64509) 270< 26.5 108 8 7 (0 0 0.0093 0 0.0093 0 0 0.93 0 0.056)   
## 129018) 321< 173.5 101 4 7 (0 0 0.0099 0 0.0099 0 0 0.96 0 0.02) \*  
## 129019) 321>=173.5 7 3 9 (0 0 0 0 0 0 0 0.43 0 0.57) \*  
## 32255) 321>=253.5 14 3 7 (0 0 0 0 0 0 0 0.79 0 0.21) \*  
## 63) 487>=75.5 362 202 9 (0.0028 0.0028 0.052 0.0028 0.37 0.0028 0.044 0.064 0.014 0.44)   
## 126) 211< 5.5 144 38 4 (0.0069 0.0069 0.076 0 0.74 0.0069 0.1 0.0069 0.0069 0.049)   
## 252) 95< 6.5 132 26 4 (0.0076 0.0076 0.061 0 0.8 0.0076 0.045 0.0076 0.0076 0.053)   
## 504) 429< 8 29 18 4 (0.034 0.034 0.28 0 0.38 0.034 0.1 0.034 0.034 0.069)   
## 1008) 398>=2.5 11 1 4 (0.091 0 0 0 0.91 0 0 0 0 0) \*  
## 1009) 398< 2.5 18 10 2 (0 0.056 0.44 0 0.056 0.056 0.17 0.056 0.056 0.11) \*  
## 505) 429>=8 103 8 4 (0 0 0 0 0.92 0 0.029 0 0 0.049)   
## 1010) 490>=97.5 96 4 4 (0 0 0 0 0.96 0 0.031 0 0 0.01) \*  
## 1011) 490< 97.5 7 3 9 (0 0 0 0 0.43 0 0 0 0 0.57) \*  
## 253) 95>=6.5 12 3 6 (0 0 0.25 0 0 0 0.75 0 0 0) \*  
## 127) 211>=5.5 218 65 9 (0 0 0.037 0.0046 0.13 0 0.0046 0.1 0.018 0.7)   
## 254) 518>=241.5 50 34 7 (0 0 0.08 0 0.24 0 0 0.32 0.06 0.3)   
## 508) 429< 48.5 24 8 7 (0 0 0.17 0 0.083 0 0 0.67 0 0.083)   
## 1016) 233< 2.5 8 4 2 (0 0 0.5 0 0.12 0 0 0.12 0 0.25) \*  
## 1017) 233>=2.5 16 1 7 (0 0 0 0 0.062 0 0 0.94 0 0) \*  
## 509) 429>=48.5 26 13 9 (0 0 0 0 0.38 0 0 0 0.12 0.5)   
## 1018) 382< 178.5 12 3 4 (0 0 0 0 0.75 0 0 0 0.17 0.083) \*  
## 1019) 382>=178.5 14 2 9 (0 0 0 0 0.071 0 0 0 0.071 0.86) \*  
## 255) 518< 241.5 168 30 9 (0 0 0.024 0.006 0.1 0 0.006 0.036 0.006 0.82)   
## 510) 235< 0.5 25 11 4 (0 0 0.04 0 0.56 0 0 0.04 0 0.36)   
## 1020) 434< 94 17 3 4 (0 0 0.059 0 0.82 0 0 0.059 0 0.059) \*  
## 1021) 434>=94 8 0 9 (0 0 0 0 0 0 0 0 0 1) \*  
## 511) 235>=0.5 143 14 9 (0 0 0.021 0.007 0.021 0 0.007 0.035 0.007 0.9) \*

ptree<- prune(tree\_model\_1,   
 cp=tree\_model\_1$cptable[which.min(tree\_model\_1$cptable[,"xerror"]),"CP"])  
 predictTreeModel(ptree)

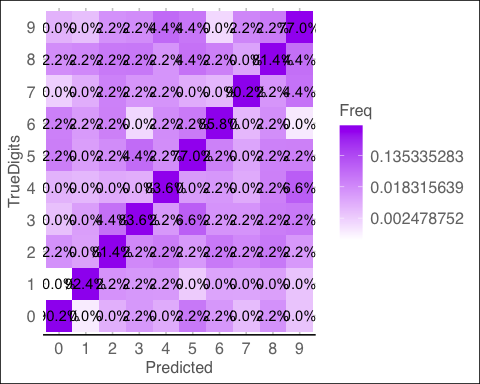
## Call:  
## rpart(formula = label ~ ., data = trainDF, method = "class",   
## control = rpart.control(cp = 0))  
## n= 25205   
##   
## CP nsplit rel error xerror xstd  
## 1 0.0977940520 0 1.0000000 1.0000000 0.002231625  
## 2 0.0825667590 1 0.9022059 0.9030097 0.002823465  
## 3 0.0802000536 2 0.8196392 0.8482183 0.003054854  
## 4 0.0595695276 3 0.7394391 0.7278289 0.003388807  
## 5 0.0519335536 4 0.6798696 0.6604001 0.003490960  
## 6 0.0457265339 5 0.6279361 0.6191391 0.003526886  
## 7 0.0450567116 6 0.5822095 0.5833705 0.003542340  
## 8 0.0254532464 7 0.5371528 0.5345628 0.003540265  
## 9 0.0213896579 8 0.5116996 0.5111190 0.003529761  
## 10 0.0186657140 9 0.4903099 0.4936144 0.003517858  
## 11 0.0157631508 10 0.4716442 0.4810217 0.003507127  
## 12 0.0154952219 11 0.4558810 0.4674466 0.003493505  
## 13 0.0133071358 12 0.4403858 0.4515942 0.003474869  
## 14 0.0110743949 13 0.4270787 0.4339109 0.003450553  
## 15 0.0083504510 14 0.4160043 0.4205144 0.003429611  
## 16 0.0069661516 15 0.4076538 0.4154684 0.003421149  
## 17 0.0061177101 16 0.4006877 0.4035009 0.003399810  
## 18 0.0048227204 17 0.3945700 0.3914888 0.003376564  
## 19 0.0047780656 18 0.3897473 0.3746986 0.003340930  
## 20 0.0047334107 19 0.3849692 0.3711262 0.003332866  
## 21 0.0046887559 21 0.3755024 0.3691614 0.003328358  
## 22 0.0046441011 22 0.3708136 0.3680004 0.003325669  
## 23 0.0044208270 23 0.3661695 0.3646066 0.003317706  
## 24 0.0042868626 24 0.3617487 0.3567920 0.003298769  
## 25 0.0039296240 25 0.3574618 0.3528624 0.003288927  
## 26 0.0037956596 26 0.3535322 0.3471019 0.003274107  
## 27 0.0037510047 29 0.3421452 0.3459409 0.003271064  
## 28 0.0034830758 30 0.3383942 0.3418326 0.003260139  
## 29 0.0033937662 31 0.3349111 0.3366080 0.003245895  
## 30 0.0033491114 32 0.3315174 0.3364741 0.003245524  
## 31 0.0033044566 33 0.3281683 0.3364741 0.003245524  
## 32 0.0028579084 34 0.3248638 0.3317406 0.003232267  
## 33 0.0028355810 37 0.3162901 0.3221845 0.003204489  
## 34 0.0026346343 39 0.3106189 0.3170492 0.003188992  
## 35 0.0025899795 40 0.3079843 0.3131196 0.003176860  
## 36 0.0025453246 41 0.3053943 0.3105296 0.003168733  
## 37 0.0025006698 42 0.3028490 0.3097705 0.003166331  
## 38 0.0024560150 43 0.3003483 0.3084755 0.003162213  
## 39 0.0023890328 44 0.2978923 0.3073145 0.003158498  
## 40 0.0023667054 46 0.2931142 0.3045012 0.003149408  
## 41 0.0022773957 47 0.2907475 0.3038314 0.003147225  
## 42 0.0020541216 52 0.2793159 0.2940073 0.003114378  
## 43 0.0020094668 53 0.2772618 0.2853889 0.003084253  
## 44 0.0018308475 59 0.2652050 0.2832009 0.003076405  
## 45 0.0016968831 60 0.2633741 0.2771278 0.003054191  
## 46 0.0016745557 62 0.2599804 0.2739573 0.003042339  
## 47 0.0016299009 64 0.2566312 0.2722604 0.003035923  
## 48 0.0016075735 66 0.2533714 0.2693579 0.003024828  
## 49 0.0014736090 69 0.2485487 0.2670358 0.003015843  
## 50 0.0014066268 70 0.2470751 0.2623024 0.002997223  
## 51 0.0013842994 72 0.2442619 0.2600697 0.002988297  
## 52 0.0012949897 76 0.2387247 0.2567652 0.002974915  
## 53 0.0012503349 77 0.2374297 0.2543092 0.002964835  
## 54 0.0011610253 79 0.2349290 0.2522997 0.002956502  
## 55 0.0011163705 81 0.2326069 0.2499330 0.002946587  
## 56 0.0010940430 83 0.2303742 0.2493079 0.002943950  
## 57 0.0010717156 86 0.2268911 0.2477896 0.002937514  
## 58 0.0010270608 88 0.2247477 0.2476110 0.002936754  
## 59 0.0009824060 90 0.2226936 0.2449317 0.002925275  
## 60 0.0009377512 91 0.2217112 0.2422077 0.002913459  
## 61 0.0008930964 98 0.2151469 0.2384567 0.002896943  
## 62 0.0008707690 100 0.2133607 0.2363580 0.002887576  
## 63 0.0008484415 102 0.2116192 0.2352416 0.002882556  
## 64 0.0008037867 105 0.2090739 0.2309547 0.002863039  
## 65 0.0007591319 111 0.2042511 0.2269358 0.002844387  
## 66 0.0007368045 116 0.2004555 0.2259534 0.002839775  
## 67 0.0007144771 118 0.1989819 0.2241672 0.002831335  
## 68 0.0006698223 124 0.1946950 0.2210860 0.002816611  
## 69 0.0006251675 131 0.1893811 0.2196571 0.002809711  
## 70 0.0005805126 136 0.1862552 0.2153702 0.002788733  
## 71 0.0005358578 147 0.1798696 0.2114852 0.002769358  
## 72 0.0004912030 151 0.1777262 0.2069304 0.002746191  
## 73 0.0004688756 159 0.1737966 0.2034027 0.002727905  
## 74 0.0004465482 161 0.1728588 0.2015718 0.002718294  
## 75 0.0004242208 177 0.1656247 0.1976422 0.002697385  
## 76 0.0004018934 183 0.1625882 0.1964365 0.002690892  
## 77 0.0003795660 197 0.1569617 0.1927302 0.002670696  
## 78 0.0003572385 202 0.1550415 0.1917031 0.002665037  
## 79 0.0003349111 216 0.1500402 0.1877289 0.002642873  
## 80 0.0003125837 218 0.1493704 0.1873270 0.002640608  
## 81 0.0002976988 240 0.1424489 0.1863892 0.002635307  
## 82 0.0002902563 246 0.1406627 0.1829508 0.002615661  
## 83 0.0002679289 250 0.1395017 0.1824149 0.002612570  
## 84 0.0002456015 270 0.1341431 0.1811646 0.002605326  
## 85 0.0002344378 286 0.1301688 0.1793338 0.002594640  
## 86 0.0002232741 290 0.1292310 0.1791551 0.002593592  
## 87 0.0002083892 320 0.1225328 0.1785746 0.002590181  
## 88 0.0002009467 323 0.1219077 0.1785746 0.002590181  
## 89 0.0001786193 325 0.1215058 0.1766991 0.002579093  
## 90 0.0001562919 376 0.1122622 0.1764312 0.002577501  
##   
## Variable importance  
## 489 517 490 350 461 435 514 347 211 434 462 597 542 323 516 378 210 351 515 319   
## 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   
## 543 270 486 432 346 212 541 322 487 596 598 271 626 238 239 408 407 431 348 485   
## 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   
## 570 568 375 349 436 262 298 155 433 463 458 657 243 299 297 156 234 656 154 658   
## 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   
## 354 320 324 240 269 459 325 353 272 207 430 488 569 296 157 317 206 381 235 290   
## 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   
## 377 376   
## 1 1   
##   
## Node number 1: 25205 observations, complexity param=0.09779405  
## predicted class=1 expected loss=0.8884745 P(node) =1  
## class counts: 2480 2811 2507 2611 2444 2277 2483 2641 2438 2513  
## probabilities: 0.098 0.112 0.099 0.104 0.097 0.090 0.099 0.105 0.097 0.100   
## left son=2 (9068 obs) right son=3 (16137 obs)  
## Primary splits:  
## 350 < 120.5 to the right, improve=1009.8860, (0 missing)  
## 409 < 0.5 to the left, improve= 999.1138, (0 missing)  
## 461 < 1.5 to the left, improve= 990.1707, (0 missing)  
## 378 < 131.5 to the right, improve= 964.9390, (0 missing)  
## 433 < 0.5 to the left, improve= 956.4358, (0 missing)  
## Surrogate splits:  
## 351 < 192.5 to the right, agree=0.864, adj=0.621, (0 split)  
## 378 < 237.5 to the right, agree=0.860, adj=0.610, (0 split)  
## 323 < 118.5 to the right, agree=0.845, adj=0.570, (0 split)  
## 322 < 40.5 to the right, agree=0.845, adj=0.570, (0 split)  
## 349 < 63.5 to the right, agree=0.844, adj=0.567, (0 split)  
##   
## Node number 2: 9068 observations, complexity param=0.08020005  
## predicted class=1 expected loss=0.7144905 P(node) =0.3597699  
## class counts: 194 2589 485 2113 239 968 512 229 1200 539  
## probabilities: 0.021 0.286 0.053 0.233 0.026 0.107 0.056 0.025 0.132 0.059   
## left son=4 (4400 obs) right son=5 (4668 obs)  
## Primary splits:  
## 489 < 44.5 to the right, improve=1014.6630, (0 missing)  
## 517 < 28.5 to the right, improve= 931.7002, (0 missing)  
## 375 < 0.5 to the left, improve= 930.7003, (0 missing)  
## 461 < 65.5 to the right, improve= 882.2089, (0 missing)  
## 462 < 96.5 to the right, improve= 869.9859, (0 missing)  
## Surrogate splits:  
## 517 < 32.5 to the right, agree=0.904, adj=0.802, (0 split)  
## 461 < 124.5 to the right, agree=0.895, adj=0.785, (0 split)  
## 490 < 32.5 to the right, agree=0.868, adj=0.728, (0 split)  
## 462 < 96.5 to the right, agree=0.867, adj=0.726, (0 split)  
## 516 < 16.5 to the right, agree=0.844, adj=0.679, (0 split)  
##   
## Node number 3: 16137 observations, complexity param=0.08256676  
## predicted class=7 expected loss=0.8505298 P(node) =0.6402301  
## class counts: 2286 222 2022 498 2205 1309 1971 2412 1238 1974  
## probabilities: 0.142 0.014 0.125 0.031 0.137 0.081 0.122 0.149 0.077 0.122   
## left son=6 (4294 obs) right son=7 (11843 obs)  
## Primary splits:  
## 435 < 0.5 to the left, improve=997.0246, (0 missing)  
## 436 < 0.5 to the left, improve=993.5928, (0 missing)  
## 569 < 0.5 to the right, improve=985.1319, (0 missing)  
## 568 < 0.5 to the right, improve=981.9576, (0 missing)  
## 408 < 0.5 to the left, improve=973.5181, (0 missing)  
## Surrogate splits:  
## 436 < 0.5 to the left, agree=0.892, adj=0.594, (0 split)  
## 408 < 0.5 to the left, agree=0.890, adj=0.588, (0 split)  
## 434 < 0.5 to the left, agree=0.888, adj=0.578, (0 split)  
## 463 < 0.5 to the left, agree=0.883, adj=0.559, (0 split)  
## 407 < 0.5 to the left, agree=0.879, adj=0.545, (0 split)  
##   
## Node number 4: 4400 observations, complexity param=0.01866571  
## predicted class=1 expected loss=0.4475 P(node) =0.1745685  
## class counts: 28 2431 337 159 112 105 277 119 674 158  
## probabilities: 0.006 0.552 0.077 0.036 0.025 0.024 0.063 0.027 0.153 0.036   
## left son=8 (3250 obs) right son=9 (1150 obs)  
## Primary splits:  
## 234 < 0.5 to the left, improve=534.2896, (0 missing)  
## 521 < 0.5 to the left, improve=526.6306, (0 missing)  
## 319 < 0.5 to the left, improve=524.5641, (0 missing)  
## 262 < 0.5 to the left, improve=524.1744, (0 missing)  
## 550 < 0.5 to the left, improve=523.3399, (0 missing)  
## Surrogate splits:  
## 206 < 0.5 to the left, agree=0.934, adj=0.747, (0 split)  
## 262 < 1.5 to the left, agree=0.930, adj=0.732, (0 split)  
## 235 < 132.5 to the left, agree=0.930, adj=0.731, (0 split)  
## 207 < 48.5 to the left, agree=0.925, adj=0.715, (0 split)  
## 233 < 1.5 to the left, agree=0.922, adj=0.700, (0 split)  
##   
## Node number 5: 4668 observations, complexity param=0.01549522  
## predicted class=3 expected loss=0.5814053 P(node) =0.1852013  
## class counts: 166 158 148 1954 127 863 235 110 526 381  
## probabilities: 0.036 0.034 0.032 0.419 0.027 0.185 0.050 0.024 0.113 0.082   
## left son=10 (3675 obs) right son=11 (993 obs)  
## Primary splits:  
## 486 < 76.5 to the left, improve=339.3307, (0 missing)  
## 290 < 34.5 to the left, improve=326.0021, (0 missing)  
## 487 < 11.5 to the left, improve=315.4504, (0 missing)  
## 317 < 33.5 to the left, improve=282.8250, (0 missing)  
## 291 < 10.5 to the left, improve=281.4892, (0 missing)  
## Surrogate splits:  
## 487 < 11.5 to the left, agree=0.941, adj=0.722, (0 split)  
## 514 < 141.5 to the left, agree=0.922, adj=0.631, (0 split)  
## 485 < 101.5 to the left, agree=0.911, adj=0.581, (0 split)  
## 459 < 201.5 to the left, agree=0.910, adj=0.577, (0 split)  
## 458 < 202.5 to the left, agree=0.908, adj=0.569, (0 split)  
##   
## Node number 6: 4294 observations, complexity param=0.02138966  
## predicted class=0 expected loss=0.4825338 P(node) =0.170363  
## class counts: 2222 17 282 130 166 368 229 664 37 179  
## probabilities: 0.517 0.004 0.066 0.030 0.039 0.086 0.053 0.155 0.009 0.042   
## left son=12 (2737 obs) right son=13 (1557 obs)  
## Primary splits:  
## 597 < 1.5 to the right, improve=603.7671, (0 missing)  
## 598 < 2.5 to the right, improve=574.3586, (0 missing)  
## 568 < 0.5 to the right, improve=537.4804, (0 missing)  
## 626 < 3.5 to the right, improve=524.5488, (0 missing)  
## 511 < 2.5 to the right, improve=521.8409, (0 missing)  
## Surrogate splits:  
## 598 < 7.5 to the right, agree=0.930, adj=0.808, (0 split)  
## 596 < 0.5 to the right, agree=0.905, adj=0.739, (0 split)  
## 568 < 0.5 to the right, agree=0.898, adj=0.720, (0 split)  
## 626 < 6.5 to the right, agree=0.895, adj=0.712, (0 split)  
## 569 < 1.5 to the right, agree=0.887, adj=0.689, (0 split)  
##   
## Node number 7: 11843 observations, complexity param=0.05956953  
## predicted class=4 expected loss=0.8278308 P(node) =0.4698671  
## class counts: 64 205 1740 368 2039 941 1742 1748 1201 1795  
## probabilities: 0.005 0.017 0.147 0.031 0.172 0.079 0.147 0.148 0.101 0.152   
## left son=14 (5226 obs) right son=15 (6617 obs)  
## Primary splits:  
## 542 < 1.5 to the right, improve=822.1865, (0 missing)  
## 570 < 1.5 to the right, improve=766.1911, (0 missing)  
## 127 < 0.5 to the right, improve=760.7062, (0 missing)  
## 569 < 0.5 to the right, improve=752.4553, (0 missing)  
## 541 < 0.5 to the right, improve=750.0038, (0 missing)  
## Surrogate splits:  
## 541 < 0.5 to the right, agree=0.895, adj=0.762, (0 split)  
## 543 < 48.5 to the right, agree=0.893, adj=0.757, (0 split)  
## 570 < 20.5 to the right, agree=0.880, adj=0.729, (0 split)  
## 515 < 31.5 to the right, agree=0.854, adj=0.670, (0 split)  
## 514 < 1.5 to the right, agree=0.852, adj=0.666, (0 split)  
##   
## Node number 8: 3250 observations, complexity param=0.002277396  
## predicted class=1 expected loss=0.2649231 P(node) =0.1289427  
## class counts: 18 2389 157 56 76 91 158 24 214 67  
## probabilities: 0.006 0.735 0.048 0.017 0.023 0.028 0.049 0.007 0.066 0.021   
## left son=16 (2607 obs) right son=17 (643 obs)  
## Primary splits:  
## 347 < 1.5 to the left, improve=298.0289, (0 missing)  
## 402 < 8 to the left, improve=281.7995, (0 missing)  
## 375 < 48.5 to the left, improve=280.9152, (0 missing)  
## 374 < 0.5 to the left, improve=277.2342, (0 missing)  
## 457 < 1.5 to the left, improve=273.9629, (0 missing)  
## Surrogate splits:  
## 375 < 29.5 to the left, agree=0.943, adj=0.712, (0 split)  
## 319 < 0.5 to the left, agree=0.942, adj=0.709, (0 split)  
## 348 < 170.5 to the left, agree=0.930, adj=0.645, (0 split)  
## 374 < 0.5 to the left, agree=0.925, adj=0.621, (0 split)  
## 346 < 1 to the left, agree=0.923, adj=0.610, (0 split)  
##   
## Node number 9: 1150 observations, complexity param=0.004733411  
## predicted class=8 expected loss=0.6 P(node) =0.04562587  
## class counts: 10 42 180 103 36 14 119 95 460 91  
## probabilities: 0.009 0.037 0.157 0.090 0.031 0.012 0.103 0.083 0.400 0.079   
## left son=18 (434 obs) right son=19 (716 obs)  
## Primary splits:  
## 658 < 13.5 to the left, improve=111.38900, (0 missing)  
## 657 < 1.5 to the left, improve=108.81070, (0 missing)  
## 659 < 1 to the left, improve=108.67210, (0 missing)  
## 656 < 4 to the left, improve= 97.54418, (0 missing)  
## 319 < 6.5 to the left, improve= 79.81577, (0 missing)  
## Surrogate splits:  
## 659 < 1 to the left, agree=0.916, adj=0.776, (0 split)  
## 657 < 5 to the left, agree=0.910, adj=0.763, (0 split)  
## 630 < 66.5 to the left, agree=0.860, adj=0.629, (0 split)  
## 631 < 5 to the left, agree=0.846, adj=0.592, (0 split)  
## 656 < 1.5 to the left, agree=0.819, adj=0.521, (0 split)  
##   
## Node number 10: 3675 observations, complexity param=0.01330714  
## predicted class=3 expected loss=0.4862585 P(node) =0.1458044  
## class counts: 101 138 22 1888 113 810 35 109 113 346  
## probabilities: 0.027 0.038 0.006 0.514 0.031 0.220 0.010 0.030 0.031 0.094   
## left son=20 (2318 obs) right son=21 (1357 obs)  
## Primary splits:  
## 290 < 42.5 to the left, improve=347.9199, (0 missing)  
## 317 < 33.5 to the left, improve=327.6350, (0 missing)  
## 296 < 12.5 to the right, improve=303.0004, (0 missing)  
## 289 < 5.5 to the left, improve=302.9559, (0 missing)  
## 318 < 51.5 to the left, improve=279.4329, (0 missing)  
## Surrogate splits:  
## 289 < 11.5 to the left, agree=0.875, adj=0.660, (0 split)  
## 318 < 138.5 to the left, agree=0.863, adj=0.629, (0 split)  
## 291 < 38.5 to the left, agree=0.861, adj=0.623, (0 split)  
## 317 < 68.5 to the left, agree=0.858, adj=0.615, (0 split)  
## 262 < 68 to the left, agree=0.850, adj=0.593, (0 split)  
##   
## Node number 11: 993 observations, complexity param=0.006966152  
## predicted class=8 expected loss=0.5840886 P(node) =0.03939695  
## class counts: 65 20 126 66 14 53 200 1 413 35  
## probabilities: 0.065 0.020 0.127 0.066 0.014 0.053 0.201 0.001 0.416 0.035   
## left son=22 (423 obs) right son=23 (570 obs)  
## Primary splits:  
## 657 < 5.5 to the left, improve=140.94030, (0 missing)  
## 656 < 1 to the left, improve=138.99620, (0 missing)  
## 658 < 0.5 to the left, improve=123.86500, (0 missing)  
## 655 < 14 to the left, improve=122.38120, (0 missing)  
## 654 < 0.5 to the left, improve= 90.32948, (0 missing)  
## Surrogate splits:  
## 656 < 1 to the left, agree=0.957, adj=0.898, (0 split)  
## 658 < 0.5 to the left, agree=0.934, adj=0.844, (0 split)  
## 655 < 0.5 to the left, agree=0.900, adj=0.766, (0 split)  
## 659 < 0.5 to the left, agree=0.845, adj=0.636, (0 split)  
## 654 < 0.5 to the left, agree=0.830, adj=0.600, (0 split)  
##   
## Node number 12: 2737 observations, complexity param=0.004644101  
## predicted class=0 expected loss=0.2499087 P(node) =0.1085896  
## class counts: 2053 6 230 85 5 220 83 16 30 9  
## probabilities: 0.750 0.002 0.084 0.031 0.002 0.080 0.030 0.006 0.011 0.003   
## left son=24 (2295 obs) right son=25 (442 obs)  
## Primary splits:  
## 489 < 0.5 to the left, improve=243.9992, (0 missing)  
## 461 < 0.5 to the left, improve=224.9709, (0 missing)  
## 488 < 2.5 to the left, improve=222.8567, (0 missing)  
## 372 < 0.5 to the right, improve=215.5484, (0 missing)  
## 400 < 3.5 to the right, improve=215.4347, (0 missing)  
## Surrogate splits:  
## 490 < 33.5 to the left, agree=0.955, adj=0.724, (0 split)  
## 488 < 0.5 to the left, agree=0.950, adj=0.688, (0 split)  
## 517 < 140.5 to the left, agree=0.936, adj=0.606, (0 split)  
## 462 < 1.5 to the left, agree=0.932, adj=0.581, (0 split)  
## 461 < 0.5 to the left, agree=0.931, adj=0.570, (0 split)  
##   
## Node number 13: 1557 observations, complexity param=0.004778066  
## predicted class=7 expected loss=0.583815 P(node) =0.06177346  
## class counts: 169 11 52 45 161 148 146 648 7 170  
## probabilities: 0.109 0.007 0.033 0.029 0.103 0.095 0.094 0.416 0.004 0.109   
## left son=26 (603 obs) right son=27 (954 obs)  
## Primary splits:  
## 486 < 0.5 to the right, improve=171.6117, (0 missing)  
## 458 < 0.5 to the right, improve=170.5544, (0 missing)  
## 487 < 0.5 to the right, improve=170.2561, (0 missing)  
## 515 < 1 to the right, improve=162.3623, (0 missing)  
## 459 < 1 to the right, improve=157.7163, (0 missing)  
## Surrogate splits:  
## 487 < 0.5 to the right, agree=0.920, adj=0.793, (0 split)  
## 485 < 1 to the right, agree=0.903, adj=0.750, (0 split)  
## 514 < 0.5 to the right, agree=0.903, adj=0.750, (0 split)  
## 515 < 2.5 to the right, agree=0.900, adj=0.743, (0 split)  
## 458 < 0.5 to the right, agree=0.891, adj=0.718, (0 split)  
##   
## Node number 14: 5226 observations, complexity param=0.04505671  
## predicted class=6 expected loss=0.6928817 P(node) =0.2073398  
## class counts: 49 131 1467 40 271 235 1605 284 948 196  
## probabilities: 0.009 0.025 0.281 0.008 0.052 0.045 0.307 0.054 0.181 0.038   
## left son=28 (2838 obs) right son=29 (2388 obs)  
## Primary splits:  
## 271 < 0.5 to the right, improve=604.5449, (0 missing)  
## 270 < 0.5 to the right, improve=599.7244, (0 missing)  
## 243 < 0.5 to the right, improve=593.0277, (0 missing)  
## 347 < 0.5 to the left, improve=575.8547, (0 missing)  
## 242 < 0.5 to the right, improve=568.0370, (0 missing)  
## Surrogate splits:  
## 243 < 0.5 to the right, agree=0.910, adj=0.803, (0 split)  
## 299 < 0.5 to the right, agree=0.906, adj=0.794, (0 split)  
## 270 < 0.5 to the right, agree=0.857, adj=0.686, (0 split)  
## 298 < 3.5 to the right, agree=0.854, adj=0.680, (0 split)  
## 272 < 0.5 to the right, agree=0.853, adj=0.678, (0 split)  
##   
## Node number 15: 6617 observations, complexity param=0.05193355  
## predicted class=4 expected loss=0.7328094 P(node) =0.2625273  
## class counts: 15 74 273 328 1768 706 137 1464 253 1599  
## probabilities: 0.002 0.011 0.041 0.050 0.267 0.107 0.021 0.221 0.038 0.242   
## left son=30 (4489 obs) right son=31 (2128 obs)  
## Primary splits:  
## 432 < 0.5 to the right, improve=696.1747, (0 missing)  
## 431 < 0.5 to the right, improve=662.3729, (0 missing)  
## 433 < 2.5 to the right, improve=658.4506, (0 missing)  
## 430 < 0.5 to the right, improve=646.2347, (0 missing)  
## 239 < 0.5 to the left, improve=617.7026, (0 missing)  
## Surrogate splits:  
## 431 < 0.5 to the right, agree=0.935, adj=0.798, (0 split)  
## 433 < 29.5 to the right, agree=0.922, adj=0.758, (0 split)  
## 430 < 0.5 to the right, agree=0.864, adj=0.577, (0 split)  
## 434 < 80.5 to the right, agree=0.823, adj=0.451, (0 split)  
## 460 < 0.5 to the right, agree=0.821, adj=0.444, (0 split)  
##   
## Node number 16: 2607 observations, complexity param=0.002277396  
## predicted class=1 expected loss=0.1258151 P(node) =0.1034319  
## class counts: 1 2279 123 20 14 24 30 9 100 7  
## probabilities: 0.000 0.874 0.047 0.008 0.005 0.009 0.012 0.003 0.038 0.003   
## left son=32 (2456 obs) right son=33 (151 obs)  
## Primary splits:  
## 550 < 0.5 to the left, improve=155.3068, (0 missing)  
## 580 < 0.5 to the left, improve=151.2452, (0 missing)  
## 551 < 6.5 to the left, improve=149.7522, (0 missing)  
## 579 < 1.5 to the left, improve=147.4893, (0 missing)  
## 149 < 5 to the left, improve=146.3479, (0 missing)  
## Surrogate splits:  
## 551 < 0.5 to the left, agree=0.986, adj=0.755, (0 split)  
## 578 < 44 to the left, agree=0.979, adj=0.642, (0 split)  
## 549 < 160 to the left, agree=0.979, adj=0.636, (0 split)  
## 522 < 2.5 to the left, agree=0.978, adj=0.623, (0 split)  
## 552 < 6 to the left, agree=0.977, adj=0.609, (0 split)  
##   
## Node number 17: 643 observations, complexity param=0.002277396  
## predicted class=6 expected loss=0.8009331 P(node) =0.02551081  
## class counts: 17 110 34 36 62 67 128 15 114 60  
## probabilities: 0.026 0.171 0.053 0.056 0.096 0.104 0.199 0.023 0.177 0.093   
## left son=34 (564 obs) right son=35 (79 obs)  
## Primary splits:  
## 103 < 1.5 to the left, improve=49.62266, (0 missing)  
## 102 < 4.5 to the left, improve=45.81023, (0 missing)  
## 657 < 1.5 to the left, improve=44.98221, (0 missing)  
## 467 < 2.5 to the right, improve=44.65403, (0 missing)  
## 522 < 37 to the left, improve=43.85053, (0 missing)  
## Surrogate splits:  
## 104 < 5.5 to the left, agree=0.955, adj=0.633, (0 split)  
## 102 < 11.5 to the left, agree=0.953, adj=0.620, (0 split)  
## 131 < 213.5 to the left, agree=0.941, adj=0.519, (0 split)  
## 130 < 227.5 to the left, agree=0.935, adj=0.468, (0 split)  
## 132 < 228 to the left, agree=0.922, adj=0.367, (0 split)  
##   
## Node number 18: 434 observations, complexity param=0.004286863  
## predicted class=2 expected loss=0.6705069 P(node) =0.01721881  
## class counts: 5 19 143 15 13 6 114 28 37 54  
## probabilities: 0.012 0.044 0.329 0.035 0.030 0.014 0.263 0.065 0.085 0.124   
## left son=36 (228 obs) right son=37 (206 obs)  
## Primary splits:  
## 345 < 18 to the left, improve=60.79050, (0 missing)  
## 384 < 7.5 to the left, improve=48.60646, (0 missing)  
## 373 < 32.5 to the left, improve=47.71478, (0 missing)  
## 318 < 36.5 to the left, improve=46.92627, (0 missing)  
## 317 < 8.5 to the left, improve=46.85354, (0 missing)  
## Surrogate splits:  
## 317 < 18.5 to the left, agree=0.924, adj=0.840, (0 split)  
## 373 < 21 to the left, agree=0.924, adj=0.840, (0 split)  
## 344 < 0.5 to the left, agree=0.901, adj=0.791, (0 split)  
## 346 < 11.5 to the left, agree=0.878, adj=0.743, (0 split)  
## 372 < 0.5 to the left, agree=0.869, adj=0.723, (0 split)  
##   
## Node number 19: 716 observations, complexity param=0.001094043  
## predicted class=8 expected loss=0.4092179 P(node) =0.02840706  
## class counts: 5 23 37 88 23 8 5 67 423 37  
## probabilities: 0.007 0.032 0.052 0.123 0.032 0.011 0.007 0.094 0.591 0.052   
## left son=38 (218 obs) right son=39 (498 obs)  
## Primary splits:  
## 319 < 2 to the left, improve=57.35732, (0 missing)  
## 543 < 10.5 to the left, improve=55.94126, (0 missing)  
## 515 < 66.5 to the left, improve=54.57325, (0 missing)  
## 516 < 50 to the left, improve=50.41320, (0 missing)  
## 318 < 1.5 to the left, improve=46.75767, (0 missing)  
## Surrogate splits:  
## 318 < 0.5 to the left, agree=0.873, adj=0.583, (0 split)  
## 320 < 0.5 to the left, agree=0.865, adj=0.555, (0 split)  
## 347 < 7 to the left, agree=0.856, adj=0.528, (0 split)  
## 291 < 79 to the left, agree=0.855, adj=0.523, (0 split)  
## 290 < 2 to the left, agree=0.837, adj=0.463, (0 split)  
##   
## Node number 20: 2318 observations, complexity param=0.002009467  
## predicted class=3 expected loss=0.2868852 P(node) =0.09196588  
## class counts: 34 132 19 1653 36 277 19 30 53 65  
## probabilities: 0.015 0.057 0.008 0.713 0.016 0.119 0.008 0.013 0.023 0.028   
## left son=40 (1626 obs) right son=41 (692 obs)  
## Primary splits:  
## 179 < 1.5 to the right, improve=136.4540, (0 missing)  
## 296 < 12.5 to the right, improve=131.9266, (0 missing)  
## 655 < 3.5 to the right, improve=131.1460, (0 missing)  
## 152 < 0.5 to the right, improve=130.7408, (0 missing)  
## 490 < 104.5 to the right, improve=128.5077, (0 missing)  
## Surrogate splits:  
## 180 < 9.5 to the right, agree=0.910, adj=0.698, (0 split)  
## 178 < 0.5 to the right, agree=0.902, adj=0.672, (0 split)  
## 151 < 0.5 to the right, agree=0.837, adj=0.455, (0 split)  
## 181 < 17.5 to the right, agree=0.830, adj=0.432, (0 split)  
## 207 < 0.5 to the right, agree=0.825, adj=0.415, (0 split)  
##   
## Node number 21: 1357 observations, complexity param=0.008350451  
## predicted class=5 expected loss=0.6072218 P(node) =0.05383852  
## class counts: 67 6 3 235 77 533 16 79 60 281  
## probabilities: 0.049 0.004 0.002 0.173 0.057 0.393 0.012 0.058 0.044 0.207   
## left son=42 (836 obs) right son=43 (521 obs)  
## Primary splits:  
## 626 < 10.5 to the right, improve=148.5743, (0 missing)  
## 297 < 13.5 to the left, improve=148.4859, (0 missing)  
## 625 < 0.5 to the right, improve=140.2124, (0 missing)  
## 296 < 10.5 to the left, improve=134.0005, (0 missing)  
## 627 < 1 to the right, improve=130.5689, (0 missing)  
## Surrogate splits:  
## 625 < 0.5 to the right, agree=0.935, adj=0.831, (0 split)  
## 627 < 34.5 to the right, agree=0.931, adj=0.821, (0 split)  
## 598 < 1 to the right, agree=0.887, adj=0.704, (0 split)  
## 597 < 1 to the right, agree=0.878, adj=0.683, (0 split)  
## 654 < 0.5 to the right, agree=0.866, adj=0.651, (0 split)  
##   
## Node number 22: 423 observations, complexity param=0.002456015  
## predicted class=6 expected loss=0.5626478 P(node) =0.01678238  
## class counts: 13 20 98 15 14 23 185 0 29 26  
## probabilities: 0.031 0.047 0.232 0.035 0.033 0.054 0.437 0.000 0.069 0.061   
## left son=44 (173 obs) right son=45 (250 obs)  
## Primary splits:  
## 270 < 51.5 to the right, improve=48.04790, (0 missing)  
## 242 < 2.5 to the right, improve=48.02302, (0 missing)  
## 269 < 129.5 to the right, improve=46.32373, (0 missing)  
## 243 < 28.5 to the right, improve=39.71868, (0 missing)  
## 241 < 63.5 to the right, improve=39.07740, (0 missing)  
## Surrogate splits:  
## 297 < 149 to the right, agree=0.898, adj=0.751, (0 split)  
## 271 < 1.5 to the right, agree=0.884, adj=0.717, (0 split)  
## 269 < 152.5 to the right, agree=0.882, adj=0.711, (0 split)  
## 243 < 4.5 to the right, agree=0.879, adj=0.705, (0 split)  
## 242 < 83 to the right, agree=0.877, adj=0.699, (0 split)  
##   
## Node number 23: 570 observations, complexity param=0.001027061  
## predicted class=8 expected loss=0.3263158 P(node) =0.02261456  
## class counts: 52 0 28 51 0 30 15 1 384 9  
## probabilities: 0.091 0.000 0.049 0.089 0.000 0.053 0.026 0.002 0.674 0.016   
## left son=46 (97 obs) right son=47 (473 obs)  
## Primary splits:  
## 407 < 1.5 to the left, improve=41.25076, (0 missing)  
## 412 < 57.5 to the right, improve=40.94860, (0 missing)  
## 435 < 44.5 to the left, improve=40.48067, (0 missing)  
## 436 < 7 to the left, improve=39.70404, (0 missing)  
## 440 < 51 to the right, improve=37.08431, (0 missing)  
## Surrogate splits:  
## 406 < 59 to the left, agree=0.921, adj=0.536, (0 split)  
## 379 < 106.5 to the left, agree=0.907, adj=0.454, (0 split)  
## 378 < 118 to the left, agree=0.902, adj=0.423, (0 split)  
## 405 < 39.5 to the left, agree=0.870, adj=0.237, (0 split)  
## 351 < 39.5 to the left, agree=0.858, adj=0.165, (0 split)  
##   
## Node number 24: 2295 observations, complexity param=0.001384299  
## predicted class=0 expected loss=0.1389978 P(node) =0.09105336  
## class counts: 1976 1 49 75 2 121 47 12 6 6  
## probabilities: 0.861 0.000 0.021 0.033 0.001 0.053 0.020 0.005 0.003 0.003   
## left son=48 (2072 obs) right son=49 (223 obs)  
## Primary splits:  
## 380 < 1.5 to the left, improve=136.9082, (0 missing)  
## 351 < 5.5 to the left, improve=120.5561, (0 missing)  
## 379 < 1.5 to the left, improve=111.7483, (0 missing)  
## 352 < 5.5 to the left, improve=107.7130, (0 missing)  
## 378 < 46.5 to the left, improve=106.0854, (0 missing)  
## Surrogate splits:  
## 379 < 0.5 to the left, agree=0.959, adj=0.574, (0 split)  
## 352 < 122.5 to the left, agree=0.953, adj=0.511, (0 split)  
## 381 < 181.5 to the left, agree=0.953, adj=0.511, (0 split)  
## 408 < 24.5 to the left, agree=0.952, adj=0.507, (0 split)  
## 407 < 4 to the left, agree=0.949, adj=0.471, (0 split)  
##   
## Node number 25: 442 observations, complexity param=0.003483076  
## predicted class=2 expected loss=0.5904977 P(node) =0.0175362  
## class counts: 77 5 181 10 3 99 36 4 24 3  
## probabilities: 0.174 0.011 0.410 0.023 0.007 0.224 0.081 0.009 0.054 0.007   
## left son=50 (218 obs) right son=51 (224 obs)  
## Primary splits:  
## 347 < 2.5 to the left, improve=82.75933, (0 missing)  
## 319 < 2 to the left, improve=82.43492, (0 missing)  
## 320 < 1 to the left, improve=78.95617, (0 missing)  
## 374 < 4.5 to the left, improve=77.95075, (0 missing)  
## 346 < 5.5 to the left, improve=73.21611, (0 missing)  
## Surrogate splits:  
## 319 < 10.5 to the left, agree=0.930, adj=0.858, (0 split)  
## 320 < 14.5 to the left, agree=0.928, adj=0.853, (0 split)  
## 375 < 1 to the left, agree=0.912, adj=0.821, (0 split)  
## 348 < 1 to the left, agree=0.907, adj=0.812, (0 split)  
## 346 < 5.5 to the left, agree=0.882, adj=0.761, (0 split)  
##   
## Node number 26: 603 observations, complexity param=0.004733411  
## predicted class=6 expected loss=0.7794362 P(node) =0.02392382  
## class counts: 108 1 44 11 125 60 133 26 5 90  
## probabilities: 0.179 0.002 0.073 0.018 0.207 0.100 0.221 0.043 0.008 0.149   
## left son=52 (309 obs) right son=53 (294 obs)  
## Primary splits:  
## 572 < 5.5 to the right, improve=60.75282, (0 missing)  
## 571 < 94.5 to the right, improve=60.30347, (0 missing)  
## 600 < 21.5 to the right, improve=54.55946, (0 missing)  
## 99 < 1.5 to the left, improve=54.37963, (0 missing)  
## 298 < 1.5 to the right, improve=50.66128, (0 missing)  
## Surrogate splits:  
## 571 < 0.5 to the right, agree=0.927, adj=0.850, (0 split)  
## 573 < 22 to the right, agree=0.894, adj=0.782, (0 split)  
## 543 < 148 to the right, agree=0.856, adj=0.704, (0 split)  
## 600 < 19 to the right, agree=0.846, adj=0.684, (0 split)  
## 601 < 13.5 to the right, agree=0.839, adj=0.670, (0 split)  
##   
## Node number 27: 954 observations, complexity param=0.00250067  
## predicted class=7 expected loss=0.3480084 P(node) =0.03784963  
## class counts: 61 10 8 34 36 88 13 622 2 80  
## probabilities: 0.064 0.010 0.008 0.036 0.038 0.092 0.014 0.652 0.002 0.084   
## left son=54 (208 obs) right son=55 (746 obs)  
## Primary splits:  
## 404 < 1 to the right, improve=127.8033, (0 missing)  
## 403 < 4 to the right, improve=126.7987, (0 missing)  
## 432 < 2 to the right, improve=117.4801, (0 missing)  
## 405 < 3 to the right, improve=115.9155, (0 missing)  
## 376 < 0.5 to the right, improve=106.3250, (0 missing)  
## Surrogate splits:  
## 405 < 3 to the right, agree=0.954, adj=0.788, (0 split)  
## 403 < 45 to the right, agree=0.953, adj=0.784, (0 split)  
## 377 < 1.5 to the right, agree=0.939, adj=0.721, (0 split)  
## 376 < 5.5 to the right, agree=0.935, adj=0.702, (0 split)  
## 406 < 1 to the right, agree=0.922, adj=0.644, (0 split)  
##   
## Node number 28: 2838 observations, complexity param=0.02545325  
## predicted class=2 expected loss=0.6169838 P(node) =0.1125967  
## class counts: 41 102 1087 28 217 131 78 249 742 163  
## probabilities: 0.014 0.036 0.383 0.010 0.076 0.046 0.027 0.088 0.261 0.057   
## left son=56 (1644 obs) right son=57 (1194 obs)  
## Primary splits:  
## 347 < 1.5 to the left, improve=389.0371, (0 missing)  
## 127 < 1.5 to the right, improve=367.2948, (0 missing)  
## 126 < 0.5 to the right, improve=359.3462, (0 missing)  
## 684 < 0.5 to the left, improve=345.3252, (0 missing)  
## 319 < 1.5 to the left, improve=335.1514, (0 missing)  
## Surrogate splits:  
## 348 < 0.5 to the left, agree=0.898, adj=0.757, (0 split)  
## 319 < 10.5 to the left, agree=0.894, adj=0.748, (0 split)  
## 346 < 7.5 to the left, agree=0.893, adj=0.745, (0 split)  
## 375 < 0.5 to the left, agree=0.880, adj=0.714, (0 split)  
## 320 < 0.5 to the left, agree=0.857, adj=0.660, (0 split)  
##   
## Node number 29: 2388 observations, complexity param=0.01107439  
## predicted class=6 expected loss=0.3605528 P(node) =0.09474311  
## class counts: 8 29 380 12 54 104 1527 35 206 33  
## probabilities: 0.003 0.012 0.159 0.005 0.023 0.044 0.639 0.015 0.086 0.014   
## left son=58 (447 obs) right son=59 (1941 obs)  
## Primary splits:  
## 297 < 53.5 to the right, improve=306.1271, (0 missing)  
## 296 < 66.5 to the right, improve=303.9832, (0 missing)  
## 269 < 15.5 to the right, improve=285.7534, (0 missing)  
## 324 < 96.5 to the right, improve=271.0391, (0 missing)  
## 241 < 53.5 to the right, improve=215.7059, (0 missing)  
## Surrogate splits:  
## 269 < 82 to the right, agree=0.953, adj=0.749, (0 split)  
## 296 < 61 to the right, agree=0.951, adj=0.740, (0 split)  
## 324 < 113.5 to the right, agree=0.948, adj=0.723, (0 split)  
## 325 < 141.5 to the right, agree=0.934, adj=0.647, (0 split)  
## 270 < 0.5 to the right, agree=0.918, adj=0.562, (0 split)  
##   
## Node number 30: 4489 observations, complexity param=0.04572653  
## predicted class=4 expected loss=0.6437959 P(node) =0.1780996  
## class counts: 7 8 201 259 1599 587 100 132 217 1379  
## probabilities: 0.002 0.002 0.045 0.058 0.356 0.131 0.022 0.029 0.048 0.307   
## left son=60 (1830 obs) right son=61 (2659 obs)  
## Primary splits:  
## 211 < 31.5 to the left, improve=645.5260, (0 missing)  
## 210 < 4.5 to the left, improve=585.5882, (0 missing)  
## 238 < 5.5 to the left, improve=521.4250, (0 missing)  
## 239 < 0.5 to the left, improve=517.7189, (0 missing)  
## 212 < 10.5 to the left, improve=496.3398, (0 missing)  
## Surrogate splits:  
## 210 < 0.5 to the left, agree=0.892, adj=0.734, (0 split)  
## 212 < 10.5 to the left, agree=0.887, adj=0.723, (0 split)  
## 239 < 0.5 to the left, agree=0.871, adj=0.683, (0 split)  
## 238 < 1.5 to the left, agree=0.841, adj=0.609, (0 split)  
## 240 < 0.5 to the left, agree=0.798, adj=0.505, (0 split)  
##   
## Node number 31: 2128 observations, complexity param=0.00611771  
## predicted class=7 expected loss=0.3740602 P(node) =0.08442769  
## class counts: 8 66 72 69 169 119 37 1332 36 220  
## probabilities: 0.004 0.031 0.034 0.032 0.079 0.056 0.017 0.626 0.017 0.103   
## left son=62 (1766 obs) right son=63 (362 obs)  
## Primary splits:  
## 487 < 75.5 to the left, improve=227.9958, (0 missing)  
## 486 < 63.5 to the left, improve=223.1893, (0 missing)  
## 458 < 47.5 to the left, improve=211.7383, (0 missing)  
## 488 < 105.5 to the right, improve=209.6276, (0 missing)  
## 459 < 1 to the left, improve=205.0181, (0 missing)  
## Surrogate splits:  
## 486 < 40 to the left, agree=0.992, adj=0.950, (0 split)  
## 459 < 1 to the left, agree=0.981, adj=0.887, (0 split)  
## 488 < 162 to the left, agree=0.971, adj=0.831, (0 split)  
## 458 < 26.5 to the left, agree=0.971, adj=0.829, (0 split)  
## 485 < 0.5 to the left, agree=0.961, adj=0.771, (0 split)  
##   
## Node number 32: 2456 observations, complexity param=0.001384299  
## predicted class=1 expected loss=0.0769544 P(node) =0.09744098  
## class counts: 0 2267 31 12 10 24 8 8 90 6  
## probabilities: 0.000 0.923 0.013 0.005 0.004 0.010 0.003 0.003 0.037 0.002   
## left son=64 (2312 obs) right son=65 (144 obs)  
## Primary splits:  
## 300 < 21.5 to the left, improve=78.16071, (0 missing)  
## 355 < 32.5 to the left, improve=76.54136, (0 missing)  
## 484 < 5.5 to the left, improve=75.24698, (0 missing)  
## 301 < 2.5 to the left, improve=74.91437, (0 missing)  
## 511 < 6.5 to the left, improve=72.98386, (0 missing)  
## Surrogate splits:  
## 327 < 81 to the left, agree=0.982, adj=0.694, (0 split)  
## 299 < 192 to the left, agree=0.981, adj=0.681, (0 split)  
## 272 < 98.5 to the left, agree=0.980, adj=0.667, (0 split)  
## 273 < 1 to the left, agree=0.979, adj=0.639, (0 split)  
## 301 < 5.5 to the left, agree=0.975, adj=0.569, (0 split)  
##   
## Node number 33: 151 observations, complexity param=0.0005805126  
## predicted class=2 expected loss=0.3907285 P(node) =0.005990875  
## class counts: 1 12 92 8 4 0 22 1 10 1  
## probabilities: 0.007 0.079 0.609 0.053 0.026 0.000 0.146 0.007 0.066 0.007   
## left son=66 (108 obs) right son=67 (43 obs)  
## Primary splits:  
## 152 < 12 to the right, improve=18.06109, (0 missing)  
## 153 < 10.5 to the right, improve=17.30327, (0 missing)  
## 154 < 12.5 to the right, improve=17.30274, (0 missing)  
## 125 < 20.5 to the right, improve=17.24011, (0 missing)  
## 386 < 43 to the left, improve=16.81243, (0 missing)  
## Surrogate splits:  
## 153 < 20 to the right, agree=0.954, adj=0.837, (0 split)  
## 154 < 12.5 to the right, agree=0.914, adj=0.698, (0 split)  
## 180 < 5 to the right, agree=0.894, adj=0.628, (0 split)  
## 125 < 6 to the right, agree=0.881, adj=0.581, (0 split)  
## 151 < 5 to the right, agree=0.881, adj=0.581, (0 split)  
##   
## Node number 34: 564 observations, complexity param=0.002277396  
## predicted class=8 expected loss=0.7996454 P(node) =0.02237651  
## class counts: 16 109 33 33 61 66 58 15 113 60  
## probabilities: 0.028 0.193 0.059 0.059 0.108 0.117 0.103 0.027 0.200 0.106   
## left son=68 (286 obs) right son=69 (278 obs)  
## Primary splits:  
## 657 < 1.5 to the left, improve=30.51536, (0 missing)  
## 374 < 37.5 to the left, improve=28.44060, (0 missing)  
## 294 < 190 to the right, improve=27.20103, (0 missing)  
## 322 < 245.5 to the right, improve=26.74014, (0 missing)  
## 658 < 0.5 to the left, improve=26.27535, (0 missing)  
## Surrogate splits:  
## 658 < 0.5 to the left, agree=0.888, adj=0.773, (0 split)  
## 629 < 108.5 to the left, agree=0.872, adj=0.741, (0 split)  
## 656 < 10.5 to the left, agree=0.860, adj=0.716, (0 split)  
## 630 < 4 to the left, agree=0.826, adj=0.647, (0 split)  
## 685 < 1 to the left, agree=0.766, adj=0.525, (0 split)  
##   
## Node number 35: 79 observations  
## predicted class=6 expected loss=0.1139241 P(node) =0.003134299  
## class counts: 1 1 1 3 1 1 70 0 1 0  
## probabilities: 0.013 0.013 0.013 0.038 0.013 0.013 0.886 0.000 0.013 0.000   
##   
## Node number 36: 228 observations, complexity param=0.0004242208  
## predicted class=2 expected loss=0.4122807 P(node) =0.009045824  
## class counts: 0 17 134 15 1 1 9 21 20 10  
## probabilities: 0.000 0.075 0.588 0.066 0.004 0.004 0.039 0.092 0.088 0.044   
## left son=72 (142 obs) right son=73 (86 obs)  
## Primary splits:  
## 541 < 1.5 to the right, improve=29.54094, (0 missing)  
## 514 < 218.5 to the right, improve=27.51901, (0 missing)  
## 515 < 26 to the right, improve=26.83889, (0 missing)  
## 513 < 61.5 to the right, improve=25.40063, (0 missing)  
## 542 < 4.5 to the right, improve=24.69672, (0 missing)  
## Surrogate splits:  
## 513 < 8 to the right, agree=0.925, adj=0.802, (0 split)  
## 542 < 115.5 to the right, agree=0.925, adj=0.802, (0 split)  
## 540 < 0.5 to the right, agree=0.904, adj=0.744, (0 split)  
## 514 < 165.5 to the right, agree=0.895, adj=0.721, (0 split)  
## 569 < 3 to the right, agree=0.882, adj=0.686, (0 split)  
##   
## Node number 37: 206 observations, complexity param=0.001696883  
## predicted class=6 expected loss=0.4902913 P(node) =0.008172982  
## class counts: 5 2 9 0 12 5 105 7 17 44  
## probabilities: 0.024 0.010 0.044 0.000 0.058 0.024 0.510 0.034 0.083 0.214   
## left son=74 (144 obs) right son=75 (62 obs)  
## Primary splits:  
## 575 < 51.5 to the right, improve=38.30019, (0 missing)  
## 576 < 149 to the right, improve=34.00853, (0 missing)  
## 574 < 201 to the right, improve=33.23562, (0 missing)  
## 603 < 94.5 to the right, improve=33.02369, (0 missing)  
## 602 < 58 to the right, improve=32.25226, (0 missing)  
## Surrogate splits:  
## 574 < 201 to the right, agree=0.913, adj=0.710, (0 split)  
## 603 < 2.5 to the right, agree=0.898, adj=0.661, (0 split)  
## 576 < 1 to the right, agree=0.888, adj=0.629, (0 split)  
## 602 < 33.5 to the right, agree=0.879, adj=0.597, (0 split)  
## 547 < 74.5 to the right, agree=0.864, adj=0.548, (0 split)  
##   
## Node number 38: 218 observations, complexity param=0.001094043  
## predicted class=3 expected loss=0.706422 P(node) =0.008649078  
## class counts: 1 9 34 64 5 1 3 44 50 7  
## probabilities: 0.005 0.041 0.156 0.294 0.023 0.005 0.014 0.202 0.229 0.032   
## left son=76 (162 obs) right son=77 (56 obs)  
## Primary splits:  
## 344 < 24 to the left, improve=24.57021, (0 missing)  
## 345 < 8 to the left, improve=23.04704, (0 missing)  
## 373 < 85.5 to the left, improve=23.00540, (0 missing)  
## 544 < 57.5 to the left, improve=21.22790, (0 missing)  
## 543 < 138 to the left, improve=20.97228, (0 missing)  
## Surrogate splits:  
## 345 < 8 to the left, agree=0.954, adj=0.821, (0 split)  
## 316 < 36.5 to the left, agree=0.950, adj=0.804, (0 split)  
## 372 < 0.5 to the left, agree=0.945, adj=0.786, (0 split)  
## 317 < 52.5 to the left, agree=0.936, adj=0.750, (0 split)  
## 373 < 85.5 to the left, agree=0.936, adj=0.750, (0 split)  
##   
## Node number 39: 498 observations, complexity param=0.000379566  
## predicted class=8 expected loss=0.251004 P(node) =0.01975798  
## class counts: 4 14 3 24 18 7 2 23 373 30  
## probabilities: 0.008 0.028 0.006 0.048 0.036 0.014 0.004 0.046 0.749 0.060   
## left son=78 (124 obs) right son=79 (374 obs)  
## Primary splits:  
## 543 < 9.5 to the left, improve=31.25450, (0 missing)  
## 515 < 13 to the left, improve=29.28271, (0 missing)  
## 518 < 248.5 to the right, improve=27.08767, (0 missing)  
## 155 < 4.5 to the left, improve=27.00839, (0 missing)  
## 516 < 46.5 to the left, improve=25.72759, (0 missing)  
## Surrogate splits:  
## 515 < 13 to the left, agree=0.918, adj=0.669, (0 split)  
## 571 < 6 to the left, agree=0.892, adj=0.565, (0 split)  
## 516 < 45.5 to the left, agree=0.853, adj=0.411, (0 split)  
## 488 < 88.5 to the left, agree=0.851, adj=0.403, (0 split)  
## 487 < 1 to the left, agree=0.833, adj=0.331, (0 split)  
##   
## Node number 40: 1626 observations, complexity param=0.002009467  
## predicted class=3 expected loss=0.1439114 P(node) =0.06451101  
## class counts: 3 41 13 1392 5 105 2 7 31 27  
## probabilities: 0.002 0.025 0.008 0.856 0.003 0.065 0.001 0.004 0.019 0.017   
## left son=80 (1502 obs) right son=81 (124 obs)  
## Primary splits:  
## 315 < 84.5 to the left, improve=101.33530, (0 missing)  
## 316 < 163.5 to the left, improve= 93.73302, (0 missing)  
## 288 < 120 to the left, improve= 87.80485, (0 missing)  
## 343 < 129 to the left, improve= 83.76342, (0 missing)  
## 296 < 2.5 to the right, improve= 75.56257, (0 missing)  
## Surrogate splits:  
## 343 < 129 to the left, agree=0.972, adj=0.637, (0 split)  
## 316 < 72.5 to the left, agree=0.972, adj=0.629, (0 split)  
## 287 < 151.5 to the left, agree=0.971, adj=0.621, (0 split)  
## 314 < 3.5 to the left, agree=0.967, adj=0.573, (0 split)  
## 342 < 31.5 to the left, agree=0.964, adj=0.532, (0 split)  
##   
## Node number 41: 692 observations, complexity param=0.002009467  
## predicted class=3 expected loss=0.6228324 P(node) =0.02745487  
## class counts: 31 91 6 261 31 172 17 23 22 38  
## probabilities: 0.045 0.132 0.009 0.377 0.045 0.249 0.025 0.033 0.032 0.055   
## left son=82 (417 obs) right son=83 (275 obs)  
## Primary splits:  
## 626 < 19.5 to the right, improve=58.69160, (0 missing)  
## 627 < 36.5 to the right, improve=57.79988, (0 missing)  
## 628 < 23 to the left, improve=56.53345, (0 missing)  
## 625 < 1.5 to the right, improve=56.23608, (0 missing)  
## 490 < 127.5 to the right, improve=53.88951, (0 missing)  
## Surrogate splits:  
## 627 < 13.5 to the right, agree=0.952, adj=0.880, (0 split)  
## 625 < 1.5 to the right, agree=0.945, adj=0.862, (0 split)  
## 628 < 3 to the right, agree=0.910, adj=0.775, (0 split)  
## 624 < 0.5 to the right, agree=0.871, adj=0.676, (0 split)  
## 598 < 1 to the right, agree=0.835, adj=0.585, (0 split)  
##   
## Node number 42: 836 observations, complexity param=0.003393766  
## predicted class=5 expected loss=0.430622 P(node) =0.03316802  
## class counts: 59 1 1 198 1 476 9 5 49 37  
## probabilities: 0.071 0.001 0.001 0.237 0.001 0.569 0.011 0.006 0.059 0.044   
## left son=84 (324 obs) right son=85 (512 obs)  
## Primary splits:  
## 297 < 29.5 to the right, improve=94.16206, (0 missing)  
## 298 < 0.5 to the right, improve=89.46983, (0 missing)  
## 296 < 54.5 to the right, improve=89.39417, (0 missing)  
## 269 < 0.5 to the right, improve=76.41152, (0 missing)  
## 270 < 9.5 to the right, improve=73.21487, (0 missing)  
## Surrogate splits:  
## 298 < 0.5 to the right, agree=0.916, adj=0.784, (0 split)  
## 296 < 111.5 to the right, agree=0.879, adj=0.688, (0 split)  
## 270 < 85 to the right, agree=0.854, adj=0.623, (0 split)  
## 269 < 191.5 to the right, agree=0.848, adj=0.608, (0 split)  
## 325 < 210 to the right, agree=0.842, adj=0.593, (0 split)  
##   
## Node number 43: 521 observations, complexity param=0.002389033  
## predicted class=9 expected loss=0.5316699 P(node) =0.0206705  
## class counts: 8 5 2 37 76 57 7 74 11 244  
## probabilities: 0.015 0.010 0.004 0.071 0.146 0.109 0.013 0.142 0.021 0.468   
## left son=86 (164 obs) right son=87 (357 obs)  
## Primary splits:  
## 210 < 1 to the left, improve=63.94359, (0 missing)  
## 211 < 1.5 to the left, improve=56.21769, (0 missing)  
## 209 < 18.5 to the left, improve=53.53197, (0 missing)  
## 321 < 234 to the right, improve=45.42103, (0 missing)  
## 238 < 9.5 to the left, improve=42.78869, (0 missing)  
## Surrogate splits:  
## 211 < 1.5 to the left, agree=0.933, adj=0.787, (0 split)  
## 209 < 18.5 to the left, agree=0.925, adj=0.762, (0 split)  
## 238 < 1 to the left, agree=0.850, adj=0.524, (0 split)  
## 237 < 1 to the left, agree=0.839, adj=0.488, (0 split)  
## 212 < 1 to the left, agree=0.829, adj=0.457, (0 split)  
##   
## Node number 44: 173 observations, complexity param=0.0004465482  
## predicted class=2 expected loss=0.6011561 P(node) =0.006863718  
## class counts: 9 15 69 8 9 7 14 0 23 19  
## probabilities: 0.052 0.087 0.399 0.046 0.052 0.040 0.081 0.000 0.133 0.110   
## left son=88 (73 obs) right son=89 (100 obs)  
## Primary splits:  
## 126 < 10 to the right, improve=21.98748, (0 missing)  
## 154 < 11.5 to the right, improve=21.90812, (0 missing)  
## 156 < 5.5 to the right, improve=21.04590, (0 missing)  
## 155 < 59.5 to the right, improve=20.71615, (0 missing)  
## 573 < 94.5 to the right, improve=20.26070, (0 missing)  
## Surrogate splits:  
## 125 < 5.5 to the right, agree=0.942, adj=0.863, (0 split)  
## 127 < 6.5 to the right, agree=0.936, adj=0.849, (0 split)  
## 153 < 24 to the right, agree=0.908, adj=0.781, (0 split)  
## 154 < 129.5 to the right, agree=0.908, adj=0.781, (0 split)  
## 128 < 5 to the right, agree=0.896, adj=0.753, (0 split)  
##   
## Node number 45: 250 observations, complexity param=0.0003349111  
## predicted class=6 expected loss=0.316 P(node) =0.009918667  
## class counts: 4 5 29 7 5 16 171 0 6 7  
## probabilities: 0.016 0.020 0.116 0.028 0.020 0.064 0.684 0.000 0.024 0.028   
## left son=90 (41 obs) right son=91 (209 obs)  
## Primary splits:  
## 601 < 36.5 to the left, improve=19.64868, (0 missing)  
## 295 < 174 to the right, improve=19.07010, (0 missing)  
## 380 < 25 to the left, improve=17.06546, (0 missing)  
## 381 < 1 to the left, improve=16.91467, (0 missing)  
## 600 < 2.5 to the left, improve=16.78673, (0 missing)  
## Surrogate splits:  
## 600 < 2.5 to the left, agree=0.980, adj=0.878, (0 split)  
## 602 < 0.5 to the left, agree=0.956, adj=0.732, (0 split)  
## 599 < 2 to the left, agree=0.944, adj=0.659, (0 split)  
## 573 < 1.5 to the left, agree=0.920, adj=0.512, (0 split)  
## 572 < 1.5 to the left, agree=0.916, adj=0.488, (0 split)  
##   
## Node number 46: 97 observations, complexity param=0.0005805126  
## predicted class=0 expected loss=0.5463918 P(node) =0.003848443  
## class counts: 44 0 8 6 0 15 3 0 21 0  
## probabilities: 0.454 0.000 0.082 0.062 0.000 0.155 0.031 0.000 0.216 0.000   
## left son=92 (41 obs) right son=93 (56 obs)  
## Primary splits:  
## 329 < 11 to the right, improve=18.37385, (0 missing)  
## 328 < 120.5 to the right, improve=18.09793, (0 missing)  
## 301 < 18.5 to the right, improve=17.28437, (0 missing)  
## 300 < 67 to the right, improve=17.01085, (0 missing)  
## 266 < 240.5 to the right, improve=16.89891, (0 missing)  
## Surrogate splits:  
## 301 < 26 to the right, agree=0.938, adj=0.854, (0 split)  
## 357 < 8.5 to the right, agree=0.938, adj=0.854, (0 split)  
## 300 < 67 to the right, agree=0.928, adj=0.829, (0 split)  
## 328 < 85.5 to the right, agree=0.928, adj=0.829, (0 split)  
## 356 < 232.5 to the right, agree=0.887, adj=0.732, (0 split)  
##   
## Node number 47: 473 observations, complexity param=0.0004688756  
## predicted class=8 expected loss=0.2325581 P(node) =0.01876612  
## class counts: 8 0 20 45 0 15 12 1 363 9  
## probabilities: 0.017 0.000 0.042 0.095 0.000 0.032 0.025 0.002 0.767 0.019   
## left son=94 (43 obs) right son=95 (430 obs)  
## Primary splits:  
## 514 < 1 to the left, improve=18.95645, (0 missing)  
## 439 < 250.5 to the right, improve=18.87687, (0 missing)  
## 440 < 60 to the right, improve=17.81530, (0 missing)  
## 541 < 1 to the left, improve=16.73971, (0 missing)  
## 401 < 230.5 to the right, improve=15.72282, (0 missing)  
## Surrogate splits:  
## 712 < 169 to the right, agree=0.918, adj=0.093, (0 split)  
## 507 < 32 to the right, agree=0.915, adj=0.070, (0 split)  
## 509 < 28 to the right, agree=0.915, adj=0.070, (0 split)  
## 535 < 12 to the right, agree=0.915, adj=0.070, (0 split)  
## 537 < 118.5 to the right, agree=0.915, adj=0.070, (0 split)  
##   
## Node number 48: 2072 observations, complexity param=0.0004242208  
## predicted class=0 expected loss=0.06853282 P(node) =0.08220591  
## class counts: 1930 0 32 31 1 44 21 10 1 2  
## probabilities: 0.931 0.000 0.015 0.015 0.000 0.021 0.010 0.005 0.000 0.001   
## left son=96 (1973 obs) right son=97 (99 obs)  
## Primary splits:  
## 324 < 172 to the left, improve=34.63603, (0 missing)  
## 455 < 1 to the right, improve=31.48402, (0 missing)  
## 323 < 147.5 to the left, improve=31.37636, (0 missing)  
## 427 < 0.5 to the right, improve=30.52109, (0 missing)  
## 428 < 0.5 to the right, improve=28.05817, (0 missing)  
## Surrogate splits:  
## 352 < 15.5 to the left, agree=0.977, adj=0.525, (0 split)  
## 323 < 216.5 to the left, agree=0.971, adj=0.394, (0 split)  
## 325 < 241 to the left, agree=0.967, adj=0.303, (0 split)  
## 351 < 10 to the left, agree=0.965, adj=0.273, (0 split)  
## 353 < 218.5 to the left, agree=0.959, adj=0.152, (0 split)  
##   
## Node number 49: 223 observations, complexity param=0.001250335  
## predicted class=5 expected loss=0.6547085 P(node) =0.008847451  
## class counts: 46 1 17 44 1 77 26 2 5 4  
## probabilities: 0.206 0.004 0.076 0.197 0.004 0.345 0.117 0.009 0.022 0.018   
## left son=98 (84 obs) right son=99 (139 obs)  
## Primary splits:  
## 484 < 42 to the right, improve=22.09355, (0 missing)  
## 485 < 63 to the right, improve=21.30952, (0 missing)  
## 513 < 105.5 to the right, improve=20.88248, (0 missing)  
## 298 < 127 to the right, improve=20.27173, (0 missing)  
## 456 < 13.5 to the right, improve=19.78078, (0 missing)  
## Surrogate splits:  
## 456 < 7.5 to the right, agree=0.928, adj=0.810, (0 split)  
## 512 < 35 to the right, agree=0.892, adj=0.714, (0 split)  
## 457 < 29.5 to the right, agree=0.843, adj=0.583, (0 split)  
## 485 < 33.5 to the right, agree=0.839, adj=0.571, (0 split)  
## 513 < 105.5 to the right, agree=0.834, adj=0.560, (0 split)  
##   
## Node number 50: 218 observations, complexity param=0.0003125837  
## predicted class=2 expected loss=0.2201835 P(node) =0.008649078  
## class counts: 7 5 170 6 2 10 7 3 6 2  
## probabilities: 0.032 0.023 0.780 0.028 0.009 0.046 0.032 0.014 0.028 0.009   
## left son=100 (192 obs) right son=101 (26 obs)  
## Primary splits:  
## 344 < 154.5 to the left, improve=21.28125, (0 missing)  
## 372 < 32 to the left, improve=20.41915, (0 missing)  
## 345 < 33.5 to the left, improve=19.99551, (0 missing)  
## 371 < 16 to the left, improve=19.79440, (0 missing)  
## 465 < 5 to the right, improve=18.42076, (0 missing)  
## Surrogate splits:  
## 372 < 32 to the left, agree=0.982, adj=0.846, (0 split)  
## 371 < 3 to the left, agree=0.972, adj=0.769, (0 split)  
## 317 < 167.5 to the left, agree=0.968, adj=0.731, (0 split)  
## 345 < 33.5 to the left, agree=0.968, adj=0.731, (0 split)  
## 316 < 93.5 to the left, agree=0.959, adj=0.654, (0 split)  
##   
## Node number 51: 224 observations, complexity param=0.002857908  
## predicted class=5 expected loss=0.6026786 P(node) =0.008887126  
## class counts: 70 0 11 4 1 89 29 1 18 1  
## probabilities: 0.312 0.000 0.049 0.018 0.004 0.397 0.129 0.004 0.080 0.004   
## left son=102 (73 obs) right son=103 (151 obs)  
## Primary splits:  
## 386 < 3.5 to the right, improve=52.64302, (0 missing)  
## 358 < 6.5 to the right, improve=52.12740, (0 missing)  
## 413 < 36 to the right, improve=51.92639, (0 missing)  
## 357 < 26.5 to the right, improve=51.87439, (0 missing)  
## 385 < 43 to the right, improve=51.27013, (0 missing)  
## Surrogate splits:  
## 358 < 13.5 to the right, agree=0.973, adj=0.918, (0 split)  
## 385 < 108 to the right, agree=0.964, adj=0.890, (0 split)  
## 413 < 36 to the right, agree=0.960, adj=0.877, (0 split)  
## 414 < 6.5 to the right, agree=0.960, adj=0.877, (0 split)  
## 441 < 19.5 to the right, agree=0.942, adj=0.822, (0 split)  
##   
## Node number 52: 309 observations, complexity param=0.00379566  
## predicted class=6 expected loss=0.6019417 P(node) =0.01225947  
## class counts: 99 1 30 6 9 19 123 3 3 16  
## probabilities: 0.320 0.003 0.097 0.019 0.029 0.061 0.398 0.010 0.010 0.052   
## left son=104 (151 obs) right son=105 (158 obs)  
## Primary splits:  
## 241 < 12 to the right, improve=62.80933, (0 missing)  
## 270 < 2 to the right, improve=62.15147, (0 missing)  
## 242 < 2 to the right, improve=59.06631, (0 missing)  
## 269 < 1 to the right, improve=56.39711, (0 missing)  
## 298 < 1.5 to the right, improve=55.86574, (0 missing)  
## Surrogate splits:  
## 269 < 1 to the right, agree=0.942, adj=0.881, (0 split)  
## 242 < 2 to the right, agree=0.926, adj=0.848, (0 split)  
## 270 < 2 to the right, agree=0.922, adj=0.841, (0 split)  
## 240 < 0.5 to the right, agree=0.890, adj=0.775, (0 split)  
## 298 < 1.5 to the right, agree=0.887, adj=0.768, (0 split)  
##   
## Node number 53: 294 observations, complexity param=0.002009467  
## predicted class=4 expected loss=0.6054422 P(node) =0.01166435  
## class counts: 9 0 14 5 116 41 10 23 2 74  
## probabilities: 0.031 0.000 0.048 0.017 0.395 0.139 0.034 0.078 0.007 0.252   
## left son=106 (119 obs) right son=107 (175 obs)  
## Primary splits:  
## 211 < 8 to the left, improve=40.32227, (0 missing)  
## 210 < 9 to the left, improve=40.02085, (0 missing)  
## 238 < 1 to the left, improve=34.44240, (0 missing)  
## 239 < 0.5 to the left, improve=31.73947, (0 missing)  
## 465 < 34 to the left, improve=31.34210, (0 missing)  
## Surrogate splits:  
## 210 < 6.5 to the left, agree=0.895, adj=0.739, (0 split)  
## 212 < 0.5 to the left, agree=0.881, adj=0.706, (0 split)  
## 239 < 0.5 to the left, agree=0.874, adj=0.689, (0 split)  
## 238 < 4 to the left, agree=0.850, adj=0.630, (0 split)  
## 240 < 1 to the left, agree=0.844, adj=0.613, (0 split)  
##   
## Node number 54: 208 observations, complexity param=0.002366705  
## predicted class=9 expected loss=0.6875 P(node) =0.008252331  
## class counts: 4 7 3 25 22 62 9 9 2 65  
## probabilities: 0.019 0.034 0.014 0.120 0.106 0.298 0.043 0.043 0.010 0.312   
## left son=108 (106 obs) right son=109 (102 obs)  
## Primary splits:  
## 354 < 26 to the left, improve=31.37672, (0 missing)  
## 353 < 22.5 to the left, improve=28.44115, (0 missing)  
## 355 < 2 to the left, improve=24.04168, (0 missing)  
## 465 < 80 to the left, improve=23.43269, (0 missing)  
## 382 < 35.5 to the left, improve=21.14973, (0 missing)  
## Surrogate splits:  
## 353 < 22.5 to the left, agree=0.909, adj=0.814, (0 split)  
## 355 < 2 to the left, agree=0.875, adj=0.745, (0 split)  
## 326 < 2 to the left, agree=0.870, adj=0.735, (0 split)  
## 382 < 146 to the left, agree=0.856, adj=0.706, (0 split)  
## 465 < 80 to the left, agree=0.817, adj=0.627, (0 split)  
##   
## Node number 55: 746 observations, complexity param=0.002009467  
## predicted class=7 expected loss=0.1782842 P(node) =0.0295973  
## class counts: 57 3 5 9 14 26 4 613 0 15  
## probabilities: 0.076 0.004 0.007 0.012 0.019 0.035 0.005 0.822 0.000 0.020   
## left son=110 (68 obs) right son=111 (678 obs)  
## Primary splits:  
## 538 < 1 to the right, improve=75.36373, (0 missing)  
## 510 < 10.5 to the right, improve=71.88152, (0 missing)  
## 539 < 2 to the right, improve=68.65317, (0 missing)  
## 623 < 3 to the right, improve=67.04377, (0 missing)  
## 566 < 7 to the right, improve=66.62073, (0 missing)  
## Surrogate splits:  
## 510 < 121.5 to the right, agree=0.981, adj=0.794, (0 split)  
## 566 < 1.5 to the right, agree=0.976, adj=0.735, (0 split)  
## 567 < 1 to the right, agree=0.971, adj=0.676, (0 split)  
## 539 < 56 to the right, agree=0.968, adj=0.647, (0 split)  
## 537 < 2 to the right, agree=0.962, adj=0.588, (0 split)  
##   
## Node number 56: 1644 observations, complexity param=0.003304457  
## predicted class=2 expected loss=0.386253 P(node) =0.06522515  
## class counts: 5 102 1009 23 65 12 50 193 94 91  
## probabilities: 0.003 0.062 0.614 0.014 0.040 0.007 0.030 0.117 0.057 0.055   
## left son=112 (1021 obs) right son=113 (623 obs)  
## Primary splits:  
## 155 < 1 to the right, improve=246.8804, (0 missing)  
## 156 < 0.5 to the right, improve=246.5524, (0 missing)  
## 154 < 0.5 to the right, improve=235.2572, (0 missing)  
## 127 < 1.5 to the right, improve=212.1310, (0 missing)  
## 157 < 2.5 to the right, improve=208.6518, (0 missing)  
## Surrogate splits:  
## 156 < 0.5 to the right, agree=0.969, adj=0.918, (0 split)  
## 154 < 0.5 to the right, agree=0.956, adj=0.884, (0 split)  
## 157 < 2.5 to the right, agree=0.917, adj=0.782, (0 split)  
## 153 < 0.5 to the right, agree=0.901, adj=0.738, (0 split)  
## 152 < 1 to the right, agree=0.826, adj=0.541, (0 split)  
##   
## Node number 57: 1194 observations, complexity param=0.00379566  
## predicted class=8 expected loss=0.4572864 P(node) =0.04737155  
## class counts: 36 0 78 5 152 119 28 56 648 72  
## probabilities: 0.030 0.000 0.065 0.004 0.127 0.100 0.023 0.047 0.543 0.060   
## left son=114 (485 obs) right son=115 (709 obs)  
## Primary splits:  
## 657 < 15 to the left, improve=192.8540, (0 missing)  
## 656 < 22.5 to the left, improve=182.8277, (0 missing)  
## 658 < 3.5 to the left, improve=168.9296, (0 missing)  
## 655 < 20 to the left, improve=143.8821, (0 missing)  
## 684 < 0.5 to the left, improve=142.4054, (0 missing)  
## Surrogate splits:  
## 658 < 0.5 to the left, agree=0.934, adj=0.837, (0 split)  
## 656 < 59 to the left, agree=0.931, adj=0.831, (0 split)  
## 630 < 7.5 to the left, agree=0.879, adj=0.703, (0 split)  
## 629 < 4 to the left, agree=0.848, adj=0.627, (0 split)  
## 631 < 0.5 to the left, agree=0.843, adj=0.612, (0 split)  
##   
## Node number 58: 447 observations, complexity param=0.0009377512  
## predicted class=2 expected loss=0.3959732 P(node) =0.01773458  
## class counts: 5 26 270 4 34 1 22 31 37 17  
## probabilities: 0.011 0.058 0.604 0.009 0.076 0.002 0.049 0.069 0.083 0.038   
## left son=116 (344 obs) right son=117 (103 obs)  
## Primary splits:  
## 346 < 7.5 to the left, improve=47.61144, (0 missing)  
## 347 < 0.5 to the left, improve=43.59109, (0 missing)  
## 348 < 2 to the left, improve=38.53257, (0 missing)  
## 124 < 3 to the right, improve=38.15032, (0 missing)  
## 345 < 5.5 to the left, improve=37.90400, (0 missing)  
## Surrogate splits:  
## 347 < 0.5 to the left, agree=0.937, adj=0.728, (0 split)  
## 318 < 24.5 to the left, agree=0.933, adj=0.709, (0 split)  
## 345 < 2.5 to the left, agree=0.915, adj=0.631, (0 split)  
## 374 < 4.5 to the left, agree=0.915, adj=0.631, (0 split)  
## 319 < 41 to the left, agree=0.904, adj=0.583, (0 split)  
##   
## Node number 59: 1941 observations, complexity param=0.004688756  
## predicted class=6 expected loss=0.2246265 P(node) =0.07700853  
## class counts: 3 3 110 8 20 103 1505 4 169 16  
## probabilities: 0.002 0.002 0.057 0.004 0.010 0.053 0.775 0.002 0.087 0.008   
## left son=118 (241 obs) right son=119 (1700 obs)  
## Primary splits:  
## 274 < 2.5 to the right, improve=208.2075, (0 missing)  
## 655 < 1.5 to the left, improve=206.0021, (0 missing)  
## 654 < 0.5 to the left, improve=202.5597, (0 missing)  
## 246 < 5.5 to the right, improve=198.0558, (0 missing)  
## 656 < 2 to the left, improve=195.6095, (0 missing)  
## Surrogate splits:  
## 273 < 3 to the right, agree=0.982, adj=0.855, (0 split)  
## 246 < 24 to the right, agree=0.973, adj=0.780, (0 split)  
## 301 < 137.5 to the right, agree=0.965, adj=0.722, (0 split)  
## 302 < 39 to the right, agree=0.961, adj=0.689, (0 split)  
## 245 < 14.5 to the right, agree=0.958, adj=0.660, (0 split)  
##   
## Node number 60: 1830 observations, complexity param=0.003751005  
## predicted class=4 expected loss=0.2836066 P(node) =0.07260464  
## class counts: 0 6 111 44 1311 123 68 44 56 67  
## probabilities: 0.000 0.003 0.061 0.024 0.716 0.067 0.037 0.024 0.031 0.037   
## left son=120 (221 obs) right son=121 (1609 obs)  
## Primary splits:  
## 596 < 1.5 to the right, improve=177.3933, (0 missing)  
## 597 < 13 to the right, improve=171.0007, (0 missing)  
## 595 < 0.5 to the right, improve=167.7112, (0 missing)  
## 624 < 2.5 to the right, improve=167.5858, (0 missing)  
## 625 < 35 to the right, improve=163.3194, (0 missing)  
## Surrogate splits:  
## 597 < 44 to the right, agree=0.981, adj=0.846, (0 split)  
## 595 < 0.5 to the right, agree=0.978, adj=0.819, (0 split)  
## 624 < 0.5 to the right, agree=0.973, adj=0.778, (0 split)  
## 568 < 0.5 to the right, agree=0.967, adj=0.729, (0 split)  
## 567 < 15.5 to the right, agree=0.964, adj=0.701, (0 split)  
##   
## Node number 61: 2659 observations, complexity param=0.01576315  
## predicted class=9 expected loss=0.5065814 P(node) =0.1054949  
## class counts: 7 2 90 215 288 464 32 88 161 1312  
## probabilities: 0.003 0.001 0.034 0.081 0.108 0.175 0.012 0.033 0.061 0.493   
## left son=122 (808 obs) right son=123 (1851 obs)  
## Primary splits:  
## 354 < 2.5 to the left, improve=332.8322, (0 missing)  
## 353 < 1.5 to the left, improve=318.0870, (0 missing)  
## 326 < 0.5 to the left, improve=309.1417, (0 missing)  
## 381 < 9.5 to the left, improve=293.6687, (0 missing)  
## 382 < 1.5 to the left, improve=277.3368, (0 missing)  
## Surrogate splits:  
## 326 < 0.5 to the left, agree=0.920, adj=0.736, (0 split)  
## 382 < 1.5 to the left, agree=0.914, adj=0.715, (0 split)  
## 381 < 91.5 to the left, agree=0.896, adj=0.658, (0 split)  
## 353 < 0.5 to the left, agree=0.881, adj=0.608, (0 split)  
## 327 < 1 to the left, agree=0.837, adj=0.464, (0 split)  
##   
## Node number 62: 1766 observations, complexity param=0.00482272  
## predicted class=7 expected loss=0.2587769 P(node) =0.07006546  
## class counts: 7 65 53 68 34 118 21 1309 31 60  
## probabilities: 0.004 0.037 0.030 0.039 0.019 0.067 0.012 0.741 0.018 0.034   
## left son=124 (313 obs) right son=125 (1453 obs)  
## Primary splits:  
## 377 < 6.5 to the right, improve=248.0977, (0 missing)  
## 405 < 23.5 to the right, improve=243.4815, (0 missing)  
## 376 < 73.5 to the right, improve=211.9655, (0 missing)  
## 378 < 100.5 to the right, improve=210.6609, (0 missing)  
## 404 < 4 to the right, improve=196.8469, (0 missing)  
## Surrogate splits:  
## 405 < 39.5 to the right, agree=0.971, adj=0.834, (0 split)  
## 376 < 73.5 to the right, agree=0.967, adj=0.815, (0 split)  
## 404 < 2.5 to the right, agree=0.959, adj=0.767, (0 split)  
## 378 < 157.5 to the right, agree=0.935, adj=0.636, (0 split)  
## 406 < 202.5 to the right, agree=0.914, adj=0.514, (0 split)  
##   
## Node number 63: 362 observations, complexity param=0.004420827  
## predicted class=9 expected loss=0.558011 P(node) =0.01436223  
## class counts: 1 1 19 1 135 1 16 23 5 160  
## probabilities: 0.003 0.003 0.052 0.003 0.373 0.003 0.044 0.064 0.014 0.442   
## left son=126 (144 obs) right son=127 (218 obs)  
## Primary splits:  
## 211 < 5.5 to the left, improve=70.33103, (0 missing)  
## 210 < 9 to the left, improve=65.94942, (0 missing)  
## 212 < 9.5 to the left, improve=60.68276, (0 missing)  
## 209 < 12.5 to the left, improve=56.75568, (0 missing)  
## 239 < 4.5 to the left, improve=44.24857, (0 missing)  
## Surrogate splits:  
## 210 < 6.5 to the left, agree=0.903, adj=0.757, (0 split)  
## 212 < 9.5 to the left, agree=0.890, adj=0.722, (0 split)  
## 239 < 0.5 to the left, agree=0.862, adj=0.653, (0 split)  
## 209 < 11.5 to the left, agree=0.859, adj=0.646, (0 split)  
## 183 < 6 to the left, agree=0.823, adj=0.556, (0 split)  
##   
## Node number 64: 2312 observations, complexity param=0.0007144771  
## predicted class=1 expected loss=0.04152249 P(node) =0.09172783  
## class counts: 0 2216 30 7 7 10 8 8 24 2  
## probabilities: 0.000 0.958 0.013 0.003 0.003 0.004 0.003 0.003 0.010 0.001   
## left son=128 (2291 obs) right son=129 (21 obs)  
## Primary splits:  
## 608 < 6 to the left, improve=30.93996, (0 missing)  
## 177 < 36.5 to the left, improve=30.91269, (0 missing)  
## 607 < 114.5 to the left, improve=30.66493, (0 missing)  
## 176 < 63.5 to the left, improve=28.78651, (0 missing)  
## 609 < 21 to the left, improve=28.63209, (0 missing)  
## Surrogate splits:  
## 607 < 114.5 to the left, agree=0.999, adj=0.905, (0 split)  
## 636 < 87.5 to the left, agree=0.999, adj=0.857, (0 split)  
## 609 < 21 to the left, agree=0.998, adj=0.762, (0 split)  
## 637 < 8.5 to the left, agree=0.998, adj=0.762, (0 split)  
## 580 < 37 to the left, agree=0.997, adj=0.714, (0 split)  
##   
## Node number 65: 144 observations, complexity param=0.001384299  
## predicted class=8 expected loss=0.5416667 P(node) =0.005713152  
## class counts: 0 51 1 5 3 14 0 0 66 4  
## probabilities: 0.000 0.354 0.007 0.035 0.021 0.097 0.000 0.000 0.458 0.028   
## left son=130 (72 obs) right son=131 (72 obs)  
## Primary splits:  
## 265 < 1.5 to the left, improve=42.55556, (0 missing)  
## 293 < 8 to the left, improve=41.14472, (0 missing)  
## 183 < 27 to the left, improve=40.63166, (0 missing)  
## 211 < 33.5 to the left, improve=40.50671, (0 missing)  
## 266 < 2.5 to the left, improve=40.02092, (0 missing)  
## Surrogate splits:  
## 293 < 62 to the left, agree=0.965, adj=0.931, (0 split)  
## 237 < 2 to the left, agree=0.938, adj=0.875, (0 split)  
## 210 < 12 to the left, agree=0.903, adj=0.806, (0 split)  
## 211 < 11.5 to the left, agree=0.903, adj=0.806, (0 split)  
## 238 < 5.5 to the left, agree=0.903, adj=0.806, (0 split)  
##   
## Node number 66: 108 observations, complexity param=0.0003572385  
## predicted class=2 expected loss=0.2314815 P(node) =0.004284864  
## class counts: 0 11 83 5 1 0 0 0 8 0  
## probabilities: 0.000 0.102 0.769 0.046 0.009 0.000 0.000 0.000 0.074 0.000   
## left son=132 (91 obs) right son=133 (17 obs)  
## Primary splits:  
## 292 < 58.5 to the left, improve=15.51201, (0 missing)  
## 321 < 246.5 to the left, improve=15.02522, (0 missing)  
## 515 < 26.5 to the right, improve=14.98427, (0 missing)  
## 543 < 24.5 to the right, improve=14.48043, (0 missing)  
## 264 < 69 to the left, improve=14.32744, (0 missing)  
## Surrogate splits:  
## 320 < 21.5 to the left, agree=0.981, adj=0.882, (0 split)  
## 321 < 243 to the left, agree=0.981, adj=0.882, (0 split)  
## 264 < 69 to the left, agree=0.972, adj=0.824, (0 split)  
## 293 < 171.5 to the left, agree=0.963, adj=0.765, (0 split)  
## 236 < 217.5 to the left, agree=0.954, adj=0.706, (0 split)  
##   
## Node number 67: 43 observations, complexity param=0.0001786193  
## predicted class=6 expected loss=0.4883721 P(node) =0.001706011  
## class counts: 1 1 9 3 3 0 22 1 2 1  
## probabilities: 0.023 0.023 0.209 0.070 0.070 0.000 0.512 0.023 0.047 0.023   
## left son=134 (24 obs) right son=135 (19 obs)  
## Primary splits:  
## 212 < 22 to the right, improve=6.321603, (0 missing)  
## 176 < 131.5 to the left, improve=6.219615, (0 missing)  
## 204 < 236.5 to the left, improve=6.152366, (0 missing)  
## 211 < 23.5 to the right, improve=6.013390, (0 missing)  
## 232 < 8.5 to the left, improve=5.575989, (0 missing)  
## Surrogate splits:  
## 120 < 5.5 to the left, agree=0.930, adj=0.842, (0 split)  
## 239 < 9.5 to the right, agree=0.930, adj=0.842, (0 split)  
## 148 < 7 to the left, agree=0.907, adj=0.789, (0 split)  
## 176 < 8 to the left, agree=0.907, adj=0.789, (0 split)  
## 232 < 8.5 to the left, agree=0.907, adj=0.789, (0 split)  
##   
## Node number 68: 286 observations, complexity param=0.001406627  
## predicted class=5 expected loss=0.8111888 P(node) =0.01134695  
## class counts: 12 33 31 14 42 54 54 8 8 30  
## probabilities: 0.042 0.115 0.108 0.049 0.147 0.189 0.189 0.028 0.028 0.105   
## left son=136 (252 obs) right son=137 (34 obs)  
## Primary splits:  
## 276 < 44.5 to the left, improve=21.85412, (0 missing)  
## 574 < 233 to the right, improve=21.35074, (0 missing)  
## 247 < 1 to the left, improve=21.33641, (0 missing)  
## 539 < 85.5 to the right, improve=20.30011, (0 missing)  
## 275 < 23.5 to the left, improve=20.14673, (0 missing)  
## Surrogate splits:  
## 275 < 209.5 to the left, agree=0.965, adj=0.706, (0 split)  
## 277 < 0.5 to the left, agree=0.962, adj=0.676, (0 split)  
## 248 < 120.5 to the left, agree=0.955, adj=0.618, (0 split)  
## 304 < 67.5 to the left, agree=0.951, adj=0.588, (0 split)  
## 249 < 17 to the left, agree=0.941, adj=0.500, (0 split)  
##   
## Node number 69: 278 observations, complexity param=0.002277396  
## predicted class=8 expected loss=0.6223022 P(node) =0.01102956  
## class counts: 4 76 2 19 19 12 4 7 105 30  
## probabilities: 0.014 0.273 0.007 0.068 0.068 0.043 0.014 0.025 0.378 0.108   
## left son=138 (134 obs) right son=139 (144 obs)  
## Primary splits:  
## 294 < 216 to the right, improve=37.22654, (0 missing)  
## 322 < 237 to the right, improve=33.89610, (0 missing)  
## 295 < 249.5 to the right, improve=30.28190, (0 missing)  
## 215 < 1 to the left, improve=28.16814, (0 missing)  
## 267 < 185.5 to the right, improve=27.96281, (0 missing)  
## Surrogate splits:  
## 267 < 174.5 to the right, agree=0.892, adj=0.776, (0 split)  
## 266 < 245.5 to the right, agree=0.878, adj=0.746, (0 split)  
## 322 < 237 to the right, agree=0.878, adj=0.746, (0 split)  
## 295 < 249.5 to the right, agree=0.849, adj=0.687, (0 split)  
## 239 < 248.5 to the right, agree=0.784, adj=0.552, (0 split)  
##   
## Node number 72: 142 observations, complexity param=0.0003125837  
## predicted class=2 expected loss=0.1619718 P(node) =0.005633803  
## class counts: 0 0 119 2 0 1 6 2 11 1  
## probabilities: 0.000 0.000 0.838 0.014 0.000 0.007 0.042 0.014 0.077 0.007   
## left son=144 (122 obs) right son=145 (20 obs)  
## Primary splits:  
## 301 < 3.5 to the left, improve=16.25925, (0 missing)  
## 274 < 1 to the left, improve=15.01724, (0 missing)  
## 356 < 37 to the left, improve=13.89224, (0 missing)  
## 302 < 12 to the left, improve=13.24347, (0 missing)  
## 273 < 36.5 to the left, improve=12.83977, (0 missing)  
## Surrogate splits:  
## 329 < 17 to the left, agree=0.972, adj=0.80, (0 split)  
## 273 < 36.5 to the left, agree=0.965, adj=0.75, (0 split)  
## 300 < 117.5 to the left, agree=0.965, adj=0.75, (0 split)  
## 302 < 12 to the left, agree=0.965, adj=0.75, (0 split)  
## 328 < 149.5 to the left, agree=0.965, adj=0.75, (0 split)  
##   
## Node number 73: 86 observations, complexity param=0.0004242208  
## predicted class=7 expected loss=0.7790698 P(node) =0.003412021  
## class counts: 0 17 15 13 1 0 3 19 9 9  
## probabilities: 0.000 0.198 0.174 0.151 0.012 0.000 0.035 0.221 0.105 0.105   
## left son=146 (57 obs) right son=147 (29 obs)  
## Primary splits:  
## 683 < 18 to the left, improve=10.087930, (0 missing)  
## 516 < 37.5 to the left, improve= 9.245802, (0 missing)  
## 684 < 36 to the left, improve= 9.195264, (0 missing)  
## 515 < 5.5 to the left, improve= 9.040953, (0 missing)  
## 488 < 168.5 to the left, improve= 8.756569, (0 missing)  
## Surrogate splits:  
## 682 < 1.5 to the left, agree=0.930, adj=0.793, (0 split)  
## 684 < 4.5 to the left, agree=0.907, adj=0.724, (0 split)  
## 710 < 8 to the left, agree=0.907, adj=0.724, (0 split)  
## 711 < 12.5 to the left, agree=0.907, adj=0.724, (0 split)  
## 242 < 126 to the left, agree=0.895, adj=0.690, (0 split)  
##   
## Node number 74: 144 observations, complexity param=0.0002232741  
## predicted class=6 expected loss=0.2708333 P(node) =0.005713152  
## class counts: 5 2 3 0 3 5 105 5 10 6  
## probabilities: 0.035 0.014 0.021 0.000 0.021 0.035 0.729 0.035 0.069 0.042   
## left son=148 (112 obs) right son=149 (32 obs)  
## Primary splits:  
## 213 < 25.5 to the left, improve=15.76587, (0 missing)  
## 240 < 105 to the left, improve=15.25453, (0 missing)  
## 239 < 43 to the right, improve=15.19769, (0 missing)  
## 241 < 12 to the left, improve=14.80026, (0 missing)  
## 212 < 21.5 to the left, improve=13.19373, (0 missing)  
## Surrogate splits:  
## 214 < 13 to the left, agree=0.944, adj=0.750, (0 split)  
## 186 < 2.5 to the left, agree=0.938, adj=0.719, (0 split)  
## 212 < 21.5 to the left, agree=0.924, adj=0.656, (0 split)  
## 185 < 51.5 to the left, agree=0.917, adj=0.625, (0 split)  
## 241 < 29 to the left, agree=0.910, adj=0.594, (0 split)  
##   
## Node number 75: 62 observations, complexity param=0.0002679289  
## predicted class=9 expected loss=0.3870968 P(node) =0.002459829  
## class counts: 0 0 6 0 9 0 0 2 7 38  
## probabilities: 0.000 0.000 0.097 0.000 0.145 0.000 0.000 0.032 0.113 0.613   
## left son=150 (19 obs) right son=151 (43 obs)  
## Primary splits:  
## 210 < 21.5 to the left, improve=8.797607, (0 missing)  
## 209 < 131.5 to the left, improve=7.533531, (0 missing)  
## 238 < 68.5 to the left, improve=6.490469, (0 missing)  
## 154 < 161.5 to the right, improve=5.666443, (0 missing)  
## 239 < 9.5 to the left, improve=5.648694, (0 missing)  
## Surrogate splits:  
## 211 < 33.5 to the left, agree=0.919, adj=0.737, (0 split)  
## 239 < 9.5 to the left, agree=0.887, adj=0.632, (0 split)  
## 209 < 2 to the left, agree=0.871, adj=0.579, (0 split)  
## 238 < 21 to the left, agree=0.871, adj=0.579, (0 split)  
## 182 < 4 to the left, agree=0.839, adj=0.474, (0 split)  
##   
## Node number 76: 162 observations, complexity param=0.001094043  
## predicted class=3 expected loss=0.617284 P(node) =0.006427296  
## class counts: 0 9 33 62 0 0 0 44 13 1  
## probabilities: 0.000 0.056 0.204 0.383 0.000 0.000 0.000 0.272 0.080 0.006   
## left son=152 (59 obs) right son=153 (103 obs)  
## Primary splits:  
## 404 < 228 to the right, improve=25.18382, (0 missing)  
## 376 < 65 to the right, improve=25.02485, (0 missing)  
## 403 < 59.5 to the right, improve=22.72821, (0 missing)  
## 578 < 20.5 to the right, improve=21.57795, (0 missing)  
## 606 < 2 to the right, improve=21.43827, (0 missing)  
## Surrogate splits:  
## 376 < 48 to the right, agree=0.932, adj=0.814, (0 split)  
## 403 < 29 to the right, agree=0.932, adj=0.814, (0 split)  
## 375 < 2.5 to the right, agree=0.926, adj=0.797, (0 split)  
## 377 < 230.5 to the right, agree=0.889, adj=0.695, (0 split)  
## 431 < 157.5 to the right, agree=0.870, adj=0.644, (0 split)  
##   
## Node number 77: 56 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.3392857 P(node) =0.002221781  
## class counts: 1 0 1 2 5 1 3 0 37 6  
## probabilities: 0.018 0.000 0.018 0.036 0.089 0.018 0.054 0.000 0.661 0.107   
## left son=154 (14 obs) right son=155 (42 obs)  
## Primary splits:  
## 516 < 53 to the left, improve=8.369048, (0 missing)  
## 634 < 33.5 to the left, improve=8.243088, (0 missing)  
## 606 < 9 to the left, improve=7.903571, (0 missing)  
## 662 < 13 to the left, improve=7.322161, (0 missing)  
## 661 < 56 to the left, improve=6.989683, (0 missing)  
## Surrogate splits:  
## 544 < 2 to the left, agree=0.964, adj=0.857, (0 split)  
## 543 < 1.5 to the left, agree=0.911, adj=0.643, (0 split)  
## 488 < 84.5 to the left, agree=0.875, adj=0.500, (0 split)  
## 515 < 10 to the left, agree=0.875, adj=0.500, (0 split)  
## 433 < 192 to the left, agree=0.857, adj=0.429, (0 split)  
##   
## Node number 78: 124 observations, complexity param=0.000379566  
## predicted class=8 expected loss=0.6370968 P(node) =0.004919659  
## class counts: 1 13 1 16 7 2 0 12 45 27  
## probabilities: 0.008 0.105 0.008 0.129 0.056 0.016 0.000 0.097 0.363 0.218   
## left son=156 (80 obs) right son=157 (44 obs)  
## Primary splits:  
## 401 < 173 to the left, improve=11.080790, (0 missing)  
## 180 < 115.5 to the right, improve=10.839260, (0 missing)  
## 179 < 4.5 to the right, improve=10.102630, (0 missing)  
## 207 < 207.5 to the right, improve= 9.505904, (0 missing)  
## 713 < 26.5 to the left, improve= 9.334151, (0 missing)  
## Surrogate splits:  
## 400 < 1.5 to the left, agree=0.919, adj=0.773, (0 split)  
## 402 < 248.5 to the left, agree=0.887, adj=0.682, (0 split)  
## 373 < 178 to the left, agree=0.879, adj=0.659, (0 split)  
## 428 < 9.5 to the left, agree=0.879, adj=0.659, (0 split)  
## 429 < 17.5 to the left, agree=0.839, adj=0.545, (0 split)  
##   
## Node number 79: 374 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.1229947 P(node) =0.01483833  
## class counts: 3 1 2 8 11 5 2 11 328 3  
## probabilities: 0.008 0.003 0.005 0.021 0.029 0.013 0.005 0.029 0.877 0.008   
## left son=158 (19 obs) right son=159 (355 obs)  
## Primary splits:  
## 470 < 156.5 to the right, improve=14.94440, (0 missing)  
## 471 < 5.5 to the right, improve=14.26268, (0 missing)  
## 440 < 65 to the right, improve=13.47169, (0 missing)  
## 441 < 204.5 to the right, improve=13.26268, (0 missing)  
## 469 < 54.5 to the right, improve=13.15042, (0 missing)  
## Surrogate splits:  
## 471 < 5.5 to the right, agree=0.997, adj=0.947, (0 split)  
## 442 < 80 to the right, agree=0.989, adj=0.789, (0 split)  
## 498 < 164 to the right, agree=0.989, adj=0.789, (0 split)  
## 499 < 2 to the right, agree=0.989, adj=0.789, (0 split)  
## 443 < 3.5 to the right, agree=0.984, adj=0.684, (0 split)  
##   
## Node number 80: 1502 observations, complexity param=0.0007368045  
## predicted class=3 expected loss=0.08521971 P(node) =0.05959135  
## class counts: 0 41 13 1374 0 39 0 7 23 5  
## probabilities: 0.000 0.027 0.009 0.915 0.000 0.026 0.000 0.005 0.015 0.003   
## left son=160 (64 obs) right son=161 (1438 obs)  
## Primary splits:  
## 490 < 139.5 to the right, improve=40.67295, (0 missing)  
## 264 < 147.5 to the left, improve=39.08559, (0 missing)  
## 491 < 251.5 to the right, improve=35.00766, (0 missing)  
## 296 < 2.5 to the right, improve=33.06601, (0 missing)  
## 519 < 248.5 to the right, improve=28.93667, (0 missing)  
## Surrogate splits:  
## 491 < 251.5 to the right, agree=0.971, adj=0.328, (0 split)  
## 518 < 204 to the right, agree=0.970, adj=0.297, (0 split)  
## 519 < 252.5 to the right, agree=0.963, adj=0.141, (0 split)  
## 462 < 240.5 to the right, agree=0.961, adj=0.078, (0 split)  
## 489 < 17.5 to the right, agree=0.960, adj=0.062, (0 split)  
##   
## Node number 81: 124 observations, complexity param=0.0005358578  
## predicted class=5 expected loss=0.4677419 P(node) =0.004919659  
## class counts: 3 0 0 18 5 66 2 0 8 22  
## probabilities: 0.024 0.000 0.000 0.145 0.040 0.532 0.016 0.000 0.065 0.177   
## left son=162 (78 obs) right son=163 (46 obs)  
## Primary splits:  
## 296 < 54 to the left, improve=18.35723, (0 missing)  
## 297 < 8.5 to the left, improve=13.84682, (0 missing)  
## 295 < 190.5 to the left, improve=13.33559, (0 missing)  
## 493 < 1 to the left, improve=13.15037, (0 missing)  
## 269 < 0.5 to the left, improve=13.05200, (0 missing)  
## Surrogate splits:  
## 297 < 2 to the left, agree=0.895, adj=0.717, (0 split)  
## 295 < 36.5 to the left, agree=0.863, adj=0.630, (0 split)  
## 324 < 234 to the left, agree=0.855, adj=0.609, (0 split)  
## 269 < 0.5 to the left, agree=0.847, adj=0.587, (0 split)  
## 323 < 228.5 to the left, agree=0.831, adj=0.543, (0 split)  
##   
## Node number 82: 417 observations, complexity param=0.002009467  
## predicted class=3 expected loss=0.4364508 P(node) =0.01654434  
## class counts: 26 4 5 235 0 119 8 4 12 4  
## probabilities: 0.062 0.010 0.012 0.564 0.000 0.285 0.019 0.010 0.029 0.010   
## left son=164 (261 obs) right son=165 (156 obs)  
## Primary splits:  
## 265 < 148 to the left, improve=68.75340, (0 missing)  
## 292 < 98.5 to the left, improve=56.56522, (0 missing)  
## 293 < 119 to the left, improve=50.53075, (0 missing)  
## 266 < 218 to the left, improve=49.22403, (0 missing)  
## 238 < 178.5 to the left, improve=43.42265, (0 missing)  
## Surrogate splits:  
## 264 < 17.5 to the left, agree=0.873, adj=0.660, (0 split)  
## 238 < 201.5 to the left, agree=0.868, adj=0.647, (0 split)  
## 292 < 124.5 to the left, agree=0.859, adj=0.622, (0 split)  
## 266 < 167 to the left, agree=0.842, adj=0.577, (0 split)  
## 237 < 83 to the left, agree=0.825, adj=0.532, (0 split)  
##   
## Node number 83: 275 observations, complexity param=0.001830848  
## predicted class=1 expected loss=0.6836364 P(node) =0.01091053  
## class counts: 5 87 1 26 31 53 9 19 10 34  
## probabilities: 0.018 0.316 0.004 0.095 0.113 0.193 0.033 0.069 0.036 0.124   
## left son=166 (104 obs) right son=167 (171 obs)  
## Primary splits:  
## 376 < 20 to the left, improve=41.76481, (0 missing)  
## 462 < 138.5 to the right, improve=39.92496, (0 missing)  
## 375 < 1 to the left, improve=39.04379, (0 missing)  
## 154 < 2.5 to the right, improve=38.93607, (0 missing)  
## 153 < 2.5 to the right, improve=38.78834, (0 missing)  
## Surrogate splits:  
## 375 < 1 to the left, agree=0.938, adj=0.837, (0 split)  
## 348 < 7.5 to the left, agree=0.884, adj=0.692, (0 split)  
## 403 < 1.5 to the left, agree=0.880, adj=0.683, (0 split)  
## 374 < 2 to the left, agree=0.869, adj=0.654, (0 split)  
## 404 < 2.5 to the left, agree=0.869, adj=0.654, (0 split)  
##   
## Node number 84: 324 observations, complexity param=0.001250335  
## predicted class=3 expected loss=0.5524691 P(node) =0.01285459  
## class counts: 33 1 1 145 0 69 3 5 38 29  
## probabilities: 0.102 0.003 0.003 0.448 0.000 0.213 0.009 0.015 0.117 0.090   
## left son=168 (32 obs) right son=169 (292 obs)  
## Primary splits:  
## 359 < 77 to the right, improve=30.59009, (0 missing)  
## 330 < 172.5 to the right, improve=30.52172, (0 missing)  
## 331 < 6 to the right, improve=29.98537, (0 missing)  
## 427 < 214.5 to the right, improve=29.80651, (0 missing)  
## 454 < 162.5 to the right, improve=29.57523, (0 missing)  
## Surrogate splits:  
## 330 < 186.5 to the right, agree=0.981, adj=0.813, (0 split)  
## 358 < 237 to the right, agree=0.981, adj=0.813, (0 split)  
## 387 < 64 to the right, agree=0.981, adj=0.813, (0 split)  
## 331 < 79.5 to the right, agree=0.978, adj=0.781, (0 split)  
## 360 < 7 to the right, agree=0.963, adj=0.625, (0 split)  
##   
## Node number 85: 512 observations, complexity param=0.001027061  
## predicted class=5 expected loss=0.2050781 P(node) =0.02031343  
## class counts: 26 0 0 53 1 407 6 0 11 8  
## probabilities: 0.051 0.000 0.000 0.104 0.002 0.795 0.012 0.000 0.021 0.016   
## left son=170 (39 obs) right son=171 (473 obs)  
## Primary splits:  
## 301 < 74 to the right, improve=39.51550, (0 missing)  
## 330 < 1.5 to the right, improve=37.61420, (0 missing)  
## 302 < 35 to the right, improve=36.12414, (0 missing)  
## 329 < 2 to the right, improve=35.30698, (0 missing)  
## 300 < 70.5 to the right, improve=34.88390, (0 missing)  
## Surrogate splits:  
## 329 < 14 to the right, agree=0.992, adj=0.897, (0 split)  
## 302 < 8 to the right, agree=0.986, adj=0.821, (0 split)  
## 330 < 1.5 to the right, agree=0.984, adj=0.795, (0 split)  
## 273 < 211.5 to the right, agree=0.980, adj=0.744, (0 split)  
## 300 < 70.5 to the right, agree=0.975, adj=0.667, (0 split)  
##   
## Node number 86: 164 observations, complexity param=0.002389033  
## predicted class=7 expected loss=0.6219512 P(node) =0.006506646  
## class counts: 4 3 0 9 58 11 4 62 3 10  
## probabilities: 0.024 0.018 0.000 0.055 0.354 0.067 0.024 0.378 0.018 0.061   
## left son=172 (85 obs) right son=173 (79 obs)  
## Primary splits:  
## 321 < 202 to the left, improve=40.30244, (0 missing)  
## 322 < 200 to the left, improve=37.31707, (0 missing)  
## 405 < 6.5 to the right, improve=36.44269, (0 missing)  
## 378 < 201.5 to the right, improve=35.36654, (0 missing)  
## 404 < 59 to the right, improve=33.65017, (0 missing)  
## Surrogate splits:  
## 322 < 207.5 to the left, agree=0.939, adj=0.873, (0 split)  
## 320 < 214.5 to the left, agree=0.902, adj=0.797, (0 split)  
## 293 < 63.5 to the left, agree=0.896, adj=0.785, (0 split)  
## 294 < 99.5 to the left, agree=0.872, adj=0.734, (0 split)  
## 323 < 233.5 to the left, agree=0.860, adj=0.709, (0 split)  
##   
## Node number 87: 357 observations, complexity param=0.001071716  
## predicted class=9 expected loss=0.3445378 P(node) =0.01416386  
## class counts: 4 2 2 28 18 46 3 12 8 234  
## probabilities: 0.011 0.006 0.006 0.078 0.050 0.129 0.008 0.034 0.022 0.655   
## left son=174 (100 obs) right son=175 (257 obs)  
## Primary splits:  
## 297 < 5.5 to the left, improve=43.67962, (0 missing)  
## 325 < 12.5 to the left, improve=38.79364, (0 missing)  
## 296 < 7.5 to the left, improve=34.24751, (0 missing)  
## 464 < 36 to the left, improve=33.64649, (0 missing)  
## 492 < 29 to the left, improve=33.25300, (0 missing)  
## Surrogate splits:  
## 269 < 2.5 to the left, agree=0.908, adj=0.67, (0 split)  
## 325 < 73.5 to the left, agree=0.894, adj=0.62, (0 split)  
## 296 < 7.5 to the left, agree=0.863, adj=0.51, (0 split)  
## 324 < 188.5 to the left, agree=0.863, adj=0.51, (0 split)  
## 298 < 3 to the left, agree=0.818, adj=0.35, (0 split)  
##   
## Node number 88: 73 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.2191781 P(node) =0.002896251  
## class counts: 0 1 57 5 0 0 4 0 6 0  
## probabilities: 0.000 0.014 0.781 0.068 0.000 0.000 0.055 0.000 0.082 0.000   
## left son=176 (60 obs) right son=177 (13 obs)  
## Primary splits:  
## 466 < 39.5 to the left, improve=9.068247, (0 missing)  
## 412 < 17.5 to the left, improve=8.709380, (0 missing)  
## 440 < 124.5 to the left, improve=8.709380, (0 missing)  
## 439 < 184.5 to the left, improve=8.646880, (0 missing)  
## 411 < 12 to the left, improve=8.380669, (0 missing)  
## Surrogate splits:  
## 465 < 5 to the left, agree=0.959, adj=0.769, (0 split)  
## 494 < 184.5 to the left, agree=0.959, adj=0.769, (0 split)  
## 493 < 128 to the left, agree=0.945, adj=0.692, (0 split)  
## 436 < 58 to the left, agree=0.932, adj=0.615, (0 split)  
## 437 < 118 to the left, agree=0.932, adj=0.615, (0 split)  
##   
## Node number 89: 100 observations, complexity param=0.0004465482  
## predicted class=9 expected loss=0.81 P(node) =0.003967467  
## class counts: 9 14 12 3 9 7 10 0 17 19  
## probabilities: 0.090 0.140 0.120 0.030 0.090 0.070 0.100 0.000 0.170 0.190   
## left son=178 (83 obs) right son=179 (17 obs)  
## Primary splits:  
## 717 < 5 to the left, improve=13.162230, (0 missing)  
## 572 < 25.5 to the right, improve= 9.874790, (0 missing)  
## 573 < 12 to the right, improve= 9.765385, (0 missing)  
## 600 < 5 to the right, improve= 9.620000, (0 missing)  
## 541 < 20 to the right, improve= 9.477250, (0 missing)  
## Surrogate splits:  
## 716 < 2 to the left, agree=0.95, adj=0.706, (0 split)  
## 689 < 166 to the left, agree=0.94, adj=0.647, (0 split)  
## 688 < 164 to the left, agree=0.92, adj=0.529, (0 split)  
## 718 < 3.5 to the left, agree=0.90, adj=0.412, (0 split)  
## 745 < 1 to the left, agree=0.90, adj=0.412, (0 split)  
##   
## Node number 90: 41 observations, complexity param=0.0003125837  
## predicted class=2 expected loss=0.7804878 P(node) =0.001626661  
## class counts: 2 5 9 3 5 4 4 0 2 7  
## probabilities: 0.049 0.122 0.220 0.073 0.122 0.098 0.098 0.000 0.049 0.171   
## left son=180 (18 obs) right son=181 (23 obs)  
## Primary splits:  
## 380 < 19.5 to the left, improve=5.028161, (0 missing)  
## 400 < 63.5 to the left, improve=4.392656, (0 missing)  
## 352 < 43.5 to the left, improve=4.284634, (0 missing)  
## 409 < 68.5 to the left, improve=4.035147, (0 missing)  
## 408 < 125 to the left, improve=3.949634, (0 missing)  
## Surrogate splits:  
## 381 < 8 to the left, agree=0.902, adj=0.778, (0 split)  
## 408 < 14 to the left, agree=0.878, adj=0.722, (0 split)  
## 352 < 43.5 to the left, agree=0.854, adj=0.667, (0 split)  
## 409 < 21 to the left, agree=0.854, adj=0.667, (0 split)  
## 262 < 68.5 to the left, agree=0.805, adj=0.556, (0 split)  
##   
## Node number 91: 209 observations, complexity param=0.0003349111  
## predicted class=6 expected loss=0.2009569 P(node) =0.008292006  
## class counts: 2 0 20 4 0 12 167 0 4 0  
## probabilities: 0.010 0.000 0.096 0.019 0.000 0.057 0.799 0.000 0.019 0.000   
## left son=182 (16 obs) right son=183 (193 obs)  
## Primary splits:  
## 584 < 8 to the right, improve=15.45373, (0 missing)  
## 583 < 102.5 to the right, improve=13.91228, (0 missing)  
## 582 < 26.5 to the right, improve=13.34968, (0 missing)  
## 556 < 3.5 to the right, improve=13.25837, (0 missing)  
## 581 < 81 to the right, improve=12.23165, (0 missing)  
## Surrogate splits:  
## 583 < 120.5 to the right, agree=0.995, adj=0.937, (0 split)  
## 556 < 51.5 to the right, agree=0.986, adj=0.813, (0 split)  
## 555 < 149 to the right, agree=0.976, adj=0.687, (0 split)  
## 557 < 11 to the right, agree=0.976, adj=0.687, (0 split)  
## 611 < 35 to the right, agree=0.976, adj=0.687, (0 split)  
##   
## Node number 92: 41 observations  
## predicted class=0 expected loss=0.09756098 P(node) =0.001626661  
## class counts: 37 0 0 1 0 2 0 0 1 0  
## probabilities: 0.902 0.000 0.000 0.024 0.000 0.049 0.000 0.000 0.024 0.000   
##   
## Node number 93: 56 observations, complexity param=0.0002083892  
## predicted class=8 expected loss=0.6428571 P(node) =0.002221781  
## class counts: 7 0 8 5 0 13 3 0 20 0  
## probabilities: 0.125 0.000 0.143 0.089 0.000 0.232 0.054 0.000 0.357 0.000   
## left son=186 (40 obs) right son=187 (16 obs)  
## Primary splits:  
## 347 < 0.5 to the right, improve=5.114286, (0 missing)  
## 431 < 11.5 to the left, improve=5.062771, (0 missing)  
## 269 < 10.5 to the right, improve=4.992063, (0 missing)  
## 297 < 178 to the left, improve=4.928571, (0 missing)  
## 346 < 22.5 to the left, improve=4.674179, (0 missing)  
## Surrogate splits:  
## 320 < 14.5 to the right, agree=0.929, adj=0.750, (0 split)  
## 319 < 5 to the right, agree=0.893, adj=0.625, (0 split)  
## 348 < 110.5 to the right, agree=0.893, adj=0.625, (0 split)  
## 318 < 6 to the right, agree=0.839, adj=0.438, (0 split)  
## 354 < 1 to the right, agree=0.839, adj=0.438, (0 split)  
##   
## Node number 94: 43 observations, complexity param=0.0004688756  
## predicted class=3 expected loss=0.4883721 P(node) =0.001706011  
## class counts: 0 0 1 22 0 2 0 0 13 5  
## probabilities: 0.000 0.000 0.023 0.512 0.000 0.047 0.000 0.000 0.302 0.116   
## left son=188 (27 obs) right son=189 (16 obs)  
## Primary splits:  
## 512 < 70.5 to the left, improve=12.16258, (0 missing)  
## 513 < 8.5 to the left, improve=12.16258, (0 missing)  
## 539 < 195.5 to the left, improve=10.96037, (0 missing)  
## 485 < 207.5 to the left, improve=10.87067, (0 missing)  
## 511 < 67.5 to the left, improve=10.63056, (0 missing)  
## Surrogate splits:  
## 511 < 67.5 to the left, agree=0.977, adj=0.937, (0 split)  
## 484 < 163.5 to the left, agree=0.953, adj=0.875, (0 split)  
## 513 < 8.5 to the left, agree=0.953, adj=0.875, (0 split)  
## 483 < 76 to the left, agree=0.930, adj=0.812, (0 split)  
## 268 < 9.5 to the right, agree=0.907, adj=0.750, (0 split)  
##   
## Node number 95: 430 observations, complexity param=0.0002344378  
## predicted class=8 expected loss=0.1860465 P(node) =0.01706011  
## class counts: 8 0 19 23 0 13 12 1 350 4  
## probabilities: 0.019 0.000 0.044 0.053 0.000 0.030 0.028 0.002 0.814 0.009   
## left son=190 (28 obs) right son=191 (402 obs)  
## Primary splits:  
## 432 < 1 to the left, improve=15.89285, (0 missing)  
## 459 < 16.5 to the left, improve=15.80018, (0 missing)  
## 435 < 44.5 to the left, improve=14.50146, (0 missing)  
## 439 < 250.5 to the right, improve=13.62454, (0 missing)  
## 436 < 7 to the left, improve=13.55462, (0 missing)  
## Surrogate splits:  
## 405 < 5 to the left, agree=0.967, adj=0.500, (0 split)  
## 431 < 1 to the left, agree=0.956, adj=0.321, (0 split)  
## 459 < 0.5 to the left, agree=0.956, adj=0.321, (0 split)  
## 385 < 241 to the right, agree=0.944, adj=0.143, (0 split)  
## 413 < 250 to the right, agree=0.944, adj=0.143, (0 split)  
##   
## Node number 96: 1973 observations, complexity param=0.0001786193  
## predicted class=0 expected loss=0.04460213 P(node) =0.07827812  
## class counts: 1885 0 30 7 1 19 18 10 1 2  
## probabilities: 0.955 0.000 0.015 0.004 0.001 0.010 0.009 0.005 0.001 0.001   
## left son=192 (1955 obs) right son=193 (18 obs)  
## Primary splits:  
## 463 < 80 to the left, improve=14.57930, (0 missing)  
## 707 < 3.5 to the left, improve=13.36910, (0 missing)  
## 708 < 43 to the left, improve=13.36910, (0 missing)  
## 427 < 0.5 to the right, improve=12.97644, (0 missing)  
## 464 < 193 to the left, improve=12.69634, (0 missing)  
## Surrogate splits:  
## 464 < 242 to the left, agree=0.993, adj=0.278, (0 split)  
## 491 < 239.5 to the left, agree=0.993, adj=0.278, (0 split)  
## 490 < 131.5 to the left, agree=0.993, adj=0.222, (0 split)  
## 707 < 39 to the left, agree=0.993, adj=0.222, (0 split)  
## 706 < 3.5 to the left, agree=0.992, adj=0.167, (0 split)  
##   
## Node number 97: 99 observations, complexity param=0.0004242208  
## predicted class=0 expected loss=0.5454545 P(node) =0.003927792  
## class counts: 45 0 2 24 0 25 3 0 0 0  
## probabilities: 0.455 0.000 0.020 0.242 0.000 0.253 0.030 0.000 0.000 0.000   
## left son=194 (42 obs) right son=195 (57 obs)  
## Primary splits:  
## 427 < 40 to the right, improve=25.47832, (0 missing)  
## 455 < 3 to the right, improve=23.30820, (0 missing)  
## 399 < 73.5 to the right, improve=23.26249, (0 missing)  
## 428 < 103.5 to the right, improve=19.27411, (0 missing)  
## 271 < 118 to the right, improve=18.54264, (0 missing)  
## Surrogate splits:  
## 399 < 65.5 to the right, agree=0.960, adj=0.905, (0 split)  
## 455 < 51 to the right, agree=0.949, adj=0.881, (0 split)  
## 426 < 1.5 to the right, agree=0.919, adj=0.810, (0 split)  
## 454 < 6.5 to the right, agree=0.909, adj=0.786, (0 split)  
## 371 < 21 to the right, agree=0.879, adj=0.714, (0 split)  
##   
## Node number 98: 84 observations, complexity param=0.0008484415  
## predicted class=0 expected loss=0.5357143 P(node) =0.003332672  
## class counts: 39 0 6 2 1 11 22 0 2 1  
## probabilities: 0.464 0.000 0.071 0.024 0.012 0.131 0.262 0.000 0.024 0.012   
## left son=196 (45 obs) right son=197 (39 obs)  
## Primary splits:  
## 270 < 21.5 to the right, improve=18.41636, (0 missing)  
## 378 < 41 to the left, improve=16.00212, (0 missing)  
## 269 < 72 to the right, improve=15.83202, (0 missing)  
## 405 < 64 to the left, improve=15.81935, (0 missing)  
## 406 < 70 to the left, improve=15.81935, (0 missing)  
## Surrogate splits:  
## 269 < 72 to the right, agree=0.881, adj=0.744, (0 split)  
## 241 < 15.5 to the right, agree=0.869, adj=0.718, (0 split)  
## 242 < 78 to the right, agree=0.857, adj=0.692, (0 split)  
## 271 < 45.5 to the right, agree=0.857, adj=0.692, (0 split)  
## 298 < 37 to the right, agree=0.845, adj=0.667, (0 split)  
##   
## Node number 99: 139 observations, complexity param=0.0007591319  
## predicted class=5 expected loss=0.5251799 P(node) =0.005514779  
## class counts: 7 1 11 42 0 66 4 2 3 3  
## probabilities: 0.050 0.007 0.079 0.302 0.000 0.475 0.029 0.014 0.022 0.022   
## left son=198 (65 obs) right son=199 (74 obs)  
## Primary splits:  
## 375 < 95 to the left, improve=12.76991, (0 missing)  
## 346 < 2 to the left, improve=12.54354, (0 missing)  
## 374 < 104 to the left, improve=11.65058, (0 missing)  
## 402 < 4.5 to the left, improve=11.49828, (0 missing)  
## 324 < 2.5 to the right, improve=11.04272, (0 missing)  
## Surrogate splits:  
## 376 < 11.5 to the left, agree=0.921, adj=0.831, (0 split)  
## 374 < 19.5 to the left, agree=0.871, adj=0.723, (0 split)  
## 402 < 4.5 to the left, agree=0.856, adj=0.692, (0 split)  
## 403 < 35 to the left, agree=0.856, adj=0.692, (0 split)  
## 377 < 2 to the left, agree=0.827, adj=0.631, (0 split)  
##   
## Node number 100: 192 observations  
## predicted class=2 expected loss=0.1197917 P(node) =0.007617536  
## class counts: 0 5 169 6 1 2 1 3 5 0  
## probabilities: 0.000 0.026 0.880 0.031 0.005 0.010 0.005 0.016 0.026 0.000   
##   
## Node number 101: 26 observations, complexity param=0.0003125837  
## predicted class=5 expected loss=0.6923077 P(node) =0.001031541  
## class counts: 7 0 1 0 1 8 6 0 1 2  
## probabilities: 0.269 0.000 0.038 0.000 0.038 0.308 0.231 0.000 0.038 0.077   
## left son=202 (17 obs) right son=203 (9 obs)  
## Primary splits:  
## 512 < 14.5 to the right, improve=5.986928, (0 missing)  
## 440 < 170.5 to the right, improve=5.947712, (0 missing)  
## 540 < 19 to the right, improve=5.894737, (0 missing)  
## 511 < 0.5 to the right, improve=5.869281, (0 missing)  
## 412 < 185.5 to the right, improve=5.775000, (0 missing)  
## Surrogate splits:  
## 523 < 31 to the right, agree=0.962, adj=0.889, (0 split)  
## 541 < 13.5 to the right, agree=0.962, adj=0.889, (0 split)  
## 355 < 9.5 to the right, agree=0.923, adj=0.778, (0 split)  
## 431 < 42.5 to the left, agree=0.923, adj=0.778, (0 split)  
## 495 < 3 to the right, agree=0.923, adj=0.778, (0 split)  
##   
## Node number 102: 73 observations  
## predicted class=0 expected loss=0.1232877 P(node) =0.002896251  
## class counts: 64 0 1 0 0 0 5 1 1 1  
## probabilities: 0.877 0.000 0.014 0.000 0.000 0.000 0.068 0.014 0.014 0.014   
##   
## Node number 103: 151 observations, complexity param=0.0005805126  
## predicted class=5 expected loss=0.410596 P(node) =0.005990875  
## class counts: 6 0 10 4 1 89 24 0 17 0  
## probabilities: 0.040 0.000 0.066 0.026 0.007 0.589 0.159 0.000 0.113 0.000   
## left son=206 (64 obs) right son=207 (87 obs)  
## Primary splits:  
## 513 < 12.5 to the right, improve=26.85880, (0 missing)  
## 157 < 47 to the left, improve=22.88604, (0 missing)  
## 156 < 74.5 to the left, improve=21.54192, (0 missing)  
## 514 < 3.5 to the left, improve=21.01624, (0 missing)  
## 131 < 89 to the left, improve=20.69583, (0 missing)  
## Surrogate splits:  
## 514 < 3.5 to the right, agree=0.887, adj=0.734, (0 split)  
## 485 < 108 to the right, agree=0.874, adj=0.703, (0 split)  
## 541 < 46 to the right, agree=0.854, adj=0.656, (0 split)  
## 512 < 55.5 to the right, agree=0.834, adj=0.609, (0 split)  
## 486 < 140.5 to the right, agree=0.828, adj=0.594, (0 split)  
##   
## Node number 104: 151 observations, complexity param=0.0004018934  
## predicted class=0 expected loss=0.4039735 P(node) =0.005990875  
## class counts: 90 0 16 3 3 14 5 3 2 15  
## probabilities: 0.596 0.000 0.106 0.020 0.020 0.093 0.033 0.020 0.013 0.099   
## left son=208 (93 obs) right son=209 (58 obs)  
## Primary splits:  
## 518 < 102 to the left, improve=21.05911, (0 missing)  
## 519 < 110.5 to the left, improve=15.24324, (0 missing)  
## 571 < 118 to the right, improve=15.17687, (0 missing)  
## 517 < 167.5 to the left, improve=15.05487, (0 missing)  
## 489 < 46.5 to the left, improve=14.75032, (0 missing)  
## Surrogate splits:  
## 517 < 80 to the left, agree=0.901, adj=0.741, (0 split)  
## 490 < 1 to the left, agree=0.894, adj=0.724, (0 split)  
## 519 < 110.5 to the left, agree=0.894, adj=0.724, (0 split)  
## 489 < 1.5 to the left, agree=0.848, adj=0.603, (0 split)  
## 546 < 224.5 to the left, agree=0.834, adj=0.569, (0 split)  
##   
## Node number 105: 158 observations, complexity param=0.0002679289  
## predicted class=6 expected loss=0.2531646 P(node) =0.006268598  
## class counts: 9 1 14 3 6 5 118 0 1 1  
## probabilities: 0.057 0.006 0.089 0.019 0.038 0.032 0.747 0.000 0.006 0.006   
## left son=210 (15 obs) right son=211 (143 obs)  
## Primary splits:  
## 215 < 15 to the right, improve=10.949600, (0 missing)  
## 99 < 1.5 to the left, improve=10.621320, (0 missing)  
## 244 < 5 to the right, improve=10.141330, (0 missing)  
## 657 < 4.5 to the right, improve= 9.843735, (0 missing)  
## 243 < 3 to the right, improve= 9.691958, (0 missing)  
## Surrogate splits:  
## 243 < 3 to the right, agree=0.994, adj=0.933, (0 split)  
## 216 < 20.5 to the right, agree=0.981, adj=0.800, (0 split)  
## 187 < 22.5 to the right, agree=0.968, adj=0.667, (0 split)  
## 214 < 5 to the right, agree=0.968, adj=0.667, (0 split)  
## 242 < 3 to the right, agree=0.968, adj=0.667, (0 split)  
##   
## Node number 106: 119 observations, complexity param=0.0002679289  
## predicted class=4 expected loss=0.2268908 P(node) =0.004721285  
## class counts: 2 0 6 0 92 3 5 6 0 5  
## probabilities: 0.017 0.000 0.050 0.000 0.773 0.025 0.042 0.050 0.000 0.042   
## left son=212 (103 obs) right son=213 (16 obs)  
## Primary splits:  
## 294 < 30.5 to the left, improve=14.29289, (0 missing)  
## 266 < 44.5 to the left, improve=13.49975, (0 missing)  
## 295 < 15 to the left, improve=12.17027, (0 missing)  
## 267 < 10.5 to the left, improve=11.11692, (0 missing)  
## 322 < 2.5 to the left, improve=10.30024, (0 missing)  
## Surrogate splits:  
## 266 < 44.5 to the left, agree=0.975, adj=0.812, (0 split)  
## 295 < 15 to the left, agree=0.958, adj=0.688, (0 split)  
## 265 < 211 to the left, agree=0.950, adj=0.625, (0 split)  
## 267 < 10.5 to the left, agree=0.950, adj=0.625, (0 split)  
## 322 < 2.5 to the left, agree=0.950, adj=0.625, (0 split)  
##   
## Node number 107: 175 observations, complexity param=0.001473609  
## predicted class=9 expected loss=0.6057143 P(node) =0.006943067  
## class counts: 7 0 8 5 24 38 5 17 2 69  
## probabilities: 0.040 0.000 0.046 0.029 0.137 0.217 0.029 0.097 0.011 0.394   
## left son=214 (69 obs) right son=215 (106 obs)  
## Primary splits:  
## 465 < 104 to the left, improve=27.01432, (0 missing)  
## 466 < 0.5 to the left, improve=25.30958, (0 missing)  
## 437 < 11.5 to the left, improve=25.03619, (0 missing)  
## 438 < 16 to the left, improve=24.84611, (0 missing)  
## 218 < 1.5 to the right, improve=24.44695, (0 missing)  
## Surrogate splits:  
## 437 < 1 to the left, agree=0.943, adj=0.855, (0 split)  
## 464 < 10.5 to the left, agree=0.903, adj=0.754, (0 split)  
## 409 < 1 to the left, agree=0.880, adj=0.696, (0 split)  
## 438 < 52 to the left, agree=0.880, adj=0.696, (0 split)  
## 493 < 55.5 to the left, agree=0.880, adj=0.696, (0 split)  
##   
## Node number 108: 106 observations, complexity param=0.0002456015  
## predicted class=5 expected loss=0.4433962 P(node) =0.004205515  
## class counts: 2 7 0 17 2 59 9 2 2 6  
## probabilities: 0.019 0.066 0.000 0.160 0.019 0.557 0.085 0.019 0.019 0.057   
## left son=216 (53 obs) right son=217 (53 obs)  
## Primary splits:  
## 290 < 0.5 to the left, improve=9.660377, (0 missing)  
## 263 < 3.5 to the left, improve=9.106793, (0 missing)  
## 203 < 5 to the right, improve=8.230857, (0 missing)  
## 205 < 12 to the right, improve=7.251435, (0 missing)  
## 291 < 46 to the left, improve=7.251267, (0 missing)  
## Surrogate splits:  
## 318 < 55 to the left, agree=0.887, adj=0.774, (0 split)  
## 263 < 28 to the left, agree=0.830, adj=0.660, (0 split)  
## 317 < 3 to the left, agree=0.830, adj=0.660, (0 split)  
## 262 < 17.5 to the left, agree=0.821, adj=0.642, (0 split)  
## 289 < 13 to the left, agree=0.811, adj=0.623, (0 split)  
##   
## Node number 109: 102 observations, complexity param=0.0007144771  
## predicted class=9 expected loss=0.4215686 P(node) =0.004046816  
## class counts: 2 0 3 8 20 3 0 7 0 59  
## probabilities: 0.020 0.000 0.029 0.078 0.196 0.029 0.000 0.069 0.000 0.578   
## left son=218 (31 obs) right son=219 (71 obs)  
## Primary splits:  
## 239 < 1.5 to the left, improve=18.23672, (0 missing)  
## 238 < 17.5 to the left, improve=17.47031, (0 missing)  
## 210 < 2 to the left, improve=16.29280, (0 missing)  
## 211 < 4 to the left, improve=15.30392, (0 missing)  
## 237 < 69.5 to the left, improve=14.14787, (0 missing)  
## Surrogate splits:  
## 238 < 2 to the left, agree=0.941, adj=0.806, (0 split)  
## 211 < 28.5 to the left, agree=0.922, adj=0.742, (0 split)  
## 240 < 3.5 to the left, agree=0.922, adj=0.742, (0 split)  
## 210 < 2 to the left, agree=0.902, adj=0.677, (0 split)  
## 237 < 8.5 to the left, agree=0.892, adj=0.645, (0 split)  
##   
## Node number 110: 68 observations, complexity param=0.0002679289  
## predicted class=0 expected loss=0.2794118 P(node) =0.002697877  
## class counts: 49 0 0 1 2 9 0 4 0 3  
## probabilities: 0.721 0.000 0.000 0.015 0.029 0.132 0.000 0.059 0.000 0.044   
## left son=220 (59 obs) right son=221 (9 obs)  
## Primary splits:  
## 323 < 203 to the left, improve=8.749972, (0 missing)  
## 353 < 45.5 to the left, improve=8.666479, (0 missing)  
## 322 < 102.5 to the left, improve=8.395886, (0 missing)  
## 237 < 24 to the right, improve=8.231900, (0 missing)  
## 358 < 3.5 to the right, improve=7.987677, (0 missing)  
## Surrogate splits:  
## 322 < 197.5 to the left, agree=0.971, adj=0.778, (0 split)  
## 321 < 229 to the left, agree=0.956, adj=0.667, (0 split)  
## 352 < 59.5 to the left, agree=0.956, adj=0.667, (0 split)  
## 353 < 75 to the left, agree=0.956, adj=0.667, (0 split)  
## 324 < 232.5 to the left, agree=0.941, adj=0.556, (0 split)  
##   
## Node number 111: 678 observations, complexity param=0.0003572385  
## predicted class=7 expected loss=0.1017699 P(node) =0.02689942  
## class counts: 8 3 5 8 12 17 4 609 0 12  
## probabilities: 0.012 0.004 0.007 0.012 0.018 0.025 0.006 0.898 0.000 0.018   
## left son=222 (30 obs) right son=223 (648 obs)  
## Primary splits:  
## 460 < 13 to the right, improve=27.51554, (0 missing)  
## 488 < 2 to the right, improve=27.47981, (0 missing)  
## 461 < 5.5 to the right, improve=26.12030, (0 missing)  
## 432 < 13.5 to the right, improve=25.79541, (0 missing)  
## 459 < 17.5 to the right, improve=25.38516, (0 missing)  
## Surrogate splits:  
## 459 < 33.5 to the right, agree=0.994, adj=0.867, (0 split)  
## 461 < 5.5 to the right, agree=0.993, adj=0.833, (0 split)  
## 431 < 75.5 to the right, agree=0.991, adj=0.800, (0 split)  
## 432 < 13.5 to the right, agree=0.991, adj=0.800, (0 split)  
## 433 < 1.5 to the right, agree=0.985, adj=0.667, (0 split)  
##   
## Node number 112: 1021 observations, complexity param=0.0009377512  
## predicted class=2 expected loss=0.1165524 P(node) =0.04050784  
## class counts: 3 0 902 16 2 2 2 12 66 16  
## probabilities: 0.003 0.000 0.883 0.016 0.002 0.002 0.002 0.012 0.065 0.016   
## left son=224 (936 obs) right son=225 (85 obs)  
## Primary splits:  
## 344 < 82 to the left, improve=57.73321, (0 missing)  
## 372 < 94.5 to the left, improve=57.50269, (0 missing)  
## 373 < 134 to the left, improve=55.79061, (0 missing)  
## 345 < 6.5 to the left, improve=54.35326, (0 missing)  
## 343 < 27.5 to the left, improve=48.16892, (0 missing)  
## Surrogate splits:  
## 345 < 6.5 to the left, agree=0.976, adj=0.706, (0 split)  
## 343 < 4.5 to the left, agree=0.975, adj=0.694, (0 split)  
## 316 < 141 to the left, agree=0.966, adj=0.588, (0 split)  
## 372 < 94.5 to the left, agree=0.966, adj=0.588, (0 split)  
## 317 < 137 to the left, agree=0.955, adj=0.459, (0 split)  
##   
## Node number 113: 623 observations, complexity param=0.002857908  
## predicted class=7 expected loss=0.7094703 P(node) =0.02471732  
## class counts: 2 102 107 7 63 10 48 181 28 75  
## probabilities: 0.003 0.164 0.172 0.011 0.101 0.016 0.077 0.291 0.045 0.120   
## left son=226 (487 obs) right son=227 (136 obs)  
## Primary splits:  
## 709 < 1.5 to the left, improve=80.54117, (0 missing)  
## 708 < 0.5 to the left, improve=78.89815, (0 missing)  
## 238 < 1 to the left, improve=74.85138, (0 missing)  
## 237 < 1 to the left, improve=71.72020, (0 missing)  
## 239 < 7.5 to the left, improve=70.12118, (0 missing)  
## Surrogate splits:  
## 708 < 0.5 to the left, agree=0.949, adj=0.765, (0 split)  
## 681 < 204.5 to the left, agree=0.929, adj=0.676, (0 split)  
## 710 < 8 to the left, agree=0.912, adj=0.596, (0 split)  
## 680 < 92.5 to the left, agree=0.891, adj=0.500, (0 split)  
## 682 < 17.5 to the left, agree=0.884, adj=0.471, (0 split)  
##   
## Node number 114: 485 observations, complexity param=0.00379566  
## predicted class=4 expected loss=0.7360825 P(node) =0.01924221  
## class counts: 19 0 73 0 128 96 19 48 49 53  
## probabilities: 0.039 0.000 0.151 0.000 0.264 0.198 0.039 0.099 0.101 0.109   
## left son=228 (121 obs) right son=229 (364 obs)  
## Primary splits:  
## 354 < 1 to the left, improve=68.34460, (0 missing)  
## 353 < 10.5 to the left, improve=55.12702, (0 missing)  
## 382 < 0.5 to the right, improve=51.97462, (0 missing)  
## 381 < 13.5 to the left, improve=51.07833, (0 missing)  
## 488 < 0.5 to the left, improve=50.20387, (0 missing)  
## Surrogate splits:  
## 381 < 13.5 to the left, agree=0.924, adj=0.694, (0 split)  
## 353 < 2.5 to the left, agree=0.920, adj=0.678, (0 split)  
## 382 < 0.5 to the left, agree=0.907, adj=0.628, (0 split)  
## 326 < 16 to the left, agree=0.905, adj=0.620, (0 split)  
## 327 < 1 to the left, agree=0.889, adj=0.554, (0 split)  
##   
## Node number 115: 709 observations, complexity param=0.0004465482  
## predicted class=8 expected loss=0.1551481 P(node) =0.02812934  
## class counts: 17 0 5 5 24 23 9 8 599 19  
## probabilities: 0.024 0.000 0.007 0.007 0.034 0.032 0.013 0.011 0.845 0.027   
## left son=230 (74 obs) right son=231 (635 obs)  
## Primary splits:  
## 428 < 111.5 to the right, improve=43.00775, (0 missing)  
## 456 < 224 to the right, improve=39.61953, (0 missing)  
## 427 < 3 to the right, improve=39.06051, (0 missing)  
## 400 < 57.5 to the right, improve=38.75969, (0 missing)  
## 455 < 23.5 to the right, improve=35.15894, (0 missing)  
## Surrogate splits:  
## 456 < 204 to the right, agree=0.976, adj=0.770, (0 split)  
## 427 < 9 to the right, agree=0.969, adj=0.703, (0 split)  
## 455 < 9 to the right, agree=0.968, adj=0.689, (0 split)  
## 429 < 247.5 to the right, agree=0.962, adj=0.635, (0 split)  
## 400 < 164.5 to the right, agree=0.952, adj=0.541, (0 split)  
##   
## Node number 116: 344 observations, complexity param=0.0008037867  
## predicted class=2 expected loss=0.244186 P(node) =0.01364809  
## class counts: 3 25 260 4 10 0 3 27 6 6  
## probabilities: 0.009 0.073 0.756 0.012 0.029 0.000 0.009 0.078 0.017 0.017   
## left son=232 (318 obs) right son=233 (26 obs)  
## Primary splits:  
## 686 < 2.5 to the left, improve=27.13588, (0 missing)  
## 153 < 2 to the right, improve=25.48856, (0 missing)  
## 152 < 1 to the right, improve=25.38425, (0 missing)  
## 159 < 0.5 to the right, improve=24.04874, (0 missing)  
## 187 < 16.5 to the right, improve=23.73987, (0 missing)  
## Surrogate splits:  
## 687 < 7 to the left, agree=0.983, adj=0.769, (0 split)  
## 714 < 2.5 to the left, agree=0.968, adj=0.577, (0 split)  
## 659 < 165.5 to the left, agree=0.962, adj=0.500, (0 split)  
## 685 < 32 to the left, agree=0.962, adj=0.500, (0 split)  
## 688 < 9 to the left, agree=0.959, adj=0.462, (0 split)  
##   
## Node number 117: 103 observations, complexity param=0.0008930964  
## predicted class=8 expected loss=0.6990291 P(node) =0.004086491  
## class counts: 2 1 10 0 24 1 19 4 31 11  
## probabilities: 0.019 0.010 0.097 0.000 0.233 0.010 0.184 0.039 0.301 0.107   
## left son=234 (73 obs) right son=235 (30 obs)  
## Primary splits:  
## 656 < 105 to the left, improve=19.74875, (0 missing)  
## 655 < 6.5 to the left, improve=18.45919, (0 missing)  
## 627 < 4 to the left, improve=15.76298, (0 missing)  
## 657 < 18 to the left, improve=15.70104, (0 missing)  
## 626 < 0.5 to the left, improve=15.06336, (0 missing)  
## Surrogate splits:  
## 655 < 123 to the left, agree=0.971, adj=0.900, (0 split)  
## 657 < 108.5 to the left, agree=0.942, adj=0.800, (0 split)  
## 627 < 183.5 to the left, agree=0.913, adj=0.700, (0 split)  
## 654 < 2 to the left, agree=0.883, adj=0.600, (0 split)  
## 628 < 140 to the left, agree=0.874, adj=0.567, (0 split)  
##   
## Node number 118: 241 observations, complexity param=0.002545325  
## predicted class=8 expected loss=0.5062241 P(node) =0.009561595  
## class counts: 3 1 78 3 15 1 14 2 119 5  
## probabilities: 0.012 0.004 0.324 0.012 0.062 0.004 0.058 0.008 0.494 0.021   
## left son=236 (127 obs) right son=237 (114 obs)  
## Primary splits:  
## 655 < 30.5 to the left, improve=54.95627, (0 missing)  
## 654 < 6 to the left, improve=52.10515, (0 missing)  
## 537 < 131.5 to the right, improve=50.14114, (0 missing)  
## 656 < 6 to the left, improve=49.56066, (0 missing)  
## 509 < 3.5 to the right, improve=48.44629, (0 missing)  
## Surrogate splits:  
## 654 < 6 to the left, agree=0.946, adj=0.886, (0 split)  
## 656 < 1.5 to the left, agree=0.942, adj=0.877, (0 split)  
## 629 < 2 to the left, agree=0.884, adj=0.754, (0 split)  
## 628 < 1 to the left, agree=0.880, adj=0.746, (0 split)  
## 627 < 86.5 to the left, agree=0.867, adj=0.719, (0 split)  
##   
## Node number 119: 1700 observations, complexity param=0.001696883  
## predicted class=6 expected loss=0.1229412 P(node) =0.06744694  
## class counts: 0 2 32 5 5 102 1491 2 50 11  
## probabilities: 0.000 0.001 0.019 0.003 0.003 0.060 0.877 0.001 0.029 0.006   
## left son=238 (1537 obs) right son=239 (163 obs)  
## Primary splits:  
## 658 < 1.5 to the left, improve=113.14630, (0 missing)  
## 657 < 6 to the left, improve=110.56940, (0 missing)  
## 656 < 11 to the left, improve=107.75830, (0 missing)  
## 655 < 1.5 to the right, improve=100.02240, (0 missing)  
## 659 < 6.5 to the right, improve= 98.06006, (0 missing)  
## Surrogate splits:  
## 657 < 2.5 to the left, agree=0.993, adj=0.926, (0 split)  
## 659 < 3 to the left, agree=0.985, adj=0.847, (0 split)  
## 656 < 0.5 to the left, agree=0.979, adj=0.785, (0 split)  
## 660 < 3.5 to the left, agree=0.971, adj=0.699, (0 split)  
## 655 < 1.5 to the left, agree=0.962, adj=0.607, (0 split)  
##   
## Node number 120: 221 observations, complexity param=0.003349111  
## predicted class=2 expected loss=0.60181 P(node) =0.008768102  
## class counts: 0 0 88 24 4 81 2 0 22 0  
## probabilities: 0.000 0.000 0.398 0.109 0.018 0.367 0.009 0.000 0.100 0.000   
## left son=240 (109 obs) right son=241 (112 obs)  
## Primary splits:  
## 346 < 3 to the left, improve=56.90477, (0 missing)  
## 319 < 5 to the left, improve=52.80342, (0 missing)  
## 127 < 31.5 to the right, improve=49.12228, (0 missing)  
## 347 < 9 to the left, improve=48.68827, (0 missing)  
## 157 < 2 to the right, improve=47.95154, (0 missing)  
## Surrogate splits:  
## 319 < 26 to the left, agree=0.914, adj=0.826, (0 split)  
## 347 < 9 to the left, agree=0.905, adj=0.807, (0 split)  
## 374 < 58 to the left, agree=0.905, adj=0.807, (0 split)  
## 318 < 1 to the left, agree=0.882, adj=0.761, (0 split)  
## 345 < 1.5 to the left, agree=0.882, adj=0.761, (0 split)  
##   
## Node number 121: 1609 observations, complexity param=0.001629901  
## predicted class=4 expected loss=0.1876942 P(node) =0.06383654  
## class counts: 0 6 23 20 1307 42 66 44 34 67  
## probabilities: 0.000 0.004 0.014 0.012 0.812 0.026 0.041 0.027 0.021 0.042   
## left son=242 (1469 obs) right son=243 (140 obs)  
## Primary splits:  
## 267 < 139 to the left, improve=86.21374, (0 missing)  
## 98 < 3 to the left, improve=81.05098, (0 missing)  
## 97 < 1 to the left, improve=69.20911, (0 missing)  
## 266 < 173.5 to the left, improve=69.13510, (0 missing)  
## 400 < 6.5 to the right, improve=63.19168, (0 missing)  
## Surrogate splits:  
## 239 < 74.5 to the left, agree=0.965, adj=0.600, (0 split)  
## 266 < 191.5 to the left, agree=0.959, adj=0.529, (0 split)  
## 295 < 176.5 to the left, agree=0.947, adj=0.386, (0 split)  
## 294 < 132 to the left, agree=0.937, adj=0.271, (0 split)  
## 268 < 250.5 to the left, agree=0.927, adj=0.164, (0 split)  
##   
## Node number 122: 808 observations, complexity param=0.003929624  
## predicted class=5 expected loss=0.4492574 P(node) =0.03205713  
## class counts: 3 2 19 55 94 445 28 33 37 92  
## probabilities: 0.004 0.002 0.024 0.068 0.116 0.551 0.035 0.041 0.046 0.114   
## left son=244 (581 obs) right son=245 (227 obs)  
## Primary splits:  
## 352 < 55 to the left, improve=128.5179, (0 missing)  
## 324 < 30.5 to the left, improve=120.9151, (0 missing)  
## 351 < 42.5 to the left, improve=107.8040, (0 missing)  
## 353 < 1.5 to the left, improve=105.0853, (0 missing)  
## 325 < 1 to the left, improve=103.3771, (0 missing)  
## Surrogate splits:  
## 324 < 129.5 to the left, agree=0.972, adj=0.899, (0 split)  
## 351 < 42.5 to the left, agree=0.968, adj=0.885, (0 split)  
## 353 < 1.5 to the left, agree=0.955, adj=0.841, (0 split)  
## 325 < 6.5 to the left, agree=0.941, adj=0.789, (0 split)  
## 323 < 0.5 to the left, agree=0.906, adj=0.665, (0 split)  
##   
## Node number 123: 1851 observations, complexity param=0.002835581  
## predicted class=9 expected loss=0.3408968 P(node) =0.07343781  
## class counts: 4 0 71 160 194 19 4 55 124 1220  
## probabilities: 0.002 0.000 0.038 0.086 0.105 0.010 0.002 0.030 0.067 0.659   
## left son=246 (406 obs) right son=247 (1445 obs)  
## Primary splits:  
## 156 < 0.5 to the right, improve=177.7674, (0 missing)  
## 155 < 0.5 to the right, improve=172.9101, (0 missing)  
## 154 < 1 to the right, improve=137.4916, (0 missing)  
## 157 < 0.5 to the right, improve=135.3175, (0 missing)  
## 623 < 1 to the right, improve=128.5714, (0 missing)  
## Surrogate splits:  
## 155 < 0.5 to the right, agree=0.960, adj=0.818, (0 split)  
## 157 < 0.5 to the right, agree=0.949, adj=0.768, (0 split)  
## 154 < 1 to the right, agree=0.910, adj=0.589, (0 split)  
## 158 < 0.5 to the right, agree=0.900, adj=0.544, (0 split)  
## 153 < 0.5 to the right, agree=0.880, adj=0.451, (0 split)  
##   
## Node number 124: 313 observations, complexity param=0.002054122  
## predicted class=5 expected loss=0.629393 P(node) =0.01241817  
## class counts: 1 12 8 57 30 116 2 8 30 49  
## probabilities: 0.003 0.038 0.026 0.182 0.096 0.371 0.006 0.026 0.096 0.157   
## left son=248 (175 obs) right son=249 (138 obs)  
## Primary splits:  
## 353 < 1 to the left, improve=47.76335, (0 missing)  
## 352 < 12 to the left, improve=44.04212, (0 missing)  
## 325 < 2.5 to the left, improve=34.45115, (0 missing)  
## 381 < 141.5 to the left, improve=32.65698, (0 missing)  
## 354 < 2.5 to the left, improve=31.10189, (0 missing)  
## Surrogate splits:  
## 352 < 18 to the left, agree=0.920, adj=0.819, (0 split)  
## 325 < 23.5 to the left, agree=0.911, adj=0.797, (0 split)  
## 354 < 2.5 to the left, agree=0.872, adj=0.710, (0 split)  
## 326 < 0.5 to the left, agree=0.869, adj=0.703, (0 split)  
## 381 < 79.5 to the left, agree=0.856, adj=0.674, (0 split)  
##   
## Node number 125: 1453 observations, complexity param=0.001607573  
## predicted class=7 expected loss=0.1046111 P(node) =0.05764729  
## class counts: 6 53 45 11 4 2 19 1301 1 11  
## probabilities: 0.004 0.036 0.031 0.008 0.003 0.001 0.013 0.895 0.001 0.008   
## left son=250 (93 obs) right son=251 (1360 obs)  
## Primary splits:  
## 156 < 0.5 to the right, improve=93.49668, (0 missing)  
## 155 < 3.5 to the right, improve=84.86421, (0 missing)  
## 157 < 0.5 to the right, improve=83.35302, (0 missing)  
## 154 < 7 to the right, improve=71.99319, (0 missing)  
## 153 < 2 to the right, improve=65.40702, (0 missing)  
## Surrogate splits:  
## 155 < 3.5 to the right, agree=0.983, adj=0.742, (0 split)  
## 157 < 0.5 to the right, agree=0.982, adj=0.720, (0 split)  
## 154 < 10.5 to the right, agree=0.966, adj=0.473, (0 split)  
## 128 < 6.5 to the right, agree=0.962, adj=0.409, (0 split)  
## 158 < 1.5 to the right, agree=0.960, adj=0.376, (0 split)  
##   
## Node number 126: 144 observations, complexity param=0.0004018934  
## predicted class=4 expected loss=0.2638889 P(node) =0.005713152  
## class counts: 1 1 11 0 106 1 15 1 1 7  
## probabilities: 0.007 0.007 0.076 0.000 0.736 0.007 0.104 0.007 0.007 0.049   
## left son=252 (132 obs) right son=253 (12 obs)  
## Primary splits:  
## 95 < 6.5 to the left, improve=12.98232, (0 missing)  
## 96 < 2 to the left, improve=12.87266, (0 missing)  
## 97 < 4.5 to the right, improve=12.59550, (0 missing)  
## 597 < 35.5 to the right, improve=11.90941, (0 missing)  
## 567 < 164.5 to the right, improve=11.77222, (0 missing)  
## Surrogate splits:  
## 94 < 4 to the left, agree=0.972, adj=0.667, (0 split)  
## 122 < 64 to the left, agree=0.972, adj=0.667, (0 split)  
## 67 < 4 to the left, agree=0.965, adj=0.583, (0 split)  
## 96 < 36 to the left, agree=0.965, adj=0.583, (0 split)  
## 123 < 100.5 to the left, agree=0.958, adj=0.500, (0 split)  
##   
## Node number 127: 218 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.2981651 P(node) =0.008649078  
## class counts: 0 0 8 1 29 0 1 22 4 153  
## probabilities: 0.000 0.000 0.037 0.005 0.133 0.000 0.005 0.101 0.018 0.702   
## left son=254 (50 obs) right son=255 (168 obs)  
## Primary splits:  
## 518 < 241.5 to the right, improve=14.56990, (0 missing)  
## 235 < 3.5 to the left, improve=14.16128, (0 missing)  
## 155 < 1 to the right, improve=13.12314, (0 missing)  
## 354 < 4 to the left, improve=12.86037, (0 missing)  
## 316 < 6 to the left, improve=12.85993, (0 missing)  
## Surrogate splits:  
## 545 < 30 to the right, agree=0.927, adj=0.68, (0 split)  
## 517 < 223.5 to the right, agree=0.899, adj=0.56, (0 split)  
## 546 < 171.5 to the right, agree=0.862, adj=0.40, (0 split)  
## 573 < 62.5 to the right, agree=0.862, adj=0.40, (0 split)  
## 572 < 24.5 to the right, agree=0.858, adj=0.38, (0 split)  
##   
## Node number 128: 2291 observations, complexity param=0.0001786193  
## predicted class=1 expected loss=0.03360978 P(node) =0.09089466  
## class counts: 0 2214 12 6 7 10 8 8 24 2  
## probabilities: 0.000 0.966 0.005 0.003 0.003 0.004 0.003 0.003 0.010 0.001   
## left son=256 (2260 obs) right son=257 (31 obs)  
## Primary splits:  
## 484 < 8 to the left, improve=24.92766, (0 missing)  
## 456 < 8 to the left, improve=24.56170, (0 missing)  
## 483 < 1 to the left, improve=23.74161, (0 missing)  
## 457 < 81 to the left, improve=23.35611, (0 missing)  
## 466 < 3 to the left, improve=22.41290, (0 missing)  
## Surrogate splits:  
## 485 < 179 to the left, agree=0.996, adj=0.677, (0 split)  
## 512 < 113 to the left, agree=0.996, adj=0.677, (0 split)  
## 457 < 57 to the left, agree=0.995, adj=0.645, (0 split)  
## 456 < 8 to the left, agree=0.994, adj=0.548, (0 split)  
## 483 < 1 to the left, agree=0.993, adj=0.516, (0 split)  
##   
## Node number 129: 21 observations  
## predicted class=2 expected loss=0.1428571 P(node) =0.000833168  
## class counts: 0 2 18 1 0 0 0 0 0 0  
## probabilities: 0.000 0.095 0.857 0.048 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 130: 72 observations, complexity param=0.0005358578  
## predicted class=1 expected loss=0.2916667 P(node) =0.002856576  
## class counts: 0 51 1 2 1 13 0 0 4 0  
## probabilities: 0.000 0.708 0.014 0.028 0.014 0.181 0.000 0.000 0.056 0.000   
## left son=260 (55 obs) right son=261 (17 obs)  
## Primary splits:  
## 487 < 145 to the right, improve=17.70351, (0 missing)  
## 434 < 203.5 to the right, improve=17.37037, (0 missing)  
## 242 < 182 to the right, improve=17.02758, (0 missing)  
## 215 < 32 to the right, improve=16.82813, (0 missing)  
## 597 < 27 to the right, improve=16.07407, (0 missing)  
## Surrogate splits:  
## 242 < 160.5 to the right, agree=0.958, adj=0.824, (0 split)  
## 460 < 225.5 to the right, agree=0.958, adj=0.824, (0 split)  
## 488 < 221 to the right, agree=0.958, adj=0.824, (0 split)  
## 244 < 126.5 to the right, agree=0.944, adj=0.765, (0 split)  
## 243 < 44.5 to the right, agree=0.931, adj=0.706, (0 split)  
##   
## Node number 131: 72 observations  
## predicted class=8 expected loss=0.1388889 P(node) =0.002856576  
## class counts: 0 0 0 3 2 1 0 0 62 4  
## probabilities: 0.000 0.000 0.000 0.042 0.028 0.014 0.000 0.000 0.861 0.056   
##   
## Node number 132: 91 observations  
## predicted class=2 expected loss=0.0989011 P(node) =0.003610395  
## class counts: 0 2 82 5 0 0 0 0 2 0  
## probabilities: 0.000 0.022 0.901 0.055 0.000 0.000 0.000 0.000 0.022 0.000   
##   
## Node number 133: 17 observations  
## predicted class=1 expected loss=0.4705882 P(node) =0.0006744694  
## class counts: 0 9 1 0 1 0 0 0 6 0  
## probabilities: 0.000 0.529 0.059 0.000 0.059 0.000 0.000 0.000 0.353 0.000   
##   
## Node number 134: 24 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.6666667 P(node) =0.000952192  
## class counts: 1 1 8 3 3 0 5 1 2 0  
## probabilities: 0.042 0.042 0.333 0.125 0.125 0.000 0.208 0.042 0.083 0.000   
## left son=268 (13 obs) right son=269 (11 obs)  
## Primary splits:  
## 349 < 206.5 to the left, improve=4.564685, (0 missing)  
## 546 < 99.5 to the right, improve=3.767483, (0 missing)  
## 348 < 7 to the left, improve=3.583333, (0 missing)  
## 551 < 18.5 to the right, improve=3.459790, (0 missing)  
## 376 < 75.5 to the left, improve=3.421429, (0 missing)  
## Surrogate splits:  
## 348 < 7 to the left, agree=0.958, adj=0.909, (0 split)  
## 600 < 121 to the left, agree=0.917, adj=0.818, (0 split)  
## 296 < 188.5 to the right, agree=0.875, adj=0.727, (0 split)  
## 321 < 66 to the left, agree=0.875, adj=0.727, (0 split)  
## 376 < 75.5 to the left, agree=0.875, adj=0.727, (0 split)  
##   
## Node number 135: 19 observations  
## predicted class=6 expected loss=0.1052632 P(node) =0.0007538187  
## class counts: 0 0 1 0 0 0 17 0 0 1  
## probabilities: 0.000 0.000 0.053 0.000 0.000 0.000 0.895 0.000 0.000 0.053   
##   
## Node number 136: 252 observations, complexity param=0.001406627  
## predicted class=6 expected loss=0.7857143 P(node) =0.009998016  
## class counts: 12 33 31 14 40 24 54 8 6 30  
## probabilities: 0.048 0.131 0.123 0.056 0.159 0.095 0.214 0.032 0.024 0.119   
## left son=272 (93 obs) right son=273 (159 obs)  
## Primary splits:  
## 574 < 233 to the right, improve=20.46787, (0 missing)  
## 602 < 74.5 to the right, improve=18.99616, (0 missing)  
## 573 < 248.5 to the left, improve=17.63102, (0 missing)  
## 601 < 127 to the left, improve=17.47485, (0 missing)  
## 550 < 65.5 to the right, improve=16.87836, (0 missing)  
## Surrogate splits:  
## 602 < 52 to the right, agree=0.925, adj=0.796, (0 split)  
## 575 < 145.5 to the right, agree=0.913, adj=0.763, (0 split)  
## 603 < 1.5 to the right, agree=0.889, adj=0.699, (0 split)  
## 576 < 19.5 to the right, agree=0.865, adj=0.634, (0 split)  
## 573 < 250.5 to the right, agree=0.849, adj=0.591, (0 split)  
##   
## Node number 137: 34 observations  
## predicted class=5 expected loss=0.1176471 P(node) =0.001348939  
## class counts: 0 0 0 0 2 30 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.000 0.059 0.882 0.000 0.000 0.059 0.000   
##   
## Node number 138: 134 observations, complexity param=0.0004018934  
## predicted class=1 expected loss=0.4552239 P(node) =0.005316405  
## class counts: 3 73 1 4 10 9 4 4 16 10  
## probabilities: 0.022 0.545 0.007 0.030 0.075 0.067 0.030 0.030 0.119 0.075   
## left son=276 (95 obs) right son=277 (39 obs)  
## Primary splits:  
## 429 < 10.5 to the left, improve=18.14786, (0 missing)  
## 299 < 18 to the left, improve=17.89685, (0 missing)  
## 271 < 27.5 to the left, improve=17.79153, (0 missing)  
## 327 < 30.5 to the left, improve=17.44297, (0 missing)  
## 430 < 2.5 to the left, improve=16.75559, (0 missing)  
## Surrogate splits:  
## 457 < 61 to the left, agree=0.963, adj=0.872, (0 split)  
## 430 < 160.5 to the left, agree=0.933, adj=0.769, (0 split)  
## 456 < 6.5 to the left, agree=0.933, adj=0.769, (0 split)  
## 428 < 3 to the left, agree=0.925, adj=0.744, (0 split)  
## 401 < 61.5 to the left, agree=0.910, adj=0.692, (0 split)  
##   
## Node number 139: 144 observations, complexity param=0.0008037867  
## predicted class=8 expected loss=0.3819444 P(node) =0.005713152  
## class counts: 1 3 1 15 9 3 0 3 89 20  
## probabilities: 0.007 0.021 0.007 0.104 0.062 0.021 0.000 0.021 0.618 0.139   
## left son=278 (124 obs) right son=279 (20 obs)  
## Primary splits:  
## 711 < 94.5 to the left, improve=22.83728, (0 missing)  
## 712 < 2.5 to the left, improve=22.34791, (0 missing)  
## 461 < 170.5 to the left, improve=21.84393, (0 missing)  
## 488 < 15 to the right, improve=19.92244, (0 missing)  
## 433 < 166 to the left, improve=19.58357, (0 missing)  
## Surrogate splits:  
## 712 < 69.5 to the left, agree=0.965, adj=0.75, (0 split)  
## 710 < 7.5 to the left, agree=0.958, adj=0.70, (0 split)  
## 739 < 44.5 to the left, agree=0.917, adj=0.40, (0 split)  
## 740 < 28 to the left, agree=0.910, adj=0.35, (0 split)  
## 433 < 1.5 to the right, agree=0.903, adj=0.30, (0 split)  
##   
## Node number 144: 122 observations  
## predicted class=2 expected loss=0.04918033 P(node) =0.004840309  
## class counts: 0 0 116 1 0 1 1 2 1 0  
## probabilities: 0.000 0.000 0.951 0.008 0.000 0.008 0.008 0.016 0.008 0.000   
##   
## Node number 145: 20 observations, complexity param=0.0002232741  
## predicted class=8 expected loss=0.5 P(node) =0.0007934934  
## class counts: 0 0 3 1 0 0 5 0 10 1  
## probabilities: 0.000 0.000 0.150 0.050 0.000 0.000 0.250 0.000 0.500 0.050   
## left son=290 (9 obs) right son=291 (11 obs)  
## Primary splits:  
## 291 < 86 to the left, improve=6.270707, (0 missing)  
## 319 < 26 to the left, improve=6.270707, (0 missing)  
## 320 < 98 to the left, improve=6.270707, (0 missing)  
## 321 < 48 to the left, improve=6.270707, (0 missing)  
## 497 < 8 to the right, improve=6.270707, (0 missing)  
## Surrogate splits:  
## 319 < 26 to the left, agree=1, adj=1, (0 split)  
## 320 < 98 to the left, agree=1, adj=1, (0 split)  
## 321 < 48 to the left, agree=1, adj=1, (0 split)  
## 497 < 8 to the right, agree=1, adj=1, (0 split)  
## 525 < 20 to the right, agree=1, adj=1, (0 split)  
##   
## Node number 146: 57 observations, complexity param=0.0004242208  
## predicted class=1 expected loss=0.7017544 P(node) =0.002261456  
## class counts: 0 17 15 10 0 0 3 2 8 2  
## probabilities: 0.000 0.298 0.263 0.175 0.000 0.000 0.053 0.035 0.140 0.035   
## left son=292 (21 obs) right son=293 (36 obs)  
## Primary splits:  
## 459 < 5.5 to the left, improve=11.076860, (0 missing)  
## 515 < 1.5 to the left, improve=10.451460, (0 missing)  
## 487 < 0.5 to the left, improve=10.305740, (0 missing)  
## 488 < 158.5 to the left, improve=10.213420, (0 missing)  
## 233 < 23 to the left, improve= 9.465748, (0 missing)  
## Surrogate splits:  
## 460 < 126 to the left, agree=0.947, adj=0.857, (0 split)  
## 487 < 0.5 to the left, agree=0.895, adj=0.714, (0 split)  
## 233 < 23 to the left, agree=0.860, adj=0.619, (0 split)  
## 458 < 1 to the left, agree=0.860, adj=0.619, (0 split)  
## 431 < 1 to the left, agree=0.842, adj=0.571, (0 split)  
##   
## Node number 147: 29 observations, complexity param=0.0002679289  
## predicted class=7 expected loss=0.4137931 P(node) =0.001150565  
## class counts: 0 0 0 3 1 0 0 17 1 7  
## probabilities: 0.000 0.000 0.000 0.103 0.034 0.000 0.000 0.586 0.034 0.241   
## left son=294 (17 obs) right son=295 (12 obs)  
## Primary splits:  
## 349 < 102.5 to the left, improve=7.749831, (0 missing)  
## 406 < 250.5 to the right, improve=7.298851, (0 missing)  
## 319 < 8 to the left, improve=7.112886, (0 missing)  
## 434 < 230.5 to the right, improve=6.917898, (0 missing)  
## 318 < 90 to the left, improve=6.887595, (0 missing)  
## Surrogate splits:  
## 348 < 7 to the left, agree=0.966, adj=0.917, (0 split)  
## 406 < 250.5 to the right, agree=0.966, adj=0.917, (0 split)  
## 434 < 250 to the right, agree=0.931, adj=0.833, (0 split)  
## 461 < 250 to the right, agree=0.931, adj=0.833, (0 split)  
## 488 < 142 to the right, agree=0.931, adj=0.833, (0 split)  
##   
## Node number 148: 112 observations  
## predicted class=6 expected loss=0.1160714 P(node) =0.004443563  
## class counts: 1 2 0 0 3 2 99 4 0 1  
## probabilities: 0.009 0.018 0.000 0.000 0.027 0.018 0.884 0.036 0.000 0.009   
##   
## Node number 149: 32 observations, complexity param=0.0002232741  
## predicted class=8 expected loss=0.6875 P(node) =0.001269589  
## class counts: 4 0 3 0 0 3 6 1 10 5  
## probabilities: 0.125 0.000 0.094 0.000 0.000 0.094 0.188 0.031 0.312 0.156   
## left son=298 (12 obs) right son=299 (20 obs)  
## Primary splits:  
## 442 < 27 to the right, improve=5.341667, (0 missing)  
## 470 < 21 to the right, improve=5.341667, (0 missing)  
## 483 < 19 to the right, improve=5.278922, (0 missing)  
## 511 < 138 to the right, improve=5.278922, (0 missing)  
## 469 < 183 to the right, improve=5.154352, (0 missing)  
## Surrogate splits:  
## 470 < 21 to the right, agree=1.000, adj=1.000, (0 split)  
## 426 < 16.5 to the right, agree=0.969, adj=0.917, (0 split)  
## 443 < 10.5 to the right, agree=0.969, adj=0.917, (0 split)  
## 454 < 69 to the right, agree=0.969, adj=0.917, (0 split)  
## 469 < 183 to the right, agree=0.969, adj=0.917, (0 split)  
##   
## Node number 150: 19 observations  
## predicted class=4 expected loss=0.5263158 P(node) =0.0007538187  
## class counts: 0 0 3 0 9 0 0 1 3 3  
## probabilities: 0.000 0.000 0.158 0.000 0.474 0.000 0.000 0.053 0.158 0.158   
##   
## Node number 151: 43 observations  
## predicted class=9 expected loss=0.1860465 P(node) =0.001706011  
## class counts: 0 0 3 0 0 0 0 1 4 35  
## probabilities: 0.000 0.000 0.070 0.000 0.000 0.000 0.000 0.023 0.093 0.814   
##   
## Node number 152: 59 observations, complexity param=0.0002232741  
## predicted class=3 expected loss=0.1694915 P(node) =0.002340805  
## class counts: 0 0 7 49 0 0 0 2 1 0  
## probabilities: 0.000 0.000 0.119 0.831 0.000 0.000 0.000 0.034 0.017 0.000   
## left son=304 (7 obs) right son=305 (52 obs)  
## Primary splits:  
## 527 < 25.5 to the right, improve=8.098622, (0 missing)  
## 555 < 25 to the right, improve=8.098622, (0 missing)  
## 514 < 214 to the right, improve=6.821203, (0 missing)  
## 543 < 220.5 to the right, improve=6.821203, (0 missing)  
## 515 < 233.5 to the right, improve=6.590588, (0 missing)  
## Surrogate splits:  
## 555 < 25 to the right, agree=1.000, adj=1.000, (0 split)  
## 583 < 14 to the right, agree=0.983, adj=0.857, (0 split)  
## 499 < 67 to the right, agree=0.966, adj=0.714, (0 split)  
## 554 < 153.5 to the right, agree=0.966, adj=0.714, (0 split)  
## 582 < 122 to the right, agree=0.966, adj=0.714, (0 split)  
##   
## Node number 153: 103 observations, complexity param=0.001071716  
## predicted class=7 expected loss=0.592233 P(node) =0.004086491  
## class counts: 0 9 26 13 0 0 0 42 12 1  
## probabilities: 0.000 0.087 0.252 0.126 0.000 0.000 0.000 0.408 0.117 0.010   
## left son=306 (47 obs) right son=307 (56 obs)  
## Primary splits:  
## 153 < 121 to the right, improve=21.50764, (0 missing)  
## 152 < 13 to the right, improve=20.69896, (0 missing)  
## 154 < 2.5 to the right, improve=20.21410, (0 missing)  
## 155 < 20 to the right, improve=18.46666, (0 missing)  
## 151 < 0.5 to the right, improve=17.12519, (0 missing)  
## Surrogate splits:  
## 152 < 35.5 to the right, agree=0.961, adj=0.915, (0 split)  
## 154 < 117.5 to the right, agree=0.932, adj=0.851, (0 split)  
## 155 < 38.5 to the right, agree=0.883, adj=0.745, (0 split)  
## 151 < 0.5 to the right, agree=0.874, adj=0.723, (0 split)  
## 238 < 148 to the left, agree=0.854, adj=0.681, (0 split)  
##   
## Node number 154: 14 observations  
## predicted class=9 expected loss=0.5714286 P(node) =0.0005554453  
## class counts: 0 0 0 1 5 0 0 0 2 6  
## probabilities: 0.000 0.000 0.000 0.071 0.357 0.000 0.000 0.000 0.143 0.429   
##   
## Node number 155: 42 observations  
## predicted class=8 expected loss=0.1666667 P(node) =0.001666336  
## class counts: 1 0 1 1 0 1 3 0 35 0  
## probabilities: 0.024 0.000 0.024 0.024 0.000 0.024 0.071 0.000 0.833 0.000   
##   
## Node number 156: 80 observations, complexity param=0.0002976988  
## predicted class=8 expected loss=0.4875 P(node) =0.003173973  
## class counts: 0 13 1 6 4 1 0 8 41 6  
## probabilities: 0.000 0.163 0.013 0.075 0.050 0.013 0.000 0.100 0.513 0.075   
## left son=312 (35 obs) right son=313 (45 obs)  
## Primary splits:  
## 294 < 148.5 to the right, improve=8.124603, (0 missing)  
## 298 < 9 to the left, improve=8.043407, (0 missing)  
## 297 < 11.5 to the left, improve=7.834584, (0 missing)  
## 213 < 15 to the left, improve=7.771429, (0 missing)  
## 322 < 134.5 to the right, improve=7.548997, (0 missing)  
## Surrogate splits:  
## 322 < 184 to the right, agree=0.938, adj=0.857, (0 split)  
## 293 < 176 to the right, agree=0.900, adj=0.771, (0 split)  
## 266 < 233.5 to the right, agree=0.887, adj=0.743, (0 split)  
## 185 < 20.5 to the left, agree=0.838, adj=0.629, (0 split)  
## 295 < 241.5 to the right, agree=0.825, adj=0.600, (0 split)  
##   
## Node number 157: 44 observations, complexity param=0.000379566  
## predicted class=9 expected loss=0.5227273 P(node) =0.001745685  
## class counts: 1 0 0 10 3 1 0 4 4 21  
## probabilities: 0.023 0.000 0.000 0.227 0.068 0.023 0.000 0.091 0.091 0.477   
## left son=314 (18 obs) right son=315 (26 obs)  
## Primary splits:  
## 206 < 125 to the right, improve=9.240093, (0 missing)  
## 318 < 153 to the left, improve=8.282828, (0 missing)  
## 551 < 16.5 to the right, improve=7.761461, (0 missing)  
## 627 < 221 to the right, improve=7.698701, (0 missing)  
## 178 < 7 to the right, improve=7.584416, (0 missing)  
## Surrogate splits:  
## 178 < 7 to the right, agree=0.955, adj=0.889, (0 split)  
## 205 < 11 to the right, agree=0.932, adj=0.833, (0 split)  
## 207 < 207.5 to the right, agree=0.932, adj=0.833, (0 split)  
## 179 < 4.5 to the right, agree=0.909, adj=0.778, (0 split)  
## 634 < 17 to the right, agree=0.909, adj=0.778, (0 split)  
##   
## Node number 158: 19 observations  
## predicted class=7 expected loss=0.6842105 P(node) =0.0007538187  
## class counts: 2 0 1 4 1 3 0 6 2 0  
## probabilities: 0.105 0.000 0.053 0.211 0.053 0.158 0.000 0.316 0.105 0.000   
##   
## Node number 159: 355 observations  
## predicted class=8 expected loss=0.08169014 P(node) =0.01408451  
## class counts: 1 1 1 4 10 2 2 5 326 3  
## probabilities: 0.003 0.003 0.003 0.011 0.028 0.006 0.006 0.014 0.918 0.008   
##   
## Node number 160: 64 observations, complexity param=0.0007368045  
## predicted class=1 expected loss=0.484375 P(node) =0.002539179  
## class counts: 0 33 3 20 0 1 0 5 2 0  
## probabilities: 0.000 0.516 0.047 0.312 0.000 0.016 0.000 0.078 0.031 0.000   
## left son=320 (39 obs) right son=321 (25 obs)  
## Primary splits:  
## 297 < 26.5 to the left, improve=20.92705, (0 missing)  
## 270 < 9 to the left, improve=19.81591, (0 missing)  
## 242 < 18.5 to the left, improve=19.48048, (0 missing)  
## 656 < 6.5 to the left, improve=19.39167, (0 missing)  
## 325 < 3 to the left, improve=19.30833, (0 missing)  
## Surrogate splits:  
## 325 < 3 to the left, agree=0.984, adj=0.96, (0 split)  
## 324 < 174 to the left, agree=0.969, adj=0.92, (0 split)  
## 269 < 11 to the left, agree=0.953, adj=0.88, (0 split)  
## 184 < 2.5 to the left, agree=0.938, adj=0.84, (0 split)  
## 213 < 3 to the left, agree=0.938, adj=0.84, (0 split)  
##   
## Node number 161: 1438 observations, complexity param=0.0002456015  
## predicted class=3 expected loss=0.05841446 P(node) =0.05705217  
## class counts: 0 8 10 1354 0 38 0 2 21 5  
## probabilities: 0.000 0.006 0.007 0.942 0.000 0.026 0.000 0.001 0.015 0.003   
## left son=322 (1393 obs) right son=323 (45 obs)  
## Primary splits:  
## 264 < 244.5 to the left, improve=20.42218, (0 missing)  
## 296 < 1 to the right, improve=17.95148, (0 missing)  
## 487 < 140.5 to the left, improve=17.62124, (0 missing)  
## 317 < 206 to the left, improve=17.03519, (0 missing)  
## 292 < 248.5 to the left, improve=16.23283, (0 missing)  
## Surrogate splits:  
## 291 < 224 to the left, agree=0.973, adj=0.133, (0 split)  
## 263 < 251 to the left, agree=0.971, adj=0.089, (0 split)  
## 292 < 254.5 to the left, agree=0.971, adj=0.067, (0 split)  
## 265 < 254.5 to the left, agree=0.970, adj=0.044, (0 split)  
## 247 < 220.5 to the left, agree=0.969, adj=0.022, (0 split)  
##   
## Node number 162: 78 observations  
## predicted class=5 expected loss=0.2179487 P(node) =0.003094624  
## class counts: 1 0 0 3 4 61 0 0 4 5  
## probabilities: 0.013 0.000 0.000 0.038 0.051 0.782 0.000 0.000 0.051 0.064   
##   
## Node number 163: 46 observations, complexity param=0.000491203  
## predicted class=9 expected loss=0.6304348 P(node) =0.001825035  
## class counts: 2 0 0 15 1 5 2 0 4 17  
## probabilities: 0.043 0.000 0.000 0.326 0.022 0.109 0.043 0.000 0.087 0.370   
## left son=326 (25 obs) right son=327 (21 obs)  
## Primary splits:  
## 493 < 1 to the left, improve=8.093416, (0 missing)  
## 497 < 1 to the right, improve=7.992977, (0 missing)  
## 624 < 3.5 to the right, improve=7.076765, (0 missing)  
## 525 < 32.5 to the right, improve=6.866115, (0 missing)  
## 372 < 24.5 to the left, improve=6.768542, (0 missing)  
## Surrogate splits:  
## 465 < 14.5 to the left, agree=0.891, adj=0.762, (0 split)  
## 492 < 7.5 to the left, agree=0.848, adj=0.667, (0 split)  
## 494 < 168.5 to the left, agree=0.848, adj=0.667, (0 split)  
## 520 < 14.5 to the left, agree=0.848, adj=0.667, (0 split)  
## 437 < 115.5 to the left, agree=0.826, adj=0.619, (0 split)  
##   
## Node number 164: 261 observations, complexity param=0.000379566  
## predicted class=3 expected loss=0.1954023 P(node) =0.01035509  
## class counts: 7 4 5 210 0 23 3 3 5 1  
## probabilities: 0.027 0.015 0.019 0.805 0.000 0.088 0.011 0.011 0.019 0.004   
## left son=328 (202 obs) right son=329 (59 obs)  
## Primary splits:  
## 155 < 3 to the right, improve=20.26569, (0 missing)  
## 154 < 1.5 to the right, improve=17.63843, (0 missing)  
## 156 < 0.5 to the right, improve=17.55721, (0 missing)  
## 275 < 55 to the left, improve=16.22994, (0 missing)  
## 220 < 4.5 to the left, improve=15.23607, (0 missing)  
## Surrogate splits:  
## 156 < 7.5 to the right, agree=0.943, adj=0.746, (0 split)  
## 154 < 1.5 to the right, agree=0.927, adj=0.678, (0 split)  
## 157 < 3 to the right, agree=0.866, adj=0.407, (0 split)  
## 184 < 14.5 to the right, agree=0.858, adj=0.373, (0 split)  
## 219 < 3.5 to the left, agree=0.839, adj=0.288, (0 split)  
##   
## Node number 165: 156 observations, complexity param=0.0008037867  
## predicted class=5 expected loss=0.3846154 P(node) =0.006189248  
## class counts: 19 0 0 25 0 96 5 1 7 3  
## probabilities: 0.122 0.000 0.000 0.160 0.000 0.615 0.032 0.006 0.045 0.019   
## left son=330 (25 obs) right son=331 (131 obs)  
## Primary splits:  
## 456 < 235.5 to the right, improve=22.99540, (0 missing)  
## 299 < 24 to the right, improve=22.37895, (0 missing)  
## 457 < 132 to the right, improve=21.66617, (0 missing)  
## 429 < 252.5 to the right, improve=20.38718, (0 missing)  
## 328 < 56.5 to the right, improve=20.05636, (0 missing)  
## Surrogate splits:  
## 429 < 252.5 to the right, agree=0.968, adj=0.80, (0 split)  
## 457 < 132 to the right, agree=0.962, adj=0.76, (0 split)  
## 484 < 209.5 to the right, agree=0.949, adj=0.68, (0 split)  
## 428 < 174 to the right, agree=0.936, adj=0.60, (0 split)  
## 455 < 73 to the right, agree=0.929, adj=0.56, (0 split)  
##   
## Node number 166: 104 observations, complexity param=0.0001786193  
## predicted class=1 expected loss=0.2307692 P(node) =0.004126165  
## class counts: 0 80 0 4 1 5 1 7 3 3  
## probabilities: 0.000 0.769 0.000 0.038 0.010 0.048 0.010 0.067 0.029 0.029   
## left son=332 (85 obs) right son=333 (19 obs)  
## Primary splits:  
## 462 < 85.5 to the right, improve=14.67072, (0 missing)  
## 266 < 63.5 to the right, improve=14.49487, (0 missing)  
## 325 < 4 to the left, improve=13.46066, (0 missing)  
## 294 < 73 to the right, improve=13.14803, (0 missing)  
## 297 < 2 to the left, improve=13.10839, (0 missing)  
## Surrogate splits:  
## 434 < 57 to the right, agree=0.952, adj=0.737, (0 split)  
## 490 < 21 to the right, agree=0.933, adj=0.632, (0 split)  
## 294 < 66 to the right, agree=0.923, adj=0.579, (0 split)  
## 463 < 20 to the right, agree=0.923, adj=0.579, (0 split)  
## 491 < 71.5 to the right, agree=0.913, adj=0.526, (0 split)  
##   
## Node number 167: 171 observations, complexity param=0.001161025  
## predicted class=5 expected loss=0.7192982 P(node) =0.006784368  
## class counts: 5 7 1 22 30 48 8 12 7 31  
## probabilities: 0.029 0.041 0.006 0.129 0.175 0.281 0.047 0.070 0.041 0.181   
## left son=334 (58 obs) right son=335 (113 obs)  
## Primary splits:  
## 539 < 54.5 to the right, improve=25.08373, (0 missing)  
## 570 < 79 to the right, improve=24.44883, (0 missing)  
## 569 < 8 to the right, improve=23.88734, (0 missing)  
## 540 < 57.5 to the right, improve=23.88416, (0 missing)  
## 541 < 70 to the right, improve=23.88416, (0 missing)  
## Surrogate splits:  
## 538 < 5.5 to the right, agree=0.977, adj=0.931, (0 split)  
## 540 < 31 to the right, agree=0.953, adj=0.862, (0 split)  
## 567 < 26.5 to the right, agree=0.953, adj=0.862, (0 split)  
## 568 < 74.5 to the right, agree=0.953, adj=0.862, (0 split)  
## 541 < 117.5 to the right, agree=0.936, adj=0.810, (0 split)  
##   
## Node number 168: 32 observations  
## predicted class=0 expected loss=0.125 P(node) =0.001269589  
## class counts: 28 0 0 0 0 0 1 2 1 0  
## probabilities: 0.875 0.000 0.000 0.000 0.000 0.000 0.031 0.062 0.031 0.000   
##   
## Node number 169: 292 observations, complexity param=0.0007144771  
## predicted class=3 expected loss=0.5034247 P(node) =0.011585  
## class counts: 5 1 1 145 0 69 2 3 37 29  
## probabilities: 0.017 0.003 0.003 0.497 0.000 0.236 0.007 0.010 0.127 0.099   
## left son=338 (112 obs) right son=339 (180 obs)  
## Primary splits:  
## 318 < 219.5 to the left, improve=21.19424, (0 missing)  
## 346 < 156.5 to the left, improve=19.16912, (0 missing)  
## 247 < 16.5 to the left, improve=19.12572, (0 missing)  
## 345 < 124.5 to the left, improve=18.26027, (0 missing)  
## 275 < 41 to the left, improve=16.79973, (0 missing)  
## Surrogate splits:  
## 346 < 127.5 to the left, agree=0.877, adj=0.679, (0 split)  
## 317 < 22.5 to the left, agree=0.863, adj=0.643, (0 split)  
## 319 < 108 to the left, agree=0.856, adj=0.625, (0 split)  
## 345 < 5 to the left, agree=0.846, adj=0.598, (0 split)  
## 347 < 205 to the left, agree=0.822, adj=0.536, (0 split)  
##   
## Node number 170: 39 observations, complexity param=0.0001786193  
## predicted class=0 expected loss=0.3846154 P(node) =0.001547312  
## class counts: 24 0 0 3 1 1 0 0 5 5  
## probabilities: 0.615 0.000 0.000 0.077 0.026 0.026 0.000 0.000 0.128 0.128   
## left son=340 (23 obs) right son=341 (16 obs)  
## Primary splits:  
## 293 < 187 to the right, improve=10.541670, (0 missing)  
## 381 < 28 to the left, improve=10.541670, (0 missing)  
## 409 < 144 to the left, improve= 9.820513, (0 missing)  
## 266 < 161.5 to the right, improve= 9.816667, (0 missing)  
## 294 < 42.5 to the right, improve= 9.550000, (0 missing)  
## Surrogate splits:  
## 294 < 149 to the right, agree=0.949, adj=0.875, (0 split)  
## 381 < 28 to the left, agree=0.949, adj=0.875, (0 split)  
## 265 < 213 to the right, agree=0.923, adj=0.813, (0 split)  
## 266 < 161.5 to the right, agree=0.923, adj=0.813, (0 split)  
## 354 < 48 to the left, agree=0.923, adj=0.813, (0 split)  
##   
## Node number 171: 473 observations, complexity param=0.0007591319  
## predicted class=5 expected loss=0.141649 P(node) =0.01876612  
## class counts: 2 0 0 50 0 406 6 0 6 3  
## probabilities: 0.004 0.000 0.000 0.106 0.000 0.858 0.013 0.000 0.013 0.006   
## left son=342 (33 obs) right son=343 (440 obs)  
## Primary splits:  
## 295 < 219 to the right, improve=29.11258, (0 missing)  
## 294 < 176.5 to the right, improve=24.87470, (0 missing)  
## 186 < 2.5 to the left, improve=24.12164, (0 missing)  
## 262 < 12.5 to the left, improve=23.88677, (0 missing)  
## 187 < 1 to the left, improve=23.43563, (0 missing)  
## Surrogate splits:  
## 296 < 117.5 to the right, agree=0.960, adj=0.424, (0 split)  
## 267 < 245.5 to the right, agree=0.958, adj=0.394, (0 split)  
## 268 < 241 to the right, agree=0.953, adj=0.333, (0 split)  
## 294 < 251.5 to the right, agree=0.949, adj=0.273, (0 split)  
## 349 < 6 to the left, agree=0.934, adj=0.061, (0 split)  
##   
## Node number 172: 85 observations, complexity param=0.0001786193  
## predicted class=4 expected loss=0.3176471 P(node) =0.003372347  
## class counts: 0 0 0 4 58 7 4 3 1 8  
## probabilities: 0.000 0.000 0.000 0.047 0.682 0.082 0.047 0.035 0.012 0.094   
## left son=344 (70 obs) right son=345 (15 obs)  
## Primary splits:  
## 266 < 36 to the left, improve=9.104762, (0 missing)  
## 405 < 10.5 to the right, improve=8.905141, (0 missing)  
## 409 < 242 to the right, improve=8.366917, (0 missing)  
## 238 < 13.5 to the left, improve=8.280590, (0 missing)  
## 492 < 31 to the right, improve=8.164593, (0 missing)  
## Surrogate splits:  
## 265 < 131 to the left, agree=0.976, adj=0.867, (0 split)  
## 238 < 4.5 to the left, agree=0.965, adj=0.800, (0 split)  
## 237 < 151.5 to the left, agree=0.941, adj=0.667, (0 split)  
## 293 < 30 to the left, agree=0.929, adj=0.600, (0 split)  
## 267 < 208 to the left, agree=0.918, adj=0.533, (0 split)  
##   
## Node number 173: 79 observations, complexity param=0.0001786193  
## predicted class=7 expected loss=0.2531646 P(node) =0.003134299  
## class counts: 4 3 0 5 0 4 0 59 2 2  
## probabilities: 0.051 0.038 0.000 0.063 0.000 0.051 0.000 0.747 0.025 0.025   
## left son=346 (12 obs) right son=347 (67 obs)  
## Primary splits:  
## 570 < 2 to the right, improve=10.616920, (0 missing)  
## 571 < 64 to the right, improve=10.616920, (0 missing)  
## 598 < 8 to the right, improve= 9.893048, (0 missing)  
## 542 < 28.5 to the right, improve= 9.529412, (0 missing)  
## 569 < 64 to the right, improve= 9.426087, (0 missing)  
## Surrogate splits:  
## 571 < 64 to the right, agree=1.000, adj=1.000, (0 split)  
## 542 < 28.5 to the right, agree=0.987, adj=0.917, (0 split)  
## 598 < 8 to the right, agree=0.987, adj=0.917, (0 split)  
## 543 < 3 to the right, agree=0.975, adj=0.833, (0 split)  
## 569 < 64 to the right, agree=0.975, adj=0.833, (0 split)  
##   
## Node number 174: 100 observations, complexity param=0.0005805126  
## predicted class=5 expected loss=0.56 P(node) =0.003967467  
## class counts: 0 2 0 16 10 44 3 2 3 20  
## probabilities: 0.000 0.020 0.000 0.160 0.100 0.440 0.030 0.020 0.030 0.200   
## left son=348 (63 obs) right son=349 (37 obs)  
## Primary splits:  
## 295 < 99 to the left, improve=13.37684, (0 missing)  
## 491 < 144 to the left, improve=11.90888, (0 missing)  
## 186 < 5.5 to the right, improve=11.88813, (0 missing)  
## 294 < 203.5 to the right, improve=11.38746, (0 missing)  
## 296 < 3 to the left, improve=11.22879, (0 missing)  
## Surrogate splits:  
## 296 < 3 to the left, agree=0.94, adj=0.838, (0 split)  
## 267 < 167.5 to the left, agree=0.91, adj=0.757, (0 split)  
## 294 < 127 to the left, agree=0.90, adj=0.730, (0 split)  
## 323 < 223 to the left, agree=0.90, adj=0.730, (0 split)  
## 266 < 231 to the left, agree=0.80, adj=0.459, (0 split)  
##   
## Node number 175: 257 observations, complexity param=0.0003572385  
## predicted class=9 expected loss=0.1673152 P(node) =0.01019639  
## class counts: 4 0 2 12 8 2 0 10 5 214  
## probabilities: 0.016 0.000 0.008 0.047 0.031 0.008 0.000 0.039 0.019 0.833   
## left son=350 (10 obs) right son=351 (247 obs)  
## Primary splits:  
## 680 < 29 to the right, improve=13.31189, (0 missing)  
## 681 < 106.5 to the right, improve=11.82432, (0 missing)  
## 651 < 29.5 to the right, improve=11.66365, (0 missing)  
## 653 < 4 to the right, improve=11.59529, (0 missing)  
## 652 < 184.5 to the right, improve=11.51373, (0 missing)  
## Surrogate splits:  
## 681 < 106.5 to the right, agree=0.996, adj=0.9, (0 split)  
## 651 < 36 to the right, agree=0.992, adj=0.8, (0 split)  
## 679 < 0.5 to the right, agree=0.992, adj=0.8, (0 split)  
## 652 < 218.5 to the right, agree=0.988, adj=0.7, (0 split)  
## 682 < 243.5 to the right, agree=0.988, adj=0.7, (0 split)  
##   
## Node number 176: 60 observations  
## predicted class=2 expected loss=0.08333333 P(node) =0.00238048  
## class counts: 0 1 55 2 0 0 2 0 0 0  
## probabilities: 0.000 0.017 0.917 0.033 0.000 0.000 0.033 0.000 0.000 0.000   
##   
## Node number 177: 13 observations  
## predicted class=8 expected loss=0.5384615 P(node) =0.0005157707  
## class counts: 0 0 2 3 0 0 2 0 6 0  
## probabilities: 0.000 0.000 0.154 0.231 0.000 0.000 0.154 0.000 0.462 0.000   
##   
## Node number 178: 83 observations, complexity param=0.0004465482  
## predicted class=8 expected loss=0.8072289 P(node) =0.003292997  
## class counts: 9 14 12 3 9 7 10 0 16 3  
## probabilities: 0.108 0.169 0.145 0.036 0.108 0.084 0.120 0.000 0.193 0.036   
## left son=356 (39 obs) right son=357 (44 obs)  
## Primary splits:  
## 211 < 22.5 to the left, improve=8.254023, (0 missing)  
## 572 < 25.5 to the left, improve=7.771388, (0 missing)  
## 210 < 37.5 to the left, improve=7.755189, (0 missing)  
## 457 < 14.5 to the left, improve=7.718914, (0 missing)  
## 209 < 2 to the left, improve=7.624469, (0 missing)  
## Surrogate splits:  
## 210 < 37.5 to the left, agree=0.940, adj=0.872, (0 split)  
## 237 < 20.5 to the left, agree=0.916, adj=0.821, (0 split)  
## 238 < 91 to the left, agree=0.916, adj=0.821, (0 split)  
## 209 < 0.5 to the left, agree=0.892, adj=0.769, (0 split)  
## 183 < 5 to the left, agree=0.880, adj=0.744, (0 split)  
##   
## Node number 179: 17 observations  
## predicted class=9 expected loss=0.05882353 P(node) =0.0006744694  
## class counts: 0 0 0 0 0 0 0 0 1 16  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.059 0.941   
##   
## Node number 180: 18 observations  
## predicted class=2 expected loss=0.5 P(node) =0.000714144  
## class counts: 1 5 9 0 0 2 1 0 0 0  
## probabilities: 0.056 0.278 0.500 0.000 0.000 0.111 0.056 0.000 0.000 0.000   
##   
## Node number 181: 23 observations, complexity param=0.0001786193  
## predicted class=9 expected loss=0.6956522 P(node) =0.0009125174  
## class counts: 1 0 0 3 5 2 3 0 2 7  
## probabilities: 0.043 0.000 0.000 0.130 0.217 0.087 0.130 0.000 0.087 0.304   
## left son=362 (13 obs) right son=363 (10 obs)  
## Primary splits:  
## 428 < 201 to the left, improve=3.808696, (0 missing)  
## 208 < 74.5 to the left, improve=3.701003, (0 missing)  
## 319 < 94.5 to the right, improve=3.320817, (0 missing)  
## 344 < 48.5 to the left, improve=3.305665, (0 missing)  
## 347 < 112 to the right, improve=3.301003, (0 missing)  
## Surrogate splits:  
## 371 < 5.5 to the left, agree=0.957, adj=0.9, (0 split)  
## 400 < 78 to the left, agree=0.957, adj=0.9, (0 split)  
## 316 < 4.5 to the left, agree=0.913, adj=0.8, (0 split)  
## 343 < 51 to the left, agree=0.913, adj=0.8, (0 split)  
## 344 < 15.5 to the left, agree=0.913, adj=0.8, (0 split)  
##   
## Node number 182: 16 observations  
## predicted class=2 expected loss=0.1875 P(node) =0.0006347947  
## class counts: 0 0 13 0 0 0 3 0 0 0  
## probabilities: 0.000 0.000 0.813 0.000 0.000 0.000 0.188 0.000 0.000 0.000   
##   
## Node number 183: 193 observations, complexity param=0.0002009467  
## predicted class=6 expected loss=0.1502591 P(node) =0.007657211  
## class counts: 2 0 7 4 0 12 164 0 4 0  
## probabilities: 0.010 0.000 0.036 0.021 0.000 0.062 0.850 0.000 0.021 0.000   
## left son=366 (21 obs) right son=367 (172 obs)  
## Primary splits:  
## 431 < 1 to the left, improve=9.612658, (0 missing)  
## 430 < 9.5 to the left, improve=8.260657, (0 missing)  
## 245 < 23 to the right, improve=7.806778, (0 missing)  
## 459 < 15 to the left, improve=7.540244, (0 missing)  
## 272 < 65 to the right, improve=7.168708, (0 missing)  
## Surrogate splits:  
## 404 < 3.5 to the left, agree=0.964, adj=0.667, (0 split)  
## 403 < 4.5 to the left, agree=0.953, adj=0.571, (0 split)  
## 459 < 4 to the left, agree=0.943, adj=0.476, (0 split)  
## 458 < 1.5 to the left, agree=0.933, adj=0.381, (0 split)  
## 376 < 1.5 to the left, agree=0.922, adj=0.286, (0 split)  
##   
## Node number 186: 40 observations, complexity param=0.0002083892  
## predicted class=5 expected loss=0.675 P(node) =0.001586987  
## class counts: 7 0 0 5 0 13 3 0 12 0  
## probabilities: 0.175 0.000 0.000 0.125 0.000 0.325 0.075 0.000 0.300 0.000   
## left son=372 (12 obs) right son=373 (28 obs)  
## Primary splits:  
## 351 < 190 to the left, improve=4.528571, (0 missing)  
## 379 < 16 to the left, improve=4.407692, (0 missing)  
## 297 < 178 to the left, improve=3.880051, (0 missing)  
## 431 < 27.5 to the left, improve=3.766667, (0 missing)  
## 352 < 79.5 to the left, improve=3.684416, (0 missing)  
## Surrogate splits:  
## 379 < 18.5 to the left, agree=0.950, adj=0.833, (0 split)  
## 352 < 111 to the left, agree=0.900, adj=0.667, (0 split)  
## 299 < 58 to the right, agree=0.825, adj=0.417, (0 split)  
## 350 < 199.5 to the left, agree=0.825, adj=0.417, (0 split)  
## 353 < 2.5 to the left, agree=0.825, adj=0.417, (0 split)  
##   
## Node number 187: 16 observations  
## predicted class=2 expected loss=0.5 P(node) =0.0006347947  
## class counts: 0 0 8 0 0 0 0 0 8 0  
## probabilities: 0.000 0.000 0.500 0.000 0.000 0.000 0.000 0.000 0.500 0.000   
##   
## Node number 188: 27 observations, complexity param=0.0001786193  
## predicted class=3 expected loss=0.2222222 P(node) =0.001071216  
## class counts: 0 0 0 21 0 1 0 0 0 5  
## probabilities: 0.000 0.000 0.000 0.778 0.000 0.037 0.000 0.000 0.000 0.185   
## left son=376 (20 obs) right son=377 (7 obs)  
## Primary splits:  
## 320 < 71.5 to the left, improve=6.560847, (0 missing)  
## 265 < 233.5 to the left, improve=5.453704, (0 missing)  
## 292 < 131.5 to the left, improve=5.453704, (0 missing)  
## 319 < 74 to the left, improve=5.453704, (0 missing)  
## 653 < 6 to the right, improve=5.453704, (0 missing)  
## Surrogate splits:  
## 265 < 233.5 to the left, agree=0.963, adj=0.857, (0 split)  
## 292 < 131.5 to the left, agree=0.963, adj=0.857, (0 split)  
## 319 < 74 to the left, agree=0.963, adj=0.857, (0 split)  
## 183 < 146.5 to the right, agree=0.926, adj=0.714, (0 split)  
## 291 < 15.5 to the left, agree=0.926, adj=0.714, (0 split)  
##   
## Node number 189: 16 observations  
## predicted class=8 expected loss=0.1875 P(node) =0.0006347947  
## class counts: 0 0 1 1 0 1 0 0 13 0  
## probabilities: 0.000 0.000 0.062 0.062 0.000 0.062 0.000 0.000 0.813 0.000   
##   
## Node number 190: 28 observations, complexity param=0.0002344378  
## predicted class=3 expected loss=0.7142857 P(node) =0.001110891  
## class counts: 6 0 1 8 0 6 1 0 5 1  
## probabilities: 0.214 0.000 0.036 0.286 0.000 0.214 0.036 0.000 0.179 0.036   
## left son=380 (13 obs) right son=381 (15 obs)  
## Primary splits:  
## 429 < 101.5 to the right, improve=5.722344, (0 missing)  
## 457 < 228.5 to the right, improve=5.722344, (0 missing)  
## 402 < 196.5 to the right, improve=5.684524, (0 missing)  
## 430 < 119.5 to the right, improve=5.684524, (0 missing)  
## 317 < 20.5 to the right, improve=5.559524, (0 missing)  
## Surrogate splits:  
## 457 < 228.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 401 < 24 to the right, agree=0.964, adj=0.923, (0 split)  
## 402 < 196.5 to the right, agree=0.964, adj=0.923, (0 split)  
## 428 < 17.5 to the right, agree=0.964, adj=0.923, (0 split)  
## 430 < 53 to the right, agree=0.964, adj=0.923, (0 split)  
##   
## Node number 191: 402 observations, complexity param=0.0002344378  
## predicted class=8 expected loss=0.141791 P(node) =0.01594922  
## class counts: 2 0 18 15 0 7 11 1 345 3  
## probabilities: 0.005 0.000 0.045 0.037 0.000 0.017 0.027 0.002 0.858 0.007   
## left son=382 (57 obs) right son=383 (345 obs)  
## Primary splits:  
## 436 < 7 to the left, improve=10.780420, (0 missing)  
## 439 < 250.5 to the right, improve= 9.744096, (0 missing)  
## 611 < 5.5 to the right, improve= 9.738585, (0 missing)  
## 435 < 44.5 to the left, improve= 9.566444, (0 missing)  
## 464 < 0.5 to the left, improve= 8.444042, (0 missing)  
## Surrogate splits:  
## 407 < 114.5 to the left, agree=0.876, adj=0.123, (0 split)  
## 408 < 0.5 to the left, agree=0.876, adj=0.123, (0 split)  
## 584 < 57 to the right, agree=0.871, adj=0.088, (0 split)  
## 611 < 5.5 to the right, agree=0.871, adj=0.088, (0 split)  
## 556 < 121.5 to the right, agree=0.868, adj=0.070, (0 split)  
##   
## Node number 192: 1955 observations, complexity param=0.0001786193  
## predicted class=0 expected loss=0.03734015 P(node) =0.07756398  
## class counts: 1882 0 26 7 1 16 17 4 0 2  
## probabilities: 0.963 0.000 0.013 0.004 0.001 0.008 0.009 0.002 0.000 0.001   
## left son=384 (1623 obs) right son=385 (332 obs)  
## Primary splits:  
## 400 < 3.5 to the right, improve=9.077685, (0 missing)  
## 427 < 0.5 to the right, improve=8.966215, (0 missing)  
## 563 < 11.5 to the left, improve=8.723178, (0 missing)  
## 455 < 1 to the right, improve=8.318778, (0 missing)  
## 214 < 0.5 to the right, improve=8.285884, (0 missing)  
## Surrogate splits:  
## 428 < 1.5 to the right, agree=0.935, adj=0.614, (0 split)  
## 372 < 5.5 to the right, agree=0.912, adj=0.482, (0 split)  
## 345 < 3.5 to the right, agree=0.908, adj=0.458, (0 split)  
## 373 < 3.5 to the right, agree=0.881, adj=0.301, (0 split)  
## 456 < 0.5 to the right, agree=0.874, adj=0.256, (0 split)  
##   
## Node number 193: 18 observations  
## predicted class=7 expected loss=0.6666667 P(node) =0.000714144  
## class counts: 3 0 4 0 0 3 1 6 1 0  
## probabilities: 0.167 0.000 0.222 0.000 0.000 0.167 0.056 0.333 0.056 0.000   
##   
## Node number 194: 42 observations  
## predicted class=0 expected loss=0.04761905 P(node) =0.001666336  
## class counts: 40 0 0 1 0 1 0 0 0 0  
## probabilities: 0.952 0.000 0.000 0.024 0.000 0.024 0.000 0.000 0.000 0.000   
##   
## Node number 195: 57 observations, complexity param=0.0004242208  
## predicted class=5 expected loss=0.5789474 P(node) =0.002261456  
## class counts: 5 0 2 23 0 24 3 0 0 0  
## probabilities: 0.088 0.000 0.035 0.404 0.000 0.421 0.053 0.000 0.000 0.000   
## left son=390 (30 obs) right son=391 (27 obs)  
## Primary splits:  
## 240 < 64.5 to the right, improve=11.117740, (0 missing)  
## 241 < 12 to the right, improve=10.379130, (0 missing)  
## 208 < 18 to the left, improve= 9.593314, (0 missing)  
## 267 < 123.5 to the right, improve= 8.864035, (0 missing)  
## 239 < 11.5 to the right, improve= 8.677368, (0 missing)  
## Surrogate splits:  
## 239 < 11.5 to the right, agree=0.930, adj=0.852, (0 split)  
## 241 < 1 to the right, agree=0.860, adj=0.704, (0 split)  
## 267 < 190 to the right, agree=0.860, adj=0.704, (0 split)  
## 212 < 148.5 to the right, agree=0.825, adj=0.630, (0 split)  
## 213 < 12 to the right, agree=0.825, adj=0.630, (0 split)  
##   
## Node number 196: 45 observations  
## predicted class=0 expected loss=0.2 P(node) =0.00178536  
## class counts: 36 0 3 0 1 2 0 0 2 1  
## probabilities: 0.800 0.000 0.067 0.000 0.022 0.044 0.000 0.000 0.044 0.022   
##   
## Node number 197: 39 observations, complexity param=0.0002679289  
## predicted class=6 expected loss=0.4358974 P(node) =0.001547312  
## class counts: 3 0 3 2 0 9 22 0 0 0  
## probabilities: 0.077 0.000 0.077 0.051 0.000 0.231 0.564 0.000 0.000 0.000   
## left son=394 (13 obs) right son=395 (26 obs)  
## Primary splits:  
## 325 < 145 to the right, improve=8.025641, (0 missing)  
## 324 < 49.5 to the right, improve=7.632051, (0 missing)  
## 408 < 15.5 to the left, improve=6.932414, (0 missing)  
## 296 < 67.5 to the right, improve=6.494172, (0 missing)  
## 323 < 134.5 to the right, improve=6.370940, (0 missing)  
## Surrogate splits:  
## 297 < 4.5 to the right, agree=0.949, adj=0.846, (0 split)  
## 324 < 49.5 to the right, agree=0.949, adj=0.846, (0 split)  
## 296 < 71 to the right, agree=0.923, adj=0.769, (0 split)  
## 401 < 4 to the left, agree=0.872, adj=0.615, (0 split)  
## 323 < 134.5 to the right, agree=0.846, adj=0.538, (0 split)  
##   
## Node number 198: 65 observations, complexity param=0.0003125837  
## predicted class=3 expected loss=0.5230769 P(node) =0.002578853  
## class counts: 3 1 10 31 0 14 3 2 1 0  
## probabilities: 0.046 0.015 0.154 0.477 0.000 0.215 0.046 0.031 0.015 0.000   
## left son=396 (55 obs) right son=397 (10 obs)  
## Primary splits:  
## 287 < 38.5 to the left, improve=6.146853, (0 missing)  
## 485 < 9.5 to the right, improve=6.090287, (0 missing)  
## 322 < 21.5 to the left, improve=5.958974, (0 missing)  
## 571 < 198 to the left, improve=5.746089, (0 missing)  
## 514 < 4 to the right, improve=5.712476, (0 missing)  
## Surrogate splits:  
## 288 < 180 to the left, agree=0.969, adj=0.8, (0 split)  
## 315 < 3 to the left, agree=0.954, adj=0.7, (0 split)  
## 260 < 171.5 to the left, agree=0.938, adj=0.6, (0 split)  
## 342 < 13 to the left, agree=0.938, adj=0.6, (0 split)  
## 371 < 71 to the left, agree=0.923, adj=0.5, (0 split)  
##   
## Node number 199: 74 observations  
## predicted class=5 expected loss=0.2972973 P(node) =0.002935925  
## class counts: 4 0 1 11 0 52 1 0 2 3  
## probabilities: 0.054 0.000 0.014 0.149 0.000 0.703 0.014 0.000 0.027 0.041   
##   
## Node number 202: 17 observations  
## predicted class=0 expected loss=0.5882353 P(node) =0.0006744694  
## class counts: 7 0 1 0 1 0 5 0 1 2  
## probabilities: 0.412 0.000 0.059 0.000 0.059 0.000 0.294 0.000 0.059 0.118   
##   
## Node number 203: 9 observations  
## predicted class=5 expected loss=0.1111111 P(node) =0.000357072  
## class counts: 0 0 0 0 0 8 1 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.889 0.111 0.000 0.000 0.000   
##   
## Node number 206: 64 observations, complexity param=0.0002976988  
## predicted class=6 expected loss=0.640625 P(node) =0.002539179  
## class counts: 5 0 9 4 1 10 23 0 12 0  
## probabilities: 0.078 0.000 0.141 0.062 0.016 0.156 0.359 0.000 0.188 0.000   
## left son=412 (44 obs) right son=413 (20 obs)  
## Primary splits:  
## 131 < 89 to the left, improve=9.009091, (0 missing)  
## 132 < 19.5 to the left, improve=8.963636, (0 missing)  
## 432 < 229.5 to the left, improve=8.156725, (0 missing)  
## 103 < 9.5 to the left, improve=8.133333, (0 missing)  
## 682 < 20.5 to the left, improve=7.714286, (0 missing)  
## Surrogate splits:  
## 132 < 19.5 to the left, agree=0.938, adj=0.80, (0 split)  
## 103 < 49 to the left, agree=0.891, adj=0.65, (0 split)  
## 130 < 157 to the left, agree=0.891, adj=0.65, (0 split)  
## 104 < 8 to the left, agree=0.875, adj=0.60, (0 split)  
## 159 < 210 to the left, agree=0.859, adj=0.55, (0 split)  
##   
## Node number 207: 87 observations  
## predicted class=5 expected loss=0.09195402 P(node) =0.003451696  
## class counts: 1 0 1 0 0 79 1 0 5 0  
## probabilities: 0.011 0.000 0.011 0.000 0.000 0.908 0.011 0.000 0.057 0.000   
##   
## Node number 208: 93 observations  
## predicted class=0 expected loss=0.1397849 P(node) =0.003689744  
## class counts: 80 0 3 1 0 2 2 2 1 2  
## probabilities: 0.860 0.000 0.032 0.011 0.000 0.022 0.022 0.022 0.011 0.022   
##   
## Node number 209: 58 observations, complexity param=0.0004018934  
## predicted class=2 expected loss=0.7758621 P(node) =0.002301131  
## class counts: 10 0 13 2 3 12 3 1 1 13  
## probabilities: 0.172 0.000 0.224 0.034 0.052 0.207 0.052 0.017 0.017 0.224   
## left son=418 (25 obs) right son=419 (33 obs)  
## Primary splits:  
## 438 < 23.5 to the left, improve=9.008694, (0 missing)  
## 443 < 22 to the right, improve=7.751724, (0 missing)  
## 494 < 2 to the right, improve=7.646461, (0 missing)  
## 466 < 25.5 to the left, improve=7.511320, (0 missing)  
## 411 < 9 to the left, improve=7.316573, (0 missing)  
## Surrogate splits:  
## 410 < 5 to the left, agree=0.948, adj=0.88, (0 split)  
## 411 < 22.5 to the left, agree=0.948, adj=0.88, (0 split)  
## 437 < 1.5 to the left, agree=0.914, adj=0.80, (0 split)  
## 466 < 25.5 to the left, agree=0.914, adj=0.80, (0 split)  
## 439 < 39 to the left, agree=0.897, adj=0.76, (0 split)  
##   
## Node number 210: 15 observations  
## predicted class=0 expected loss=0.5333333 P(node) =0.00059512  
## class counts: 7 0 3 0 2 0 1 0 1 1  
## probabilities: 0.467 0.000 0.200 0.000 0.133 0.000 0.067 0.000 0.067 0.067   
##   
## Node number 211: 143 observations  
## predicted class=6 expected loss=0.1818182 P(node) =0.005673477  
## class counts: 2 1 11 3 4 5 117 0 0 0  
## probabilities: 0.014 0.007 0.077 0.021 0.028 0.035 0.818 0.000 0.000 0.000   
##   
## Node number 212: 103 observations  
## predicted class=4 expected loss=0.1067961 P(node) =0.004086491  
## class counts: 1 0 3 0 92 0 5 0 0 2  
## probabilities: 0.010 0.000 0.029 0.000 0.893 0.000 0.049 0.000 0.000 0.019   
##   
## Node number 213: 16 observations  
## predicted class=7 expected loss=0.625 P(node) =0.0006347947  
## class counts: 1 0 3 0 0 3 0 6 0 3  
## probabilities: 0.062 0.000 0.188 0.000 0.000 0.188 0.000 0.375 0.000 0.188   
##   
## Node number 214: 69 observations  
## predicted class=5 expected loss=0.4492754 P(node) =0.002737552  
## class counts: 6 0 5 5 1 38 4 4 1 5  
## probabilities: 0.087 0.000 0.072 0.072 0.014 0.551 0.058 0.058 0.014 0.072   
##   
## Node number 215: 106 observations, complexity param=0.0006251675  
## predicted class=9 expected loss=0.3962264 P(node) =0.004205515  
## class counts: 1 0 3 0 23 0 1 13 1 64  
## probabilities: 0.009 0.000 0.028 0.000 0.217 0.000 0.009 0.123 0.009 0.604   
## left son=430 (24 obs) right son=431 (82 obs)  
## Primary splits:  
## 208 < 2.5 to the left, improve=14.69290, (0 missing)  
## 235 < 3 to the left, improve=13.55717, (0 missing)  
## 156 < 10.5 to the right, improve=12.51154, (0 missing)  
## 374 < 121 to the right, improve=12.34940, (0 missing)  
## 320 < 89 to the right, improve=12.34725, (0 missing)  
## Surrogate splits:  
## 209 < 17 to the left, agree=0.962, adj=0.833, (0 split)  
## 210 < 72 to the left, agree=0.906, adj=0.583, (0 split)  
## 207 < 2.5 to the left, agree=0.877, adj=0.458, (0 split)  
## 235 < 3 to the left, agree=0.877, adj=0.458, (0 split)  
## 157 < 59.5 to the right, agree=0.858, adj=0.375, (0 split)  
##   
## Node number 216: 53 observations, complexity param=0.0002456015  
## predicted class=3 expected loss=0.6792453 P(node) =0.002102757  
## class counts: 1 7 0 17 1 17 8 0 0 2  
## probabilities: 0.019 0.132 0.000 0.321 0.019 0.321 0.151 0.000 0.000 0.038   
## left son=432 (16 obs) right son=433 (37 obs)  
## Primary splits:  
## 205 < 9.5 to the right, improve=7.426759, (0 missing)  
## 541 < 18.5 to the left, improve=6.576329, (0 missing)  
## 574 < 1.5 to the left, improve=6.534771, (0 missing)  
## 517 < 31 to the left, improve=6.495608, (0 missing)  
## 544 < 2.5 to the left, improve=6.334176, (0 missing)  
## Surrogate splits:  
## 232 < 13 to the right, agree=0.943, adj=0.813, (0 split)  
## 204 < 10 to the right, agree=0.925, adj=0.750, (0 split)  
## 206 < 23.5 to the right, agree=0.925, adj=0.750, (0 split)  
## 203 < 5 to the right, agree=0.906, adj=0.688, (0 split)  
## 231 < 2 to the right, agree=0.906, adj=0.688, (0 split)  
##   
## Node number 217: 53 observations  
## predicted class=5 expected loss=0.2075472 P(node) =0.002102757  
## class counts: 1 0 0 0 1 42 1 2 2 4  
## probabilities: 0.019 0.000 0.000 0.000 0.019 0.792 0.019 0.038 0.038 0.075   
##   
## Node number 218: 31 observations, complexity param=0.0001786193  
## predicted class=4 expected loss=0.3870968 P(node) =0.001229915  
## class counts: 0 0 1 4 19 1 0 3 0 3  
## probabilities: 0.000 0.000 0.032 0.129 0.613 0.032 0.000 0.097 0.000 0.097   
## left son=436 (7 obs) right son=437 (24 obs)  
## Primary splits:  
## 155 < 78.5 to the right, improve=5.693548, (0 missing)  
## 183 < 35 to the right, improve=5.693548, (0 missing)  
## 184 < 114 to the right, improve=4.508766, (0 missing)  
## 381 < 251 to the right, improve=4.219189, (0 missing)  
## 464 < 13 to the right, improve=4.213750, (0 missing)  
## Surrogate splits:  
## 154 < 90.5 to the right, agree=0.968, adj=0.857, (0 split)  
## 156 < 104.5 to the right, agree=0.968, adj=0.857, (0 split)  
## 153 < 77.5 to the right, agree=0.935, adj=0.714, (0 split)  
## 183 < 35 to the right, agree=0.935, adj=0.714, (0 split)  
## 622 < 9 to the right, agree=0.935, adj=0.714, (0 split)  
##   
## Node number 219: 71 observations  
## predicted class=9 expected loss=0.2112676 P(node) =0.002816901  
## class counts: 2 0 2 4 1 2 0 4 0 56  
## probabilities: 0.028 0.000 0.028 0.056 0.014 0.028 0.000 0.056 0.000 0.789   
##   
## Node number 220: 59 observations  
## predicted class=0 expected loss=0.1694915 P(node) =0.002340805  
## class counts: 49 0 0 0 2 3 0 2 0 3  
## probabilities: 0.831 0.000 0.000 0.000 0.034 0.051 0.000 0.034 0.000 0.051   
##   
## Node number 221: 9 observations  
## predicted class=5 expected loss=0.3333333 P(node) =0.000357072  
## class counts: 0 0 0 1 0 6 0 2 0 0  
## probabilities: 0.000 0.000 0.000 0.111 0.000 0.667 0.000 0.222 0.000 0.000   
##   
## Node number 222: 30 observations, complexity param=0.0003572385  
## predicted class=5 expected loss=0.6666667 P(node) =0.00119024  
## class counts: 0 2 1 1 8 10 1 2 0 5  
## probabilities: 0.000 0.067 0.033 0.033 0.267 0.333 0.033 0.067 0.000 0.167   
## left son=444 (14 obs) right son=445 (16 obs)  
## Primary splits:  
## 381 < 10.5 to the left, improve=6.779762, (0 missing)  
## 409 < 65 to the left, improve=6.779762, (0 missing)  
## 437 < 77 to the left, improve=6.779762, (0 missing)  
## 465 < 168.5 to the left, improve=6.779762, (0 missing)  
## 464 < 205 to the right, improve=6.733333, (0 missing)  
## Surrogate splits:  
## 409 < 65 to the left, agree=1.000, adj=1.000, (0 split)  
## 437 < 77 to the left, agree=1.000, adj=1.000, (0 split)  
## 465 < 168.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 493 < 115.5 to the left, agree=0.967, adj=0.929, (0 split)  
## 353 < 3.5 to the left, agree=0.933, adj=0.857, (0 split)  
##   
## Node number 223: 648 observations, complexity param=0.0001786193  
## predicted class=7 expected loss=0.0632716 P(node) =0.02570918  
## class counts: 8 1 4 7 4 7 3 607 0 7  
## probabilities: 0.012 0.002 0.006 0.011 0.006 0.011 0.005 0.937 0.000 0.011   
## left son=446 (19 obs) right son=447 (629 obs)  
## Primary splits:  
## 153 < 27 to the right, improve=18.41900, (0 missing)  
## 155 < 11.5 to the right, improve=17.95829, (0 missing)  
## 154 < 1 to the right, improve=17.53289, (0 missing)  
## 157 < 1.5 to the right, improve=16.51543, (0 missing)  
## 156 < 6.5 to the right, improve=16.38860, (0 missing)  
## Surrogate splits:  
## 154 < 1 to the right, agree=0.998, adj=0.947, (0 split)  
## 152 < 29 to the right, agree=0.994, adj=0.789, (0 split)  
## 151 < 1 to the right, agree=0.991, adj=0.684, (0 split)  
## 150 < 4 to the right, agree=0.988, adj=0.579, (0 split)  
## 155 < 27 to the right, agree=0.988, adj=0.579, (0 split)  
##   
## Node number 224: 936 observations, complexity param=0.0006251675  
## predicted class=2 expected loss=0.05769231 P(node) =0.03713549  
## class counts: 0 0 882 15 0 1 0 12 25 1  
## probabilities: 0.000 0.000 0.942 0.016 0.000 0.001 0.000 0.013 0.027 0.001   
## left son=448 (922 obs) right son=449 (14 obs)  
## Primary splits:  
## 349 < 134.5 to the left, improve=26.08949, (0 missing)  
## 348 < 51 to the left, improve=20.47057, (0 missing)  
## 321 < 169.5 to the left, improve=17.05345, (0 missing)  
## 320 < 143 to the left, improve=15.22744, (0 missing)  
## 345 < 104.5 to the left, improve=11.95572, (0 missing)  
## Surrogate splits:  
## 348 < 51 to the left, agree=0.997, adj=0.786, (0 split)  
## 321 < 169.5 to the left, agree=0.995, adj=0.643, (0 split)  
## 320 < 143 to the left, agree=0.994, adj=0.571, (0 split)  
## 377 < 253.5 to the left, agree=0.987, adj=0.143, (0 split)  
##   
## Node number 225: 85 observations, complexity param=0.0007591319  
## predicted class=8 expected loss=0.5176471 P(node) =0.003372347  
## class counts: 3 0 20 1 2 1 2 0 41 15  
## probabilities: 0.035 0.000 0.235 0.012 0.024 0.012 0.024 0.000 0.482 0.176   
## left son=450 (35 obs) right son=451 (50 obs)  
## Primary splits:  
## 402 < 51.5 to the left, improve=19.00706, (0 missing)  
## 403 < 5.5 to the left, improve=17.87550, (0 missing)  
## 657 < 157.5 to the left, improve=15.56613, (0 missing)  
## 431 < 182 to the left, improve=15.56511, (0 missing)  
## 432 < 128 to the left, improve=15.20337, (0 missing)  
## Surrogate splits:  
## 403 < 5.5 to the left, agree=0.918, adj=0.800, (0 split)  
## 430 < 50.5 to the left, agree=0.906, adj=0.771, (0 split)  
## 431 < 24 to the left, agree=0.894, adj=0.743, (0 split)  
## 432 < 128 to the left, agree=0.882, adj=0.714, (0 split)  
## 404 < 11 to the left, agree=0.871, adj=0.686, (0 split)  
##   
## Node number 226: 487 observations, complexity param=0.002857908  
## predicted class=2 expected loss=0.7864476 P(node) =0.01932156  
## class counts: 2 102 104 6 62 10 48 57 22 74  
## probabilities: 0.004 0.209 0.214 0.012 0.127 0.021 0.099 0.117 0.045 0.152   
## left son=452 (246 obs) right son=453 (241 obs)  
## Primary splits:  
## 211 < 1 to the left, improve=54.34980, (0 missing)  
## 344 < 21.5 to the left, improve=52.68771, (0 missing)  
## 238 < 1 to the left, improve=52.56168, (0 missing)  
## 210 < 5.5 to the left, improve=52.23305, (0 missing)  
## 237 < 1 to the left, improve=50.24258, (0 missing)  
## Surrogate splits:  
## 210 < 0.5 to the left, agree=0.973, adj=0.946, (0 split)  
## 212 < 63 to the left, agree=0.951, adj=0.900, (0 split)  
## 209 < 1 to the left, agree=0.940, adj=0.880, (0 split)  
## 237 < 26.5 to the left, agree=0.940, adj=0.880, (0 split)  
## 238 < 1 to the left, agree=0.938, adj=0.876, (0 split)  
##   
## Node number 227: 136 observations, complexity param=0.0002679289  
## predicted class=7 expected loss=0.08823529 P(node) =0.005395755  
## class counts: 0 0 3 1 1 0 0 124 6 1  
## probabilities: 0.000 0.000 0.022 0.007 0.007 0.000 0.000 0.912 0.044 0.007   
## left son=454 (128 obs) right son=455 (8 obs)  
## Primary splits:  
## 373 < 182.5 to the left, improve=11.541360, (0 missing)  
## 374 < 46 to the left, improve=10.126290, (0 missing)  
## 401 < 51.5 to the left, improve= 9.641326, (0 missing)  
## 402 < 128 to the left, improve= 8.369485, (0 missing)  
## 603 < 54 to the right, improve= 8.036963, (0 missing)  
## Surrogate splits:  
## 374 < 46 to the left, agree=0.993, adj=0.875, (0 split)  
## 402 < 128 to the left, agree=0.985, adj=0.750, (0 split)  
## 345 < 233.5 to the left, agree=0.978, adj=0.625, (0 split)  
## 401 < 51.5 to the left, agree=0.978, adj=0.625, (0 split)  
## 346 < 106.5 to the left, agree=0.971, adj=0.500, (0 split)  
##   
## Node number 228: 121 observations, complexity param=0.0002679289  
## predicted class=5 expected loss=0.2231405 P(node) =0.004800635  
## class counts: 5 0 7 0 3 94 4 0 8 0  
## probabilities: 0.041 0.000 0.058 0.000 0.025 0.777 0.033 0.000 0.066 0.000   
## left son=456 (20 obs) right son=457 (101 obs)  
## Primary splits:  
## 384 < 14 to the right, improve=18.04196, (0 missing)  
## 413 < 1 to the right, improve=17.66176, (0 missing)  
## 412 < 5 to the right, improve=17.56195, (0 missing)  
## 385 < 43.5 to the right, improve=17.43202, (0 missing)  
## 356 < 2.5 to the right, improve=16.41559, (0 missing)  
## Surrogate splits:  
## 385 < 43.5 to the right, agree=0.992, adj=0.95, (0 split)  
## 356 < 2.5 to the right, agree=0.983, adj=0.90, (0 split)  
## 357 < 5 to the right, agree=0.983, adj=0.90, (0 split)  
## 412 < 130 to the right, agree=0.983, adj=0.90, (0 split)  
## 413 < 1 to the right, agree=0.983, adj=0.90, (0 split)  
##   
## Node number 229: 364 observations, complexity param=0.001674556  
## predicted class=4 expected loss=0.6565934 P(node) =0.01444158  
## class counts: 14 0 66 0 125 2 15 48 41 53  
## probabilities: 0.038 0.000 0.181 0.000 0.343 0.005 0.041 0.132 0.113 0.146   
## left son=458 (155 obs) right son=459 (209 obs)  
## Primary splits:  
## 212 < 1.5 to the left, improve=41.35091, (0 missing)  
## 240 < 16.5 to the left, improve=40.03897, (0 missing)  
## 213 < 6.5 to the left, improve=34.08154, (0 missing)  
## 184 < 55 to the right, improve=33.64439, (0 missing)  
## 429 < 64 to the right, improve=32.44985, (0 missing)  
## Surrogate splits:  
## 211 < 7.5 to the left, agree=0.896, adj=0.755, (0 split)  
## 213 < 6.5 to the left, agree=0.882, adj=0.723, (0 split)  
## 184 < 4.5 to the left, agree=0.857, adj=0.665, (0 split)  
## 240 < 6 to the left, agree=0.843, adj=0.632, (0 split)  
## 239 < 103.5 to the left, agree=0.832, adj=0.606, (0 split)  
##   
## Node number 230: 74 observations, complexity param=0.0004465482  
## predicted class=4 expected loss=0.7162162 P(node) =0.002935925  
## class counts: 10 0 1 0 21 9 5 0 15 13  
## probabilities: 0.135 0.000 0.014 0.000 0.284 0.122 0.068 0.000 0.203 0.176   
## left son=460 (21 obs) right son=461 (53 obs)  
## Primary splits:  
## 212 < 40.5 to the left, improve=13.65836, (0 missing)  
## 213 < 11 to the left, improve=11.76198, (0 missing)  
## 211 < 40.5 to the left, improve=11.71766, (0 missing)  
## 597 < 35 to the right, improve=11.04087, (0 missing)  
## 185 < 107 to the left, improve=10.69842, (0 missing)  
## Surrogate splits:  
## 211 < 40.5 to the left, agree=0.946, adj=0.810, (0 split)  
## 239 < 21.5 to the left, agree=0.946, adj=0.810, (0 split)  
## 213 < 20 to the left, agree=0.932, adj=0.762, (0 split)  
## 210 < 50 to the left, agree=0.919, adj=0.714, (0 split)  
## 184 < 3 to the left, agree=0.905, adj=0.667, (0 split)  
##   
## Node number 231: 635 observations, complexity param=0.0002456015  
## predicted class=8 expected loss=0.08031496 P(node) =0.02519341  
## class counts: 7 0 4 5 3 14 4 8 584 6  
## probabilities: 0.011 0.000 0.006 0.008 0.005 0.022 0.006 0.013 0.920 0.009   
## left son=462 (47 obs) right son=463 (588 obs)  
## Primary splits:  
## 488 < 14.5 to the left, improve=12.62911, (0 missing)  
## 404 < 2 to the left, improve=12.45999, (0 missing)  
## 487 < 2.5 to the left, improve=11.15042, (0 missing)  
## 434 < 27 to the left, improve=10.17359, (0 missing)  
## 461 < 56.5 to the left, improve=10.09254, (0 missing)  
## Surrogate splits:  
## 461 < 67.5 to the left, agree=0.965, adj=0.532, (0 split)  
## 515 < 8.5 to the left, agree=0.961, adj=0.468, (0 split)  
## 489 < 0.5 to the left, agree=0.943, adj=0.234, (0 split)  
## 462 < 0.5 to the left, agree=0.942, adj=0.213, (0 split)  
## 121 < 6.5 to the right, agree=0.932, adj=0.085, (0 split)  
##   
## Node number 232: 318 observations, complexity param=0.0006698223  
## predicted class=2 expected loss=0.1823899 P(node) =0.01261654  
## class counts: 2 25 260 2 8 0 3 9 4 5  
## probabilities: 0.006 0.079 0.818 0.006 0.025 0.000 0.009 0.028 0.013 0.016   
## left son=464 (32 obs) right son=465 (286 obs)  
## Primary splits:  
## 159 < 0.5 to the right, improve=26.02915, (0 missing)  
## 187 < 16.5 to the right, improve=25.86607, (0 missing)  
## 215 < 28 to the right, improve=24.47659, (0 missing)  
## 186 < 129 to the right, improve=22.71974, (0 missing)  
## 158 < 132.5 to the right, improve=19.37000, (0 missing)  
## Surrogate splits:  
## 187 < 16.5 to the right, agree=0.987, adj=0.875, (0 split)  
## 186 < 215 to the right, agree=0.965, adj=0.656, (0 split)  
## 131 < 12.5 to the right, agree=0.959, adj=0.594, (0 split)  
## 158 < 143 to the right, agree=0.956, adj=0.562, (0 split)  
## 215 < 4 to the right, agree=0.953, adj=0.531, (0 split)  
##   
## Node number 233: 26 observations  
## predicted class=7 expected loss=0.3076923 P(node) =0.001031541  
## class counts: 1 0 0 2 2 0 0 18 2 1  
## probabilities: 0.038 0.000 0.000 0.077 0.077 0.000 0.000 0.692 0.077 0.038   
##   
## Node number 234: 73 observations, complexity param=0.0008484415  
## predicted class=4 expected loss=0.6712329 P(node) =0.002896251  
## class counts: 0 1 9 0 24 1 19 4 4 11  
## probabilities: 0.000 0.014 0.123 0.000 0.329 0.014 0.260 0.055 0.055 0.151   
## left son=468 (48 obs) right son=469 (25 obs)  
## Primary splits:  
## 573 < 214 to the left, improve=14.67151, (0 missing)  
## 571 < 79 to the right, improve=13.28790, (0 missing)  
## 356 < 63.5 to the left, improve=12.90220, (0 missing)  
## 572 < 108.5 to the right, improve=12.42019, (0 missing)  
## 269 < 4 to the right, improve=11.92731, (0 missing)  
## Surrogate splits:  
## 572 < 232.5 to the left, agree=0.932, adj=0.80, (0 split)  
## 601 < 26.5 to the left, agree=0.904, adj=0.72, (0 split)  
## 574 < 182 to the left, agree=0.890, adj=0.68, (0 split)  
## 600 < 96 to the left, agree=0.890, adj=0.68, (0 split)  
## 269 < 4 to the right, agree=0.863, adj=0.60, (0 split)  
##   
## Node number 235: 30 observations  
## predicted class=8 expected loss=0.1 P(node) =0.00119024  
## class counts: 2 0 1 0 0 0 0 0 27 0  
## probabilities: 0.067 0.000 0.033 0.000 0.000 0.000 0.000 0.000 0.900 0.000   
##   
## Node number 236: 127 observations, complexity param=0.0004465482  
## predicted class=2 expected loss=0.4330709 P(node) =0.005038683  
## class counts: 3 1 72 3 12 1 14 1 15 5  
## probabilities: 0.024 0.008 0.567 0.024 0.094 0.008 0.110 0.008 0.118 0.039   
## left son=472 (83 obs) right son=473 (44 obs)  
## Primary splits:  
## 537 < 23.5 to the right, improve=23.51794, (0 missing)  
## 565 < 20 to the right, improve=22.83947, (0 missing)  
## 158 < 9 to the right, improve=19.65800, (0 missing)  
## 159 < 9.5 to the right, improve=19.65800, (0 missing)  
## 157 < 67.5 to the right, improve=18.50751, (0 missing)  
## Surrogate splits:  
## 565 < 2.5 to the right, agree=0.937, adj=0.818, (0 split)  
## 566 < 17 to the right, agree=0.921, adj=0.773, (0 split)  
## 509 < 3 to the right, agree=0.913, adj=0.750, (0 split)  
## 538 < 61.5 to the right, agree=0.913, adj=0.750, (0 split)  
## 594 < 3 to the right, agree=0.890, adj=0.682, (0 split)  
##   
## Node number 237: 114 observations  
## predicted class=8 expected loss=0.0877193 P(node) =0.004522912  
## class counts: 0 0 6 0 3 0 0 1 104 0  
## probabilities: 0.000 0.000 0.053 0.000 0.026 0.000 0.000 0.009 0.912 0.000   
##   
## Node number 238: 1537 observations, complexity param=0.00111637  
## predicted class=6 expected loss=0.0540013 P(node) =0.06097996  
## class counts: 0 2 30 1 4 27 1454 1 11 7  
## probabilities: 0.000 0.001 0.020 0.001 0.003 0.018 0.946 0.001 0.007 0.005   
## left son=476 (34 obs) right son=477 (1503 obs)  
## Primary splits:  
## 323 < 161.5 to the right, improve=48.87607, (0 missing)  
## 296 < 141.5 to the right, improve=26.03819, (0 missing)  
## 324 < 155 to the right, improve=25.77839, (0 missing)  
## 217 < 164 to the right, improve=21.99027, (0 missing)  
## 218 < 139 to the right, improve=21.17130, (0 missing)  
## Surrogate splits:  
## 351 < 250 to the right, agree=0.985, adj=0.324, (0 split)  
## 296 < 141.5 to the right, agree=0.984, adj=0.294, (0 split)  
## 295 < 250.5 to the right, agree=0.983, adj=0.235, (0 split)  
## 324 < 166 to the right, agree=0.982, adj=0.206, (0 split)  
## 201 < 212 to the right, agree=0.979, adj=0.059, (0 split)  
##   
## Node number 239: 163 observations, complexity param=0.000870769  
## predicted class=5 expected loss=0.5398773 P(node) =0.006466971  
## class counts: 0 0 2 4 1 75 37 1 39 4  
## probabilities: 0.000 0.000 0.012 0.025 0.006 0.460 0.227 0.006 0.239 0.025   
## left son=478 (67 obs) right son=479 (96 obs)  
## Primary splits:  
## 515 < 12.5 to the left, improve=23.29689, (0 missing)  
## 355 < 30.5 to the left, improve=23.03449, (0 missing)  
## 488 < 23.5 to the left, improve=22.22119, (0 missing)  
## 487 < 5 to the left, improve=21.91009, (0 missing)  
## 328 < 10 to the left, improve=21.24660, (0 missing)  
## Surrogate splits:  
## 487 < 5 to the left, agree=0.883, adj=0.716, (0 split)  
## 514 < 65.5 to the left, agree=0.883, adj=0.716, (0 split)  
## 516 < 1.5 to the left, agree=0.871, adj=0.687, (0 split)  
## 488 < 0.5 to the left, agree=0.865, adj=0.672, (0 split)  
## 486 < 41.5 to the left, agree=0.810, adj=0.537, (0 split)  
##   
## Node number 240: 109 observations, complexity param=0.0005805126  
## predicted class=2 expected loss=0.2293578 P(node) =0.004324539  
## class counts: 0 0 84 17 0 2 0 0 6 0  
## probabilities: 0.000 0.000 0.771 0.156 0.000 0.018 0.000 0.000 0.055 0.000   
## left son=480 (87 obs) right son=481 (22 obs)  
## Primary splits:  
## 379 < 151.5 to the left, improve=21.18397, (0 missing)  
## 456 < 3 to the right, improve=17.86108, (0 missing)  
## 484 < 2 to the right, improve=15.49374, (0 missing)  
## 483 < 1.5 to the right, improve=14.94328, (0 missing)  
## 351 < 1 to the left, improve=14.40911, (0 missing)  
## Surrogate splits:  
## 351 < 1 to the left, agree=0.954, adj=0.773, (0 split)  
## 378 < 162.5 to the left, agree=0.945, adj=0.727, (0 split)  
## 380 < 155 to the left, agree=0.917, adj=0.591, (0 split)  
## 352 < 66 to the left, agree=0.908, adj=0.545, (0 split)  
## 377 < 162.5 to the left, agree=0.908, adj=0.545, (0 split)  
##   
## Node number 241: 112 observations, complexity param=0.0006251675  
## predicted class=5 expected loss=0.2946429 P(node) =0.004443563  
## class counts: 0 0 4 7 4 79 2 0 16 0  
## probabilities: 0.000 0.000 0.036 0.062 0.036 0.705 0.018 0.000 0.143 0.000   
## left son=482 (87 obs) right son=483 (25 obs)  
## Primary splits:  
## 355 < 10 to the left, improve=21.55950, (0 missing)  
## 381 < 6 to the left, improve=21.24793, (0 missing)  
## 382 < 4.5 to the left, improve=20.59950, (0 missing)  
## 354 < 7 to the left, improve=19.31057, (0 missing)  
## 356 < 14.5 to the left, improve=17.67997, (0 missing)  
## Surrogate splits:  
## 354 < 63 to the left, agree=0.973, adj=0.88, (0 split)  
## 381 < 74 to the left, agree=0.964, adj=0.84, (0 split)  
## 382 < 4.5 to the left, agree=0.964, adj=0.84, (0 split)  
## 383 < 6 to the left, agree=0.955, adj=0.80, (0 split)  
## 353 < 14 to the left, agree=0.929, adj=0.68, (0 split)  
##   
## Node number 242: 1469 observations, complexity param=0.001629901  
## predicted class=4 expected loss=0.1266167 P(node) =0.05828209  
## class counts: 0 6 16 16 1283 21 66 10 31 20  
## probabilities: 0.000 0.004 0.011 0.011 0.873 0.014 0.045 0.007 0.021 0.014   
## left son=484 (1415 obs) right son=485 (54 obs)  
## Primary splits:  
## 98 < 3 to the left, improve=86.42458, (0 missing)  
## 97 < 1 to the left, improve=73.90600, (0 missing)  
## 155 < 99.5 to the left, improve=72.01172, (0 missing)  
## 126 < 2 to the left, improve=70.29448, (0 missing)  
## 154 < 64.5 to the left, improve=67.46091, (0 missing)  
## Surrogate splits:  
## 99 < 24 to the left, agree=0.990, adj=0.722, (0 split)  
## 97 < 1 to the left, agree=0.988, adj=0.685, (0 split)  
## 70 < 2 to the left, agree=0.982, adj=0.500, (0 split)  
## 126 < 215 to the left, agree=0.980, adj=0.463, (0 split)  
## 71 < 7 to the left, agree=0.980, adj=0.444, (0 split)  
##   
## Node number 243: 140 observations, complexity param=0.0009377512  
## predicted class=9 expected loss=0.6642857 P(node) =0.005554453  
## class counts: 0 0 7 4 24 21 0 34 3 47  
## probabilities: 0.000 0.000 0.050 0.029 0.171 0.150 0.000 0.243 0.021 0.336   
## left son=486 (93 obs) right son=487 (47 obs)  
## Primary splits:  
## 401 < 2.5 to the right, improve=15.36521, (0 missing)  
## 373 < 12 to the left, improve=15.21905, (0 missing)  
## 372 < 3 to the left, improve=14.71924, (0 missing)  
## 428 < 2 to the left, improve=13.38245, (0 missing)  
## 429 < 5 to the left, improve=13.28977, (0 missing)  
## Surrogate splits:  
## 402 < 3 to the right, agree=0.907, adj=0.723, (0 split)  
## 373 < 1 to the right, agree=0.886, adj=0.660, (0 split)  
## 374 < 1.5 to the right, agree=0.857, adj=0.574, (0 split)  
## 429 < 91.5 to the right, agree=0.857, adj=0.574, (0 split)  
## 430 < 94 to the right, agree=0.857, adj=0.574, (0 split)  
##   
## Node number 244: 581 observations, complexity param=0.0009377512  
## predicted class=5 expected loss=0.2340792 P(node) =0.02305098  
## class counts: 3 0 14 37 6 445 26 1 9 40  
## probabilities: 0.005 0.000 0.024 0.064 0.010 0.766 0.045 0.002 0.015 0.069   
## left son=488 (521 obs) right son=489 (60 obs)  
## Primary splits:  
## 384 < 17.5 to the left, improve=45.16512, (0 missing)  
## 356 < 2 to the left, improve=44.03084, (0 missing)  
## 385 < 1.5 to the left, improve=42.43825, (0 missing)  
## 357 < 4.5 to the left, improve=41.53327, (0 missing)  
## 383 < 49.5 to the left, improve=37.52325, (0 missing)  
## Surrogate splits:  
## 385 < 1.5 to the left, agree=0.981, adj=0.817, (0 split)  
## 383 < 49.5 to the left, agree=0.979, adj=0.800, (0 split)  
## 412 < 78 to the left, agree=0.978, adj=0.783, (0 split)  
## 356 < 2 to the left, agree=0.976, adj=0.767, (0 split)  
## 357 < 4.5 to the left, agree=0.974, adj=0.750, (0 split)  
##   
## Node number 245: 227 observations, complexity param=0.00129499  
## predicted class=4 expected loss=0.6123348 P(node) =0.00900615  
## class counts: 0 2 5 18 88 0 2 32 28 52  
## probabilities: 0.000 0.009 0.022 0.079 0.388 0.000 0.009 0.141 0.123 0.229   
## left son=490 (79 obs) right son=491 (148 obs)  
## Primary splits:  
## 209 < 16.5 to the left, improve=34.57810, (0 missing)  
## 208 < 14.5 to the left, improve=33.34277, (0 missing)  
## 210 < 95 to the left, improve=22.91833, (0 missing)  
## 156 < 1 to the right, improve=20.89619, (0 missing)  
## 373 < 40 to the right, improve=18.83432, (0 missing)  
## Surrogate splits:  
## 210 < 82.5 to the left, agree=0.912, adj=0.747, (0 split)  
## 208 < 1 to the left, agree=0.881, adj=0.658, (0 split)  
## 181 < 5 to the left, agree=0.819, adj=0.481, (0 split)  
## 182 < 1 to the left, agree=0.802, adj=0.430, (0 split)  
## 237 < 18 to the left, agree=0.780, adj=0.367, (0 split)  
##   
## Node number 246: 406 observations, complexity param=0.002835581  
## predicted class=4 expected loss=0.7487685 P(node) =0.01610792  
## class counts: 3 0 53 98 102 12 4 1 77 56  
## probabilities: 0.007 0.000 0.131 0.241 0.251 0.030 0.010 0.002 0.190 0.138   
## left son=492 (178 obs) right son=493 (228 obs)  
## Primary splits:  
## 624 < 1 to the right, improve=41.06848, (0 missing)  
## 400 < 6.5 to the left, improve=41.06288, (0 missing)  
## 372 < 2.5 to the left, improve=40.49366, (0 missing)  
## 345 < 1 to the left, improve=40.21070, (0 missing)  
## 373 < 65 to the left, improve=40.00554, (0 missing)  
## Surrogate splits:  
## 625 < 90.5 to the right, agree=0.941, adj=0.865, (0 split)  
## 623 < 1 to the right, agree=0.936, adj=0.854, (0 split)  
## 595 < 0.5 to the right, agree=0.904, adj=0.781, (0 split)  
## 596 < 3.5 to the right, agree=0.904, adj=0.781, (0 split)  
## 652 < 0.5 to the right, agree=0.887, adj=0.742, (0 split)  
##   
## Node number 247: 1445 observations, complexity param=0.0006698223  
## predicted class=9 expected loss=0.1944637 P(node) =0.05732989  
## class counts: 1 0 18 62 92 7 0 54 47 1164  
## probabilities: 0.001 0.000 0.012 0.043 0.064 0.005 0.000 0.037 0.033 0.806   
## left son=494 (293 obs) right son=495 (1152 obs)  
## Primary splits:  
## 317 < 1 to the left, improve=48.99596, (0 missing)  
## 290 < 3.5 to the left, improve=45.68732, (0 missing)  
## 345 < 0.5 to the left, improve=44.17524, (0 missing)  
## 289 < 8.5 to the left, improve=39.02495, (0 missing)  
## 373 < 0.5 to the left, improve=36.31497, (0 missing)  
## Surrogate splits:  
## 290 < 13.5 to the left, agree=0.905, adj=0.532, (0 split)  
## 345 < 0.5 to the left, agree=0.901, adj=0.512, (0 split)  
## 289 < 0.5 to the left, agree=0.878, adj=0.399, (0 split)  
## 344 < 0.5 to the left, agree=0.854, adj=0.280, (0 split)  
## 263 < 0.5 to the left, agree=0.846, adj=0.239, (0 split)  
##   
## Node number 248: 175 observations, complexity param=0.0008930964  
## predicted class=5 expected loss=0.3428571 P(node) =0.006943067  
## class counts: 1 7 4 40 3 115 2 0 1 2  
## probabilities: 0.006 0.040 0.023 0.229 0.017 0.657 0.011 0.000 0.006 0.011   
## left son=496 (40 obs) right son=497 (135 obs)  
## Primary splits:  
## 323 < 1.5 to the right, improve=24.11683, (0 missing)  
## 322 < 52 to the right, improve=23.30486, (0 missing)  
## 150 < 65 to the right, improve=17.90386, (0 missing)  
## 295 < 126 to the right, improve=17.71134, (0 missing)  
## 321 < 210 to the right, improve=16.90571, (0 missing)  
## Surrogate splits:  
## 295 < 140 to the right, agree=0.914, adj=0.625, (0 split)  
## 322 < 76 to the right, agree=0.897, adj=0.550, (0 split)  
## 324 < 2.5 to the right, agree=0.897, adj=0.550, (0 split)  
## 296 < 97 to the right, agree=0.880, adj=0.475, (0 split)  
## 294 < 252.5 to the right, agree=0.851, adj=0.350, (0 split)  
##   
## Node number 249: 138 observations, complexity param=0.00111637  
## predicted class=9 expected loss=0.6594203 P(node) =0.005475104  
## class counts: 0 5 4 17 27 1 0 8 29 47  
## probabilities: 0.000 0.036 0.029 0.123 0.196 0.007 0.000 0.058 0.210 0.341   
## left son=498 (46 obs) right son=499 (92 obs)  
## Primary splits:  
## 434 < 208.5 to the right, improve=19.10145, (0 missing)  
## 433 < 12 to the right, improve=17.09489, (0 missing)  
## 154 < 1.5 to the right, improve=14.04231, (0 missing)  
## 376 < 47.5 to the left, improve=13.70145, (0 missing)  
## 375 < 129.5 to the left, improve=13.29010, (0 missing)  
## Surrogate splits:  
## 461 < 63 to the right, agree=0.899, adj=0.696, (0 split)  
## 433 < 17 to the right, agree=0.891, adj=0.674, (0 split)  
## 489 < 183.5 to the right, agree=0.862, adj=0.587, (0 split)  
## 462 < 193.5 to the right, agree=0.848, adj=0.543, (0 split)  
## 488 < 8.5 to the right, agree=0.833, adj=0.500, (0 split)  
##   
## Node number 250: 93 observations, complexity param=0.0009377512  
## predicted class=1 expected loss=0.5591398 P(node) =0.003689744  
## class counts: 4 41 24 5 0 2 12 5 0 0  
## probabilities: 0.043 0.441 0.258 0.054 0.000 0.022 0.129 0.054 0.000 0.000   
## left son=500 (54 obs) right son=501 (39 obs)  
## Primary splits:  
## 179 < 7 to the left, improve=18.75774, (0 missing)  
## 351 < 244 to the right, improve=18.16590, (0 missing)  
## 378 < 71.5 to the right, improve=18.01097, (0 missing)  
## 323 < 173 to the right, improve=17.50988, (0 missing)  
## 178 < 29 to the left, improve=17.14835, (0 missing)  
## Surrogate splits:  
## 180 < 49 to the left, agree=0.968, adj=0.923, (0 split)  
## 153 < 53 to the left, agree=0.946, adj=0.872, (0 split)  
## 178 < 4 to the left, agree=0.946, adj=0.872, (0 split)  
## 152 < 19 to the left, agree=0.925, adj=0.821, (0 split)  
## 206 < 1 to the left, agree=0.925, adj=0.821, (0 split)  
##   
## Node number 251: 1360 observations, complexity param=0.0004018934  
## predicted class=7 expected loss=0.04705882 P(node) =0.05395755  
## class counts: 2 12 21 6 4 0 7 1296 1 11  
## probabilities: 0.001 0.009 0.015 0.004 0.003 0.000 0.005 0.953 0.001 0.008   
## left son=502 (23 obs) right son=503 (1337 obs)  
## Primary splits:  
## 153 < 57 to the right, improve=25.10725, (0 missing)  
## 154 < 7 to the right, improve=20.15141, (0 missing)  
## 152 < 18 to the right, improve=19.96451, (0 missing)  
## 151 < 5.5 to the right, improve=17.55849, (0 missing)  
## 150 < 219 to the right, improve=17.38734, (0 missing)  
## Surrogate splits:  
## 154 < 3 to the right, agree=0.996, adj=0.783, (0 split)  
## 152 < 98.5 to the right, agree=0.996, adj=0.739, (0 split)  
## 124 < 6.5 to the right, agree=0.991, adj=0.478, (0 split)  
## 125 < 1.5 to the right, agree=0.991, adj=0.478, (0 split)  
## 151 < 87 to the right, agree=0.991, adj=0.478, (0 split)  
##   
## Node number 252: 132 observations  
## predicted class=4 expected loss=0.1969697 P(node) =0.005237056  
## class counts: 1 1 8 0 106 1 6 1 1 7  
## probabilities: 0.008 0.008 0.061 0.000 0.803 0.008 0.045 0.008 0.008 0.053   
##   
## Node number 253: 12 observations  
## predicted class=6 expected loss=0.25 P(node) =0.000476096  
## class counts: 0 0 3 0 0 0 9 0 0 0  
## probabilities: 0.000 0.000 0.250 0.000 0.000 0.000 0.750 0.000 0.000 0.000   
##   
## Node number 254: 50 observations, complexity param=0.0003125837  
## predicted class=7 expected loss=0.68 P(node) =0.001983733  
## class counts: 0 0 4 0 12 0 0 16 3 15  
## probabilities: 0.000 0.000 0.080 0.000 0.240 0.000 0.000 0.320 0.060 0.300   
## left son=508 (24 obs) right son=509 (26 obs)  
## Primary splits:  
## 429 < 48.5 to the left, improve=9.358974, (0 missing)  
## 457 < 169.5 to the left, improve=9.358974, (0 missing)  
## 205 < 45 to the left, improve=9.039216, (0 missing)  
## 428 < 42 to the left, improve=8.314103, (0 missing)  
## 232 < 76.5 to the left, improve=7.873016, (0 missing)  
## Surrogate splits:  
## 457 < 169.5 to the left, agree=0.96, adj=0.917, (0 split)  
## 401 < 31 to the left, agree=0.92, adj=0.833, (0 split)  
## 428 < 42 to the left, agree=0.92, adj=0.833, (0 split)  
## 400 < 3.5 to the left, agree=0.88, adj=0.750, (0 split)  
## 456 < 15.5 to the left, agree=0.88, adj=0.750, (0 split)  
##   
## Node number 255: 168 observations, complexity param=0.0002902563  
## predicted class=9 expected loss=0.1785714 P(node) =0.006665344  
## class counts: 0 0 4 1 17 0 1 6 1 138  
## probabilities: 0.000 0.000 0.024 0.006 0.101 0.000 0.006 0.036 0.006 0.821   
## left son=510 (25 obs) right son=511 (143 obs)  
## Primary splits:  
## 235 < 0.5 to the left, improve=12.447550, (0 missing)  
## 320 < 91.5 to the right, improve=11.288570, (0 missing)  
## 326 < 2 to the left, improve=10.129240, (0 missing)  
## 354 < 3 to the left, improve= 9.811462, (0 missing)  
## 293 < 72 to the right, improve= 9.306647, (0 missing)  
## Surrogate splits:  
## 320 < 81.5 to the right, agree=0.911, adj=0.40, (0 split)  
## 208 < 1.5 to the left, agree=0.905, adj=0.36, (0 split)  
## 292 < 181 to the right, agree=0.905, adj=0.36, (0 split)  
## 293 < 72 to the right, agree=0.905, adj=0.36, (0 split)  
## 347 < 192 to the right, agree=0.899, adj=0.32, (0 split)  
##   
## Node number 256: 2260 observations  
## predicted class=1 expected loss=0.02256637 P(node) =0.08966475  
## class counts: 0 2209 4 6 2 5 5 8 19 2  
## probabilities: 0.000 0.977 0.002 0.003 0.001 0.002 0.002 0.004 0.008 0.001   
##   
## Node number 257: 31 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.7419355 P(node) =0.001229915  
## class counts: 0 5 8 0 5 5 3 0 5 0  
## probabilities: 0.000 0.161 0.258 0.000 0.161 0.161 0.097 0.000 0.161 0.000   
## left son=514 (19 obs) right son=515 (12 obs)  
## Primary splits:  
## 623 < 14.5 to the left, improve=4.489530, (0 missing)  
## 457 < 152.5 to the right, improve=4.227688, (0 missing)  
## 652 < 12.5 to the left, improve=4.095545, (0 missing)  
## 432 < 115 to the right, improve=4.062212, (0 missing)  
## 322 < 159 to the left, improve=4.038402, (0 missing)  
## Surrogate splits:  
## 595 < 136.5 to the left, agree=0.935, adj=0.833, (0 split)  
## 624 < 168.5 to the left, agree=0.935, adj=0.833, (0 split)  
## 652 < 12.5 to the left, agree=0.935, adj=0.833, (0 split)  
## 622 < 5.5 to the left, agree=0.903, adj=0.750, (0 split)  
## 651 < 0.5 to the left, agree=0.903, adj=0.750, (0 split)  
##   
## Node number 260: 55 observations  
## predicted class=1 expected loss=0.07272727 P(node) =0.002182107  
## class counts: 0 51 1 1 0 1 0 0 1 0  
## probabilities: 0.000 0.927 0.018 0.018 0.000 0.018 0.000 0.000 0.018 0.000   
##   
## Node number 261: 17 observations  
## predicted class=5 expected loss=0.2941176 P(node) =0.0006744694  
## class counts: 0 0 0 1 1 12 0 0 3 0  
## probabilities: 0.000 0.000 0.000 0.059 0.059 0.706 0.000 0.000 0.176 0.000   
##   
## Node number 268: 13 observations  
## predicted class=2 expected loss=0.3846154 P(node) =0.0005157707  
## class counts: 1 0 8 0 3 0 0 1 0 0  
## probabilities: 0.077 0.000 0.615 0.000 0.231 0.000 0.000 0.077 0.000 0.000   
##   
## Node number 269: 11 observations  
## predicted class=6 expected loss=0.5454545 P(node) =0.0004364213  
## class counts: 0 1 0 3 0 0 5 0 2 0  
## probabilities: 0.000 0.091 0.000 0.273 0.000 0.000 0.455 0.000 0.182 0.000   
##   
## Node number 272: 93 observations, complexity param=0.0005805126  
## predicted class=6 expected loss=0.4623656 P(node) =0.003689744  
## class counts: 7 13 9 6 3 3 50 1 0 1  
## probabilities: 0.075 0.140 0.097 0.065 0.032 0.032 0.538 0.011 0.000 0.011   
## left son=544 (25 obs) right son=545 (68 obs)  
## Primary splits:  
## 486 < 67.5 to the left, improve=15.77872, (0 missing)  
## 514 < 7 to the left, improve=13.63803, (0 missing)  
## 458 < 48.5 to the left, improve=12.53402, (0 missing)  
## 487 < 30 to the left, improve=12.32299, (0 missing)  
## 459 < 119.5 to the left, improve=11.10767, (0 missing)  
## Surrogate splits:  
## 487 < 30 to the left, agree=0.946, adj=0.80, (0 split)  
## 514 < 7 to the left, agree=0.946, adj=0.80, (0 split)  
## 458 < 14.5 to the left, agree=0.914, adj=0.68, (0 split)  
## 485 < 2.5 to the left, agree=0.903, adj=0.64, (0 split)  
## 515 < 24.5 to the left, agree=0.882, adj=0.56, (0 split)  
##   
## Node number 273: 159 observations, complexity param=0.0007591319  
## predicted class=4 expected loss=0.7672956 P(node) =0.006308272  
## class counts: 5 20 22 8 37 21 4 7 6 29  
## probabilities: 0.031 0.126 0.138 0.050 0.233 0.132 0.025 0.044 0.038 0.182   
## left son=546 (67 obs) right son=547 (92 obs)  
## Primary splits:  
## 539 < 2 to the right, improve=14.46493, (0 missing)  
## 540 < 48 to the right, improve=14.31537, (0 missing)  
## 567 < 10.5 to the right, improve=12.80517, (0 missing)  
## 681 < 73 to the left, improve=12.69986, (0 missing)  
## 538 < 0.5 to the right, improve=12.23804, (0 missing)  
## Surrogate splits:  
## 540 < 2.5 to the right, agree=0.962, adj=0.910, (0 split)  
## 512 < 37.5 to the right, agree=0.931, adj=0.836, (0 split)  
## 511 < 59.5 to the right, agree=0.906, adj=0.776, (0 split)  
## 541 < 57.5 to the right, agree=0.906, adj=0.776, (0 split)  
## 567 < 2.5 to the right, agree=0.906, adj=0.776, (0 split)  
##   
## Node number 276: 95 observations, complexity param=0.0002232741  
## predicted class=1 expected loss=0.2421053 P(node) =0.003769093  
## class counts: 1 72 1 1 0 3 1 4 8 4  
## probabilities: 0.011 0.758 0.011 0.011 0.000 0.032 0.011 0.042 0.084 0.042   
## left son=552 (77 obs) right son=553 (18 obs)  
## Primary splits:  
## 299 < 31 to the left, improve=12.03746, (0 missing)  
## 300 < 2 to the left, improve=11.65921, (0 missing)  
## 155 < 1.5 to the right, improve=11.20692, (0 missing)  
## 271 < 27.5 to the left, improve=11.11690, (0 missing)  
## 272 < 170 to the left, improve=10.82839, (0 missing)  
## Surrogate splits:  
## 271 < 43 to the left, agree=0.979, adj=0.889, (0 split)  
## 298 < 219 to the left, agree=0.968, adj=0.833, (0 split)  
## 300 < 2 to the left, agree=0.968, adj=0.833, (0 split)  
## 327 < 19 to the left, agree=0.968, adj=0.833, (0 split)  
## 272 < 60 to the left, agree=0.958, adj=0.778, (0 split)  
##   
## Node number 277: 39 observations, complexity param=0.0003125837  
## predicted class=4 expected loss=0.7435897 P(node) =0.001547312  
## class counts: 2 1 0 3 10 6 3 0 8 6  
## probabilities: 0.051 0.026 0.000 0.077 0.256 0.154 0.077 0.000 0.205 0.154   
## left son=554 (11 obs) right son=555 (28 obs)  
## Primary splits:  
## 627 < 5.5 to the left, improve=6.047286, (0 missing)  
## 628 < 87.5 to the left, improve=5.647863, (0 missing)  
## 655 < 10.5 to the left, improve=5.136752, (0 missing)  
## 625 < 40.5 to the right, improve=5.043185, (0 missing)  
## 653 < 106.5 to the left, improve=4.815496, (0 missing)  
## Surrogate splits:  
## 655 < 10.5 to the left, agree=0.974, adj=0.909, (0 split)  
## 628 < 87.5 to the left, agree=0.949, adj=0.818, (0 split)  
## 626 < 13 to the left, agree=0.923, adj=0.727, (0 split)  
## 598 < 5.5 to the left, agree=0.897, adj=0.636, (0 split)  
## 600 < 77.5 to the left, agree=0.897, adj=0.636, (0 split)  
##   
## Node number 278: 124 observations, complexity param=0.0002902563  
## predicted class=8 expected loss=0.2822581 P(node) =0.004919659  
## class counts: 1 3 1 15 9 3 0 1 89 2  
## probabilities: 0.008 0.024 0.008 0.121 0.073 0.024 0.000 0.008 0.718 0.016   
## left son=556 (37 obs) right son=557 (87 obs)  
## Primary splits:  
## 265 < 15.5 to the left, improve=11.27827, (0 missing)  
## 373 < 6 to the right, improve=11.17824, (0 missing)  
## 401 < 123 to the right, improve=10.98102, (0 missing)  
## 378 < 196 to the left, improve=10.40339, (0 missing)  
## 292 < 98.5 to the left, improve=10.24454, (0 missing)  
## Surrogate splits:  
## 237 < 49 to the left, agree=0.935, adj=0.784, (0 split)  
## 264 < 25 to the left, agree=0.935, adj=0.784, (0 split)  
## 292 < 126.5 to the left, agree=0.919, adj=0.730, (0 split)  
## 238 < 4 to the left, agree=0.895, adj=0.649, (0 split)  
## 236 < 40.5 to the left, agree=0.887, adj=0.622, (0 split)  
##   
## Node number 279: 20 observations  
## predicted class=9 expected loss=0.1 P(node) =0.0007934934  
## class counts: 0 0 0 0 0 0 0 2 0 18  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.100 0.000 0.900   
##   
## Node number 290: 9 observations  
## predicted class=6 expected loss=0.4444444 P(node) =0.000357072  
## class counts: 0 0 3 1 0 0 5 0 0 0  
## probabilities: 0.000 0.000 0.333 0.111 0.000 0.000 0.556 0.000 0.000 0.000   
##   
## Node number 291: 11 observations  
## predicted class=8 expected loss=0.09090909 P(node) =0.0004364213  
## class counts: 0 0 0 0 0 0 0 0 10 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.909 0.091   
##   
## Node number 292: 21 observations  
## predicted class=1 expected loss=0.1904762 P(node) =0.000833168  
## class counts: 0 17 2 0 0 0 0 0 1 1  
## probabilities: 0.000 0.810 0.095 0.000 0.000 0.000 0.000 0.000 0.048 0.048   
##   
## Node number 293: 36 observations, complexity param=0.0004018934  
## predicted class=2 expected loss=0.6388889 P(node) =0.001428288  
## class counts: 0 0 13 10 0 0 3 2 7 1  
## probabilities: 0.000 0.000 0.361 0.278 0.000 0.000 0.083 0.056 0.194 0.028   
## left son=586 (24 obs) right son=587 (12 obs)  
## Primary splits:  
## 516 < 7 to the right, improve=6.777778, (0 missing)  
## 517 < 88 to the right, improve=6.777778, (0 missing)  
## 515 < 1.5 to the right, improve=6.383129, (0 missing)  
## 488 < 234 to the right, improve=6.377778, (0 missing)  
## 544 < 8 to the left, improve=5.863492, (0 missing)  
## Surrogate splits:  
## 517 < 88 to the right, agree=1.000, adj=1.00, (0 split)  
## 488 < 234 to the right, agree=0.917, adj=0.75, (0 split)  
## 489 < 152.5 to the right, agree=0.917, adj=0.75, (0 split)  
## 515 < 1.5 to the right, agree=0.917, adj=0.75, (0 split)  
## 544 < 8 to the right, agree=0.917, adj=0.75, (0 split)  
##   
## Node number 294: 17 observations  
## predicted class=7 expected loss=0.05882353 P(node) =0.0006744694  
## class counts: 0 0 0 1 0 0 0 16 0 0  
## probabilities: 0.000 0.000 0.000 0.059 0.000 0.000 0.000 0.941 0.000 0.000   
##   
## Node number 295: 12 observations  
## predicted class=9 expected loss=0.4166667 P(node) =0.000476096  
## class counts: 0 0 0 2 1 0 0 1 1 7  
## probabilities: 0.000 0.000 0.000 0.167 0.083 0.000 0.000 0.083 0.083 0.583   
##   
## Node number 298: 12 observations  
## predicted class=6 expected loss=0.5 P(node) =0.000476096  
## class counts: 4 0 2 0 0 0 6 0 0 0  
## probabilities: 0.333 0.000 0.167 0.000 0.000 0.000 0.500 0.000 0.000 0.000   
##   
## Node number 299: 20 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.5 P(node) =0.0007934934  
## class counts: 0 0 1 0 0 3 0 1 10 5  
## probabilities: 0.000 0.000 0.050 0.000 0.000 0.150 0.000 0.050 0.500 0.250   
## left son=598 (9 obs) right son=599 (11 obs)  
## Primary splits:  
## 432 < 47.5 to the left, improve=5.381818, (0 missing)  
## 433 < 173.5 to the left, improve=5.381818, (0 missing)  
## 434 < 181.5 to the left, improve=5.381818, (0 missing)  
## 409 < 183 to the left, improve=5.000000, (0 missing)  
## 410 < 50.5 to the left, improve=5.000000, (0 missing)  
## Surrogate splits:  
## 433 < 173.5 to the left, agree=1.00, adj=1.000, (0 split)  
## 434 < 181.5 to the left, agree=1.00, adj=1.000, (0 split)  
## 406 < 216 to the left, agree=0.95, adj=0.889, (0 split)  
## 461 < 48 to the left, agree=0.95, adj=0.889, (0 split)  
## 431 < 37.5 to the left, agree=0.90, adj=0.778, (0 split)  
##   
## Node number 304: 7 observations  
## predicted class=2 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 6 1 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.857 0.143 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 305: 52 observations  
## predicted class=3 expected loss=0.07692308 P(node) =0.002063083  
## class counts: 0 0 1 48 0 0 0 2 1 0  
## probabilities: 0.000 0.000 0.019 0.923 0.000 0.000 0.000 0.038 0.019 0.000   
##   
## Node number 306: 47 observations, complexity param=0.0004465482  
## predicted class=2 expected loss=0.4893617 P(node) =0.001864709  
## class counts: 0 4 24 8 0 0 0 0 11 0  
## probabilities: 0.000 0.085 0.511 0.170 0.000 0.000 0.000 0.000 0.234 0.000   
## left son=612 (34 obs) right son=613 (13 obs)  
## Primary splits:  
## 321 < 195 to the left, improve=10.735050, (0 missing)  
## 293 < 55.5 to the left, improve= 9.355531, (0 missing)  
## 292 < 19.5 to the left, improve= 8.993085, (0 missing)  
## 600 < 133 to the right, improve= 8.151418, (0 missing)  
## 320 < 30 to the left, improve= 8.006097, (0 missing)  
## Surrogate splits:  
## 293 < 55.5 to the left, agree=0.979, adj=0.923, (0 split)  
## 292 < 19.5 to the left, agree=0.957, adj=0.846, (0 split)  
## 264 < 80.5 to the left, agree=0.936, adj=0.769, (0 split)  
## 320 < 9.5 to the left, agree=0.936, adj=0.769, (0 split)  
## 265 < 57.5 to the left, agree=0.915, adj=0.692, (0 split)  
##   
## Node number 307: 56 observations, complexity param=0.0001786193  
## predicted class=7 expected loss=0.25 P(node) =0.002221781  
## class counts: 0 5 2 5 0 0 0 42 1 1  
## probabilities: 0.000 0.089 0.036 0.089 0.000 0.000 0.000 0.750 0.018 0.018   
## left son=614 (7 obs) right son=615 (49 obs)  
## Primary splits:  
## 546 < 15 to the left, improve=6.275510, (0 missing)  
## 578 < 59 to the right, improve=5.541667, (0 missing)  
## 634 < 94 to the right, improve=4.397959, (0 missing)  
## 606 < 105.5 to the right, improve=4.275510, (0 missing)  
## 518 < 116 to the left, improve=4.208333, (0 missing)  
## Surrogate splits:  
## 518 < 116 to the left, agree=0.946, adj=0.571, (0 split)  
## 573 < 16 to the left, agree=0.929, adj=0.429, (0 split)  
## 574 < 90 to the left, agree=0.929, adj=0.429, (0 split)  
## 315 < 196 to the right, agree=0.911, adj=0.286, (0 split)  
## 316 < 178.5 to the right, agree=0.911, adj=0.286, (0 split)  
##   
## Node number 312: 35 observations, complexity param=0.0002976988  
## predicted class=1 expected loss=0.6285714 P(node) =0.001388613  
## class counts: 0 13 0 3 0 1 0 8 9 1  
## probabilities: 0.000 0.371 0.000 0.086 0.000 0.029 0.000 0.229 0.257 0.029   
## left son=624 (26 obs) right son=625 (9 obs)  
## Primary splits:  
## 180 < 118.5 to the right, improve=7.936508, (0 missing)  
## 269 < 25.5 to the left, improve=7.431391, (0 missing)  
## 268 < 26 to the left, improve=7.098344, (0 missing)  
## 377 < 134.5 to the right, improve=7.071429, (0 missing)  
## 233 < 126 to the left, improve=6.786181, (0 missing)  
## Surrogate splits:  
## 179 < 7 to the right, agree=0.943, adj=0.778, (0 split)  
## 181 < 43 to the right, agree=0.943, adj=0.778, (0 split)  
## 377 < 134.5 to the right, agree=0.943, adj=0.778, (0 split)  
## 349 < 138.5 to the right, agree=0.914, adj=0.667, (0 split)  
## 352 < 251.5 to the left, agree=0.914, adj=0.667, (0 split)  
##   
## Node number 313: 45 observations  
## predicted class=8 expected loss=0.2888889 P(node) =0.00178536  
## class counts: 0 0 1 3 4 0 0 0 32 5  
## probabilities: 0.000 0.000 0.022 0.067 0.089 0.000 0.000 0.000 0.711 0.111   
##   
## Node number 314: 18 observations  
## predicted class=3 expected loss=0.4444444 P(node) =0.000714144  
## class counts: 0 0 0 10 0 1 0 3 3 1  
## probabilities: 0.000 0.000 0.000 0.556 0.000 0.056 0.000 0.167 0.167 0.056   
##   
## Node number 315: 26 observations  
## predicted class=9 expected loss=0.2307692 P(node) =0.001031541  
## class counts: 1 0 0 0 3 0 0 1 1 20  
## probabilities: 0.038 0.000 0.000 0.000 0.115 0.000 0.000 0.038 0.038 0.769   
##   
## Node number 320: 39 observations  
## predicted class=1 expected loss=0.1538462 P(node) =0.001547312  
## class counts: 0 33 3 0 0 1 0 2 0 0  
## probabilities: 0.000 0.846 0.077 0.000 0.000 0.026 0.000 0.051 0.000 0.000   
##   
## Node number 321: 25 observations  
## predicted class=3 expected loss=0.2 P(node) =0.0009918667  
## class counts: 0 0 0 20 0 0 0 3 2 0  
## probabilities: 0.000 0.000 0.000 0.800 0.000 0.000 0.000 0.120 0.080 0.000   
##   
## Node number 322: 1393 observations, complexity param=0.0002456015  
## predicted class=3 expected loss=0.04020101 P(node) =0.05526681  
## class counts: 0 2 10 1337 0 23 0 0 16 5  
## probabilities: 0.000 0.001 0.007 0.960 0.000 0.017 0.000 0.000 0.011 0.004   
## left son=644 (1370 obs) right son=645 (23 obs)  
## Primary splits:  
## 317 < 206 to the left, improve=17.86201, (0 missing)  
## 289 < 174 to the left, improve=16.71907, (0 missing)  
## 487 < 140.5 to the left, improve=16.29442, (0 missing)  
## 488 < 58.5 to the left, improve=14.98376, (0 missing)  
## 316 < 156 to the left, improve=13.71488, (0 missing)  
## Surrogate splits:  
## 289 < 151.5 to the left, agree=0.992, adj=0.522, (0 split)  
## 316 < 132 to the left, agree=0.992, adj=0.522, (0 split)  
## 288 < 211 to the left, agree=0.986, adj=0.174, (0 split)  
## 290 < 40.5 to the left, agree=0.984, adj=0.043, (0 split)  
## 717 < 142 to the left, agree=0.984, adj=0.043, (0 split)  
##   
## Node number 323: 45 observations, complexity param=0.0002456015  
## predicted class=3 expected loss=0.6222222 P(node) =0.00178536  
## class counts: 0 6 0 17 0 15 0 2 5 0  
## probabilities: 0.000 0.133 0.000 0.378 0.000 0.333 0.000 0.044 0.111 0.000   
## left son=646 (16 obs) right son=647 (29 obs)  
## Primary splits:  
## 296 < 124.5 to the right, improve=7.904885, (0 missing)  
## 297 < 146 to the right, improve=7.849679, (0 missing)  
## 205 < 103 to the right, improve=7.737020, (0 missing)  
## 324 < 169.5 to the right, improve=7.651852, (0 missing)  
## 323 < 191.5 to the right, improve=7.538192, (0 missing)  
## Surrogate splits:  
## 297 < 25.5 to the right, agree=0.978, adj=0.937, (0 split)  
## 268 < 10.5 to the right, agree=0.956, adj=0.875, (0 split)  
## 324 < 169.5 to the right, agree=0.956, adj=0.875, (0 split)  
## 323 < 191.5 to the right, agree=0.933, adj=0.812, (0 split)  
## 269 < 58 to the right, agree=0.911, adj=0.750, (0 split)  
##   
## Node number 326: 25 observations, complexity param=0.0002232741  
## predicted class=3 expected loss=0.52 P(node) =0.0009918667  
## class counts: 2 0 0 12 0 5 1 0 4 1  
## probabilities: 0.080 0.000 0.000 0.480 0.000 0.200 0.040 0.000 0.160 0.040   
## left son=652 (13 obs) right son=653 (12 obs)  
## Primary splits:  
## 401 < 112.5 to the left, improve=7.180513, (0 missing)  
## 428 < 4 to the left, improve=7.180513, (0 missing)  
## 429 < 41 to the left, improve=6.840519, (0 missing)  
## 400 < 67 to the left, improve=6.697662, (0 missing)  
## 399 < 42 to the left, improve=4.960000, (0 missing)  
## Surrogate splits:  
## 428 < 4 to the left, agree=1.00, adj=1.000, (0 split)  
## 400 < 67 to the left, agree=0.96, adj=0.917, (0 split)  
## 429 < 41 to the left, agree=0.96, adj=0.917, (0 split)  
## 399 < 42 to the left, agree=0.92, adj=0.833, (0 split)  
## 427 < 4 to the left, agree=0.92, adj=0.833, (0 split)  
##   
## Node number 327: 21 observations  
## predicted class=9 expected loss=0.2380952 P(node) =0.000833168  
## class counts: 0 0 0 3 1 0 1 0 0 16  
## probabilities: 0.000 0.000 0.000 0.143 0.048 0.000 0.048 0.000 0.000 0.762   
##   
## Node number 328: 202 observations  
## predicted class=3 expected loss=0.06930693 P(node) =0.008014283  
## class counts: 2 1 4 188 0 2 0 0 4 1  
## probabilities: 0.010 0.005 0.020 0.931 0.000 0.010 0.000 0.000 0.020 0.005   
##   
## Node number 329: 59 observations, complexity param=0.000379566  
## predicted class=3 expected loss=0.6271186 P(node) =0.002340805  
## class counts: 5 3 1 22 0 21 3 3 1 0  
## probabilities: 0.085 0.051 0.017 0.373 0.000 0.356 0.051 0.051 0.017 0.000   
## left son=658 (29 obs) right son=659 (30 obs)  
## Primary splits:  
## 348 < 235 to the left, improve=11.326320, (0 missing)  
## 321 < 120 to the left, improve=10.406780, (0 missing)  
## 320 < 11.5 to the left, improve= 9.742619, (0 missing)  
## 209 < 30 to the right, improve= 9.666942, (0 missing)  
## 294 < 71 to the left, improve= 9.123446, (0 missing)  
## Surrogate splits:  
## 320 < 105.5 to the left, agree=0.898, adj=0.793, (0 split)  
## 347 < 108.5 to the left, agree=0.898, adj=0.793, (0 split)  
## 319 < 2 to the left, agree=0.864, adj=0.724, (0 split)  
## 321 < 207 to the left, agree=0.831, adj=0.655, (0 split)  
## 349 < 250.5 to the left, agree=0.814, adj=0.621, (0 split)  
##   
## Node number 330: 25 observations  
## predicted class=0 expected loss=0.24 P(node) =0.0009918667  
## class counts: 19 0 0 0 0 1 2 0 3 0  
## probabilities: 0.760 0.000 0.000 0.000 0.000 0.040 0.080 0.000 0.120 0.000   
##   
## Node number 331: 131 observations, complexity param=0.0005358578  
## predicted class=5 expected loss=0.2748092 P(node) =0.005197381  
## class counts: 0 0 0 25 0 95 3 1 4 3  
## probabilities: 0.000 0.000 0.000 0.191 0.000 0.725 0.023 0.008 0.031 0.023   
## left son=662 (30 obs) right son=663 (101 obs)  
## Primary splits:  
## 299 < 40 to the right, improve=18.01656, (0 missing)  
## 298 < 162 to the right, improve=17.94568, (0 missing)  
## 326 < 98 to the right, improve=14.96753, (0 missing)  
## 327 < 8.5 to the right, improve=13.19848, (0 missing)  
## 328 < 56.5 to the right, improve=12.87945, (0 missing)  
## Surrogate splits:  
## 298 < 80.5 to the right, agree=0.954, adj=0.800, (0 split)  
## 271 < 217 to the right, agree=0.916, adj=0.633, (0 split)  
## 297 < 131 to the right, agree=0.916, adj=0.633, (0 split)  
## 300 < 0.5 to the right, agree=0.908, adj=0.600, (0 split)  
## 270 < 202.5 to the right, agree=0.885, adj=0.500, (0 split)  
##   
## Node number 332: 85 observations  
## predicted class=1 expected loss=0.07058824 P(node) =0.003372347  
## class counts: 0 79 0 0 1 0 1 4 0 0  
## probabilities: 0.000 0.929 0.000 0.000 0.012 0.000 0.012 0.047 0.000 0.000   
##   
## Node number 333: 19 observations  
## predicted class=5 expected loss=0.7368421 P(node) =0.0007538187  
## class counts: 0 1 0 4 0 5 0 3 3 3  
## probabilities: 0.000 0.053 0.000 0.211 0.000 0.263 0.000 0.158 0.158 0.158   
##   
## Node number 334: 58 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.2586207 P(node) =0.002301131  
## class counts: 5 0 1 6 0 43 1 1 1 0  
## probabilities: 0.086 0.000 0.017 0.103 0.000 0.741 0.017 0.017 0.017 0.000   
## left son=668 (7 obs) right son=669 (51 obs)  
## Primary splits:  
## 413 < 194 to the right, improve=7.789916, (0 missing)  
## 507 < 5.5 to the right, improve=7.442577, (0 missing)  
## 456 < 243 to the right, improve=7.220000, (0 missing)  
## 455 < 228.5 to the right, improve=6.977324, (0 missing)  
## 385 < 3.5 to the right, improve=6.832200, (0 missing)  
## Surrogate splits:  
## 385 < 28 to the right, agree=0.983, adj=0.857, (0 split)  
## 414 < 28.5 to the right, agree=0.983, adj=0.857, (0 split)  
## 330 < 169.5 to the right, agree=0.966, adj=0.714, (0 split)  
## 358 < 128.5 to the right, agree=0.966, adj=0.714, (0 split)  
## 359 < 52.5 to the right, agree=0.966, adj=0.714, (0 split)  
##   
## Node number 335: 113 observations, complexity param=0.001161025  
## predicted class=9 expected loss=0.7256637 P(node) =0.004483237  
## class counts: 0 7 0 16 30 5 7 11 6 31  
## probabilities: 0.000 0.062 0.000 0.142 0.265 0.044 0.062 0.097 0.053 0.274   
## left son=670 (43 obs) right son=671 (70 obs)  
## Primary splits:  
## 237 < 2 to the left, improve=15.18030, (0 missing)  
## 210 < 1 to the left, improve=14.74200, (0 missing)  
## 238 < 17 to the left, improve=14.30474, (0 missing)  
## 209 < 3 to the left, improve=12.95114, (0 missing)  
## 236 < 5.5 to the left, improve=12.88428, (0 missing)  
## Surrogate splits:  
## 210 < 1 to the left, agree=0.956, adj=0.884, (0 split)  
## 238 < 17 to the left, agree=0.938, adj=0.837, (0 split)  
## 209 < 3 to the left, agree=0.920, adj=0.791, (0 split)  
## 236 < 5.5 to the left, agree=0.858, adj=0.628, (0 split)  
## 211 < 2.5 to the left, agree=0.850, adj=0.605, (0 split)  
##   
## Node number 338: 112 observations, complexity param=0.0004465482  
## predicted class=3 expected loss=0.2321429 P(node) =0.004443563  
## class counts: 0 0 0 86 0 4 0 0 16 6  
## probabilities: 0.000 0.000 0.000 0.768 0.000 0.036 0.000 0.000 0.143 0.054   
## left son=676 (101 obs) right son=677 (11 obs)  
## Primary splits:  
## 484 < 186 to the left, improve=14.425810, (0 missing)  
## 485 < 113 to the left, improve=12.845660, (0 missing)  
## 483 < 100 to the left, improve=11.382120, (0 missing)  
## 456 < 204.5 to the left, improve=10.193880, (0 missing)  
## 457 < 141 to the left, improve= 9.204099, (0 missing)  
## Surrogate splits:  
## 485 < 113 to the left, agree=0.991, adj=0.909, (0 split)  
## 483 < 100 to the left, agree=0.964, adj=0.636, (0 split)  
## 456 < 204.5 to the left, agree=0.955, adj=0.545, (0 split)  
## 457 < 252.5 to the left, agree=0.955, adj=0.545, (0 split)  
## 512 < 218 to the left, agree=0.955, adj=0.545, (0 split)  
##   
## Node number 339: 180 observations, complexity param=0.0007144771  
## predicted class=5 expected loss=0.6388889 P(node) =0.00714144  
## class counts: 5 1 1 59 0 65 2 3 21 23  
## probabilities: 0.028 0.006 0.006 0.328 0.000 0.361 0.011 0.017 0.117 0.128   
## left son=678 (40 obs) right son=679 (140 obs)  
## Primary splits:  
## 176 < 79.5 to the right, improve=14.89206, (0 missing)  
## 149 < 81 to the right, improve=14.58492, (0 missing)  
## 262 < 5 to the left, improve=13.83847, (0 missing)  
## 263 < 51.5 to the left, improve=13.79172, (0 missing)  
## 148 < 48 to the right, improve=13.79111, (0 missing)  
## Surrogate splits:  
## 175 < 3 to the right, agree=0.972, adj=0.875, (0 split)  
## 148 < 5.5 to the right, agree=0.944, adj=0.750, (0 split)  
## 177 < 213 to the right, agree=0.933, adj=0.700, (0 split)  
## 147 < 0.5 to the right, agree=0.922, adj=0.650, (0 split)  
## 149 < 46 to the right, agree=0.922, adj=0.650, (0 split)  
##   
## Node number 340: 23 observations  
## predicted class=0 expected loss=0 P(node) =0.0009125174  
## class counts: 23 0 0 0 0 0 0 0 0 0  
## probabilities: 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 341: 16 observations  
## predicted class=8 expected loss=0.6875 P(node) =0.0006347947  
## class counts: 1 0 0 3 1 1 0 0 5 5  
## probabilities: 0.062 0.000 0.000 0.188 0.062 0.062 0.000 0.000 0.312 0.312   
##   
## Node number 342: 33 observations, complexity param=0.0001786193  
## predicted class=3 expected loss=0.3333333 P(node) =0.001309264  
## class counts: 2 0 0 22 0 5 1 0 2 1  
## probabilities: 0.061 0.000 0.000 0.667 0.000 0.152 0.030 0.000 0.061 0.030   
## left son=684 (23 obs) right son=685 (10 obs)  
## Primary splits:  
## 214 < 206 to the left, improve=6.733597, (0 missing)  
## 242 < 146 to the left, improve=6.217172, (0 missing)  
## 187 < 34.5 to the left, improve=6.133597, (0 missing)  
## 243 < 100 to the left, improve=6.041958, (0 missing)  
## 244 < 6.5 to the left, improve=6.041958, (0 missing)  
## Surrogate splits:  
## 187 < 96 to the left, agree=0.97, adj=0.9, (0 split)  
## 215 < 65.5 to the left, agree=0.97, adj=0.9, (0 split)  
## 216 < 10 to the left, agree=0.97, adj=0.9, (0 split)  
## 242 < 104.5 to the left, agree=0.97, adj=0.9, (0 split)  
## 243 < 10.5 to the left, agree=0.97, adj=0.9, (0 split)  
##   
## Node number 343: 440 observations, complexity param=0.0004018934  
## predicted class=5 expected loss=0.08863636 P(node) =0.01745685  
## class counts: 0 0 0 28 0 401 5 0 4 2  
## probabilities: 0.000 0.000 0.000 0.064 0.000 0.911 0.011 0.000 0.009 0.005   
## left son=686 (18 obs) right son=687 (422 obs)  
## Primary splits:  
## 121 < 122.5 to the right, improve=17.09669, (0 missing)  
## 262 < 12.5 to the left, improve=14.56608, (0 missing)  
## 148 < 159.5 to the right, improve=12.84638, (0 missing)  
## 186 < 1 to the left, improve=12.75933, (0 missing)  
## 120 < 3.5 to the right, improve=12.66861, (0 missing)  
## Surrogate splits:  
## 120 < 19.5 to the right, agree=0.989, adj=0.722, (0 split)  
## 122 < 193.5 to the right, agree=0.982, adj=0.556, (0 split)  
## 148 < 232.5 to the right, agree=0.980, adj=0.500, (0 split)  
## 119 < 3.5 to the right, agree=0.973, adj=0.333, (0 split)  
## 118 < 64.5 to the right, agree=0.970, adj=0.278, (0 split)  
##   
## Node number 344: 70 observations, complexity param=0.0001786193  
## predicted class=4 expected loss=0.1857143 P(node) =0.002777227  
## class counts: 0 0 0 1 57 3 4 2 0 3  
## probabilities: 0.000 0.000 0.000 0.014 0.814 0.043 0.057 0.029 0.000 0.043   
## left son=688 (63 obs) right son=689 (7 obs)  
## Primary splits:  
## 124 < 37 to the left, improve=8.393651, (0 missing)  
## 543 < 17.5 to the left, improve=8.393651, (0 missing)  
## 544 < 32 to the left, improve=8.393651, (0 missing)  
## 571 < 5 to the left, improve=8.393651, (0 missing)  
## 152 < 187.5 to the left, improve=6.585023, (0 missing)  
## Surrogate splits:  
## 543 < 17.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 544 < 32 to the left, agree=1.000, adj=1.000, (0 split)  
## 571 < 5 to the left, agree=1.000, adj=1.000, (0 split)  
## 123 < 17 to the left, agree=0.986, adj=0.857, (0 split)  
## 125 < 76 to the left, agree=0.986, adj=0.857, (0 split)  
##   
## Node number 345: 15 observations  
## predicted class=9 expected loss=0.6666667 P(node) =0.00059512  
## class counts: 0 0 0 3 1 4 0 1 1 5  
## probabilities: 0.000 0.000 0.000 0.200 0.067 0.267 0.000 0.067 0.067 0.333   
##   
## Node number 346: 12 observations  
## predicted class=0 expected loss=0.6666667 P(node) =0.000476096  
## class counts: 4 0 0 2 0 4 0 0 2 0  
## probabilities: 0.333 0.000 0.000 0.167 0.000 0.333 0.000 0.000 0.167 0.000   
##   
## Node number 347: 67 observations  
## predicted class=7 expected loss=0.119403 P(node) =0.002658203  
## class counts: 0 3 0 3 0 0 0 59 0 2  
## probabilities: 0.000 0.045 0.000 0.045 0.000 0.000 0.000 0.881 0.000 0.030   
##   
## Node number 348: 63 observations  
## predicted class=5 expected loss=0.3174603 P(node) =0.002499504  
## class counts: 0 0 0 5 4 43 3 1 1 6  
## probabilities: 0.000 0.000 0.000 0.079 0.063 0.683 0.048 0.016 0.016 0.095   
##   
## Node number 349: 37 observations, complexity param=0.0004018934  
## predicted class=9 expected loss=0.6216216 P(node) =0.001467963  
## class counts: 0 2 0 11 6 1 0 1 2 14  
## probabilities: 0.000 0.054 0.000 0.297 0.162 0.027 0.000 0.027 0.054 0.378   
## left son=698 (9 obs) right son=699 (28 obs)  
## Primary splits:  
## 468 < 26 to the right, improve=7.974903, (0 missing)  
## 496 < 101 to the right, improve=7.974903, (0 missing)  
## 294 < 197.5 to the right, improve=7.958420, (0 missing)  
## 349 < 249.5 to the right, improve=7.570142, (0 missing)  
## 321 < 196 to the right, improve=6.995072, (0 missing)  
## Surrogate splits:  
## 496 < 101 to the right, agree=1.000, adj=1.000, (0 split)  
## 524 < 69 to the right, agree=0.946, adj=0.778, (0 split)  
## 467 < 227.5 to the right, agree=0.919, adj=0.667, (0 split)  
## 469 < 23 to the right, agree=0.919, adj=0.667, (0 split)  
## 497 < 17 to the right, agree=0.919, adj=0.667, (0 split)  
##   
## Node number 350: 10 observations  
## predicted class=3 expected loss=0.2 P(node) =0.0003967467  
## class counts: 1 0 0 8 0 1 0 0 0 0  
## probabilities: 0.100 0.000 0.000 0.800 0.000 0.100 0.000 0.000 0.000 0.000   
##   
## Node number 351: 247 observations, complexity param=0.0002232741  
## predicted class=9 expected loss=0.1336032 P(node) =0.009799643  
## class counts: 3 0 2 4 8 1 0 10 5 214  
## probabilities: 0.012 0.000 0.008 0.016 0.032 0.004 0.000 0.040 0.020 0.866   
## left son=702 (9 obs) right son=703 (238 obs)  
## Primary splits:  
## 515 < 44 to the right, improve=10.555990, (0 missing)  
## 543 < 61 to the right, improve= 9.894746, (0 missing)  
## 571 < 23.5 to the right, improve= 9.894746, (0 missing)  
## 516 < 10.5 to the right, improve= 9.302766, (0 missing)  
## 544 < 79 to the right, improve= 8.892397, (0 missing)  
## Surrogate splits:  
## 516 < 10.5 to the right, agree=0.996, adj=0.889, (0 split)  
## 543 < 61 to the right, agree=0.992, adj=0.778, (0 split)  
## 571 < 23.5 to the right, agree=0.992, adj=0.778, (0 split)  
## 514 < 5.5 to the right, agree=0.988, adj=0.667, (0 split)  
## 542 < 0.5 to the right, agree=0.988, adj=0.667, (0 split)  
##   
## Node number 356: 39 observations, complexity param=0.0003125837  
## predicted class=1 expected loss=0.6410256 P(node) =0.001547312  
## class counts: 0 14 0 0 8 7 7 0 2 1  
## probabilities: 0.000 0.359 0.000 0.000 0.205 0.179 0.179 0.000 0.051 0.026   
## left son=712 (14 obs) right son=713 (25 obs)  
## Primary splits:  
## 457 < 14.5 to the left, improve=9.035165, (0 missing)  
## 402 < 16 to the left, improve=8.007525, (0 missing)  
## 572 < 25.5 to the left, improve=7.542308, (0 missing)  
## 548 < 3.5 to the left, improve=7.200244, (0 missing)  
## 429 < 32 to the left, improve=6.976518, (0 missing)  
## Surrogate splits:  
## 429 < 8 to the left, agree=0.923, adj=0.786, (0 split)  
## 458 < 205.5 to the left, agree=0.923, adj=0.786, (0 split)  
## 160 < 13 to the right, agree=0.897, adj=0.714, (0 split)  
## 161 < 25 to the right, agree=0.897, adj=0.714, (0 split)  
## 402 < 16 to the left, agree=0.897, adj=0.714, (0 split)  
##   
## Node number 357: 44 observations, complexity param=0.0004018934  
## predicted class=8 expected loss=0.6818182 P(node) =0.001745685  
## class counts: 9 0 12 3 1 0 3 0 14 2  
## probabilities: 0.205 0.000 0.273 0.068 0.023 0.000 0.068 0.000 0.318 0.045   
## left son=714 (9 obs) right son=715 (35 obs)  
## Primary splits:  
## 406 < 98 to the left, improve=7.388456, (0 missing)  
## 380 < 1.5 to the left, improve=6.828010, (0 missing)  
## 386 < 75 to the right, improve=6.214646, (0 missing)  
## 414 < 43 to the right, improve=6.214646, (0 missing)  
## 429 < 50.5 to the right, improve=6.132249, (0 missing)  
## Surrogate splits:  
## 386 < 75 to the right, agree=0.977, adj=0.889, (0 split)  
## 414 < 43 to the right, agree=0.977, adj=0.889, (0 split)  
## 358 < 82 to the right, agree=0.955, adj=0.778, (0 split)  
## 380 < 1.5 to the left, agree=0.955, adj=0.778, (0 split)  
## 385 < 31 to the right, agree=0.932, adj=0.667, (0 split)  
##   
## Node number 362: 13 observations  
## predicted class=4 expected loss=0.6923077 P(node) =0.0005157707  
## class counts: 0 0 0 3 4 1 3 0 2 0  
## probabilities: 0.000 0.000 0.000 0.231 0.308 0.077 0.231 0.000 0.154 0.000   
##   
## Node number 363: 10 observations  
## predicted class=9 expected loss=0.3 P(node) =0.0003967467  
## class counts: 1 0 0 0 1 1 0 0 0 7  
## probabilities: 0.100 0.000 0.000 0.000 0.100 0.100 0.000 0.000 0.000 0.700   
##   
## Node number 366: 21 observations, complexity param=0.0002009467  
## predicted class=5 expected loss=0.5238095 P(node) =0.000833168  
## class counts: 0 0 0 3 0 10 8 0 0 0  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.476 0.381 0.000 0.000 0.000   
## left son=732 (14 obs) right son=733 (7 obs)  
## Primary splits:  
## 321 < 93.5 to the right, improve=6.619048, (0 missing)  
## 598 < 138.5 to the right, improve=5.011905, (0 missing)  
## 400 < 62.5 to the left, improve=5.011905, (0 missing)  
## 597 < 135 to the right, improve=4.984127, (0 missing)  
## 293 < 84.5 to the right, improve=4.761905, (0 missing)  
## Surrogate splits:  
## 293 < 11.5 to the right, agree=0.952, adj=0.857, (0 split)  
## 430 < 97 to the left, agree=0.952, adj=0.857, (0 split)  
## 294 < 44.5 to the right, agree=0.905, adj=0.714, (0 split)  
## 401 < 208 to the left, agree=0.905, adj=0.714, (0 split)  
## 429 < 190.5 to the left, agree=0.905, adj=0.714, (0 split)  
##   
## Node number 367: 172 observations  
## predicted class=6 expected loss=0.09302326 P(node) =0.006824043  
## class counts: 2 0 7 1 0 2 156 0 4 0  
## probabilities: 0.012 0.000 0.041 0.006 0.000 0.012 0.907 0.000 0.023 0.000   
##   
## Node number 372: 12 observations  
## predicted class=0 expected loss=0.4166667 P(node) =0.000476096  
## class counts: 7 0 0 1 0 3 1 0 0 0  
## probabilities: 0.583 0.000 0.000 0.083 0.000 0.250 0.083 0.000 0.000 0.000   
##   
## Node number 373: 28 observations, complexity param=0.0002083892  
## predicted class=8 expected loss=0.5714286 P(node) =0.001110891  
## class counts: 0 0 0 4 0 10 2 0 12 0  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.357 0.071 0.000 0.429 0.000   
## left son=746 (16 obs) right son=747 (12 obs)  
## Primary splits:  
## 297 < 178 to the left, improve=4.863095, (0 missing)  
## 468 < 197.5 to the right, improve=4.089377, (0 missing)  
## 269 < 10.5 to the left, improve=3.863095, (0 missing)  
## 270 < 1 to the left, improve=3.863095, (0 missing)  
## 431 < 27.5 to the left, improve=3.771429, (0 missing)  
## Surrogate splits:  
## 298 < 3.5 to the left, agree=0.929, adj=0.833, (0 split)  
## 269 < 10.5 to the left, agree=0.857, adj=0.667, (0 split)  
## 270 < 1 to the left, agree=0.857, adj=0.667, (0 split)  
## 296 < 181 to the left, agree=0.857, adj=0.667, (0 split)  
## 548 < 14 to the left, agree=0.821, adj=0.583, (0 split)  
##   
## Node number 376: 20 observations  
## predicted class=3 expected loss=0 P(node) =0.0007934934  
## class counts: 0 0 0 20 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 377: 7 observations  
## predicted class=9 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 0 1 0 1 0 0 0 5  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.143 0.000 0.000 0.000 0.714   
##   
## Node number 380: 13 observations  
## predicted class=0 expected loss=0.5384615 P(node) =0.0005157707  
## class counts: 6 0 1 0 0 0 1 0 5 0  
## probabilities: 0.462 0.000 0.077 0.000 0.000 0.000 0.077 0.000 0.385 0.000   
##   
## Node number 381: 15 observations  
## predicted class=3 expected loss=0.4666667 P(node) =0.00059512  
## class counts: 0 0 0 8 0 6 0 0 0 1  
## probabilities: 0.000 0.000 0.000 0.533 0.000 0.400 0.000 0.000 0.000 0.067   
##   
## Node number 382: 57 observations, complexity param=0.0002344378  
## predicted class=8 expected loss=0.4385965 P(node) =0.002261456  
## class counts: 1 0 18 3 0 1 1 1 32 0  
## probabilities: 0.018 0.000 0.316 0.053 0.000 0.018 0.018 0.018 0.561 0.000   
## left son=764 (24 obs) right son=765 (33 obs)  
## Primary splits:  
## 126 < 44.5 to the right, improve=11.622810, (0 missing)  
## 125 < 27 to the right, improve=11.084970, (0 missing)  
## 154 < 246.5 to the right, improve=10.226700, (0 missing)  
## 606 < 250.5 to the right, improve= 9.847131, (0 missing)  
## 608 < 57 to the right, improve= 9.819103, (0 missing)  
## Surrogate splits:  
## 127 < 24 to the right, agree=0.965, adj=0.917, (0 split)  
## 128 < 5.5 to the right, agree=0.947, adj=0.875, (0 split)  
## 125 < 1.5 to the right, agree=0.930, adj=0.833, (0 split)  
## 129 < 2.5 to the right, agree=0.912, adj=0.792, (0 split)  
## 154 < 237 to the right, agree=0.877, adj=0.708, (0 split)  
##   
## Node number 383: 345 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.09275362 P(node) =0.01368776  
## class counts: 1 0 0 12 0 6 10 0 313 3  
## probabilities: 0.003 0.000 0.000 0.035 0.000 0.017 0.029 0.000 0.907 0.009   
## left son=766 (36 obs) right son=767 (309 obs)  
## Primary splits:  
## 439 < 250.5 to the right, improve=9.676202, (0 missing)  
## 459 < 15 to the left, improve=8.315192, (0 missing)  
## 428 < 119 to the right, improve=7.693051, (0 missing)  
## 440 < 156.5 to the right, improve=7.585100, (0 missing)  
## 468 < 249.5 to the right, improve=7.509916, (0 missing)  
## Surrogate splits:  
## 440 < 72.5 to the right, agree=0.965, adj=0.667, (0 split)  
## 468 < 242 to the right, agree=0.965, adj=0.667, (0 split)  
## 412 < 4 to the right, agree=0.945, adj=0.472, (0 split)  
## 411 < 130 to the right, agree=0.942, adj=0.444, (0 split)  
## 441 < 1 to the right, agree=0.936, adj=0.389, (0 split)  
##   
## Node number 384: 1623 observations  
## predicted class=0 expected loss=0.01047443 P(node) =0.06439199  
## class counts: 1606 0 1 0 1 2 12 0 0 1  
## probabilities: 0.990 0.000 0.001 0.000 0.001 0.001 0.007 0.000 0.000 0.001   
##   
## Node number 385: 332 observations, complexity param=0.0001786193  
## predicted class=0 expected loss=0.1686747 P(node) =0.01317199  
## class counts: 276 0 25 7 0 14 5 4 0 1  
## probabilities: 0.831 0.000 0.075 0.021 0.000 0.042 0.015 0.012 0.000 0.003   
## left son=770 (299 obs) right son=771 (33 obs)  
## Primary splits:  
## 545 < 198.5 to the left, improve=14.54646, (0 missing)  
## 517 < 13 to the left, improve=13.77057, (0 missing)  
## 544 < 83.5 to the left, improve=13.00613, (0 missing)  
## 398 < 10.5 to the right, improve=12.99808, (0 missing)  
## 370 < 8 to the right, improve=12.75578, (0 missing)  
## Surrogate splits:  
## 517 < 7 to the left, agree=0.961, adj=0.606, (0 split)  
## 546 < 239.5 to the left, agree=0.961, adj=0.606, (0 split)  
## 544 < 145.5 to the left, agree=0.958, adj=0.576, (0 split)  
## 518 < 93.5 to the left, agree=0.949, adj=0.485, (0 split)  
## 490 < 13.5 to the left, agree=0.934, adj=0.333, (0 split)  
##   
## Node number 390: 30 observations  
## predicted class=3 expected loss=0.3 P(node) =0.00119024  
## class counts: 4 0 1 21 0 4 0 0 0 0  
## probabilities: 0.133 0.000 0.033 0.700 0.000 0.133 0.000 0.000 0.000 0.000   
##   
## Node number 391: 27 observations  
## predicted class=5 expected loss=0.2592593 P(node) =0.001071216  
## class counts: 1 0 1 2 0 20 3 0 0 0  
## probabilities: 0.037 0.000 0.037 0.074 0.000 0.741 0.111 0.000 0.000 0.000   
##   
## Node number 394: 13 observations  
## predicted class=5 expected loss=0.5384615 P(node) =0.0005157707  
## class counts: 2 0 3 2 0 6 0 0 0 0  
## probabilities: 0.154 0.000 0.231 0.154 0.000 0.462 0.000 0.000 0.000 0.000   
##   
## Node number 395: 26 observations  
## predicted class=6 expected loss=0.1538462 P(node) =0.001031541  
## class counts: 1 0 0 0 0 3 22 0 0 0  
## probabilities: 0.038 0.000 0.000 0.000 0.000 0.115 0.846 0.000 0.000 0.000   
##   
## Node number 396: 55 observations, complexity param=0.0002679289  
## predicted class=3 expected loss=0.4363636 P(node) =0.002182107  
## class counts: 3 1 10 31 0 7 1 2 0 0  
## probabilities: 0.055 0.018 0.182 0.564 0.000 0.127 0.018 0.036 0.000 0.000   
## left son=792 (11 obs) right son=793 (44 obs)  
## Primary splits:  
## 514 < 4 to the right, improve=6.409091, (0 missing)  
## 485 < 9.5 to the right, improve=6.357049, (0 missing)  
## 513 < 37.5 to the right, improve=6.234343, (0 missing)  
## 571 < 209.5 to the left, improve=6.188865, (0 missing)  
## 541 < 187 to the right, improve=6.146518, (0 missing)  
## Surrogate splits:  
## 513 < 37.5 to the right, agree=0.982, adj=0.909, (0 split)  
## 485 < 9.5 to the right, agree=0.964, adj=0.818, (0 split)  
## 486 < 44.5 to the right, agree=0.964, adj=0.818, (0 split)  
## 487 < 22 to the right, agree=0.945, adj=0.727, (0 split)  
## 515 < 2 to the right, agree=0.945, adj=0.727, (0 split)  
##   
## Node number 397: 10 observations  
## predicted class=5 expected loss=0.3 P(node) =0.0003967467  
## class counts: 0 0 0 0 0 7 2 0 1 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.700 0.200 0.000 0.100 0.000   
##   
## Node number 412: 44 observations, complexity param=0.0002976988  
## predicted class=8 expected loss=0.7272727 P(node) =0.001745685  
## class counts: 4 0 8 3 1 10 6 0 12 0  
## probabilities: 0.091 0.000 0.182 0.068 0.023 0.227 0.136 0.000 0.273 0.000   
## left son=824 (34 obs) right son=825 (10 obs)  
## Primary splits:  
## 407 < 63 to the left, improve=6.379144, (0 missing)  
## 682 < 20.5 to the left, improve=6.313131, (0 missing)  
## 684 < 31.5 to the left, improve=5.933341, (0 missing)  
## 685 < 43.5 to the left, improve=5.933341, (0 missing)  
## 380 < 118.5 to the left, improve=5.772727, (0 missing)  
## Surrogate splits:  
## 380 < 118.5 to the left, agree=0.977, adj=0.9, (0 split)  
## 378 < 89.5 to the left, agree=0.955, adj=0.8, (0 split)  
## 379 < 107.5 to the left, agree=0.955, adj=0.8, (0 split)  
## 405 < 197.5 to the left, agree=0.955, adj=0.8, (0 split)  
## 406 < 130.5 to the left, agree=0.955, adj=0.8, (0 split)  
##   
## Node number 413: 20 observations  
## predicted class=6 expected loss=0.15 P(node) =0.0007934934  
## class counts: 1 0 1 1 0 0 17 0 0 0  
## probabilities: 0.050 0.000 0.050 0.050 0.000 0.000 0.850 0.000 0.000 0.000   
##   
## Node number 418: 25 observations, complexity param=0.0003572385  
## predicted class=5 expected loss=0.52 P(node) =0.0009918667  
## class counts: 8 0 0 1 0 12 3 0 1 0  
## probabilities: 0.320 0.000 0.000 0.040 0.000 0.480 0.120 0.000 0.040 0.000   
## left son=836 (8 obs) right son=837 (17 obs)  
## Primary splits:  
## 370 < 3 to the right, improve=8.357647, (0 missing)  
## 386 < 2 to the right, improve=8.357647, (0 missing)  
## 443 < 22 to the right, improve=8.357647, (0 missing)  
## 470 < 1 to the right, improve=8.357647, (0 missing)  
## 398 < 36 to the right, improve=8.087222, (0 missing)  
## Surrogate splits:  
## 386 < 2 to the right, agree=1.00, adj=1.000, (0 split)  
## 443 < 22 to the right, agree=1.00, adj=1.000, (0 split)  
## 470 < 1 to the right, agree=1.00, adj=1.000, (0 split)  
## 358 < 62 to the right, agree=0.96, adj=0.875, (0 split)  
## 359 < 16.5 to the right, agree=0.96, adj=0.875, (0 split)  
##   
## Node number 419: 33 observations, complexity param=0.0004018934  
## predicted class=2 expected loss=0.6060606 P(node) =0.001309264  
## class counts: 2 0 13 1 3 0 0 1 0 13  
## probabilities: 0.061 0.000 0.394 0.030 0.091 0.000 0.000 0.030 0.000 0.394   
## left son=838 (19 obs) right son=839 (14 obs)  
## Primary splits:  
## 343 < 29 to the left, improve=9.152654, (0 missing)  
## 371 < 64.5 to the left, improve=9.152654, (0 missing)  
## 315 < 3.5 to the left, improve=7.658586, (0 missing)  
## 372 < 2.5 to the left, improve=7.560383, (0 missing)  
## 261 < 72.5 to the left, improve=7.560383, (0 missing)  
## Surrogate splits:  
## 371 < 6 to the left, agree=0.939, adj=0.857, (0 split)  
## 315 < 3.5 to the left, agree=0.909, adj=0.786, (0 split)  
## 316 < 38 to the left, agree=0.909, adj=0.786, (0 split)  
## 261 < 72.5 to the left, agree=0.879, adj=0.714, (0 split)  
## 288 < 62.5 to the left, agree=0.879, adj=0.714, (0 split)  
##   
## Node number 430: 24 observations  
## predicted class=4 expected loss=0.2916667 P(node) =0.000952192  
## class counts: 1 0 1 0 17 0 0 2 0 3  
## probabilities: 0.042 0.000 0.042 0.000 0.708 0.000 0.000 0.083 0.000 0.125   
##   
## Node number 431: 82 observations  
## predicted class=9 expected loss=0.2560976 P(node) =0.003253323  
## class counts: 0 0 2 0 6 0 1 11 1 61  
## probabilities: 0.000 0.000 0.024 0.000 0.073 0.000 0.012 0.134 0.012 0.744   
##   
## Node number 432: 16 observations  
## predicted class=3 expected loss=0.1875 P(node) =0.0006347947  
## class counts: 0 0 0 13 1 2 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.813 0.062 0.125 0.000 0.000 0.000 0.000   
##   
## Node number 433: 37 observations, complexity param=0.0001786193  
## predicted class=5 expected loss=0.5945946 P(node) =0.001467963  
## class counts: 1 7 0 4 0 15 8 0 0 2  
## probabilities: 0.027 0.189 0.000 0.108 0.000 0.405 0.216 0.000 0.000 0.054   
## left son=866 (28 obs) right son=867 (9 obs)  
## Primary splits:  
## 541 < 12 to the left, improve=5.368726, (0 missing)  
## 550 < 9.5 to the left, improve=5.322938, (0 missing)  
## 487 < 65 to the left, improve=5.116345, (0 missing)  
## 488 < 40.5 to the left, improve=4.987356, (0 missing)  
## 551 < 1.5 to the left, improve=4.917297, (0 missing)  
## Surrogate splits:  
## 540 < 46.5 to the left, agree=0.973, adj=0.889, (0 split)  
## 482 < 12.5 to the left, agree=0.946, adj=0.778, (0 split)  
## 510 < 40 to the left, agree=0.946, adj=0.778, (0 split)  
## 511 < 13 to the left, agree=0.946, adj=0.778, (0 split)  
## 512 < 91 to the left, agree=0.946, adj=0.778, (0 split)  
##   
## Node number 436: 7 observations  
## predicted class=3 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 1 4 0 0 0 0 0 2  
## probabilities: 0.000 0.000 0.143 0.571 0.000 0.000 0.000 0.000 0.000 0.286   
##   
## Node number 437: 24 observations  
## predicted class=4 expected loss=0.2083333 P(node) =0.000952192  
## class counts: 0 0 0 0 19 1 0 3 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.792 0.042 0.000 0.125 0.000 0.042   
##   
## Node number 444: 14 observations  
## predicted class=5 expected loss=0.2857143 P(node) =0.0005554453  
## class counts: 0 2 0 1 0 10 1 0 0 0  
## probabilities: 0.000 0.143 0.000 0.071 0.000 0.714 0.071 0.000 0.000 0.000   
##   
## Node number 445: 16 observations  
## predicted class=4 expected loss=0.5 P(node) =0.0006347947  
## class counts: 0 0 1 0 8 0 0 2 0 5  
## probabilities: 0.000 0.000 0.062 0.000 0.500 0.000 0.000 0.125 0.000 0.312   
##   
## Node number 446: 19 observations  
## predicted class=3 expected loss=0.7368421 P(node) =0.0007538187  
## class counts: 3 1 3 5 0 4 0 1 0 2  
## probabilities: 0.158 0.053 0.158 0.263 0.000 0.211 0.000 0.053 0.000 0.105   
##   
## Node number 447: 629 observations  
## predicted class=7 expected loss=0.03656598 P(node) =0.02495537  
## class counts: 5 0 1 2 4 3 3 606 0 5  
## probabilities: 0.008 0.000 0.002 0.003 0.006 0.005 0.005 0.963 0.000 0.008   
##   
## Node number 448: 922 observations, complexity param=0.0002679289  
## predicted class=2 expected loss=0.04338395 P(node) =0.03658004  
## class counts: 0 0 882 15 0 1 0 12 11 1  
## probabilities: 0.000 0.000 0.957 0.016 0.000 0.001 0.000 0.013 0.012 0.001   
## left son=896 (912 obs) right son=897 (10 obs)  
## Primary splits:  
## 345 < 104.5 to the left, improve=12.406900, (0 missing)  
## 346 < 70.5 to the left, improve=12.406900, (0 missing)  
## 681 < 18 to the left, improve= 6.490996, (0 missing)  
## 680 < 41 to the left, improve= 5.718800, (0 missing)  
## 683 < 44.5 to the left, improve= 5.615033, (0 missing)  
## Surrogate splits:  
## 346 < 70.5 to the left, agree=1.000, adj=1.0, (0 split)  
## 318 < 245.5 to the left, agree=0.991, adj=0.2, (0 split)  
## 373 < 241.5 to the left, agree=0.991, adj=0.2, (0 split)  
## 317 < 230 to the left, agree=0.990, adj=0.1, (0 split)  
## 374 < 230.5 to the left, agree=0.990, adj=0.1, (0 split)  
##   
## Node number 449: 14 observations  
## predicted class=8 expected loss=0 P(node) =0.0005554453  
## class counts: 0 0 0 0 0 0 0 0 14 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000   
##   
## Node number 450: 35 observations, complexity param=0.000491203  
## predicted class=2 expected loss=0.5142857 P(node) =0.001388613  
## class counts: 3 0 17 0 2 0 2 0 0 11  
## probabilities: 0.086 0.000 0.486 0.000 0.057 0.000 0.057 0.000 0.000 0.314   
## left son=900 (22 obs) right son=901 (13 obs)  
## Primary splits:  
## 570 < 169.5 to the right, improve=11.14266, (0 missing)  
## 597 < 4.5 to the right, improve=11.14266, (0 missing)  
## 598 < 93.5 to the right, improve=11.14266, (0 missing)  
## 599 < 19.5 to the right, improve=11.14058, (0 missing)  
## 626 < 2.5 to the right, improve=11.14058, (0 missing)  
## Surrogate splits:  
## 597 < 4.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 598 < 93.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 599 < 19.5 to the right, agree=0.971, adj=0.923, (0 split)  
## 625 < 2.5 to the right, agree=0.971, adj=0.923, (0 split)  
## 626 < 2.5 to the right, agree=0.971, adj=0.923, (0 split)  
##   
## Node number 451: 50 observations  
## predicted class=8 expected loss=0.18 P(node) =0.001983733  
## class counts: 0 0 3 1 0 1 0 0 41 4  
## probabilities: 0.000 0.000 0.060 0.020 0.000 0.020 0.000 0.000 0.820 0.080   
##   
## Node number 452: 246 observations, complexity param=0.002589979  
## predicted class=1 expected loss=0.5934959 P(node) =0.009759968  
## class counts: 0 100 19 1 60 5 48 8 3 2  
## probabilities: 0.000 0.407 0.077 0.004 0.244 0.020 0.195 0.033 0.012 0.008   
## left son=904 (135 obs) right son=905 (111 obs)  
## Primary splits:  
## 344 < 1.5 to the left, improve=56.73869, (0 missing)  
## 456 < 1 to the left, improve=55.85903, (0 missing)  
## 372 < 10 to the left, improve=55.65413, (0 missing)  
## 428 < 2 to the left, improve=55.43471, (0 missing)  
## 316 < 1 to the left, improve=55.18781, (0 missing)  
## Surrogate splits:  
## 316 < 1 to the left, agree=0.967, adj=0.928, (0 split)  
## 372 < 10 to the left, agree=0.967, adj=0.928, (0 split)  
## 400 < 4.5 to the left, agree=0.947, adj=0.883, (0 split)  
## 288 < 0.5 to the left, agree=0.939, adj=0.865, (0 split)  
## 289 < 0.5 to the left, agree=0.935, adj=0.856, (0 split)  
##   
## Node number 453: 241 observations, complexity param=0.002634634  
## predicted class=2 expected loss=0.6473029 P(node) =0.009561595  
## class counts: 2 2 85 5 2 5 0 49 19 72  
## probabilities: 0.008 0.008 0.353 0.021 0.008 0.021 0.000 0.203 0.079 0.299   
## left son=906 (150 obs) right son=907 (91 obs)  
## Primary splits:  
## 371 < 1.5 to the left, improve=41.69612, (0 missing)  
## 344 < 110 to the left, improve=41.20927, (0 missing)  
## 372 < 67 to the left, improve=39.75462, (0 missing)  
## 343 < 1 to the left, improve=35.41713, (0 missing)  
## 399 < 3 to the left, improve=34.26607, (0 missing)  
## Surrogate splits:  
## 343 < 1 to the left, agree=0.946, adj=0.857, (0 split)  
## 399 < 8.5 to the left, agree=0.934, adj=0.824, (0 split)  
## 344 < 66.5 to the left, agree=0.925, adj=0.802, (0 split)  
## 316 < 139 to the left, agree=0.913, adj=0.769, (0 split)  
## 372 < 58 to the left, agree=0.909, adj=0.758, (0 split)  
##   
## Node number 454: 128 observations  
## predicted class=7 expected loss=0.03125 P(node) =0.005078357  
## class counts: 0 0 3 1 0 0 0 124 0 0  
## probabilities: 0.000 0.000 0.023 0.008 0.000 0.000 0.000 0.969 0.000 0.000   
##   
## Node number 455: 8 observations  
## predicted class=8 expected loss=0.25 P(node) =0.0003173973  
## class counts: 0 0 0 0 1 0 0 0 6 1  
## probabilities: 0.000 0.000 0.000 0.000 0.125 0.000 0.000 0.000 0.750 0.125   
##   
## Node number 456: 20 observations, complexity param=0.0002232741  
## predicted class=8 expected loss=0.7 P(node) =0.0007934934  
## class counts: 5 0 5 0 1 0 3 0 6 0  
## probabilities: 0.250 0.000 0.250 0.000 0.050 0.000 0.150 0.000 0.300 0.000   
## left son=912 (13 obs) right son=913 (7 obs)  
## Primary splits:  
## 522 < 13.5 to the right, improve=5.024176, (0 missing)  
## 495 < 32.5 to the right, improve=5.024176, (0 missing)  
## 493 < 165.5 to the right, improve=4.800000, (0 missing)  
## 494 < 80 to the right, improve=4.450000, (0 missing)  
## 521 < 125 to the right, improve=4.450000, (0 missing)  
## Surrogate splits:  
## 495 < 32.5 to the right, agree=1.00, adj=1.000, (0 split)  
## 440 < 205 to the right, agree=0.95, adj=0.857, (0 split)  
## 441 < 13.5 to the right, agree=0.95, adj=0.857, (0 split)  
## 467 < 121.5 to the right, agree=0.95, adj=0.857, (0 split)  
## 468 < 19 to the right, agree=0.95, adj=0.857, (0 split)  
##   
## Node number 457: 101 observations  
## predicted class=5 expected loss=0.06930693 P(node) =0.004007141  
## class counts: 0 0 2 0 2 94 1 0 2 0  
## probabilities: 0.000 0.000 0.020 0.000 0.020 0.931 0.010 0.000 0.020 0.000   
##   
## Node number 458: 155 observations, complexity param=0.0005805126  
## predicted class=4 expected loss=0.316129 P(node) =0.006149573  
## class counts: 0 0 13 0 106 1 13 13 7 2  
## probabilities: 0.000 0.000 0.084 0.000 0.684 0.006 0.084 0.084 0.045 0.013   
## left son=916 (132 obs) right son=917 (23 obs)  
## Primary splits:  
## 268 < 136 to the left, improve=20.08729, (0 missing)  
## 295 < 173 to the left, improve=17.80890, (0 missing)  
## 429 < 55 to the right, improve=16.97293, (0 missing)  
## 126 < 6.5 to the right, improve=16.01735, (0 missing)  
## 127 < 2.5 to the right, improve=15.84815, (0 missing)  
## Surrogate splits:  
## 295 < 173 to the left, agree=0.981, adj=0.870, (0 split)  
## 267 < 184.5 to the left, agree=0.961, adj=0.739, (0 split)  
## 296 < 210.5 to the left, agree=0.948, adj=0.652, (0 split)  
## 240 < 68.5 to the left, agree=0.942, adj=0.609, (0 split)  
## 294 < 228 to the left, agree=0.935, adj=0.565, (0 split)  
##   
## Node number 459: 209 observations, complexity param=0.001674556  
## predicted class=2 expected loss=0.7464115 P(node) =0.008292006  
## class counts: 14 0 53 0 19 1 2 35 34 51  
## probabilities: 0.067 0.000 0.254 0.000 0.091 0.005 0.010 0.167 0.163 0.244   
## left son=918 (85 obs) right son=919 (124 obs)  
## Primary splits:  
## 567 < 25 to the right, improve=24.04753, (0 missing)  
## 568 < 77 to the right, improve=22.73472, (0 missing)  
## 708 < 1.5 to the left, improve=22.62774, (0 missing)  
## 709 < 6.5 to the left, improve=21.41509, (0 missing)  
## 155 < 9.5 to the right, improve=20.79665, (0 missing)  
## Surrogate splits:  
## 568 < 172.5 to the right, agree=0.919, adj=0.800, (0 split)  
## 566 < 2 to the right, agree=0.904, adj=0.765, (0 split)  
## 595 < 8.5 to the right, agree=0.895, adj=0.741, (0 split)  
## 539 < 7.5 to the right, agree=0.876, adj=0.694, (0 split)  
## 594 < 0.5 to the right, agree=0.871, adj=0.682, (0 split)  
##   
## Node number 460: 21 observations  
## predicted class=4 expected loss=0.0952381 P(node) =0.000833168  
## class counts: 0 0 0 0 19 0 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.000 0.905 0.000 0.000 0.000 0.095 0.000   
##   
## Node number 461: 53 observations, complexity param=0.0004465482  
## predicted class=8 expected loss=0.754717 P(node) =0.002102757  
## class counts: 10 0 1 0 2 9 5 0 13 13  
## probabilities: 0.189 0.000 0.019 0.000 0.038 0.170 0.094 0.000 0.245 0.245   
## left son=922 (36 obs) right son=923 (17 obs)  
## Primary splits:  
## 597 < 24.5 to the right, improve=9.657849, (0 missing)  
## 570 < 22.5 to the right, improve=9.326491, (0 missing)  
## 598 < 10.5 to the right, improve=9.164385, (0 missing)  
## 569 < 2.5 to the right, improve=9.100859, (0 missing)  
## 627 < 2.5 to the right, improve=8.688021, (0 missing)  
## Surrogate splits:  
## 569 < 96 to the right, agree=0.943, adj=0.824, (0 split)  
## 598 < 39 to the right, agree=0.943, adj=0.824, (0 split)  
## 626 < 16 to the right, agree=0.943, adj=0.824, (0 split)  
## 568 < 7 to the right, agree=0.906, adj=0.706, (0 split)  
## 570 < 22.5 to the right, agree=0.906, adj=0.706, (0 split)  
##   
## Node number 462: 47 observations, complexity param=0.0002456015  
## predicted class=8 expected loss=0.5106383 P(node) =0.001864709  
## class counts: 4 0 0 2 1 12 1 2 23 2  
## probabilities: 0.085 0.000 0.000 0.043 0.021 0.255 0.021 0.043 0.489 0.043   
## left son=924 (20 obs) right son=925 (27 obs)  
## Primary splits:  
## 600 < 214 to the right, improve=11.983290, (0 missing)  
## 485 < 32.5 to the left, improve= 8.681651, (0 missing)  
## 486 < 1.5 to the left, improve= 8.681651, (0 missing)  
## 572 < 6 to the right, improve= 8.433531, (0 missing)  
## 628 < 251.5 to the right, improve= 7.878917, (0 missing)  
## Surrogate splits:  
## 572 < 132 to the right, agree=0.894, adj=0.75, (0 split)  
## 599 < 226.5 to the right, agree=0.894, adj=0.75, (0 split)  
## 601 < 71 to the right, agree=0.851, adj=0.65, (0 split)  
## 265 < 237 to the right, agree=0.830, adj=0.60, (0 split)  
## 373 < 145.5 to the right, agree=0.830, adj=0.60, (0 split)  
##   
## Node number 463: 588 observations  
## predicted class=8 expected loss=0.04591837 P(node) =0.0233287  
## class counts: 3 0 4 3 2 2 3 6 561 4  
## probabilities: 0.005 0.000 0.007 0.005 0.003 0.003 0.005 0.010 0.954 0.007   
##   
## Node number 464: 32 observations, complexity param=0.0003125837  
## predicted class=1 expected loss=0.3125 P(node) =0.001269589  
## class counts: 1 22 7 0 1 0 0 0 1 0  
## probabilities: 0.031 0.688 0.219 0.000 0.031 0.000 0.000 0.000 0.031 0.000   
## left son=928 (24 obs) right son=929 (8 obs)  
## Primary splits:  
## 127 < 5 to the left, improve=9.750000, (0 missing)  
## 128 < 106.5 to the left, improve=9.750000, (0 missing)  
## 154 < 2.5 to the left, improve=9.750000, (0 missing)  
## 577 < 48 to the left, improve=9.730000, (0 missing)  
## 155 < 1 to the left, improve=8.177536, (0 missing)  
## Surrogate splits:  
## 128 < 106.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 154 < 2.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 126 < 11 to the left, agree=0.969, adj=0.875, (0 split)  
## 155 < 1 to the left, agree=0.969, adj=0.875, (0 split)  
## 577 < 48 to the left, agree=0.969, adj=0.875, (0 split)  
##   
## Node number 465: 286 observations, complexity param=0.0002232741  
## predicted class=2 expected loss=0.1153846 P(node) =0.01134695  
## class counts: 1 3 253 2 7 0 3 9 3 5  
## probabilities: 0.003 0.010 0.885 0.007 0.024 0.000 0.010 0.031 0.010 0.017   
## left son=930 (275 obs) right son=931 (11 obs)  
## Primary splits:  
## 398 < 100.5 to the left, improve=12.80392, (0 missing)  
## 371 < 119 to the left, improve=12.03539, (0 missing)  
## 370 < 183 to the left, improve=11.69353, (0 missing)  
## 343 < 21.5 to the left, improve=11.44725, (0 missing)  
## 399 < 157 to the left, improve=11.43237, (0 missing)  
## Surrogate splits:  
## 370 < 183 to the left, agree=0.997, adj=0.909, (0 split)  
## 399 < 230 to the left, agree=0.990, adj=0.727, (0 split)  
## 315 < 251 to the left, agree=0.986, adj=0.636, (0 split)  
## 371 < 245.5 to the left, agree=0.986, adj=0.636, (0 split)  
## 397 < 10.5 to the left, agree=0.986, adj=0.636, (0 split)  
##   
## Node number 468: 48 observations  
## predicted class=4 expected loss=0.5 P(node) =0.001904384  
## class counts: 0 1 5 0 24 1 0 2 4 11  
## probabilities: 0.000 0.021 0.104 0.000 0.500 0.021 0.000 0.042 0.083 0.229   
##   
## Node number 469: 25 observations  
## predicted class=6 expected loss=0.24 P(node) =0.0009918667  
## class counts: 0 0 4 0 0 0 19 2 0 0  
## probabilities: 0.000 0.000 0.160 0.000 0.000 0.000 0.760 0.080 0.000 0.000   
##   
## Node number 472: 83 observations  
## predicted class=2 expected loss=0.1566265 P(node) =0.003292997  
## class counts: 3 0 70 3 0 0 2 0 5 0  
## probabilities: 0.036 0.000 0.843 0.036 0.000 0.000 0.024 0.000 0.060 0.000   
##   
## Node number 473: 44 observations, complexity param=0.0004465482  
## predicted class=4 expected loss=0.7272727 P(node) =0.001745685  
## class counts: 0 1 2 0 12 1 12 1 10 5  
## probabilities: 0.000 0.023 0.045 0.000 0.273 0.023 0.273 0.023 0.227 0.114   
## left son=946 (12 obs) right son=947 (32 obs)  
## Primary splits:  
## 220 < 30 to the right, improve=7.079545, (0 missing)  
## 415 < 42.5 to the right, improve=5.933911, (0 missing)  
## 443 < 3.5 to the right, improve=5.933911, (0 missing)  
## 470 < 27 to the right, improve=5.933911, (0 missing)  
## 442 < 40.5 to the right, improve=5.848485, (0 missing)  
## Surrogate splits:  
## 248 < 98 to the right, agree=0.932, adj=0.750, (0 split)  
## 221 < 15.5 to the right, agree=0.886, adj=0.583, (0 split)  
## 247 < 107 to the right, agree=0.864, adj=0.500, (0 split)  
## 275 < 242.5 to the right, agree=0.864, adj=0.500, (0 split)  
## 249 < 14 to the right, agree=0.841, adj=0.417, (0 split)  
##   
## Node number 476: 34 observations  
## predicted class=2 expected loss=0.2352941 P(node) =0.001348939  
## class counts: 0 2 26 0 2 0 1 1 2 0  
## probabilities: 0.000 0.059 0.765 0.000 0.059 0.000 0.029 0.029 0.059 0.000   
##   
## Node number 477: 1503 observations, complexity param=0.000491203  
## predicted class=6 expected loss=0.0332668 P(node) =0.05963103  
## class counts: 0 0 4 1 2 27 1453 0 9 7  
## probabilities: 0.000 0.000 0.003 0.001 0.001 0.018 0.967 0.000 0.006 0.005   
## left son=954 (18 obs) right son=955 (1485 obs)  
## Primary splits:  
## 217 < 164 to the right, improve=22.62187, (0 missing)  
## 218 < 139 to the right, improve=21.71964, (0 missing)  
## 215 < 165 to the right, improve=20.87881, (0 missing)  
## 191 < 40 to the right, improve=19.28097, (0 missing)  
## 192 < 25 to the right, improve=18.87744, (0 missing)  
## Surrogate splits:  
## 218 < 139 to the right, agree=0.997, adj=0.778, (0 split)  
## 216 < 194.5 to the right, agree=0.997, adj=0.722, (0 split)  
## 219 < 34 to the right, agree=0.995, adj=0.556, (0 split)  
## 215 < 236.5 to the right, agree=0.994, adj=0.500, (0 split)  
## 220 < 82 to the right, agree=0.994, adj=0.500, (0 split)  
##   
## Node number 478: 67 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.1641791 P(node) =0.002658203  
## class counts: 0 0 0 2 1 56 6 0 2 0  
## probabilities: 0.000 0.000 0.000 0.030 0.015 0.836 0.090 0.000 0.030 0.000   
## left son=956 (58 obs) right son=957 (9 obs)  
## Primary splits:  
## 456 < 140 to the left, improve=9.097101, (0 missing)  
## 484 < 104.5 to the left, improve=6.276934, (0 missing)  
## 485 < 100.5 to the left, improve=4.330817, (0 missing)  
## 427 < 39 to the left, improve=4.108595, (0 missing)  
## 428 < 154 to the left, improve=3.775949, (0 missing)  
## Surrogate splits:  
## 427 < 39 to the left, agree=0.940, adj=0.556, (0 split)  
## 455 < 35.5 to the left, agree=0.940, adj=0.556, (0 split)  
## 405 < 16 to the right, agree=0.925, adj=0.444, (0 split)  
## 484 < 104.5 to the left, agree=0.925, adj=0.444, (0 split)  
## 428 < 154 to the left, agree=0.910, adj=0.333, (0 split)  
##   
## Node number 479: 96 observations, complexity param=0.000870769  
## predicted class=8 expected loss=0.6145833 P(node) =0.003808768  
## class counts: 0 0 2 2 0 19 31 1 37 4  
## probabilities: 0.000 0.000 0.021 0.021 0.000 0.198 0.323 0.010 0.385 0.042   
## left son=958 (34 obs) right son=959 (62 obs)  
## Primary splits:  
## 457 < 103 to the right, improve=13.42750, (0 missing)  
## 429 < 14 to the right, improve=13.11877, (0 missing)  
## 328 < 10 to the left, improve=12.90833, (0 missing)  
## 131 < 9.5 to the right, improve=12.26006, (0 missing)  
## 430 < 226 to the right, improve=11.99758, (0 missing)  
## Surrogate splits:  
## 429 < 22.5 to the right, agree=0.885, adj=0.676, (0 split)  
## 485 < 150.5 to the right, agree=0.885, adj=0.676, (0 split)  
## 456 < 9.5 to the right, agree=0.854, adj=0.588, (0 split)  
## 458 < 246 to the right, agree=0.854, adj=0.588, (0 split)  
## 484 < 17 to the right, agree=0.833, adj=0.529, (0 split)  
##   
## Node number 480: 87 observations  
## predicted class=2 expected loss=0.05747126 P(node) =0.003451696  
## class counts: 0 0 82 2 0 2 0 0 1 0  
## probabilities: 0.000 0.000 0.943 0.023 0.000 0.023 0.000 0.000 0.011 0.000   
##   
## Node number 481: 22 observations, complexity param=0.0002232741  
## predicted class=3 expected loss=0.3181818 P(node) =0.0008728427  
## class counts: 0 0 2 15 0 0 0 0 5 0  
## probabilities: 0.000 0.000 0.091 0.682 0.000 0.000 0.000 0.000 0.227 0.000   
## left son=962 (15 obs) right son=963 (7 obs)  
## Primary splits:  
## 484 < 42.5 to the left, improve=7.597403, (0 missing)  
## 485 < 86 to the left, improve=7.597403, (0 missing)  
## 512 < 106 to the left, improve=7.597403, (0 missing)  
## 511 < 45.5 to the left, improve=6.204545, (0 missing)  
## 513 < 2.5 to the left, improve=6.204545, (0 missing)  
## Surrogate splits:  
## 485 < 86 to the left, agree=1.000, adj=1.000, (0 split)  
## 512 < 106 to the left, agree=1.000, adj=1.000, (0 split)  
## 511 < 45.5 to the left, agree=0.955, adj=0.857, (0 split)  
## 513 < 2.5 to the left, agree=0.955, adj=0.857, (0 split)  
## 321 < 12 to the left, agree=0.909, adj=0.714, (0 split)  
##   
## Node number 482: 87 observations  
## predicted class=5 expected loss=0.1034483 P(node) =0.003451696  
## class counts: 0 0 2 5 0 78 1 0 1 0  
## probabilities: 0.000 0.000 0.023 0.057 0.000 0.897 0.011 0.000 0.011 0.000   
##   
## Node number 483: 25 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.4 P(node) =0.0009918667  
## class counts: 0 0 2 2 4 1 1 0 15 0  
## probabilities: 0.000 0.000 0.080 0.080 0.160 0.040 0.040 0.000 0.600 0.000   
## left son=966 (7 obs) right son=967 (18 obs)  
## Primary splits:  
## 400 < 192 to the right, improve=5.626667, (0 missing)  
## 485 < 88.5 to the left, improve=5.055238, (0 missing)  
## 401 < 201.5 to the right, improve=4.890556, (0 missing)  
## 512 < 17.5 to the left, improve=4.769524, (0 missing)  
## 439 < 38 to the right, improve=4.652308, (0 missing)  
## Surrogate splits:  
## 427 < 25.5 to the right, agree=0.96, adj=0.857, (0 split)  
## 398 < 3 to the right, agree=0.92, adj=0.714, (0 split)  
## 399 < 97.5 to the right, agree=0.92, adj=0.714, (0 split)  
## 401 < 201.5 to the right, agree=0.92, adj=0.714, (0 split)  
## 426 < 3 to the right, agree=0.92, adj=0.714, (0 split)  
##   
## Node number 484: 1415 observations, complexity param=0.0008037867  
## predicted class=4 expected loss=0.09399293 P(node) =0.05613965  
## class counts: 0 6 14 16 1282 21 15 10 31 20  
## probabilities: 0.000 0.004 0.010 0.011 0.906 0.015 0.011 0.007 0.022 0.014   
## left son=968 (1344 obs) right son=969 (71 obs)  
## Primary splits:  
## 155 < 120.5 to the left, improve=61.80734, (0 missing)  
## 183 < 31.5 to the left, improve=46.27412, (0 missing)  
## 154 < 128 to the left, improve=37.69171, (0 missing)  
## 156 < 179 to the left, improve=33.33936, (0 missing)  
## 429 < 29.5 to the right, improve=24.05030, (0 missing)  
## Surrogate splits:  
## 183 < 82 to the left, agree=0.983, adj=0.662, (0 split)  
## 154 < 169.5 to the left, agree=0.972, adj=0.437, (0 split)  
## 156 < 221 to the left, agree=0.970, adj=0.394, (0 split)  
## 127 < 72 to the left, agree=0.965, adj=0.296, (0 split)  
## 182 < 240.5 to the left, agree=0.963, adj=0.268, (0 split)  
##   
## Node number 485: 54 observations  
## predicted class=6 expected loss=0.05555556 P(node) =0.002142432  
## class counts: 0 0 2 0 1 0 51 0 0 0  
## probabilities: 0.000 0.000 0.037 0.000 0.019 0.000 0.944 0.000 0.000 0.000   
##   
## Node number 486: 93 observations, complexity param=0.0006251675  
## predicted class=9 expected loss=0.5806452 P(node) =0.003689744  
## class counts: 0 0 2 2 24 20 0 5 1 39  
## probabilities: 0.000 0.000 0.022 0.022 0.258 0.215 0.000 0.054 0.011 0.419   
## left son=972 (21 obs) right son=973 (72 obs)  
## Primary splits:  
## 247 < 1.5 to the right, improve=11.82066, (0 missing)  
## 381 < 4 to the left, improve=11.37190, (0 missing)  
## 353 < 5 to the left, improve=10.84927, (0 missing)  
## 248 < 1.5 to the right, improve=10.22326, (0 missing)  
## 354 < 2 to the left, improve=10.20015, (0 missing)  
## Surrogate splits:  
## 246 < 68.5 to the right, agree=0.968, adj=0.857, (0 split)  
## 248 < 1.5 to the right, agree=0.946, adj=0.762, (0 split)  
## 275 < 10.5 to the right, agree=0.935, adj=0.714, (0 split)  
## 218 < 29 to the right, agree=0.925, adj=0.667, (0 split)  
## 219 < 2 to the right, agree=0.925, adj=0.667, (0 split)  
##   
## Node number 487: 47 observations, complexity param=0.0003125837  
## predicted class=7 expected loss=0.3829787 P(node) =0.001864709  
## class counts: 0 0 5 2 0 1 0 29 2 8  
## probabilities: 0.000 0.000 0.106 0.043 0.000 0.021 0.000 0.617 0.043 0.170   
## left son=974 (36 obs) right son=975 (11 obs)  
## Primary splits:  
## 455 < 81.5 to the left, improve=9.107135, (0 missing)  
## 426 < 9 to the left, improve=8.740324, (0 missing)  
## 427 < 1 to the left, improve=8.740324, (0 missing)  
## 370 < 112 to the left, improve=8.707174, (0 missing)  
## 371 < 190.5 to the left, improve=8.707174, (0 missing)  
## Surrogate splits:  
## 426 < 26 to the left, agree=0.957, adj=0.818, (0 split)  
## 427 < 1 to the left, agree=0.936, adj=0.727, (0 split)  
## 370 < 144 to the left, agree=0.915, adj=0.636, (0 split)  
## 398 < 90 to the left, agree=0.915, adj=0.636, (0 split)  
## 454 < 5.5 to the left, agree=0.915, adj=0.636, (0 split)  
##   
## Node number 488: 521 observations, complexity param=0.0009377512  
## predicted class=5 expected loss=0.1516315 P(node) =0.0206705  
## class counts: 0 0 1 35 1 442 24 1 0 17  
## probabilities: 0.000 0.000 0.002 0.067 0.002 0.848 0.046 0.002 0.000 0.033   
## left son=976 (494 obs) right son=977 (27 obs)  
## Primary splits:  
## 516 < 166.5 to the left, improve=37.42924, (0 missing)  
## 544 < 240.5 to the left, improve=35.78384, (0 missing)  
## 100 < 22 to the left, improve=35.66911, (0 missing)  
## 101 < 1.5 to the left, improve=33.93476, (0 missing)  
## 543 < 40 to the left, improve=28.88534, (0 missing)  
## Surrogate splits:  
## 100 < 22 to the left, agree=0.988, adj=0.778, (0 split)  
## 544 < 240.5 to the left, agree=0.988, adj=0.778, (0 split)  
## 101 < 1.5 to the left, agree=0.987, adj=0.741, (0 split)  
## 515 < 67.5 to the left, agree=0.981, adj=0.630, (0 split)  
## 543 < 40 to the left, agree=0.981, adj=0.630, (0 split)  
##   
## Node number 489: 60 observations, complexity param=0.0005805126  
## predicted class=9 expected loss=0.6166667 P(node) =0.00238048  
## class counts: 3 0 13 2 5 3 2 0 9 23  
## probabilities: 0.050 0.000 0.217 0.033 0.083 0.050 0.033 0.000 0.150 0.383   
## left son=978 (25 obs) right son=979 (35 obs)  
## Primary splits:  
## 596 < 14 to the right, improve=11.298100, (0 missing)  
## 155 < 24 to the right, improve= 9.944947, (0 missing)  
## 597 < 21.5 to the right, improve= 9.661661, (0 missing)  
## 595 < 9 to the right, improve= 9.196044, (0 missing)  
## 154 < 7 to the right, improve= 9.104167, (0 missing)  
## Surrogate splits:  
## 597 < 44.5 to the right, agree=0.950, adj=0.88, (0 split)  
## 595 < 9 to the right, agree=0.933, adj=0.84, (0 split)  
## 539 < 13.5 to the right, agree=0.900, adj=0.76, (0 split)  
## 567 < 4.5 to the right, agree=0.900, adj=0.76, (0 split)  
## 568 < 2 to the right, agree=0.900, adj=0.76, (0 split)  
##   
## Node number 490: 79 observations  
## predicted class=4 expected loss=0.1392405 P(node) =0.003134299  
## class counts: 0 1 1 1 68 0 0 4 1 3  
## probabilities: 0.000 0.013 0.013 0.013 0.861 0.000 0.000 0.051 0.013 0.038   
##   
## Node number 491: 148 observations, complexity param=0.0008037867  
## predicted class=9 expected loss=0.6689189 P(node) =0.005871851  
## class counts: 0 1 4 17 20 0 2 28 27 49  
## probabilities: 0.000 0.007 0.027 0.115 0.135 0.000 0.014 0.189 0.182 0.331   
## left son=982 (127 obs) right son=983 (21 obs)  
## Primary splits:  
## 544 < 172.5 to the left, improve=15.29669, (0 missing)  
## 346 < 0.5 to the left, improve=14.10428, (0 missing)  
## 345 < 4 to the left, improve=13.30087, (0 missing)  
## 572 < 43 to the left, improve=13.08108, (0 missing)  
## 373 < 3.5 to the left, improve=12.66705, (0 missing)  
## Surrogate splits:  
## 516 < 159 to the left, agree=0.966, adj=0.762, (0 split)  
## 543 < 1 to the left, agree=0.939, adj=0.571, (0 split)  
## 571 < 7.5 to the left, agree=0.939, adj=0.571, (0 split)  
## 572 < 165.5 to the left, agree=0.932, adj=0.524, (0 split)  
## 517 < 252.5 to the left, agree=0.926, adj=0.476, (0 split)  
##   
## Node number 492: 178 observations, complexity param=0.001607573  
## predicted class=3 expected loss=0.5393258 P(node) =0.007062091  
## class counts: 2 0 44 82 1 8 3 0 27 11  
## probabilities: 0.011 0.000 0.247 0.461 0.006 0.045 0.017 0.000 0.152 0.062   
## left son=984 (99 obs) right son=985 (79 obs)  
## Primary splits:  
## 484 < 46 to the left, improve=36.93243, (0 missing)  
## 483 < 2.5 to the left, improve=34.73228, (0 missing)  
## 485 < 2 to the left, improve=29.35907, (0 missing)  
## 379 < 121 to the left, improve=29.01655, (0 missing)  
## 511 < 69.5 to the left, improve=28.38304, (0 missing)  
## Surrogate splits:  
## 483 < 2.5 to the left, agree=0.938, adj=0.861, (0 split)  
## 485 < 2 to the left, agree=0.904, adj=0.785, (0 split)  
## 511 < 31.5 to the left, agree=0.904, adj=0.785, (0 split)  
## 512 < 6 to the left, agree=0.904, adj=0.785, (0 split)  
## 457 < 47.5 to the left, agree=0.876, adj=0.722, (0 split)  
##   
## Node number 493: 228 observations, complexity param=0.001607573  
## predicted class=4 expected loss=0.5570175 P(node) =0.009045824  
## class counts: 1 0 9 16 101 4 1 1 50 45  
## probabilities: 0.004 0.000 0.039 0.070 0.443 0.018 0.004 0.004 0.219 0.197   
## left son=986 (138 obs) right son=987 (90 obs)  
## Primary splits:  
## 428 < 25 to the right, improve=29.39194, (0 missing)  
## 658 < 3.5 to the left, improve=29.31754, (0 missing)  
## 544 < 104 to the left, improve=29.17931, (0 missing)  
## 427 < 2.5 to the right, improve=27.69817, (0 missing)  
## 657 < 62 to the left, improve=27.61997, (0 missing)  
## Surrogate splits:  
## 456 < 1.5 to the right, agree=0.912, adj=0.778, (0 split)  
## 400 < 31 to the right, agree=0.904, adj=0.756, (0 split)  
## 429 < 109.5 to the right, agree=0.882, adj=0.700, (0 split)  
## 427 < 2.5 to the right, agree=0.877, adj=0.689, (0 split)  
## 457 < 32 to the right, agree=0.873, adj=0.678, (0 split)  
##   
## Node number 494: 293 observations, complexity param=0.0006698223  
## predicted class=9 expected loss=0.5119454 P(node) =0.01162468  
## class counts: 1 0 17 52 23 1 0 43 13 143  
## probabilities: 0.003 0.000 0.058 0.177 0.078 0.003 0.000 0.147 0.044 0.488   
## left son=988 (176 obs) right son=989 (117 obs)  
## Primary splits:  
## 319 < 108.5 to the left, improve=23.69464, (0 missing)  
## 320 < 2.5 to the left, improve=22.47628, (0 missing)  
## 318 < 3.5 to the left, improve=21.91279, (0 missing)  
## 347 < 71 to the left, improve=21.76380, (0 missing)  
## 292 < 66.5 to the left, improve=20.70928, (0 missing)  
## Surrogate splits:  
## 347 < 71 to the left, agree=0.973, adj=0.932, (0 split)  
## 320 < 2.5 to the left, agree=0.959, adj=0.897, (0 split)  
## 292 < 85.5 to the left, agree=0.952, adj=0.880, (0 split)  
## 318 < 1 to the left, agree=0.939, adj=0.846, (0 split)  
## 291 < 13.5 to the left, agree=0.928, adj=0.821, (0 split)  
##   
## Node number 495: 1152 observations, complexity param=0.0006698223  
## predicted class=9 expected loss=0.1137153 P(node) =0.04570522  
## class counts: 0 0 1 10 69 6 0 11 34 1021  
## probabilities: 0.000 0.000 0.001 0.009 0.060 0.005 0.000 0.010 0.030 0.886   
## left son=990 (66 obs) right son=991 (1086 obs)  
## Primary splits:  
## 212 < 14 to the left, improve=28.50180, (0 missing)  
## 219 < 193 to the right, improve=22.58637, (0 missing)  
## 191 < 63 to the right, improve=22.43587, (0 missing)  
## 220 < 2 to the right, improve=20.35757, (0 missing)  
## 213 < 0.5 to the left, improve=18.59774, (0 missing)  
## Surrogate splits:  
## 191 < 166 to the right, agree=0.948, adj=0.091, (0 split)  
## 154 < 96 to the right, agree=0.947, adj=0.076, (0 split)  
## 164 < 9.5 to the right, agree=0.947, adj=0.076, (0 split)  
## 192 < 27.5 to the right, agree=0.946, adj=0.061, (0 split)  
## 219 < 200.5 to the right, agree=0.946, adj=0.061, (0 split)  
##   
## Node number 496: 40 observations, complexity param=0.0002679289  
## predicted class=3 expected loss=0.4 P(node) =0.001586987  
## class counts: 1 6 0 24 3 4 1 0 0 1  
## probabilities: 0.025 0.150 0.000 0.600 0.075 0.100 0.025 0.000 0.000 0.025   
## left son=992 (26 obs) right son=993 (14 obs)  
## Primary splits:  
## 490 < 1 to the left, improve=9.945055, (0 missing)  
## 462 < 37.5 to the left, improve=9.367521, (0 missing)  
## 518 < 24 to the right, improve=9.133903, (0 missing)  
## 517 < 7 to the right, improve=8.523810, (0 missing)  
## 545 < 19.5 to the right, improve=8.523810, (0 missing)  
## Surrogate splits:  
## 462 < 37.5 to the left, agree=0.975, adj=0.929, (0 split)  
## 518 < 24 to the left, agree=0.975, adj=0.929, (0 split)  
## 517 < 7 to the left, agree=0.950, adj=0.857, (0 split)  
## 545 < 19.5 to the left, agree=0.950, adj=0.857, (0 split)  
## 546 < 15.5 to the left, agree=0.925, adj=0.786, (0 split)  
##   
## Node number 497: 135 observations, complexity param=0.0002679289  
## predicted class=5 expected loss=0.1777778 P(node) =0.00535608  
## class counts: 0 1 4 16 0 111 1 0 1 1  
## probabilities: 0.000 0.007 0.030 0.119 0.000 0.822 0.007 0.000 0.007 0.007   
## left son=994 (25 obs) right son=995 (110 obs)  
## Primary splits:  
## 150 < 65 to the right, improve=10.710710, (0 missing)  
## 151 < 133.5 to the right, improve=10.355560, (0 missing)  
## 149 < 46 to the right, improve=10.235900, (0 missing)  
## 176 < 25.5 to the right, improve= 8.979616, (0 missing)  
## 152 < 138.5 to the right, improve= 8.784127, (0 missing)  
## Surrogate splits:  
## 151 < 227.5 to the right, agree=0.948, adj=0.72, (0 split)  
## 149 < 25.5 to the right, agree=0.941, adj=0.68, (0 split)  
## 123 < 9.5 to the right, agree=0.933, adj=0.64, (0 split)  
## 122 < 3.5 to the right, agree=0.926, adj=0.60, (0 split)  
## 152 < 138.5 to the right, agree=0.904, adj=0.48, (0 split)  
##   
## Node number 498: 46 observations, complexity param=0.0004018934  
## predicted class=8 expected loss=0.4347826 P(node) =0.001825035  
## class counts: 0 5 2 9 0 0 0 3 26 1  
## probabilities: 0.000 0.109 0.043 0.196 0.000 0.000 0.000 0.065 0.565 0.022   
## left son=996 (18 obs) right son=997 (28 obs)  
## Primary splits:  
## 348 < 11.5 to the left, improve=13.425810, (0 missing)  
## 347 < 20.5 to the left, improve=10.983680, (0 missing)  
## 376 < 113 to the left, improve=10.578990, (0 missing)  
## 319 < 3 to the left, improve=10.226420, (0 missing)  
## 377 < 111.5 to the left, improve= 9.637319, (0 missing)  
## Surrogate splits:  
## 347 < 20.5 to the left, agree=0.935, adj=0.833, (0 split)  
## 376 < 113 to the left, agree=0.913, adj=0.778, (0 split)  
## 377 < 111.5 to the left, agree=0.913, adj=0.778, (0 split)  
## 351 < 148 to the right, agree=0.891, adj=0.722, (0 split)  
## 319 < 3 to the left, agree=0.870, adj=0.667, (0 split)  
##   
## Node number 499: 92 observations, complexity param=0.0008484415  
## predicted class=9 expected loss=0.5 P(node) =0.003650069  
## class counts: 0 0 2 8 27 1 0 5 3 46  
## probabilities: 0.000 0.000 0.022 0.087 0.293 0.011 0.000 0.054 0.033 0.500   
## left son=998 (32 obs) right son=999 (60 obs)  
## Primary splits:  
## 210 < 49 to the left, improve=15.898190, (0 missing)  
## 211 < 18 to the left, improve=14.630380, (0 missing)  
## 237 < 12.5 to the left, improve=12.035720, (0 missing)  
## 212 < 19 to the left, improve=10.219870, (0 missing)  
## 238 < 8 to the left, improve= 9.997799, (0 missing)  
## Surrogate splits:  
## 209 < 3 to the left, agree=0.891, adj=0.687, (0 split)  
## 211 < 11.5 to the left, agree=0.891, adj=0.687, (0 split)  
## 237 < 1.5 to the left, agree=0.848, adj=0.562, (0 split)  
## 212 < 19 to the left, agree=0.815, adj=0.469, (0 split)  
## 238 < 0.5 to the left, agree=0.815, adj=0.469, (0 split)  
##   
## Node number 500: 54 observations, complexity param=0.000491203  
## predicted class=1 expected loss=0.2962963 P(node) =0.002142432  
## class counts: 2 38 0 1 0 2 11 0 0 0  
## probabilities: 0.037 0.704 0.000 0.019 0.000 0.037 0.204 0.000 0.000 0.000   
## left son=1000 (39 obs) right son=1001 (15 obs)  
## Primary splits:  
## 568 < 14 to the left, improve=16.36980, (0 missing)  
## 268 < 40 to the right, improve=15.85899, (0 missing)  
## 296 < 37.5 to the right, improve=15.65485, (0 missing)  
## 295 < 10.5 to the right, improve=15.54233, (0 missing)  
## 323 < 23 to the right, improve=15.54233, (0 missing)  
## Surrogate splits:  
## 567 < 18.5 to the left, agree=0.981, adj=0.933, (0 split)  
## 569 < 28 to the left, agree=0.981, adj=0.933, (0 split)  
## 596 < 77 to the left, agree=0.981, adj=0.933, (0 split)  
## 597 < 144 to the left, agree=0.981, adj=0.933, (0 split)  
## 296 < 37.5 to the right, agree=0.963, adj=0.867, (0 split)  
##   
## Node number 501: 39 observations  
## predicted class=2 expected loss=0.3846154 P(node) =0.001547312  
## class counts: 2 3 24 4 0 0 1 5 0 0  
## probabilities: 0.051 0.077 0.615 0.103 0.000 0.000 0.026 0.128 0.000 0.000   
##   
## Node number 502: 23 observations, complexity param=0.0002232741  
## predicted class=2 expected loss=0.5652174 P(node) =0.0009125174  
## class counts: 0 3 10 2 1 0 5 1 1 0  
## probabilities: 0.000 0.130 0.435 0.087 0.043 0.000 0.217 0.043 0.043 0.000   
## left son=1004 (12 obs) right son=1005 (11 obs)  
## Primary splits:  
## 176 < 25.5 to the right, improve=5.899868, (0 missing)  
## 202 < 6.5 to the right, improve=5.899868, (0 missing)  
## 203 < 13 to the right, improve=5.899868, (0 missing)  
## 177 < 77.5 to the right, improve=5.546488, (0 missing)  
## 210 < 201 to the right, improve=5.369565, (0 missing)  
## Surrogate splits:  
## 202 < 6.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 203 < 13 to the right, agree=1.000, adj=1.000, (0 split)  
## 175 < 27 to the right, agree=0.957, adj=0.909, (0 split)  
## 177 < 77.5 to the right, agree=0.957, adj=0.909, (0 split)  
## 240 < 50 to the right, agree=0.957, adj=0.909, (0 split)  
##   
## Node number 503: 1337 observations, complexity param=0.0003572385  
## predicted class=7 expected loss=0.03141361 P(node) =0.05304503  
## class counts: 2 9 11 4 3 0 2 1295 0 11  
## probabilities: 0.001 0.007 0.008 0.003 0.002 0.000 0.001 0.969 0.000 0.008   
## left son=1006 (10 obs) right son=1007 (1327 obs)  
## Primary splits:  
## 158 < 54 to the right, improve=16.191000, (0 missing)  
## 159 < 24.5 to the right, improve=14.330360, (0 missing)  
## 157 < 3 to the right, improve=12.494870, (0 missing)  
## 461 < 219.5 to the right, improve=11.010110, (0 missing)  
## 433 < 113.5 to the right, improve= 6.680192, (0 missing)  
## Surrogate splits:  
## 159 < 24.5 to the right, agree=0.999, adj=0.9, (0 split)  
## 157 < 3 to the right, agree=0.999, adj=0.8, (0 split)  
## 130 < 4.5 to the right, agree=0.996, adj=0.4, (0 split)  
## 131 < 35.5 to the right, agree=0.996, adj=0.4, (0 split)  
## 160 < 78.5 to the right, agree=0.995, adj=0.3, (0 split)  
##   
## Node number 508: 24 observations  
## predicted class=7 expected loss=0.3333333 P(node) =0.000952192  
## class counts: 0 0 4 0 2 0 0 16 0 2  
## probabilities: 0.000 0.000 0.167 0.000 0.083 0.000 0.000 0.667 0.000 0.083   
##   
## Node number 509: 26 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.5 P(node) =0.001031541  
## class counts: 0 0 0 0 10 0 0 0 3 13  
## probabilities: 0.000 0.000 0.000 0.000 0.385 0.000 0.000 0.000 0.115 0.500   
## left son=1018 (12 obs) right son=1019 (14 obs)  
## Primary splits:  
## 382 < 178.5 to the left, improve=6.902930, (0 missing)  
## 355 < 79 to the left, improve=6.786480, (0 missing)  
## 383 < 20.5 to the left, improve=6.786480, (0 missing)  
## 410 < 175 to the left, improve=5.615385, (0 missing)  
## 344 < 3 to the left, improve=4.557692, (0 missing)  
## Surrogate splits:  
## 355 < 79 to the left, agree=0.962, adj=0.917, (0 split)  
## 383 < 20.5 to the left, agree=0.962, adj=0.917, (0 split)  
## 410 < 51 to the left, agree=0.885, adj=0.750, (0 split)  
## 354 < 243.5 to the left, agree=0.846, adj=0.667, (0 split)  
## 327 < 35 to the left, agree=0.808, adj=0.583, (0 split)  
##   
## Node number 510: 25 observations, complexity param=0.0002902563  
## predicted class=4 expected loss=0.44 P(node) =0.0009918667  
## class counts: 0 0 1 0 14 0 0 1 0 9  
## probabilities: 0.000 0.000 0.040 0.000 0.560 0.000 0.000 0.040 0.000 0.360   
## left son=1020 (17 obs) right son=1021 (8 obs)  
## Primary splits:  
## 434 < 94 to the left, improve=8.545882, (0 missing)  
## 267 < 139.5 to the right, improve=4.590000, (0 missing)  
## 351 < 104 to the right, improve=4.590000, (0 missing)  
## 456 < 179.5 to the right, improve=4.411429, (0 missing)  
## 492 < 225.5 to the right, improve=4.333506, (0 missing)  
## Surrogate splits:  
## 433 < 49 to the left, agree=0.92, adj=0.750, (0 split)  
## 406 < 4 to the left, agree=0.88, adj=0.625, (0 split)  
## 464 < 218 to the right, agree=0.88, adj=0.625, (0 split)  
## 490 < 102 to the right, agree=0.88, adj=0.625, (0 split)  
## 243 < 132.5 to the left, agree=0.84, adj=0.500, (0 split)  
##   
## Node number 511: 143 observations  
## predicted class=9 expected loss=0.0979021 P(node) =0.005673477  
## class counts: 0 0 3 1 3 0 1 5 1 129  
## probabilities: 0.000 0.000 0.021 0.007 0.021 0.000 0.007 0.035 0.007 0.902   
##   
## Node number 514: 19 observations  
## predicted class=2 expected loss=0.5789474 P(node) =0.0007538187  
## class counts: 0 0 8 0 5 4 2 0 0 0  
## probabilities: 0.000 0.000 0.421 0.000 0.263 0.211 0.105 0.000 0.000 0.000   
##   
## Node number 515: 12 observations  
## predicted class=1 expected loss=0.5833333 P(node) =0.000476096  
## class counts: 0 5 0 0 0 1 1 0 5 0  
## probabilities: 0.000 0.417 0.000 0.000 0.000 0.083 0.083 0.000 0.417 0.000   
##   
## Node number 544: 25 observations, complexity param=0.0002232741  
## predicted class=1 expected loss=0.48 P(node) =0.0009918667  
## class counts: 0 13 3 5 2 1 0 1 0 0  
## probabilities: 0.000 0.520 0.120 0.200 0.080 0.040 0.000 0.040 0.000 0.000   
## left son=1088 (16 obs) right son=1089 (9 obs)  
## Primary splits:  
## 603 < 181 to the right, improve=5.959444, (0 missing)  
## 631 < 32.5 to the right, improve=5.959444, (0 missing)  
## 185 < 9.5 to the left, improve=5.782857, (0 missing)  
## 374 < 32.5 to the left, improve=5.211429, (0 missing)  
## 265 < 230 to the right, improve=5.211429, (0 missing)  
## Surrogate splits:  
## 631 < 32.5 to the right, agree=1.00, adj=1.000, (0 split)  
## 325 < 10.5 to the left, agree=0.92, adj=0.778, (0 split)  
## 326 < 8 to the left, agree=0.92, adj=0.778, (0 split)  
## 599 < 25.5 to the left, agree=0.92, adj=0.778, (0 split)  
## 604 < 102.5 to the right, agree=0.92, adj=0.778, (0 split)  
##   
## Node number 545: 68 observations, complexity param=0.0002232741  
## predicted class=6 expected loss=0.2647059 P(node) =0.002697877  
## class counts: 7 0 6 1 1 2 50 0 0 1  
## probabilities: 0.103 0.000 0.088 0.015 0.015 0.029 0.735 0.000 0.000 0.015   
## left son=1090 (12 obs) right son=1091 (56 obs)  
## Primary splits:  
## 244 < 56 to the right, improve=8.191877, (0 missing)  
## 567 < 224.5 to the right, improve=7.572943, (0 missing)  
## 123 < 192.5 to the right, improve=7.446756, (0 missing)  
## 150 < 251.5 to the right, improve=7.446756, (0 missing)  
## 151 < 133 to the right, improve=7.446756, (0 missing)  
## Surrogate splits:  
## 243 < 190.5 to the right, agree=0.956, adj=0.750, (0 split)  
## 245 < 10 to the right, agree=0.956, adj=0.750, (0 split)  
## 272 < 2.5 to the right, agree=0.941, adj=0.667, (0 split)  
## 217 < 97 to the right, agree=0.926, adj=0.583, (0 split)  
## 271 < 142.5 to the right, agree=0.926, adj=0.583, (0 split)  
##   
## Node number 546: 67 observations, complexity param=0.000491203  
## predicted class=2 expected loss=0.6865672 P(node) =0.002658203  
## class counts: 5 6 21 6 4 19 1 0 5 0  
## probabilities: 0.075 0.090 0.313 0.090 0.060 0.284 0.015 0.000 0.075 0.000   
## left son=1092 (13 obs) right son=1093 (54 obs)  
## Primary splits:  
## 552 < 26 to the right, improve=9.399668, (0 missing)  
## 553 < 31.5 to the right, improve=9.399668, (0 missing)  
## 554 < 40 to the right, improve=9.399668, (0 missing)  
## 555 < 12.5 to the right, improve=9.399668, (0 missing)  
## 524 < 8 to the right, improve=8.635048, (0 missing)  
## Surrogate splits:  
## 553 < 79.5 to the right, agree=0.970, adj=0.846, (0 split)  
## 524 < 197 to the right, agree=0.940, adj=0.692, (0 split)  
## 554 < 40 to the right, agree=0.940, adj=0.692, (0 split)  
## 555 < 12.5 to the right, agree=0.940, adj=0.692, (0 split)  
## 525 < 186 to the right, agree=0.925, adj=0.615, (0 split)  
##   
## Node number 547: 92 observations, complexity param=0.0007144771  
## predicted class=4 expected loss=0.6413043 P(node) =0.003650069  
## class counts: 0 14 1 2 33 2 3 7 1 29  
## probabilities: 0.000 0.152 0.011 0.022 0.359 0.022 0.033 0.076 0.011 0.315   
## left son=1094 (22 obs) right son=1095 (70 obs)  
## Primary splits:  
## 456 < 13.5 to the right, improve=12.39633, (0 missing)  
## 429 < 115.5 to the right, improve=12.32083, (0 missing)  
## 401 < 130.5 to the right, improve=11.91346, (0 missing)  
## 428 < 0.5 to the right, improve=11.63469, (0 missing)  
## 467 < 2.5 to the right, improve=11.42450, (0 missing)  
## Surrogate splits:  
## 428 < 60 to the right, agree=0.957, adj=0.818, (0 split)  
## 457 < 198.5 to the right, agree=0.946, adj=0.773, (0 split)  
## 429 < 160 to the right, agree=0.935, adj=0.727, (0 split)  
## 455 < 2 to the right, agree=0.935, adj=0.727, (0 split)  
## 484 < 7 to the right, agree=0.935, adj=0.727, (0 split)  
##   
## Node number 552: 77 observations  
## predicted class=1 expected loss=0.09090909 P(node) =0.003054949  
## class counts: 0 70 1 0 0 1 1 2 1 1  
## probabilities: 0.000 0.909 0.013 0.000 0.000 0.013 0.013 0.026 0.013 0.013   
##   
## Node number 553: 18 observations  
## predicted class=8 expected loss=0.6111111 P(node) =0.000714144  
## class counts: 1 2 0 1 0 2 0 2 7 3  
## probabilities: 0.056 0.111 0.000 0.056 0.000 0.111 0.000 0.111 0.389 0.167   
##   
## Node number 554: 11 observations  
## predicted class=4 expected loss=0.1818182 P(node) =0.0004364213  
## class counts: 0 0 0 0 9 0 1 0 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.818 0.000 0.091 0.000 0.000 0.091   
##   
## Node number 555: 28 observations, complexity param=0.0002679289  
## predicted class=8 expected loss=0.7142857 P(node) =0.001110891  
## class counts: 2 1 0 3 1 6 2 0 8 5  
## probabilities: 0.071 0.036 0.000 0.107 0.036 0.214 0.071 0.000 0.286 0.179   
## left son=1110 (7 obs) right son=1111 (21 obs)  
## Primary splits:  
## 379 < 17.5 to the left, improve=5.047619, (0 missing)  
## 378 < 119 to the left, improve=4.857143, (0 missing)  
## 406 < 165 to the left, improve=4.279365, (0 missing)  
## 407 < 62 to the left, improve=4.279365, (0 missing)  
## 408 < 141.5 to the left, improve=3.913553, (0 missing)  
## Surrogate splits:  
## 378 < 119 to the left, agree=0.964, adj=0.857, (0 split)  
## 240 < 232.5 to the left, agree=0.929, adj=0.714, (0 split)  
## 267 < 214 to the left, agree=0.893, adj=0.571, (0 split)  
## 277 < 3.5 to the right, agree=0.893, adj=0.571, (0 split)  
## 380 < 15.5 to the left, agree=0.893, adj=0.571, (0 split)  
##   
## Node number 556: 37 observations, complexity param=0.0002902563  
## predicted class=3 expected loss=0.6486486 P(node) =0.001467963  
## class counts: 1 1 1 13 5 2 0 1 12 1  
## probabilities: 0.027 0.027 0.027 0.351 0.135 0.054 0.000 0.027 0.324 0.027   
## left son=1112 (19 obs) right son=1113 (18 obs)  
## Primary splits:  
## 317 < 4.5 to the left, improve=8.604078, (0 missing)  
## 232 < 12 to the left, improve=8.288288, (0 missing)  
## 318 < 65.5 to the left, improve=7.824003, (0 missing)  
## 544 < 31 to the left, improve=7.645013, (0 missing)  
## 289 < 12.5 to the left, improve=7.627682, (0 missing)  
## Surrogate splits:  
## 289 < 3.5 to the left, agree=0.973, adj=0.944, (0 split)  
## 318 < 164.5 to the left, agree=0.973, adj=0.944, (0 split)  
## 290 < 3 to the left, agree=0.892, adj=0.778, (0 split)  
## 316 < 6.5 to the left, agree=0.865, adj=0.722, (0 split)  
## 403 < 153 to the right, agree=0.865, adj=0.722, (0 split)  
##   
## Node number 557: 87 observations  
## predicted class=8 expected loss=0.1149425 P(node) =0.003451696  
## class counts: 0 2 0 2 4 1 0 0 77 1  
## probabilities: 0.000 0.023 0.000 0.023 0.046 0.011 0.000 0.000 0.885 0.011   
##   
## Node number 586: 24 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.4583333 P(node) =0.000952192  
## class counts: 0 0 13 1 0 0 3 1 6 0  
## probabilities: 0.000 0.000 0.542 0.042 0.000 0.000 0.125 0.042 0.250 0.000   
## left son=1172 (16 obs) right son=1173 (8 obs)  
## Primary splits:  
## 270 < 4.5 to the left, improve=4.25, (0 missing)  
## 470 < 11.5 to the right, improve=3.50, (0 missing)  
## 471 < 11.5 to the right, improve=3.50, (0 missing)  
## 472 < 1.5 to the right, improve=3.50, (0 missing)  
## 498 < 68.5 to the right, improve=3.50, (0 missing)  
## Surrogate splits:  
## 242 < 3 to the left, agree=0.958, adj=0.875, (0 split)  
## 214 < 2.5 to the left, agree=0.917, adj=0.750, (0 split)  
## 241 < 120.5 to the left, agree=0.917, adj=0.750, (0 split)  
## 269 < 136 to the left, agree=0.917, adj=0.750, (0 split)  
## 607 < 221.5 to the left, agree=0.917, adj=0.750, (0 split)  
##   
## Node number 587: 12 observations  
## predicted class=3 expected loss=0.25 P(node) =0.000476096  
## class counts: 0 0 0 9 0 0 0 1 1 1  
## probabilities: 0.000 0.000 0.000 0.750 0.000 0.000 0.000 0.083 0.083 0.083   
##   
## Node number 598: 9 observations  
## predicted class=9 expected loss=0.5555556 P(node) =0.000357072  
## class counts: 0 0 1 0 0 3 0 1 0 4  
## probabilities: 0.000 0.000 0.111 0.000 0.000 0.333 0.000 0.111 0.000 0.444   
##   
## Node number 599: 11 observations  
## predicted class=8 expected loss=0.09090909 P(node) =0.0004364213  
## class counts: 0 0 0 0 0 0 0 0 10 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.909 0.091   
##   
## Node number 612: 34 observations, complexity param=0.0003125837  
## predicted class=2 expected loss=0.2941176 P(node) =0.001348939  
## class counts: 0 1 24 8 0 0 0 0 1 0  
## probabilities: 0.000 0.029 0.706 0.235 0.000 0.000 0.000 0.000 0.029 0.000   
## left son=1224 (24 obs) right son=1225 (10 obs)  
## Primary splits:  
## 543 < 81 to the right, improve=9.800980, (0 missing)  
## 544 < 69 to the right, improve=8.477331, (0 missing)  
## 516 < 79.5 to the right, improve=8.024314, (0 missing)  
## 571 < 14.5 to the right, improve=7.921880, (0 missing)  
## 600 < 120 to the right, improve=7.921880, (0 missing)  
## Surrogate splits:  
## 516 < 79.5 to the right, agree=0.971, adj=0.9, (0 split)  
## 544 < 69 to the right, agree=0.971, adj=0.9, (0 split)  
## 571 < 185 to the right, agree=0.941, adj=0.8, (0 split)  
## 600 < 120 to the right, agree=0.912, adj=0.7, (0 split)  
## 572 < 3.5 to the right, agree=0.882, adj=0.6, (0 split)  
##   
## Node number 613: 13 observations  
## predicted class=8 expected loss=0.2307692 P(node) =0.0005157707  
## class counts: 0 3 0 0 0 0 0 0 10 0  
## probabilities: 0.000 0.231 0.000 0.000 0.000 0.000 0.000 0.000 0.769 0.000   
##   
## Node number 614: 7 observations  
## predicted class=3 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 0 5 0 0 0 1 1 0  
## probabilities: 0.000 0.000 0.000 0.714 0.000 0.000 0.000 0.143 0.143 0.000   
##   
## Node number 615: 49 observations  
## predicted class=7 expected loss=0.1632653 P(node) =0.001944059  
## class counts: 0 5 2 0 0 0 0 41 0 1  
## probabilities: 0.000 0.102 0.041 0.000 0.000 0.000 0.000 0.837 0.000 0.020   
##   
## Node number 624: 26 observations, complexity param=0.0002976988  
## predicted class=1 expected loss=0.5 P(node) =0.001031541  
## class counts: 0 13 0 3 0 1 0 0 9 0  
## probabilities: 0.000 0.500 0.000 0.115 0.000 0.038 0.000 0.000 0.346 0.000   
## left son=1248 (14 obs) right son=1249 (12 obs)  
## Primary splits:  
## 269 < 25.5 to the left, improve=8.309524, (0 missing)  
## 573 < 251.5 to the left, improve=7.825000, (0 missing)  
## 268 < 169 to the left, improve=6.923077, (0 missing)  
## 241 < 7.5 to the left, improve=6.896970, (0 missing)  
## 374 < 14.5 to the left, improve=6.896970, (0 missing)  
## Surrogate splits:  
## 241 < 7.5 to the left, agree=0.962, adj=0.917, (0 split)  
## 268 < 169 to the left, agree=0.962, adj=0.917, (0 split)  
## 212 < 99 to the left, agree=0.923, adj=0.833, (0 split)  
## 213 < 19.5 to the left, agree=0.923, adj=0.833, (0 split)  
## 240 < 115 to the left, agree=0.923, adj=0.833, (0 split)  
##   
## Node number 625: 9 observations  
## predicted class=7 expected loss=0.1111111 P(node) =0.000357072  
## class counts: 0 0 0 0 0 0 0 8 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.889 0.000 0.111   
##   
## Node number 644: 1370 observations, complexity param=0.0002456015  
## predicted class=3 expected loss=0.02773723 P(node) =0.05435429  
## class counts: 0 2 10 1332 0 14 0 0 12 0  
## probabilities: 0.000 0.001 0.007 0.972 0.000 0.010 0.000 0.000 0.009 0.000   
## left son=1288 (1360 obs) right son=1289 (10 obs)  
## Primary splits:  
## 487 < 148 to the left, improve=14.791020, (0 missing)  
## 488 < 58.5 to the left, improve=13.689060, (0 missing)  
## 341 < 70 to the left, improve=12.826310, (0 missing)  
## 342 < 147.5 to the left, improve=10.885130, (0 missing)  
## 313 < 154 to the left, improve= 9.880721, (0 missing)  
## Surrogate splits:  
## 488 < 63 to the left, agree=0.997, adj=0.6, (0 split)  
## 515 < 248.5 to the left, agree=0.996, adj=0.4, (0 split)  
##   
## Node number 645: 23 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.6086957 P(node) =0.0009125174  
## class counts: 0 0 0 5 0 9 0 0 4 5  
## probabilities: 0.000 0.000 0.000 0.217 0.000 0.391 0.000 0.000 0.174 0.217   
## left son=1290 (16 obs) right son=1291 (7 obs)  
## Primary splits:  
## 524 < 20 to the right, improve=4.090839, (0 missing)  
## 496 < 36 to the right, improve=3.958696, (0 missing)  
## 296 < 16 to the left, improve=3.701003, (0 missing)  
## 580 < 1 to the right, improve=3.558696, (0 missing)  
## 294 < 109.5 to the right, improve=3.555124, (0 missing)  
## Surrogate splits:  
## 496 < 36 to the right, agree=0.957, adj=0.857, (0 split)  
## 552 < 23.5 to the right, agree=0.957, adj=0.857, (0 split)  
## 205 < 66 to the right, agree=0.870, adj=0.571, (0 split)  
## 468 < 36 to the right, agree=0.870, adj=0.571, (0 split)  
## 492 < 29 to the left, agree=0.870, adj=0.571, (0 split)  
##   
## Node number 646: 16 observations  
## predicted class=3 expected loss=0.1875 P(node) =0.0006347947  
## class counts: 0 0 0 13 0 0 0 1 2 0  
## probabilities: 0.000 0.000 0.000 0.813 0.000 0.000 0.000 0.062 0.125 0.000   
##   
## Node number 647: 29 observations, complexity param=0.0002456015  
## predicted class=5 expected loss=0.4827586 P(node) =0.001150565  
## class counts: 0 6 0 4 0 15 0 1 3 0  
## probabilities: 0.000 0.207 0.000 0.138 0.000 0.517 0.000 0.034 0.103 0.000   
## left son=1294 (12 obs) right son=1295 (17 obs)  
## Primary splits:  
## 185 < 63.5 to the left, improve=8.074037, (0 missing)  
## 213 < 0.5 to the left, improve=6.834218, (0 missing)  
## 466 < 27.5 to the left, improve=6.752799, (0 missing)  
## 628 < 16.5 to the left, improve=6.752799, (0 missing)  
## 629 < 27 to the left, improve=6.752799, (0 missing)  
## Surrogate splits:  
## 213 < 0.5 to the left, agree=0.966, adj=0.917, (0 split)  
## 157 < 9 to the left, agree=0.931, adj=0.833, (0 split)  
## 158 < 4 to the left, agree=0.931, adj=0.833, (0 split)  
## 186 < 18 to the left, agree=0.931, adj=0.833, (0 split)  
## 156 < 8 to the left, agree=0.897, adj=0.750, (0 split)  
##   
## Node number 652: 13 observations  
## predicted class=3 expected loss=0.07692308 P(node) =0.0005157707  
## class counts: 1 0 0 12 0 0 0 0 0 0  
## probabilities: 0.077 0.000 0.000 0.923 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 653: 12 observations  
## predicted class=5 expected loss=0.5833333 P(node) =0.000476096  
## class counts: 1 0 0 0 0 5 1 0 4 1  
## probabilities: 0.083 0.000 0.000 0.000 0.000 0.417 0.083 0.000 0.333 0.083   
##   
## Node number 658: 29 observations  
## predicted class=3 expected loss=0.3103448 P(node) =0.001150565  
## class counts: 0 3 1 20 0 2 3 0 0 0  
## probabilities: 0.000 0.103 0.034 0.690 0.000 0.069 0.103 0.000 0.000 0.000   
##   
## Node number 659: 30 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.3666667 P(node) =0.00119024  
## class counts: 5 0 0 2 0 19 0 3 1 0  
## probabilities: 0.167 0.000 0.000 0.067 0.000 0.633 0.000 0.100 0.033 0.000   
## left son=1318 (7 obs) right son=1319 (23 obs)  
## Primary splits:  
## 412 < 5.5 to the right, improve=6.480331, (0 missing)  
## 384 < 6 to the right, improve=5.536232, (0 missing)  
## 356 < 8.5 to the right, improve=5.416667, (0 missing)  
## 357 < 2.5 to the right, improve=5.416667, (0 missing)  
## 440 < 15.5 to the right, improve=5.089027, (0 missing)  
## Surrogate splits:  
## 330 < 239.5 to the right, agree=0.967, adj=0.857, (0 split)  
## 357 < 111.5 to the right, agree=0.967, adj=0.857, (0 split)  
## 384 < 70.5 to the right, agree=0.967, adj=0.857, (0 split)  
## 385 < 40.5 to the right, agree=0.967, adj=0.857, (0 split)  
## 413 < 95.5 to the right, agree=0.967, adj=0.857, (0 split)  
##   
## Node number 662: 30 observations, complexity param=0.0002232741  
## predicted class=3 expected loss=0.4333333 P(node) =0.00119024  
## class counts: 0 0 0 17 0 5 2 1 2 3  
## probabilities: 0.000 0.000 0.000 0.567 0.000 0.167 0.067 0.033 0.067 0.100   
## left son=1324 (22 obs) right son=1325 (8 obs)  
## Primary splits:  
## 324 < 153.5 to the right, improve=6.228788, (0 missing)  
## 352 < 239 to the right, improve=6.058333, (0 missing)  
## 187 < 208.5 to the right, improve=5.403922, (0 missing)  
## 439 < 26.5 to the right, improve=5.403922, (0 missing)  
## 353 < 117 to the right, improve=5.333333, (0 missing)  
## Surrogate splits:  
## 323 < 120.5 to the right, agree=0.933, adj=0.750, (0 split)  
## 325 < 66.5 to the right, agree=0.933, adj=0.750, (0 split)  
## 236 < 3.5 to the right, agree=0.900, adj=0.625, (0 split)  
## 247 < 60.5 to the left, agree=0.900, adj=0.625, (0 split)  
## 274 < 187 to the left, agree=0.900, adj=0.625, (0 split)  
##   
## Node number 663: 101 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.1089109 P(node) =0.004007141  
## class counts: 0 0 0 8 0 90 1 0 2 0  
## probabilities: 0.000 0.000 0.000 0.079 0.000 0.891 0.010 0.000 0.020 0.000   
## left son=1326 (8 obs) right son=1327 (93 obs)  
## Primary splits:  
## 124 < 83 to the right, improve=9.105371, (0 missing)  
## 125 < 130 to the right, improve=6.255909, (0 missing)  
## 97 < 12.5 to the right, improve=4.693280, (0 missing)  
## 440 < 252.5 to the right, improve=4.693280, (0 missing)  
## 552 < 170 to the right, improve=4.693280, (0 missing)  
## Surrogate splits:  
## 122 < 0.5 to the right, agree=0.98, adj=0.750, (0 split)  
## 123 < 60 to the right, agree=0.98, adj=0.750, (0 split)  
## 96 < 43 to the right, agree=0.97, adj=0.625, (0 split)  
## 152 < 116.5 to the right, agree=0.97, adj=0.625, (0 split)  
## 94 < 61.5 to the right, agree=0.96, adj=0.500, (0 split)  
##   
## Node number 668: 7 observations  
## predicted class=0 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 5 0 0 2 0 0 0 0 0 0  
## probabilities: 0.714 0.000 0.000 0.286 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 669: 51 observations  
## predicted class=5 expected loss=0.1568627 P(node) =0.002023408  
## class counts: 0 0 1 4 0 43 1 1 1 0  
## probabilities: 0.000 0.000 0.020 0.078 0.000 0.843 0.020 0.020 0.020 0.000   
##   
## Node number 670: 43 observations, complexity param=0.0002456015  
## predicted class=4 expected loss=0.3953488 P(node) =0.001706011  
## class counts: 0 0 0 6 26 0 1 10 0 0  
## probabilities: 0.000 0.000 0.000 0.140 0.605 0.000 0.023 0.233 0.000 0.000   
## left son=1340 (23 obs) right son=1341 (20 obs)  
## Primary splits:  
## 231 < 13 to the right, improve=8.879980, (0 missing)  
## 203 < 3 to the right, improve=7.843023, (0 missing)  
## 259 < 5 to the right, improve=7.584251, (0 missing)  
## 204 < 9.5 to the right, improve=7.133023, (0 missing)  
## 322 < 136 to the left, improve=6.586236, (0 missing)  
## Surrogate splits:  
## 259 < 5 to the right, agree=0.977, adj=0.95, (0 split)  
## 232 < 13.5 to the right, agree=0.930, adj=0.85, (0 split)  
## 260 < 11.5 to the right, agree=0.930, adj=0.85, (0 split)  
## 287 < 60.5 to the right, agree=0.930, adj=0.85, (0 split)  
## 203 < 3 to the right, agree=0.907, adj=0.80, (0 split)  
##   
## Node number 671: 70 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.5571429 P(node) =0.002777227  
## class counts: 0 7 0 10 4 5 6 1 6 31  
## probabilities: 0.000 0.100 0.000 0.143 0.057 0.071 0.086 0.014 0.086 0.443   
## left son=1342 (27 obs) right son=1343 (43 obs)  
## Primary splits:  
## 325 < 5 to the left, improve=11.360110, (0 missing)  
## 182 < 5 to the right, improve=10.020820, (0 missing)  
## 324 < 167.5 to the left, improve= 8.603102, (0 missing)  
## 155 < 60.5 to the right, improve= 8.141367, (0 missing)  
## 353 < 42 to the left, improve= 8.109524, (0 missing)  
## Surrogate splits:  
## 324 < 80.5 to the left, agree=0.900, adj=0.741, (0 split)  
## 297 < 11 to the left, agree=0.871, adj=0.667, (0 split)  
## 353 < 31.5 to the left, agree=0.871, adj=0.667, (0 split)  
## 352 < 127.5 to the left, agree=0.843, adj=0.593, (0 split)  
## 155 < 25.5 to the right, agree=0.814, adj=0.519, (0 split)  
##   
## Node number 676: 101 observations  
## predicted class=3 expected loss=0.1485149 P(node) =0.004007141  
## class counts: 0 0 0 86 0 3 0 0 6 6  
## probabilities: 0.000 0.000 0.000 0.851 0.000 0.030 0.000 0.000 0.059 0.059   
##   
## Node number 677: 11 observations  
## predicted class=8 expected loss=0.09090909 P(node) =0.0004364213  
## class counts: 0 0 0 0 0 1 0 0 10 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.091 0.000 0.000 0.909 0.000   
##   
## Node number 678: 40 observations, complexity param=0.0001786193  
## predicted class=3 expected loss=0.2 P(node) =0.001586987  
## class counts: 0 0 0 32 0 6 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.800 0.000 0.150 0.000 0.000 0.050 0.000   
## left son=1356 (32 obs) right son=1357 (8 obs)  
## Primary splits:  
## 288 < 216 to the left, improve=7.212500, (0 missing)  
## 260 < 176.5 to the left, improve=6.131183, (0 missing)  
## 289 < 234.5 to the left, improve=5.642424, (0 missing)  
## 261 < 168.5 to the left, improve=5.337500, (0 missing)  
## 287 < 29.5 to the left, improve=5.266667, (0 missing)  
## Surrogate splits:  
## 289 < 234.5 to the left, agree=0.975, adj=0.875, (0 split)  
## 287 < 29.5 to the left, agree=0.950, adj=0.750, (0 split)  
## 260 < 110 to the left, agree=0.925, adj=0.625, (0 split)  
## 316 < 239 to the left, agree=0.900, adj=0.500, (0 split)  
## 428 < 222.5 to the left, agree=0.900, adj=0.500, (0 split)  
##   
## Node number 679: 140 observations, complexity param=0.0004465482  
## predicted class=5 expected loss=0.5785714 P(node) =0.005554453  
## class counts: 5 1 1 27 0 59 2 3 19 23  
## probabilities: 0.036 0.007 0.007 0.193 0.000 0.421 0.014 0.021 0.136 0.164   
## left son=1358 (102 obs) right son=1359 (38 obs)  
## Primary splits:  
## 294 < 3 to the right, improve=11.174260, (0 missing)  
## 293 < 70 to the right, improve=11.042710, (0 missing)  
## 320 < 182.5 to the right, improve=10.150730, (0 missing)  
## 247 < 16.5 to the right, improve=10.000000, (0 missing)  
## 596 < 15 to the right, improve= 9.077527, (0 missing)  
## Surrogate splits:  
## 295 < 32 to the right, agree=0.914, adj=0.684, (0 split)  
## 293 < 42 to the right, agree=0.907, adj=0.658, (0 split)  
## 322 < 192 to the right, agree=0.864, adj=0.500, (0 split)  
## 321 < 166 to the right, agree=0.843, adj=0.421, (0 split)  
## 320 < 164 to the right, agree=0.829, adj=0.368, (0 split)  
##   
## Node number 684: 23 observations  
## predicted class=3 expected loss=0.08695652 P(node) =0.0009125174  
## class counts: 0 0 0 21 0 0 0 0 1 1  
## probabilities: 0.000 0.000 0.000 0.913 0.000 0.000 0.000 0.000 0.043 0.043   
##   
## Node number 685: 10 observations  
## predicted class=5 expected loss=0.5 P(node) =0.0003967467  
## class counts: 2 0 0 1 0 5 1 0 1 0  
## probabilities: 0.200 0.000 0.000 0.100 0.000 0.500 0.100 0.000 0.100 0.000   
##   
## Node number 686: 18 observations  
## predicted class=3 expected loss=0.2777778 P(node) =0.000714144  
## class counts: 0 0 0 13 0 4 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.722 0.000 0.222 0.000 0.000 0.056 0.000   
##   
## Node number 687: 422 observations  
## predicted class=5 expected loss=0.05924171 P(node) =0.01674271  
## class counts: 0 0 0 15 0 397 5 0 3 2  
## probabilities: 0.000 0.000 0.000 0.036 0.000 0.941 0.012 0.000 0.007 0.005   
##   
## Node number 688: 63 observations  
## predicted class=4 expected loss=0.0952381 P(node) =0.002499504  
## class counts: 0 0 0 1 57 0 0 2 0 3  
## probabilities: 0.000 0.000 0.000 0.016 0.905 0.000 0.000 0.032 0.000 0.048   
##   
## Node number 689: 7 observations  
## predicted class=6 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 0 0 0 3 4 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.429 0.571 0.000 0.000 0.000   
##   
## Node number 698: 9 observations  
## predicted class=3 expected loss=0 P(node) =0.000357072  
## class counts: 0 0 0 9 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 699: 28 observations  
## predicted class=9 expected loss=0.5 P(node) =0.001110891  
## class counts: 0 2 0 2 6 1 0 1 2 14  
## probabilities: 0.000 0.071 0.000 0.071 0.214 0.036 0.000 0.036 0.071 0.500   
##   
## Node number 702: 9 observations  
## predicted class=8 expected loss=0.4444444 P(node) =0.000357072  
## class counts: 2 0 2 0 0 0 0 0 5 0  
## probabilities: 0.222 0.000 0.222 0.000 0.000 0.000 0.000 0.000 0.556 0.000   
##   
## Node number 703: 238 observations  
## predicted class=9 expected loss=0.1008403 P(node) =0.009442571  
## class counts: 1 0 0 4 8 1 0 10 0 214  
## probabilities: 0.004 0.000 0.000 0.017 0.034 0.004 0.000 0.042 0.000 0.899   
##   
## Node number 712: 14 observations  
## predicted class=1 expected loss=0.07142857 P(node) =0.0005554453  
## class counts: 0 13 0 0 0 0 1 0 0 0  
## probabilities: 0.000 0.929 0.000 0.000 0.000 0.000 0.071 0.000 0.000 0.000   
##   
## Node number 713: 25 observations, complexity param=0.0003125837  
## predicted class=4 expected loss=0.68 P(node) =0.0009918667  
## class counts: 0 1 0 0 8 7 6 0 2 1  
## probabilities: 0.000 0.040 0.000 0.000 0.320 0.280 0.240 0.000 0.080 0.040   
## left son=1426 (17 obs) right son=1427 (8 obs)  
## Primary splits:  
## 293 < 127.5 to the left, improve=6.108824, (0 missing)  
## 572 < 19.5 to the left, improve=5.319481, (0 missing)  
## 294 < 94 to the left, improve=5.235897, (0 missing)  
## 320 < 22.5 to the left, improve=5.235897, (0 missing)  
## 321 < 63 to the left, improve=5.235897, (0 missing)  
## Surrogate splits:  
## 273 < 155 to the left, agree=0.92, adj=0.750, (0 split)  
## 274 < 20.5 to the left, agree=0.92, adj=0.750, (0 split)  
## 292 < 20.5 to the left, agree=0.92, adj=0.750, (0 split)  
## 246 < 18.5 to the left, agree=0.88, adj=0.625, (0 split)  
## 265 < 14.5 to the left, agree=0.88, adj=0.625, (0 split)  
##   
## Node number 714: 9 observations  
## predicted class=0 expected loss=0.1111111 P(node) =0.000357072  
## class counts: 8 0 0 0 0 0 1 0 0 0  
## probabilities: 0.889 0.000 0.000 0.000 0.000 0.000 0.111 0.000 0.000 0.000   
##   
## Node number 715: 35 observations, complexity param=0.0004018934  
## predicted class=8 expected loss=0.6 P(node) =0.001388613  
## class counts: 1 0 12 3 1 0 2 0 14 2  
## probabilities: 0.029 0.000 0.343 0.086 0.029 0.000 0.057 0.000 0.400 0.057   
## left son=1430 (16 obs) right son=1431 (19 obs)  
## Primary splits:  
## 550 < 139 to the right, improve=6.933647, (0 missing)  
## 577 < 205.5 to the right, improve=6.177640, (0 missing)  
## 551 < 219.5 to the right, improve=5.885714, (0 missing)  
## 552 < 217.5 to the right, improve=5.134161, (0 missing)  
## 545 < 59.5 to the right, improve=5.004295, (0 missing)  
## Surrogate splits:  
## 551 < 41 to the right, agree=0.943, adj=0.875, (0 split)  
## 578 < 3.5 to the right, agree=0.886, adj=0.750, (0 split)  
## 579 < 21.5 to the right, agree=0.886, adj=0.750, (0 split)  
## 464 < 1.5 to the left, agree=0.829, adj=0.625, (0 split)  
## 523 < 37.5 to the right, agree=0.829, adj=0.625, (0 split)  
##   
## Node number 732: 14 observations  
## predicted class=5 expected loss=0.2857143 P(node) =0.0005554453  
## class counts: 0 0 0 3 0 10 1 0 0 0  
## probabilities: 0.000 0.000 0.000 0.214 0.000 0.714 0.071 0.000 0.000 0.000   
##   
## Node number 733: 7 observations  
## predicted class=6 expected loss=0 P(node) =0.0002777227  
## class counts: 0 0 0 0 0 0 7 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000   
##   
## Node number 746: 16 observations  
## predicted class=5 expected loss=0.375 P(node) =0.0006347947  
## class counts: 0 0 0 2 0 10 1 0 3 0  
## probabilities: 0.000 0.000 0.000 0.125 0.000 0.625 0.062 0.000 0.188 0.000   
##   
## Node number 747: 12 observations  
## predicted class=8 expected loss=0.25 P(node) =0.000476096  
## class counts: 0 0 0 2 0 0 1 0 9 0  
## probabilities: 0.000 0.000 0.000 0.167 0.000 0.000 0.083 0.000 0.750 0.000   
##   
## Node number 764: 24 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.2916667 P(node) =0.000952192  
## class counts: 0 0 17 1 0 0 1 0 5 0  
## probabilities: 0.000 0.000 0.708 0.042 0.000 0.000 0.042 0.000 0.208 0.000   
## left son=1528 (17 obs) right son=1529 (7 obs)  
## Primary splits:  
## 602 < 175 to the right, improve=5.808123, (0 missing)  
## 212 < 2 to the right, improve=4.708333, (0 missing)  
## 574 < 0.5 to the right, improve=4.708333, (0 missing)  
## 603 < 251.5 to the right, improve=4.708333, (0 missing)  
## 347 < 36.5 to the left, improve=4.665266, (0 missing)  
## Surrogate splits:  
## 574 < 0.5 to the right, agree=0.958, adj=0.857, (0 split)  
## 603 < 207.5 to the right, agree=0.958, adj=0.857, (0 split)  
## 184 < 160 to the right, agree=0.917, adj=0.714, (0 split)  
## 486 < 246 to the right, agree=0.917, adj=0.714, (0 split)  
## 575 < 25 to the right, agree=0.917, adj=0.714, (0 split)  
##   
## Node number 765: 33 observations  
## predicted class=8 expected loss=0.1818182 P(node) =0.001309264  
## class counts: 1 0 1 2 0 1 0 1 27 0  
## probabilities: 0.030 0.000 0.030 0.061 0.000 0.030 0.000 0.030 0.818 0.000   
##   
## Node number 766: 36 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.5 P(node) =0.001428288  
## class counts: 0 0 0 10 0 5 2 0 18 1  
## probabilities: 0.000 0.000 0.000 0.278 0.000 0.139 0.056 0.000 0.500 0.028   
## left son=1532 (11 obs) right son=1533 (25 obs)  
## Primary splits:  
## 289 < 1.5 to the left, improve=7.614343, (0 missing)  
## 260 < 30 to the left, improve=6.635642, (0 missing)  
## 288 < 8.5 to the left, improve=6.539391, (0 missing)  
## 298 < 5.5 to the left, improve=5.462963, (0 missing)  
## 268 < 147.5 to the right, improve=5.388889, (0 missing)  
## Surrogate splits:  
## 261 < 2 to the left, agree=0.944, adj=0.818, (0 split)  
## 288 < 8.5 to the left, agree=0.944, adj=0.818, (0 split)  
## 268 < 147.5 to the right, agree=0.889, adj=0.636, (0 split)  
## 290 < 19 to the left, agree=0.889, adj=0.636, (0 split)  
## 295 < 232 to the right, agree=0.889, adj=0.636, (0 split)  
##   
## Node number 767: 309 observations  
## predicted class=8 expected loss=0.04530744 P(node) =0.01225947  
## class counts: 1 0 0 2 0 1 8 0 295 2  
## probabilities: 0.003 0.000 0.000 0.006 0.000 0.003 0.026 0.000 0.955 0.006   
##   
## Node number 770: 299 observations, complexity param=0.0001786193  
## predicted class=0 expected loss=0.1170569 P(node) =0.01186273  
## class counts: 264 0 9 7 0 14 3 1 0 1  
## probabilities: 0.883 0.000 0.030 0.023 0.000 0.047 0.010 0.003 0.000 0.003   
## left son=1540 (267 obs) right son=1541 (32 obs)  
## Primary splits:  
## 296 < 135 to the left, improve=14.112060, (0 missing)  
## 295 < 40.5 to the left, improve=10.053470, (0 missing)  
## 323 < 37 to the left, improve= 8.928094, (0 missing)  
## 324 < 29.5 to the left, improve= 8.732347, (0 missing)  
## 214 < 0.5 to the right, improve= 8.321044, (0 missing)  
## Surrogate splits:  
## 324 < 29.5 to the left, agree=0.963, adj=0.656, (0 split)  
## 295 < 237.5 to the left, agree=0.950, adj=0.531, (0 split)  
## 323 < 37 to the left, agree=0.936, adj=0.406, (0 split)  
## 268 < 248 to the left, agree=0.926, adj=0.313, (0 split)  
## 563 < 11.5 to the left, agree=0.913, adj=0.187, (0 split)  
##   
## Node number 771: 33 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.5151515 P(node) =0.001309264  
## class counts: 12 0 16 0 0 0 2 3 0 0  
## probabilities: 0.364 0.000 0.485 0.000 0.000 0.000 0.061 0.091 0.000 0.000   
## left son=1542 (11 obs) right son=1543 (22 obs)  
## Primary splits:  
## 455 < 4 to the right, improve=7.666667, (0 missing)  
## 482 < 13.5 to the right, improve=7.666667, (0 missing)  
## 483 < 76 to the right, improve=7.666667, (0 missing)  
## 214 < 158 to the right, improve=7.521613, (0 missing)  
## 369 < 40.5 to the right, improve=6.884848, (0 missing)  
## Surrogate splits:  
## 483 < 76 to the right, agree=1.000, adj=1.000, (0 split)  
## 482 < 45.5 to the right, agree=0.970, adj=0.909, (0 split)  
## 511 < 207.5 to the right, agree=0.970, adj=0.909, (0 split)  
## 510 < 172.5 to the right, agree=0.939, adj=0.818, (0 split)  
## 454 < 3 to the right, agree=0.909, adj=0.727, (0 split)  
##   
## Node number 792: 11 observations  
## predicted class=2 expected loss=0.4545455 P(node) =0.0004364213  
## class counts: 1 1 6 0 0 2 1 0 0 0  
## probabilities: 0.091 0.091 0.545 0.000 0.000 0.182 0.091 0.000 0.000 0.000   
##   
## Node number 793: 44 observations  
## predicted class=3 expected loss=0.2954545 P(node) =0.001745685  
## class counts: 2 0 4 31 0 5 0 2 0 0  
## probabilities: 0.045 0.000 0.091 0.705 0.000 0.114 0.000 0.045 0.000 0.000   
##   
## Node number 824: 34 observations, complexity param=0.0002976988  
## predicted class=5 expected loss=0.7058824 P(node) =0.001348939  
## class counts: 4 0 8 3 1 10 5 0 3 0  
## probabilities: 0.118 0.000 0.235 0.088 0.029 0.294 0.147 0.000 0.088 0.000   
## left son=1648 (10 obs) right son=1649 (24 obs)  
## Primary splits:  
## 580 < 144 to the right, improve=4.645098, (0 missing)  
## 554 < 19 to the right, improve=4.438220, (0 missing)  
## 582 < 7.5 to the right, improve=4.438220, (0 missing)  
## 247 < 3 to the left, improve=4.200226, (0 missing)  
## 579 < 69 to the right, improve=4.189542, (0 missing)  
## Surrogate splits:  
## 581 < 28 to the right, agree=0.971, adj=0.9, (0 split)  
## 552 < 116.5 to the right, agree=0.941, adj=0.8, (0 split)  
## 553 < 20.5 to the right, agree=0.941, adj=0.8, (0 split)  
## 554 < 19 to the right, agree=0.912, adj=0.7, (0 split)  
## 582 < 7.5 to the right, agree=0.912, adj=0.7, (0 split)  
##   
## Node number 825: 10 observations  
## predicted class=8 expected loss=0.1 P(node) =0.0003967467  
## class counts: 0 0 0 0 0 0 1 0 9 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.100 0.000 0.900 0.000   
##   
## Node number 836: 8 observations  
## predicted class=0 expected loss=0 P(node) =0.0003173973  
## class counts: 8 0 0 0 0 0 0 0 0 0  
## probabilities: 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 837: 17 observations  
## predicted class=5 expected loss=0.2941176 P(node) =0.0006744694  
## class counts: 0 0 0 1 0 12 3 0 1 0  
## probabilities: 0.000 0.000 0.000 0.059 0.000 0.706 0.176 0.000 0.059 0.000   
##   
## Node number 838: 19 observations  
## predicted class=2 expected loss=0.3157895 P(node) =0.0007538187  
## class counts: 2 0 13 1 2 0 0 0 0 1  
## probabilities: 0.105 0.000 0.684 0.053 0.105 0.000 0.000 0.000 0.000 0.053   
##   
## Node number 839: 14 observations  
## predicted class=9 expected loss=0.1428571 P(node) =0.0005554453  
## class counts: 0 0 0 0 1 0 0 1 0 12  
## probabilities: 0.000 0.000 0.000 0.000 0.071 0.000 0.000 0.071 0.000 0.857   
##   
## Node number 866: 28 observations, complexity param=0.0001786193  
## predicted class=6 expected loss=0.7142857 P(node) =0.001110891  
## class counts: 1 7 0 4 0 6 8 0 0 2  
## probabilities: 0.036 0.250 0.000 0.143 0.000 0.214 0.286 0.000 0.000 0.071   
## left son=1732 (18 obs) right son=1733 (10 obs)  
## Primary splits:  
## 515 < 28.5 to the left, improve=5.084127, (0 missing)  
## 544 < 196.5 to the left, improve=4.978571, (0 missing)  
## 657 < 96 to the left, improve=4.747285, (0 missing)  
## 188 < 14.5 to the right, improve=4.678571, (0 missing)  
## 656 < 8.5 to the left, improve=4.602368, (0 missing)  
## Surrogate splits:  
## 516 < 173.5 to the left, agree=0.964, adj=0.9, (0 split)  
## 487 < 16 to the left, agree=0.929, adj=0.8, (0 split)  
## 488 < 203.5 to the left, agree=0.929, adj=0.8, (0 split)  
## 544 < 12 to the left, agree=0.929, adj=0.8, (0 split)  
## 543 < 22 to the left, agree=0.893, adj=0.7, (0 split)  
##   
## Node number 867: 9 observations  
## predicted class=5 expected loss=0 P(node) =0.000357072  
## class counts: 0 0 0 0 0 9 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000   
##   
## Node number 896: 912 observations  
## predicted class=2 expected loss=0.03399123 P(node) =0.0361833  
## class counts: 0 0 881 15 0 0 0 12 4 0  
## probabilities: 0.000 0.000 0.966 0.016 0.000 0.000 0.000 0.013 0.004 0.000   
##   
## Node number 897: 10 observations  
## predicted class=8 expected loss=0.3 P(node) =0.0003967467  
## class counts: 0 0 1 0 0 1 0 0 7 1  
## probabilities: 0.000 0.000 0.100 0.000 0.000 0.100 0.000 0.000 0.700 0.100   
##   
## Node number 900: 22 observations  
## predicted class=2 expected loss=0.2272727 P(node) =0.0008728427  
## class counts: 3 0 17 0 0 0 2 0 0 0  
## probabilities: 0.136 0.000 0.773 0.000 0.000 0.000 0.091 0.000 0.000 0.000   
##   
## Node number 901: 13 observations  
## predicted class=9 expected loss=0.1538462 P(node) =0.0005157707  
## class counts: 0 0 0 0 2 0 0 0 0 11  
## probabilities: 0.000 0.000 0.000 0.000 0.154 0.000 0.000 0.000 0.000 0.846   
##   
## Node number 904: 135 observations, complexity param=0.0005805126  
## predicted class=1 expected loss=0.2592593 P(node) =0.00535608  
## class counts: 0 100 17 1 2 3 6 6 0 0  
## probabilities: 0.000 0.741 0.126 0.007 0.015 0.022 0.044 0.044 0.000 0.000   
## left son=1808 (107 obs) right son=1809 (28 obs)  
## Primary splits:  
## 520 < 3 to the left, improve=23.79034, (0 missing)  
## 351 < 79 to the right, improve=23.07407, (0 missing)  
## 519 < 49.5 to the left, improve=23.00462, (0 missing)  
## 510 < 2.5 to the left, improve=22.79906, (0 missing)  
## 352 < 194 to the right, improve=22.79529, (0 missing)  
## Surrogate splits:  
## 519 < 69.5 to the left, agree=0.963, adj=0.821, (0 split)  
## 547 < 2.5 to the left, agree=0.956, adj=0.786, (0 split)  
## 492 < 71 to the left, agree=0.948, adj=0.750, (0 split)  
## 521 < 3 to the left, agree=0.941, adj=0.714, (0 split)  
## 464 < 139.5 to the left, agree=0.933, adj=0.679, (0 split)  
##   
## Node number 905: 111 observations, complexity param=0.001384299  
## predicted class=4 expected loss=0.4774775 P(node) =0.004403888  
## class counts: 0 0 2 0 58 2 42 2 3 2  
## probabilities: 0.000 0.000 0.018 0.000 0.523 0.018 0.378 0.018 0.027 0.018   
## left son=1810 (72 obs) right son=1811 (39 obs)  
## Primary splits:  
## 573 < 221 to the left, improve=26.92487, (0 missing)  
## 216 < 3.5 to the right, improve=26.23956, (0 missing)  
## 438 < 73 to the right, improve=24.46467, (0 missing)  
## 574 < 101 to the left, improve=23.81049, (0 missing)  
## 488 < 105.5 to the right, improve=23.70271, (0 missing)  
## Surrogate splits:  
## 572 < 142 to the left, agree=0.883, adj=0.667, (0 split)  
## 574 < 142.5 to the left, agree=0.865, adj=0.615, (0 split)  
## 601 < 70.5 to the left, agree=0.865, adj=0.615, (0 split)  
## 488 < 43.5 to the right, agree=0.847, adj=0.564, (0 split)  
## 459 < 5 to the right, agree=0.829, adj=0.513, (0 split)  
##   
## Node number 906: 150 observations, complexity param=0.000982406  
## predicted class=2 expected loss=0.46 P(node) =0.0059512  
## class counts: 0 2 81 5 1 0 0 46 6 9  
## probabilities: 0.000 0.013 0.540 0.033 0.007 0.000 0.000 0.307 0.040 0.060   
## left son=1812 (127 obs) right son=1813 (23 obs)  
## Primary splits:  
## 678 < 45.5 to the left, improve=19.60675, (0 missing)  
## 566 < 74 to the right, improve=17.50022, (0 missing)  
## 706 < 3.5 to the left, improve=16.47333, (0 missing)  
## 538 < 25 to the right, improve=16.11102, (0 missing)  
## 679 < 102.5 to the left, improve=15.70316, (0 missing)  
## Surrogate splits:  
## 677 < 3 to the left, agree=0.973, adj=0.826, (0 split)  
## 706 < 3.5 to the left, agree=0.967, adj=0.783, (0 split)  
## 650 < 50.5 to the left, agree=0.960, adj=0.739, (0 split)  
## 705 < 8 to the left, agree=0.960, adj=0.739, (0 split)  
## 679 < 0.5 to the left, agree=0.953, adj=0.696, (0 split)  
##   
## Node number 907: 91 observations, complexity param=0.0004465482  
## predicted class=9 expected loss=0.3076923 P(node) =0.003610395  
## class counts: 2 0 4 0 1 5 0 3 13 63  
## probabilities: 0.022 0.000 0.044 0.000 0.011 0.055 0.000 0.033 0.143 0.692   
## left son=1814 (28 obs) right son=1815 (63 obs)  
## Primary splits:  
## 599 < 6.5 to the right, improve=18.85958, (0 missing)  
## 627 < 74.5 to the right, improve=14.62795, (0 missing)  
## 598 < 26 to the right, improve=14.29277, (0 missing)  
## 626 < 29.5 to the right, improve=14.18974, (0 missing)  
## 403 < 0.5 to the right, improve=13.52410, (0 missing)  
## Surrogate splits:  
## 598 < 26 to the right, agree=0.945, adj=0.821, (0 split)  
## 627 < 74.5 to the right, agree=0.934, adj=0.786, (0 split)  
## 600 < 4 to the right, agree=0.923, adj=0.750, (0 split)  
## 626 < 29.5 to the right, agree=0.923, adj=0.750, (0 split)  
## 570 < 36.5 to the right, agree=0.912, adj=0.714, (0 split)  
##   
## Node number 912: 13 observations  
## predicted class=0 expected loss=0.6153846 P(node) =0.0005157707  
## class counts: 5 0 5 0 0 0 3 0 0 0  
## probabilities: 0.385 0.000 0.385 0.000 0.000 0.000 0.231 0.000 0.000 0.000   
##   
## Node number 913: 7 observations  
## predicted class=8 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 0 0 1 0 0 0 6 0  
## probabilities: 0.000 0.000 0.000 0.000 0.143 0.000 0.000 0.000 0.857 0.000   
##   
## Node number 916: 132 observations, complexity param=0.0004018934  
## predicted class=4 expected loss=0.1969697 P(node) =0.005237056  
## class counts: 0 0 10 0 106 1 13 0 2 0  
## probabilities: 0.000 0.000 0.076 0.000 0.803 0.008 0.098 0.000 0.015 0.000   
## left son=1832 (18 obs) right son=1833 (114 obs)  
## Primary splits:  
## 127 < 2.5 to the right, improve=19.72116, (0 missing)  
## 126 < 6.5 to the left, improve=19.47208, (0 missing)  
## 125 < 34 to the left, improve=18.35517, (0 missing)  
## 97 < 2 to the left, improve=16.73281, (0 missing)  
## 128 < 6.5 to the right, improve=15.73523, (0 missing)  
## Surrogate splits:  
## 99 < 1 to the right, agree=0.970, adj=0.778, (0 split)  
## 128 < 6.5 to the right, agree=0.970, adj=0.778, (0 split)  
## 126 < 6.5 to the right, agree=0.962, adj=0.722, (0 split)  
## 129 < 19 to the right, agree=0.947, adj=0.611, (0 split)  
## 98 < 68.5 to the right, agree=0.939, adj=0.556, (0 split)  
##   
## Node number 917: 23 observations, complexity param=0.0002232741  
## predicted class=7 expected loss=0.4347826 P(node) =0.0009125174  
## class counts: 0 0 3 0 0 0 0 13 5 2  
## probabilities: 0.000 0.000 0.130 0.000 0.000 0.000 0.000 0.565 0.217 0.087   
## left son=1834 (8 obs) right son=1835 (15 obs)  
## Primary splits:  
## 486 < 162.5 to the right, improve=6.783333, (0 missing)  
## 376 < 55 to the left, improve=6.283333, (0 missing)  
## 430 < 5.5 to the left, improve=6.267857, (0 missing)  
## 458 < 56 to the right, improve=6.150000, (0 missing)  
## 290 < 13.5 to the right, improve=5.732143, (0 missing)  
## Surrogate splits:  
## 485 < 50 to the right, agree=0.957, adj=0.875, (0 split)  
## 513 < 132 to the right, agree=0.957, adj=0.875, (0 split)  
## 458 < 56 to the right, agree=0.913, adj=0.750, (0 split)  
## 459 < 187.5 to the right, agree=0.913, adj=0.750, (0 split)  
## 460 < 247.5 to the right, agree=0.913, adj=0.750, (0 split)  
##   
## Node number 918: 85 observations, complexity param=0.0008037867  
## predicted class=2 expected loss=0.4823529 P(node) =0.003372347  
## class counts: 12 0 44 0 1 1 1 2 23 1  
## probabilities: 0.141 0.000 0.518 0.000 0.012 0.012 0.012 0.024 0.271 0.012   
## left son=1836 (56 obs) right son=1837 (29 obs)  
## Primary splits:  
## 654 < 33 to the left, improve=16.81152, (0 missing)  
## 653 < 28.5 to the left, improve=14.56957, (0 missing)  
## 655 < 20 to the left, improve=14.16532, (0 missing)  
## 348 < 206.5 to the left, improve=13.32259, (0 missing)  
## 525 < 33.5 to the right, improve=12.24566, (0 missing)  
## Surrogate splits:  
## 653 < 28.5 to the left, agree=0.953, adj=0.862, (0 split)  
## 655 < 4.5 to the left, agree=0.953, adj=0.862, (0 split)  
## 652 < 56.5 to the left, agree=0.906, adj=0.724, (0 split)  
## 656 < 5.5 to the left, agree=0.906, adj=0.724, (0 split)  
## 627 < 180.5 to the left, agree=0.871, adj=0.621, (0 split)  
##   
## Node number 919: 124 observations, complexity param=0.0007591319  
## predicted class=9 expected loss=0.5967742 P(node) =0.004919659  
## class counts: 2 0 9 0 18 0 1 33 11 50  
## probabilities: 0.016 0.000 0.073 0.000 0.145 0.000 0.008 0.266 0.089 0.403   
## left son=1838 (71 obs) right son=1839 (53 obs)  
## Primary splits:  
## 458 < 5 to the left, improve=13.01018, (0 missing)  
## 457 < 5.5 to the right, improve=12.63663, (0 missing)  
## 429 < 9.5 to the left, improve=12.35484, (0 missing)  
## 681 < 233.5 to the right, improve=11.61812, (0 missing)  
## 709 < 168.5 to the left, improve=11.53778, (0 missing)  
## Surrogate splits:  
## 457 < 17.5 to the left, agree=0.919, adj=0.811, (0 split)  
## 459 < 13.5 to the left, agree=0.895, adj=0.755, (0 split)  
## 429 < 20.5 to the left, agree=0.879, adj=0.717, (0 split)  
## 456 < 5.5 to the left, agree=0.863, adj=0.679, (0 split)  
## 430 < 88.5 to the left, agree=0.855, adj=0.660, (0 split)  
##   
## Node number 922: 36 observations, complexity param=0.0004465482  
## predicted class=8 expected loss=0.6388889 P(node) =0.001428288  
## class counts: 10 0 1 0 0 8 4 0 13 0  
## probabilities: 0.278 0.000 0.028 0.000 0.000 0.222 0.111 0.000 0.361 0.000   
## left son=1844 (14 obs) right son=1845 (22 obs)  
## Primary splits:  
## 266 < 251.5 to the right, improve=7.745310, (0 missing)  
## 434 < 5 to the left, improve=7.349206, (0 missing)  
## 382 < 7 to the right, improve=6.699182, (0 missing)  
## 293 < 218 to the right, improve=6.102778, (0 missing)  
## 354 < 29.5 to the right, improve=5.940115, (0 missing)  
## Surrogate splits:  
## 293 < 218 to the right, agree=0.889, adj=0.714, (0 split)  
## 294 < 223 to the right, agree=0.889, adj=0.714, (0 split)  
## 574 < 225 to the right, agree=0.889, adj=0.714, (0 split)  
## 295 < 21 to the right, agree=0.861, adj=0.643, (0 split)  
## 322 < 3 to the right, agree=0.861, adj=0.643, (0 split)  
##   
## Node number 923: 17 observations  
## predicted class=9 expected loss=0.2352941 P(node) =0.0006744694  
## class counts: 0 0 0 0 2 1 1 0 0 13  
## probabilities: 0.000 0.000 0.000 0.000 0.118 0.059 0.059 0.000 0.000 0.765   
##   
## Node number 924: 20 observations, complexity param=0.0001786193  
## predicted class=5 expected loss=0.45 P(node) =0.0007934934  
## class counts: 4 0 0 2 1 11 0 1 0 1  
## probabilities: 0.200 0.000 0.000 0.100 0.050 0.550 0.000 0.050 0.000 0.050   
## left son=1848 (8 obs) right son=1849 (12 obs)  
## Primary splits:  
## 327 < 46.5 to the right, improve=5.716667, (0 missing)  
## 355 < 30.5 to the right, improve=5.716667, (0 missing)  
## 382 < 12 to the right, improve=5.200000, (0 missing)  
## 435 < 204.5 to the left, improve=4.975824, (0 missing)  
## 354 < 58 to the right, improve=4.966667, (0 missing)  
## Surrogate splits:  
## 355 < 30.5 to the right, agree=1.00, adj=1.000, (0 split)  
## 328 < 26.5 to the right, agree=0.95, adj=0.875, (0 split)  
## 289 < 20 to the left, agree=0.90, adj=0.750, (0 split)  
## 354 < 58 to the right, agree=0.90, adj=0.750, (0 split)  
## 382 < 12 to the right, agree=0.90, adj=0.750, (0 split)  
##   
## Node number 925: 27 observations  
## predicted class=8 expected loss=0.1481481 P(node) =0.001071216  
## class counts: 0 0 0 0 0 1 1 1 23 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.037 0.037 0.037 0.852 0.037   
##   
## Node number 928: 24 observations  
## predicted class=1 expected loss=0.08333333 P(node) =0.000952192  
## class counts: 0 22 0 0 1 0 0 0 1 0  
## probabilities: 0.000 0.917 0.000 0.000 0.042 0.000 0.000 0.000 0.042 0.000   
##   
## Node number 929: 8 observations  
## predicted class=2 expected loss=0.125 P(node) =0.0003173973  
## class counts: 1 0 7 0 0 0 0 0 0 0  
## probabilities: 0.125 0.000 0.875 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 930: 275 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.08 P(node) =0.01091053  
## class counts: 1 3 253 2 3 0 1 9 3 0  
## probabilities: 0.004 0.011 0.920 0.007 0.011 0.000 0.004 0.033 0.011 0.000   
## left son=1860 (268 obs) right son=1861 (7 obs)  
## Primary splits:  
## 681 < 13 to the left, improve=7.816926, (0 missing)  
## 348 < 41 to the left, improve=6.281745, (0 missing)  
## 349 < 37.5 to the left, improve=6.281745, (0 missing)  
## 320 < 35.5 to the left, improve=6.132054, (0 missing)  
## 321 < 12.5 to the left, improve=5.425455, (0 missing)  
## Surrogate splits:  
## 680 < 11.5 to the left, agree=0.985, adj=0.429, (0 split)  
## 682 < 42.5 to the left, agree=0.985, adj=0.429, (0 split)  
## 679 < 56 to the left, agree=0.982, adj=0.286, (0 split)  
## 708 < 26.5 to the left, agree=0.982, adj=0.286, (0 split)  
## 709 < 77.5 to the left, agree=0.982, adj=0.286, (0 split)  
##   
## Node number 931: 11 observations  
## predicted class=9 expected loss=0.5454545 P(node) =0.0004364213  
## class counts: 0 0 0 0 4 0 2 0 0 5  
## probabilities: 0.000 0.000 0.000 0.000 0.364 0.000 0.182 0.000 0.000 0.455   
##   
## Node number 946: 12 observations  
## predicted class=4 expected loss=0.1666667 P(node) =0.000476096  
## class counts: 0 0 0 0 10 1 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.000 0.833 0.083 0.000 0.000 0.083 0.000   
##   
## Node number 947: 32 observations, complexity param=0.0003572385  
## predicted class=6 expected loss=0.625 P(node) =0.001269589  
## class counts: 0 1 2 0 2 0 12 1 9 5  
## probabilities: 0.000 0.031 0.062 0.000 0.062 0.000 0.375 0.031 0.281 0.156   
## left son=1894 (15 obs) right son=1895 (17 obs)  
## Primary splits:  
## 494 < 33.5 to the right, improve=6.282843, (0 missing)  
## 456 < 30.5 to the right, improve=5.583502, (0 missing)  
## 484 < 131.5 to the right, improve=5.583502, (0 missing)  
## 415 < 5 to the right, improve=5.087121, (0 missing)  
## 442 < 40.5 to the right, improve=5.087121, (0 missing)  
## Surrogate splits:  
## 467 < 13 to the right, agree=0.906, adj=0.800, (0 split)  
## 468 < 3.5 to the right, agree=0.906, adj=0.800, (0 split)  
## 495 < 3.5 to the right, agree=0.906, adj=0.800, (0 split)  
## 428 < 121.5 to the right, agree=0.875, adj=0.733, (0 split)  
## 455 < 43.5 to the right, agree=0.875, adj=0.733, (0 split)  
##   
## Node number 954: 18 observations  
## predicted class=5 expected loss=0.2777778 P(node) =0.000714144  
## class counts: 0 0 0 0 0 13 2 0 2 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.722 0.111 0.000 0.111 0.056   
##   
## Node number 955: 1485 observations, complexity param=0.0001786193  
## predicted class=6 expected loss=0.02289562 P(node) =0.05891688  
## class counts: 0 0 4 1 2 14 1451 0 7 6  
## probabilities: 0.000 0.000 0.003 0.001 0.001 0.009 0.977 0.000 0.005 0.004   
## left son=1910 (1478 obs) right son=1911 (7 obs)  
## Primary splits:  
## 662 < 2 to the left, improve=9.656883, (0 missing)  
## 651 < 2 to the left, improve=6.903935, (0 missing)  
## 652 < 132.5 to the left, improve=6.903935, (0 missing)  
## 653 < 122 to the left, improve=6.903935, (0 missing)  
## 624 < 225.5 to the left, improve=4.762589, (0 missing)  
## Surrogate splits:  
## 661 < 3 to the left, agree=0.999, adj=0.857, (0 split)  
## 690 < 9.5 to the left, agree=0.998, adj=0.571, (0 split)  
## 660 < 1 to the left, agree=0.997, adj=0.429, (0 split)  
## 663 < 30 to the left, agree=0.997, adj=0.429, (0 split)  
## 689 < 4 to the left, agree=0.997, adj=0.429, (0 split)  
##   
## Node number 956: 58 observations  
## predicted class=5 expected loss=0.05172414 P(node) =0.002301131  
## class counts: 0 0 0 2 0 55 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.034 0.000 0.948 0.000 0.000 0.017 0.000   
##   
## Node number 957: 9 observations  
## predicted class=6 expected loss=0.3333333 P(node) =0.000357072  
## class counts: 0 0 0 0 1 1 6 0 1 0  
## probabilities: 0.000 0.000 0.000 0.000 0.111 0.111 0.667 0.000 0.111 0.000   
##   
## Node number 958: 34 observations  
## predicted class=6 expected loss=0.2647059 P(node) =0.001348939  
## class counts: 0 0 0 0 0 3 25 0 4 2  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.088 0.735 0.000 0.118 0.059   
##   
## Node number 959: 62 observations, complexity param=0.0003125837  
## predicted class=8 expected loss=0.4677419 P(node) =0.002459829  
## class counts: 0 0 2 2 0 16 6 1 33 2  
## probabilities: 0.000 0.000 0.032 0.032 0.000 0.258 0.097 0.016 0.532 0.032   
## left son=1918 (29 obs) right son=1919 (33 obs)  
## Primary splits:  
## 354 < 0.5 to the left, improve=8.548522, (0 missing)  
## 355 < 30.5 to the left, improve=8.537137, (0 missing)  
## 467 < 5.5 to the right, improve=8.294507, (0 missing)  
## 488 < 0.5 to the left, improve=7.360993, (0 missing)  
## 466 < 218.5 to the right, improve=6.812832, (0 missing)  
## Surrogate splits:  
## 355 < 3.5 to the left, agree=0.984, adj=0.966, (0 split)  
## 356 < 1.5 to the left, agree=0.919, adj=0.828, (0 split)  
## 382 < 137.5 to the left, agree=0.903, adj=0.793, (0 split)  
## 381 < 30 to the left, agree=0.855, adj=0.690, (0 split)  
## 383 < 1 to the left, agree=0.839, adj=0.655, (0 split)  
##   
## Node number 962: 15 observations  
## predicted class=3 expected loss=0 P(node) =0.00059512  
## class counts: 0 0 0 15 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 963: 7 observations  
## predicted class=8 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 2 0 0 0 0 0 5 0  
## probabilities: 0.000 0.000 0.286 0.000 0.000 0.000 0.000 0.000 0.714 0.000   
##   
## Node number 966: 7 observations  
## predicted class=4 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 2 1 4 0 0 0 0 0  
## probabilities: 0.000 0.000 0.286 0.143 0.571 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 967: 18 observations  
## predicted class=8 expected loss=0.1666667 P(node) =0.000714144  
## class counts: 0 0 0 1 0 1 1 0 15 0  
## probabilities: 0.000 0.000 0.000 0.056 0.000 0.056 0.056 0.000 0.833 0.000   
##   
## Node number 968: 1344 observations, complexity param=0.0004018934  
## predicted class=4 expected loss=0.05208333 P(node) =0.05332275  
## class counts: 0 6 8 9 1274 2 14 10 5 16  
## probabilities: 0.000 0.004 0.006 0.007 0.948 0.001 0.010 0.007 0.004 0.012   
## left son=1936 (1325 obs) right son=1937 (19 obs)  
## Primary splits:  
## 295 < 222 to the left, improve=21.51074, (0 missing)  
## 294 < 222.5 to the left, improve=20.11547, (0 missing)  
## 322 < 47 to the left, improve=16.49136, (0 missing)  
## 95 < 32 to the left, improve=15.59351, (0 missing)  
## 96 < 2 to the left, improve=15.59351, (0 missing)  
## Surrogate splits:  
## 294 < 245.5 to the left, agree=0.992, adj=0.421, (0 split)  
## 322 < 210.5 to the left, agree=0.992, adj=0.421, (0 split)  
## 323 < 253.5 to the left, agree=0.987, adj=0.105, (0 split)  
## 740 < 159 to the left, agree=0.987, adj=0.105, (0 split)  
## 255 < 222 to the left, agree=0.987, adj=0.053, (0 split)  
##   
## Node number 969: 71 observations, complexity param=0.0005358578  
## predicted class=8 expected loss=0.6338028 P(node) =0.002816901  
## class counts: 0 0 6 7 8 19 1 0 26 4  
## probabilities: 0.000 0.000 0.085 0.099 0.113 0.268 0.014 0.000 0.366 0.056   
## left son=1938 (48 obs) right son=1939 (23 obs)  
## Primary splits:  
## 516 < 47 to the left, improve=11.28641, (0 missing)  
## 544 < 95.5 to the left, improve=10.56403, (0 missing)  
## 517 < 20 to the left, improve=10.35095, (0 missing)  
## 572 < 46 to the left, improve=10.16924, (0 missing)  
## 489 < 177.5 to the left, improve=10.07118, (0 missing)  
## Surrogate splits:  
## 544 < 131.5 to the left, agree=0.958, adj=0.870, (0 split)  
## 489 < 177.5 to the left, agree=0.930, adj=0.783, (0 split)  
## 543 < 16.5 to the left, agree=0.930, adj=0.783, (0 split)  
## 517 < 28.5 to the left, agree=0.901, adj=0.696, (0 split)  
## 515 < 3 to the left, agree=0.887, adj=0.652, (0 split)  
##   
## Node number 972: 21 observations  
## predicted class=5 expected loss=0.2380952 P(node) =0.000833168  
## class counts: 0 0 0 0 2 16 0 0 1 2  
## probabilities: 0.000 0.000 0.000 0.000 0.095 0.762 0.000 0.000 0.048 0.095   
##   
## Node number 973: 72 observations, complexity param=0.0006251675  
## predicted class=9 expected loss=0.4861111 P(node) =0.002856576  
## class counts: 0 0 2 2 22 4 0 5 0 37  
## probabilities: 0.000 0.000 0.028 0.028 0.306 0.056 0.000 0.069 0.000 0.514   
## left son=1946 (32 obs) right son=1947 (40 obs)  
## Primary splits:  
## 237 < 23.5 to the left, improve=12.383330, (0 missing)  
## 238 < 158.5 to the left, improve=10.583330, (0 missing)  
## 375 < 35.5 to the right, improve= 9.861111, (0 missing)  
## 186 < 4 to the right, improve= 8.873974, (0 missing)  
## 263 < 5.5 to the left, improve= 8.694444, (0 missing)  
## Surrogate splits:  
## 238 < 142.5 to the left, agree=0.944, adj=0.875, (0 split)  
## 236 < 2 to the left, agree=0.917, adj=0.812, (0 split)  
## 263 < 15 to the left, agree=0.861, adj=0.688, (0 split)  
## 347 < 137.5 to the right, agree=0.861, adj=0.688, (0 split)  
## 265 < 235 to the left, agree=0.847, adj=0.656, (0 split)  
##   
## Node number 974: 36 observations  
## predicted class=7 expected loss=0.1944444 P(node) =0.001428288  
## class counts: 0 0 2 2 0 0 0 29 2 1  
## probabilities: 0.000 0.000 0.056 0.056 0.000 0.000 0.000 0.806 0.056 0.028   
##   
## Node number 975: 11 observations  
## predicted class=9 expected loss=0.3636364 P(node) =0.0004364213  
## class counts: 0 0 3 0 0 1 0 0 0 7  
## probabilities: 0.000 0.000 0.273 0.000 0.000 0.091 0.000 0.000 0.000 0.636   
##   
## Node number 976: 494 observations, complexity param=0.0003572385  
## predicted class=5 expected loss=0.1093117 P(node) =0.01959929  
## class counts: 0 0 1 35 1 440 0 1 0 16  
## probabilities: 0.000 0.000 0.002 0.071 0.002 0.891 0.000 0.002 0.000 0.032   
## left son=1952 (24 obs) right son=1953 (470 obs)  
## Primary splits:  
## 322 < 187.5 to the right, improve=16.81794, (0 missing)  
## 217 < 1 to the left, improve=15.29740, (0 missing)  
## 216 < 1.5 to the left, improve=15.15130, (0 missing)  
## 188 < 2 to the left, improve=14.52128, (0 missing)  
## 263 < 8.5 to the left, improve=14.33422, (0 missing)  
## Surrogate splits:  
## 321 < 252.5 to the right, agree=0.962, adj=0.208, (0 split)  
## 323 < 62.5 to the right, agree=0.957, adj=0.125, (0 split)  
## 649 < 245 to the right, agree=0.957, adj=0.125, (0 split)  
## 203 < 253.5 to the right, agree=0.953, adj=0.042, (0 split)  
## 324 < 117.5 to the right, agree=0.953, adj=0.042, (0 split)  
##   
## Node number 977: 27 observations  
## predicted class=6 expected loss=0.1111111 P(node) =0.001071216  
## class counts: 0 0 0 0 0 2 24 0 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.074 0.889 0.000 0.000 0.037   
##   
## Node number 978: 25 observations, complexity param=0.0002679289  
## predicted class=2 expected loss=0.48 P(node) =0.0009918667  
## class counts: 3 0 13 1 0 0 2 0 6 0  
## probabilities: 0.120 0.000 0.520 0.040 0.000 0.000 0.080 0.000 0.240 0.000   
## left son=1956 (18 obs) right son=1957 (7 obs)  
## Primary splits:  
## 685 < 1.5 to the left, improve=6.636825, (0 missing)  
## 684 < 3 to the left, improve=6.414603, (0 missing)  
## 683 < 8.5 to the left, improve=6.401765, (0 missing)  
## 358 < 61.5 to the left, improve=6.084156, (0 missing)  
## 466 < 239 to the right, improve=5.483590, (0 missing)  
## Surrogate splits:  
## 436 < 252.5 to the left, agree=0.96, adj=0.857, (0 split)  
## 683 < 8.5 to the left, agree=0.96, adj=0.857, (0 split)  
## 684 < 7 to the left, agree=0.96, adj=0.857, (0 split)  
## 232 < 2.5 to the left, agree=0.92, adj=0.714, (0 split)  
## 233 < 58 to the left, agree=0.92, adj=0.714, (0 split)  
##   
## Node number 979: 35 observations, complexity param=0.0001786193  
## predicted class=9 expected loss=0.3428571 P(node) =0.001388613  
## class counts: 0 0 0 1 5 3 0 0 3 23  
## probabilities: 0.000 0.000 0.000 0.029 0.143 0.086 0.000 0.000 0.086 0.657   
## left son=1958 (11 obs) right son=1959 (24 obs)  
## Primary splits:  
## 242 < 14.5 to the left, improve=7.424026, (0 missing)  
## 347 < 176.5 to the right, improve=6.867888, (0 missing)  
## 243 < 0.5 to the left, improve=6.508571, (0 missing)  
## 155 < 24 to the right, improve=5.841534, (0 missing)  
## 320 < 144.5 to the right, improve=5.708571, (0 missing)  
## Surrogate splits:  
## 243 < 0.5 to the left, agree=0.971, adj=0.909, (0 split)  
## 241 < 2 to the left, agree=0.943, adj=0.818, (0 split)  
## 347 < 221 to the right, agree=0.914, adj=0.727, (0 split)  
## 154 < 7 to the right, agree=0.857, adj=0.545, (0 split)  
## 213 < 57 to the left, agree=0.857, adj=0.545, (0 split)  
##   
## Node number 982: 127 observations, complexity param=0.0007144771  
## predicted class=9 expected loss=0.6141732 P(node) =0.005038683  
## class counts: 0 1 3 16 20 0 1 28 9 49  
## probabilities: 0.000 0.008 0.024 0.126 0.157 0.000 0.008 0.220 0.071 0.386   
## left son=1964 (60 obs) right son=1965 (67 obs)  
## Primary splits:  
## 373 < 9.5 to the left, improve=14.28025, (0 missing)  
## 345 < 4 to the left, improve=14.01165, (0 missing)  
## 346 < 1 to the left, improve=13.03548, (0 missing)  
## 205 < 46 to the right, improve=11.38308, (0 missing)  
## 318 < 1 to the left, improve=11.35079, (0 missing)  
## Surrogate splits:  
## 345 < 4 to the left, agree=0.929, adj=0.850, (0 split)  
## 401 < 30.5 to the left, agree=0.874, adj=0.733, (0 split)  
## 317 < 1 to the left, agree=0.858, adj=0.700, (0 split)  
## 374 < 55 to the left, agree=0.835, adj=0.650, (0 split)  
## 346 < 1 to the left, agree=0.811, adj=0.600, (0 split)  
##   
## Node number 983: 21 observations  
## predicted class=8 expected loss=0.1428571 P(node) =0.000833168  
## class counts: 0 0 1 1 0 0 1 0 18 0  
## probabilities: 0.000 0.000 0.048 0.048 0.000 0.000 0.048 0.000 0.857 0.000   
##   
## Node number 984: 99 observations, complexity param=0.0002679289  
## predicted class=3 expected loss=0.2323232 P(node) =0.003927792  
## class counts: 1 0 2 76 1 7 0 0 2 10  
## probabilities: 0.010 0.000 0.020 0.768 0.010 0.071 0.000 0.000 0.020 0.101   
## left son=1968 (77 obs) right son=1969 (22 obs)  
## Primary splits:  
## 373 < 63 to the left, improve=15.06349, (0 missing)  
## 318 < 22 to the left, improve=13.10780, (0 missing)  
## 346 < 167.5 to the left, improve=12.38503, (0 missing)  
## 345 < 13 to the left, improve=12.08025, (0 missing)  
## 319 < 116.5 to the left, improve=11.25532, (0 missing)  
## Surrogate splits:  
## 345 < 13 to the left, agree=0.949, adj=0.773, (0 split)  
## 374 < 209 to the left, agree=0.949, adj=0.773, (0 split)  
## 346 < 83.5 to the left, agree=0.919, adj=0.636, (0 split)  
## 372 < 16 to the left, agree=0.909, adj=0.591, (0 split)  
## 402 < 251.5 to the left, agree=0.909, adj=0.591, (0 split)  
##   
## Node number 985: 79 observations, complexity param=0.0009377512  
## predicted class=2 expected loss=0.4683544 P(node) =0.003134299  
## class counts: 1 0 42 6 0 1 3 0 25 1  
## probabilities: 0.013 0.000 0.532 0.076 0.000 0.013 0.038 0.000 0.316 0.013   
## left son=1970 (46 obs) right son=1971 (33 obs)  
## Primary splits:  
## 465 < 96.5 to the right, improve=20.78167, (0 missing)  
## 521 < 6.5 to the right, improve=19.34563, (0 missing)  
## 492 < 114.5 to the right, improve=18.17561, (0 missing)  
## 379 < 146.5 to the left, improve=17.94013, (0 missing)  
## 599 < 126.5 to the right, improve=17.68251, (0 missing)  
## Surrogate splits:  
## 493 < 41 to the right, agree=0.937, adj=0.848, (0 split)  
## 437 < 121 to the right, agree=0.911, adj=0.788, (0 split)  
## 492 < 59.5 to the right, agree=0.899, adj=0.758, (0 split)  
## 464 < 99 to the right, agree=0.886, adj=0.727, (0 split)  
## 520 < 86.5 to the right, agree=0.861, adj=0.667, (0 split)  
##   
## Node number 986: 138 observations, complexity param=0.0004465482  
## predicted class=4 expected loss=0.3333333 P(node) =0.005475104  
## class counts: 0 0 5 7 92 2 1 0 5 26  
## probabilities: 0.000 0.000 0.036 0.051 0.667 0.014 0.007 0.000 0.036 0.188   
## left son=1972 (90 obs) right son=1973 (48 obs)  
## Primary splits:  
## 207 < 10 to the left, improve=19.72005, (0 missing)  
## 181 < 126 to the left, improve=18.83848, (0 missing)  
## 180 < 1.5 to the left, improve=18.44868, (0 missing)  
## 208 < 31 to the left, improve=17.91859, (0 missing)  
## 179 < 6 to the left, improve=15.51269, (0 missing)  
## Surrogate splits:  
## 208 < 88.5 to the left, agree=0.942, adj=0.833, (0 split)  
## 180 < 1.5 to the left, agree=0.920, adj=0.771, (0 split)  
## 179 < 2.5 to the left, agree=0.913, adj=0.750, (0 split)  
## 235 < 109 to the left, agree=0.899, adj=0.708, (0 split)  
## 181 < 152.5 to the left, agree=0.891, adj=0.687, (0 split)  
##   
## Node number 987: 90 observations, complexity param=0.0004465482  
## predicted class=8 expected loss=0.5 P(node) =0.00357072  
## class counts: 1 0 4 9 9 2 0 1 45 19  
## probabilities: 0.011 0.000 0.044 0.100 0.100 0.022 0.000 0.011 0.500 0.211   
## left son=1974 (50 obs) right son=1975 (40 obs)  
## Primary splits:  
## 544 < 147 to the left, improve=17.02444, (0 missing)  
## 516 < 55 to the left, improve=14.42222, (0 missing)  
## 517 < 192.5 to the left, improve=12.81599, (0 missing)  
## 543 < 12 to the left, improve=11.52738, (0 missing)  
## 545 < 131 to the left, improve=10.43108, (0 missing)  
## Surrogate splits:  
## 516 < 55 to the left, agree=0.900, adj=0.775, (0 split)  
## 543 < 12 to the left, agree=0.900, adj=0.775, (0 split)  
## 572 < 239.5 to the left, agree=0.878, adj=0.725, (0 split)  
## 517 < 149 to the left, agree=0.867, adj=0.700, (0 split)  
## 571 < 52 to the left, agree=0.867, adj=0.700, (0 split)  
##   
## Node number 988: 176 observations, complexity param=0.0006698223  
## predicted class=9 expected loss=0.6931818 P(node) =0.006982742  
## class counts: 1 0 17 51 8 0 0 39 6 54  
## probabilities: 0.006 0.000 0.097 0.290 0.045 0.000 0.000 0.222 0.034 0.307   
## left son=1976 (119 obs) right son=1977 (57 obs)  
## Primary splits:  
## 342 < 10 to the left, improve=36.80002, (0 missing)  
## 371 < 3 to the left, improve=36.32649, (0 missing)  
## 370 < 2.5 to the left, improve=33.43193, (0 missing)  
## 399 < 5.5 to the left, improve=33.30885, (0 missing)  
## 315 < 51 to the left, improve=32.74784, (0 missing)  
## Surrogate splits:  
## 371 < 3 to the left, agree=0.972, adj=0.912, (0 split)  
## 370 < 2.5 to the left, agree=0.960, adj=0.877, (0 split)  
## 314 < 5.5 to the left, agree=0.949, adj=0.842, (0 split)  
## 343 < 10 to the left, agree=0.949, adj=0.842, (0 split)  
## 315 < 32 to the left, agree=0.938, adj=0.807, (0 split)  
##   
## Node number 989: 117 observations, complexity param=0.0003572385  
## predicted class=9 expected loss=0.2393162 P(node) =0.004641936  
## class counts: 0 0 0 1 15 1 0 4 7 89  
## probabilities: 0.000 0.000 0.000 0.009 0.128 0.009 0.000 0.034 0.060 0.761   
## left son=1978 (20 obs) right son=1979 (97 obs)  
## Primary splits:  
## 428 < 71.5 to the right, improve=13.05703, (0 missing)  
## 456 < 1 to the right, improve=11.83117, (0 missing)  
## 213 < 3.5 to the left, improve=11.66334, (0 missing)  
## 212 < 83 to the left, improve=11.41880, (0 missing)  
## 427 < 0.5 to the right, improve=10.77495, (0 missing)  
## Surrogate splits:  
## 400 < 12 to the right, agree=0.966, adj=0.80, (0 split)  
## 427 < 0.5 to the right, agree=0.966, adj=0.80, (0 split)  
## 456 < 2.5 to the right, agree=0.949, adj=0.70, (0 split)  
## 401 < 244.5 to the right, agree=0.940, adj=0.65, (0 split)  
## 455 < 16 to the right, agree=0.932, adj=0.60, (0 split)  
##   
## Node number 990: 66 observations, complexity param=0.0006698223  
## predicted class=4 expected loss=0.4848485 P(node) =0.002618528  
## class counts: 0 0 0 0 34 0 0 1 2 29  
## probabilities: 0.000 0.000 0.000 0.000 0.515 0.000 0.000 0.015 0.030 0.439   
## left son=1980 (31 obs) right son=1981 (35 obs)  
## Primary splits:  
## 319 < 195 to the right, improve=23.27404, (0 missing)  
## 206 < 5.5 to the left, improve=22.77634, (0 missing)  
## 261 < 29 to the left, improve=21.84444, (0 missing)  
## 291 < 141.5 to the right, improve=21.32479, (0 missing)  
## 234 < 142 to the left, improve=21.27350, (0 missing)  
## Surrogate splits:  
## 292 < 99.5 to the right, agree=0.939, adj=0.871, (0 split)  
## 320 < 6 to the right, agree=0.939, adj=0.871, (0 split)  
## 346 < 235.5 to the right, agree=0.939, adj=0.871, (0 split)  
## 347 < 33.5 to the right, agree=0.939, adj=0.871, (0 split)  
## 261 < 29 to the left, agree=0.924, adj=0.839, (0 split)  
##   
## Node number 991: 1086 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.08655617 P(node) =0.04308669  
## class counts: 0 0 1 10 35 6 0 10 32 992  
## probabilities: 0.000 0.000 0.001 0.009 0.032 0.006 0.000 0.009 0.029 0.913   
## left son=1982 (72 obs) right son=1983 (1014 obs)  
## Primary splits:  
## 204 < 10.5 to the right, improve=12.80996, (0 missing)  
## 437 < 2.5 to the left, improve=12.02509, (0 missing)  
## 203 < 12 to the right, improve=11.64847, (0 missing)  
## 232 < 132.5 to the right, improve=11.64608, (0 missing)  
## 177 < 119 to the right, improve=11.10262, (0 missing)  
## Surrogate splits:  
## 232 < 212.5 to the right, agree=0.977, adj=0.653, (0 split)  
## 205 < 91.5 to the right, agree=0.975, adj=0.625, (0 split)  
## 231 < 16.5 to the right, agree=0.969, adj=0.528, (0 split)  
## 203 < 0.5 to the right, agree=0.967, adj=0.500, (0 split)  
## 259 < 195 to the right, agree=0.966, adj=0.486, (0 split)  
##   
## Node number 992: 26 observations  
## predicted class=3 expected loss=0.07692308 P(node) =0.001031541  
## class counts: 0 0 0 24 1 1 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.923 0.038 0.038 0.000 0.000 0.000 0.000   
##   
## Node number 993: 14 observations  
## predicted class=1 expected loss=0.5714286 P(node) =0.0005554453  
## class counts: 1 6 0 0 2 3 1 0 0 1  
## probabilities: 0.071 0.429 0.000 0.000 0.143 0.214 0.071 0.000 0.000 0.071   
##   
## Node number 994: 25 observations, complexity param=0.0002679289  
## predicted class=3 expected loss=0.52 P(node) =0.0009918667  
## class counts: 0 1 2 12 0 9 0 0 1 0  
## probabilities: 0.000 0.040 0.080 0.480 0.000 0.360 0.000 0.000 0.040 0.000   
## left son=1988 (16 obs) right son=1989 (9 obs)  
## Primary splits:  
## 233 < 6 to the left, improve=9.135000, (0 missing)  
## 261 < 11.5 to the left, improve=8.893333, (0 missing)  
## 234 < 58.5 to the left, improve=7.357222, (0 missing)  
## 289 < 21 to the left, improve=7.305455, (0 missing)  
## 262 < 83.5 to the left, improve=6.315556, (0 missing)  
## Surrogate splits:  
## 261 < 11.5 to the left, agree=0.96, adj=0.889, (0 split)  
## 234 < 58.5 to the left, agree=0.92, adj=0.778, (0 split)  
## 262 < 83.5 to the left, agree=0.92, adj=0.778, (0 split)  
## 289 < 21 to the left, agree=0.92, adj=0.778, (0 split)  
## 205 < 227.5 to the left, agree=0.88, adj=0.667, (0 split)  
##   
## Node number 995: 110 observations  
## predicted class=5 expected loss=0.07272727 P(node) =0.004364213  
## class counts: 0 0 2 4 0 102 1 0 0 1  
## probabilities: 0.000 0.000 0.018 0.036 0.000 0.927 0.009 0.000 0.000 0.009   
##   
## Node number 996: 18 observations  
## predicted class=3 expected loss=0.5 P(node) =0.000714144  
## class counts: 0 5 0 9 0 0 0 3 0 1  
## probabilities: 0.000 0.278 0.000 0.500 0.000 0.000 0.000 0.167 0.000 0.056   
##   
## Node number 997: 28 observations  
## predicted class=8 expected loss=0.07142857 P(node) =0.001110891  
## class counts: 0 0 2 0 0 0 0 0 26 0  
## probabilities: 0.000 0.000 0.071 0.000 0.000 0.000 0.000 0.000 0.929 0.000   
##   
## Node number 998: 32 observations  
## predicted class=4 expected loss=0.3125 P(node) =0.001269589  
## class counts: 0 0 1 2 22 1 0 3 0 3  
## probabilities: 0.000 0.000 0.031 0.062 0.688 0.031 0.000 0.094 0.000 0.094   
##   
## Node number 999: 60 observations, complexity param=0.0002232741  
## predicted class=9 expected loss=0.2833333 P(node) =0.00238048  
## class counts: 0 0 1 6 5 0 0 2 3 43  
## probabilities: 0.000 0.000 0.017 0.100 0.083 0.000 0.000 0.033 0.050 0.717   
## left son=1998 (7 obs) right son=1999 (53 obs)  
## Primary splits:  
## 623 < 10 to the right, improve=7.237916, (0 missing)  
## 375 < 20.5 to the left, improve=6.194771, (0 missing)  
## 624 < 9 to the right, improve=6.194771, (0 missing)  
## 567 < 11.5 to the right, improve=5.809344, (0 missing)  
## 595 < 33.5 to the right, improve=5.809344, (0 missing)  
## Surrogate splits:  
## 157 < 96 to the right, agree=0.983, adj=0.857, (0 split)  
## 158 < 25 to the right, agree=0.983, adj=0.857, (0 split)  
## 376 < 47.5 to the left, agree=0.967, adj=0.714, (0 split)  
## 494 < 248.5 to the right, agree=0.967, adj=0.714, (0 split)  
## 567 < 11.5 to the right, agree=0.967, adj=0.714, (0 split)  
##   
## Node number 1000: 39 observations  
## predicted class=1 expected loss=0.02564103 P(node) =0.001547312  
## class counts: 0 38 0 0 0 1 0 0 0 0  
## probabilities: 0.000 0.974 0.000 0.000 0.000 0.026 0.000 0.000 0.000 0.000   
##   
## Node number 1001: 15 observations  
## predicted class=6 expected loss=0.2666667 P(node) =0.00059512  
## class counts: 2 0 0 1 0 1 11 0 0 0  
## probabilities: 0.133 0.000 0.000 0.067 0.000 0.067 0.733 0.000 0.000 0.000   
##   
## Node number 1004: 12 observations  
## predicted class=2 expected loss=0.1666667 P(node) =0.000476096  
## class counts: 0 0 10 2 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.833 0.167 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1005: 11 observations  
## predicted class=6 expected loss=0.5454545 P(node) =0.0004364213  
## class counts: 0 3 0 0 1 0 5 1 1 0  
## probabilities: 0.000 0.273 0.000 0.000 0.091 0.000 0.455 0.091 0.091 0.000   
##   
## Node number 1006: 10 observations  
## predicted class=1 expected loss=0.2 P(node) =0.0003967467  
## class counts: 2 8 0 0 0 0 0 0 0 0  
## probabilities: 0.200 0.800 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1007: 1327 observations  
## predicted class=7 expected loss=0.02411454 P(node) =0.05264828  
## class counts: 0 1 11 4 3 0 2 1295 0 11  
## probabilities: 0.000 0.001 0.008 0.003 0.002 0.000 0.002 0.976 0.000 0.008   
##   
## Node number 1018: 12 observations  
## predicted class=4 expected loss=0.25 P(node) =0.000476096  
## class counts: 0 0 0 0 9 0 0 0 2 1  
## probabilities: 0.000 0.000 0.000 0.000 0.750 0.000 0.000 0.000 0.167 0.083   
##   
## Node number 1019: 14 observations  
## predicted class=9 expected loss=0.1428571 P(node) =0.0005554453  
## class counts: 0 0 0 0 1 0 0 0 1 12  
## probabilities: 0.000 0.000 0.000 0.000 0.071 0.000 0.000 0.000 0.071 0.857   
##   
## Node number 1020: 17 observations  
## predicted class=4 expected loss=0.1764706 P(node) =0.0006744694  
## class counts: 0 0 1 0 14 0 0 1 0 1  
## probabilities: 0.000 0.000 0.059 0.000 0.824 0.000 0.000 0.059 0.000 0.059   
##   
## Node number 1021: 8 observations  
## predicted class=9 expected loss=0 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 0 0 0 0 8  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000   
##   
## Node number 1088: 16 observations  
## predicted class=1 expected loss=0.1875 P(node) =0.0006347947  
## class counts: 0 13 1 0 2 0 0 0 0 0  
## probabilities: 0.000 0.813 0.062 0.000 0.125 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1089: 9 observations  
## predicted class=3 expected loss=0.4444444 P(node) =0.000357072  
## class counts: 0 0 2 5 0 1 0 1 0 0  
## probabilities: 0.000 0.000 0.222 0.556 0.000 0.111 0.000 0.111 0.000 0.000   
##   
## Node number 1090: 12 observations  
## predicted class=0 expected loss=0.4166667 P(node) =0.000476096  
## class counts: 7 0 1 1 0 1 2 0 0 0  
## probabilities: 0.583 0.000 0.083 0.083 0.000 0.083 0.167 0.000 0.000 0.000   
##   
## Node number 1091: 56 observations  
## predicted class=6 expected loss=0.1428571 P(node) =0.002221781  
## class counts: 0 0 5 0 1 1 48 0 0 1  
## probabilities: 0.000 0.000 0.089 0.000 0.018 0.018 0.857 0.000 0.000 0.018   
##   
## Node number 1092: 13 observations  
## predicted class=2 expected loss=0 P(node) =0.0005157707  
## class counts: 0 0 13 0 0 0 0 0 0 0  
## probabilities: 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1093: 54 observations, complexity param=0.0002456015  
## predicted class=5 expected loss=0.6481481 P(node) =0.002142432  
## class counts: 5 6 8 6 4 19 1 0 5 0  
## probabilities: 0.093 0.111 0.148 0.111 0.074 0.352 0.019 0.000 0.093 0.000   
## left son=2186 (31 obs) right son=2187 (23 obs)  
## Primary splits:  
## 458 < 16.5 to the right, improve=7.384448, (0 missing)  
## 459 < 70.5 to the right, improve=7.209402, (0 missing)  
## 460 < 205 to the right, improve=7.043791, (0 missing)  
## 431 < 134.5 to the right, improve=5.979118, (0 missing)  
## 430 < 113.5 to the right, improve=5.956678, (0 missing)  
## Surrogate splits:  
## 459 < 27 to the right, agree=0.907, adj=0.783, (0 split)  
## 486 < 209.5 to the right, agree=0.889, adj=0.739, (0 split)  
## 457 < 11 to the right, agree=0.870, adj=0.696, (0 split)  
## 460 < 40.5 to the right, agree=0.833, adj=0.609, (0 split)  
## 485 < 171.5 to the right, agree=0.833, adj=0.609, (0 split)  
##   
## Node number 1094: 22 observations  
## predicted class=4 expected loss=0.09090909 P(node) =0.0008728427  
## class counts: 0 0 0 1 20 0 0 1 0 0  
## probabilities: 0.000 0.000 0.000 0.045 0.909 0.000 0.000 0.045 0.000 0.000   
##   
## Node number 1095: 70 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.5857143 P(node) =0.002777227  
## class counts: 0 14 1 1 13 2 3 6 1 29  
## probabilities: 0.000 0.200 0.014 0.014 0.186 0.029 0.043 0.086 0.014 0.414   
## left son=2190 (37 obs) right son=2191 (33 obs)  
## Primary splits:  
## 381 < 210.5 to the left, improve=7.800889, (0 missing)  
## 321 < 230 to the right, improve=7.766667, (0 missing)  
## 237 < 75 to the left, improve=7.444655, (0 missing)  
## 322 < 217 to the right, improve=7.150018, (0 missing)  
## 681 < 72 to the left, improve=7.022782, (0 missing)  
## Surrogate splits:  
## 353 < 249.5 to the left, agree=0.900, adj=0.788, (0 split)  
## 354 < 109 to the left, agree=0.886, adj=0.758, (0 split)  
## 382 < 15.5 to the left, agree=0.871, adj=0.727, (0 split)  
## 326 < 129.5 to the left, agree=0.857, adj=0.697, (0 split)  
## 408 < 230 to the left, agree=0.843, adj=0.667, (0 split)  
##   
## Node number 1110: 7 observations  
## predicted class=5 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 0 1 0 6 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.857 0.000 0.000 0.000 0.000   
##   
## Node number 1111: 21 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.6190476 P(node) =0.000833168  
## class counts: 2 1 0 2 1 0 2 0 8 5  
## probabilities: 0.095 0.048 0.000 0.095 0.048 0.000 0.095 0.000 0.381 0.238   
## left son=2222 (10 obs) right son=2223 (11 obs)  
## Primary splits:  
## 653 < 111.5 to the right, improve=3.477056, (0 missing)  
## 625 < 80 to the right, improve=3.383700, (0 missing)  
## 487 < 134 to the right, improve=3.373016, (0 missing)  
## 330 < 2.5 to the right, improve=3.095238, (0 missing)  
## 566 < 79.5 to the right, improve=3.095238, (0 missing)  
## Surrogate splits:  
## 623 < 19 to the right, agree=0.952, adj=0.9, (0 split)  
## 624 < 189 to the right, agree=0.952, adj=0.9, (0 split)  
## 625 < 151.5 to the right, agree=0.952, adj=0.9, (0 split)  
## 651 < 0.5 to the right, agree=0.952, adj=0.9, (0 split)  
## 652 < 53 to the right, agree=0.952, adj=0.9, (0 split)  
##   
## Node number 1112: 19 observations  
## predicted class=3 expected loss=0.3157895 P(node) =0.0007538187  
## class counts: 0 1 1 13 2 1 0 0 0 1  
## probabilities: 0.000 0.053 0.053 0.684 0.105 0.053 0.000 0.000 0.000 0.053   
##   
## Node number 1113: 18 observations  
## predicted class=8 expected loss=0.3333333 P(node) =0.000714144  
## class counts: 1 0 0 0 3 1 0 1 12 0  
## probabilities: 0.056 0.000 0.000 0.000 0.167 0.056 0.000 0.056 0.667 0.000   
##   
## Node number 1172: 16 observations  
## predicted class=2 expected loss=0.3125 P(node) =0.0006347947  
## class counts: 0 0 11 1 0 0 3 1 0 0  
## probabilities: 0.000 0.000 0.688 0.062 0.000 0.000 0.188 0.062 0.000 0.000   
##   
## Node number 1173: 8 observations  
## predicted class=8 expected loss=0.25 P(node) =0.0003173973  
## class counts: 0 0 2 0 0 0 0 0 6 0  
## probabilities: 0.000 0.000 0.250 0.000 0.000 0.000 0.000 0.000 0.750 0.000   
##   
## Node number 1224: 24 observations  
## predicted class=2 expected loss=0.04166667 P(node) =0.000952192  
## class counts: 0 0 23 0 0 0 0 0 1 0  
## probabilities: 0.000 0.000 0.958 0.000 0.000 0.000 0.000 0.000 0.042 0.000   
##   
## Node number 1225: 10 observations  
## predicted class=3 expected loss=0.2 P(node) =0.0003967467  
## class counts: 0 1 1 8 0 0 0 0 0 0  
## probabilities: 0.000 0.100 0.100 0.800 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1248: 14 observations  
## predicted class=1 expected loss=0.07142857 P(node) =0.0005554453  
## class counts: 0 13 0 0 0 0 0 0 1 0  
## probabilities: 0.000 0.929 0.000 0.000 0.000 0.000 0.000 0.000 0.071 0.000   
##   
## Node number 1249: 12 observations  
## predicted class=8 expected loss=0.3333333 P(node) =0.000476096  
## class counts: 0 0 0 3 0 1 0 0 8 0  
## probabilities: 0.000 0.000 0.000 0.250 0.000 0.083 0.000 0.000 0.667 0.000   
##   
## Node number 1288: 1360 observations, complexity param=0.0002456015  
## predicted class=3 expected loss=0.02058824 P(node) =0.05395755  
## class counts: 0 2 8 1332 0 13 0 0 5 0  
## probabilities: 0.000 0.001 0.006 0.979 0.000 0.010 0.000 0.000 0.004 0.000   
## left son=2576 (1350 obs) right son=2577 (10 obs)  
## Primary splits:  
## 341 < 70 to the left, improve=12.981990, (0 missing)  
## 342 < 147.5 to the left, improve=11.016070, (0 missing)  
## 313 < 154 to the left, improve=10.020510, (0 missing)  
## 369 < 98 to the left, improve= 8.555135, (0 missing)  
## 314 < 160.5 to the left, improve= 8.256068, (0 missing)  
## Surrogate splits:  
## 313 < 154 to the left, agree=0.999, adj=0.8, (0 split)  
## 369 < 98 to the left, agree=0.998, adj=0.7, (0 split)  
## 314 < 160.5 to the left, agree=0.997, adj=0.6, (0 split)  
## 342 < 147.5 to the left, agree=0.997, adj=0.6, (0 split)  
## 340 < 5 to the left, agree=0.996, adj=0.5, (0 split)  
##   
## Node number 1289: 10 observations  
## predicted class=8 expected loss=0.3 P(node) =0.0003967467  
## class counts: 0 0 2 0 0 1 0 0 7 0  
## probabilities: 0.000 0.000 0.200 0.000 0.000 0.100 0.000 0.000 0.700 0.000   
##   
## Node number 1290: 16 observations  
## predicted class=5 expected loss=0.4375 P(node) =0.0006347947  
## class counts: 0 0 0 4 0 9 0 0 3 0  
## probabilities: 0.000 0.000 0.000 0.250 0.000 0.562 0.000 0.000 0.188 0.000   
##   
## Node number 1291: 7 observations  
## predicted class=9 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 0 1 0 0 0 0 1 5  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.000 0.000 0.000 0.143 0.714   
##   
## Node number 1294: 12 observations  
## predicted class=1 expected loss=0.5 P(node) =0.000476096  
## class counts: 0 6 0 4 0 0 0 1 1 0  
## probabilities: 0.000 0.500 0.000 0.333 0.000 0.000 0.000 0.083 0.083 0.000   
##   
## Node number 1295: 17 observations  
## predicted class=5 expected loss=0.1176471 P(node) =0.0006744694  
## class counts: 0 0 0 0 0 15 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.882 0.000 0.000 0.118 0.000   
##   
## Node number 1318: 7 observations  
## predicted class=0 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 5 0 0 1 0 0 0 1 0 0  
## probabilities: 0.714 0.000 0.000 0.143 0.000 0.000 0.000 0.143 0.000 0.000   
##   
## Node number 1319: 23 observations  
## predicted class=5 expected loss=0.173913 P(node) =0.0009125174  
## class counts: 0 0 0 1 0 19 0 2 1 0  
## probabilities: 0.000 0.000 0.000 0.043 0.000 0.826 0.000 0.087 0.043 0.000   
##   
## Node number 1324: 22 observations  
## predicted class=3 expected loss=0.2272727 P(node) =0.0008728427  
## class counts: 0 0 0 17 0 0 2 0 2 1  
## probabilities: 0.000 0.000 0.000 0.773 0.000 0.000 0.091 0.000 0.091 0.045   
##   
## Node number 1325: 8 observations  
## predicted class=5 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 5 0 1 0 2  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.625 0.000 0.125 0.000 0.250   
##   
## Node number 1326: 8 observations  
## predicted class=3 expected loss=0.25 P(node) =0.0003173973  
## class counts: 0 0 0 6 0 1 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.750 0.000 0.125 0.000 0.000 0.125 0.000   
##   
## Node number 1327: 93 observations  
## predicted class=5 expected loss=0.04301075 P(node) =0.003689744  
## class counts: 0 0 0 2 0 89 1 0 1 0  
## probabilities: 0.000 0.000 0.000 0.022 0.000 0.957 0.011 0.000 0.011 0.000   
##   
## Node number 1340: 23 observations  
## predicted class=4 expected loss=0.04347826 P(node) =0.0009125174  
## class counts: 0 0 0 0 22 0 0 1 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.957 0.000 0.000 0.043 0.000 0.000   
##   
## Node number 1341: 20 observations, complexity param=0.0002456015  
## predicted class=7 expected loss=0.55 P(node) =0.0007934934  
## class counts: 0 0 0 6 4 0 1 9 0 0  
## probabilities: 0.000 0.000 0.000 0.300 0.200 0.000 0.050 0.450 0.000 0.000   
## left son=2682 (11 obs) right son=2683 (9 obs)  
## Primary splits:  
## 345 < 12 to the left, improve=7.118182, (0 missing)  
## 346 < 93 to the left, improve=6.700000, (0 missing)  
## 183 < 18 to the right, improve=6.047253, (0 missing)  
## 327 < 13.5 to the left, improve=5.800000, (0 missing)  
## 328 < 2.5 to the left, improve=5.800000, (0 missing)  
## Surrogate splits:  
## 327 < 13.5 to the left, agree=0.95, adj=0.889, (0 split)  
## 328 < 2.5 to the left, agree=0.95, adj=0.889, (0 split)  
## 343 < 18 to the left, agree=0.95, adj=0.889, (0 split)  
## 344 < 42.5 to the left, agree=0.95, adj=0.889, (0 split)  
## 346 < 93 to the left, agree=0.95, adj=0.889, (0 split)  
##   
## Node number 1342: 27 observations, complexity param=0.0002232741  
## predicted class=1 expected loss=0.7407407 P(node) =0.001071216  
## class counts: 0 7 0 3 2 5 6 0 4 0  
## probabilities: 0.000 0.259 0.000 0.111 0.074 0.185 0.222 0.000 0.148 0.000   
## left son=2684 (13 obs) right son=2685 (14 obs)  
## Primary splits:  
## 154 < 20 to the right, improve=4.016687, (0 missing)  
## 521 < 3.5 to the left, improve=4.016687, (0 missing)  
## 214 < 19.5 to the left, improve=3.962963, (0 missing)  
## 465 < 3 to the left, improve=3.862841, (0 missing)  
## 572 < 142 to the left, improve=3.806397, (0 missing)  
## Surrogate splits:  
## 465 < 3 to the left, agree=0.926, adj=0.846, (0 split)  
## 182 < 97.5 to the right, agree=0.889, adj=0.769, (0 split)  
## 437 < 11 to the left, agree=0.889, adj=0.769, (0 split)  
## 493 < 17 to the left, agree=0.852, adj=0.692, (0 split)  
## 155 < 75 to the right, agree=0.815, adj=0.615, (0 split)  
##   
## Node number 1343: 43 observations  
## predicted class=9 expected loss=0.2790698 P(node) =0.001706011  
## class counts: 0 0 0 7 2 0 0 1 2 31  
## probabilities: 0.000 0.000 0.000 0.163 0.047 0.000 0.000 0.023 0.047 0.721   
##   
## Node number 1356: 32 observations  
## predicted class=3 expected loss=0.03125 P(node) =0.001269589  
## class counts: 0 0 0 31 0 1 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.969 0.000 0.031 0.000 0.000 0.000 0.000   
##   
## Node number 1357: 8 observations  
## predicted class=5 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 0 1 0 5 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.125 0.000 0.625 0.000 0.000 0.250 0.000   
##   
## Node number 1358: 102 observations, complexity param=0.0004465482  
## predicted class=5 expected loss=0.4803922 P(node) =0.004046816  
## class counts: 5 1 1 25 0 53 2 3 3 9  
## probabilities: 0.049 0.010 0.010 0.245 0.000 0.520 0.020 0.029 0.029 0.088   
## left son=2716 (25 obs) right son=2717 (77 obs)  
## Primary splits:  
## 125 < 40.5 to the right, improve=8.196486, (0 missing)  
## 535 < 1.5 to the right, improve=7.889258, (0 missing)  
## 124 < 62.5 to the right, improve=7.225490, (0 missing)  
## 247 < 16.5 to the left, improve=7.091031, (0 missing)  
## 263 < 52.5 to the left, improve=6.857765, (0 missing)  
## Surrogate splits:  
## 124 < 0.5 to the right, agree=0.961, adj=0.84, (0 split)  
## 126 < 40 to the right, agree=0.922, adj=0.68, (0 split)  
## 123 < 8.5 to the right, agree=0.902, adj=0.60, (0 split)  
## 153 < 222 to the right, agree=0.892, adj=0.56, (0 split)  
## 127 < 163.5 to the right, agree=0.882, adj=0.52, (0 split)  
##   
## Node number 1359: 38 observations, complexity param=0.0003572385  
## predicted class=8 expected loss=0.5789474 P(node) =0.001507637  
## class counts: 0 0 0 2 0 6 0 0 16 14  
## probabilities: 0.000 0.000 0.000 0.053 0.000 0.158 0.000 0.000 0.421 0.368   
## left son=2718 (30 obs) right son=2719 (8 obs)  
## Primary splits:  
## 545 < 45.5 to the left, improve=6.119298, (0 missing)  
## 546 < 170 to the left, improve=6.119298, (0 missing)  
## 157 < 11 to the left, improve=5.778785, (0 missing)  
## 156 < 77.5 to the left, improve=5.692632, (0 missing)  
## 431 < 13 to the left, improve=5.684211, (0 missing)  
## Surrogate splits:  
## 546 < 170 to the left, agree=1.000, adj=1.000, (0 split)  
## 490 < 41 to the left, agree=0.974, adj=0.875, (0 split)  
## 518 < 32 to the left, agree=0.974, adj=0.875, (0 split)  
## 573 < 186 to the left, agree=0.974, adj=0.875, (0 split)  
## 464 < 247.5 to the left, agree=0.947, adj=0.750, (0 split)  
##   
## Node number 1426: 17 observations  
## predicted class=4 expected loss=0.5294118 P(node) =0.0006744694  
## class counts: 0 1 0 0 8 0 6 0 1 1  
## probabilities: 0.000 0.059 0.000 0.000 0.471 0.000 0.353 0.000 0.059 0.059   
##   
## Node number 1427: 8 observations  
## predicted class=5 expected loss=0.125 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 7 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.875 0.000 0.000 0.125 0.000   
##   
## Node number 1430: 16 observations  
## predicted class=2 expected loss=0.3125 P(node) =0.0006347947  
## class counts: 0 0 11 1 1 0 1 0 1 1  
## probabilities: 0.000 0.000 0.688 0.062 0.062 0.000 0.062 0.000 0.062 0.062   
##   
## Node number 1431: 19 observations  
## predicted class=8 expected loss=0.3157895 P(node) =0.0007538187  
## class counts: 1 0 1 2 0 0 1 0 13 1  
## probabilities: 0.053 0.000 0.053 0.105 0.000 0.000 0.053 0.000 0.684 0.053   
##   
## Node number 1528: 17 observations  
## predicted class=2 expected loss=0.05882353 P(node) =0.0006744694  
## class counts: 0 0 16 0 0 0 1 0 0 0  
## probabilities: 0.000 0.000 0.941 0.000 0.000 0.000 0.059 0.000 0.000 0.000   
##   
## Node number 1529: 7 observations  
## predicted class=8 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 0 0 1 1 0 0 0 0 5 0  
## probabilities: 0.000 0.000 0.143 0.143 0.000 0.000 0.000 0.000 0.714 0.000   
##   
## Node number 1532: 11 observations  
## predicted class=3 expected loss=0.1818182 P(node) =0.0004364213  
## class counts: 0 0 0 9 0 0 1 0 1 0  
## probabilities: 0.000 0.000 0.000 0.818 0.000 0.000 0.091 0.000 0.091 0.000   
##   
## Node number 1533: 25 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.32 P(node) =0.0009918667  
## class counts: 0 0 0 1 0 5 1 0 17 1  
## probabilities: 0.000 0.000 0.000 0.040 0.000 0.200 0.040 0.000 0.680 0.040   
## left son=3066 (8 obs) right son=3067 (17 obs)  
## Primary splits:  
## 270 < 126 to the left, improve=5.937647, (0 missing)  
## 130 < 11 to the right, improve=5.510476, (0 missing)  
## 297 < 48 to the left, improve=5.510476, (0 missing)  
## 298 < 23.5 to the left, improve=5.510476, (0 missing)  
## 158 < 203.5 to the right, improve=4.889444, (0 missing)  
## Surrogate splits:  
## 298 < 180 to the left, agree=0.96, adj=0.875, (0 split)  
## 130 < 40.5 to the right, agree=0.92, adj=0.750, (0 split)  
## 129 < 80.5 to the right, agree=0.88, adj=0.625, (0 split)  
## 131 < 6 to the right, agree=0.88, adj=0.625, (0 split)  
## 242 < 112.5 to the left, agree=0.88, adj=0.625, (0 split)  
##   
## Node number 1540: 267 observations  
## predicted class=0 expected loss=0.05617978 P(node) =0.01059314  
## class counts: 252 0 7 1 0 2 3 1 0 1  
## probabilities: 0.944 0.000 0.026 0.004 0.000 0.007 0.011 0.004 0.000 0.004   
##   
## Node number 1541: 32 observations, complexity param=0.0001786193  
## predicted class=0 expected loss=0.625 P(node) =0.001269589  
## class counts: 12 0 2 6 0 12 0 0 0 0  
## probabilities: 0.375 0.000 0.062 0.188 0.000 0.375 0.000 0.000 0.000 0.000   
## left son=3082 (18 obs) right son=3083 (14 obs)  
## Primary splits:  
## 239 < 145 to the right, improve=8.511905, (0 missing)  
## 241 < 21 to the right, improve=8.250000, (0 missing)  
## 238 < 157 to the right, improve=7.750000, (0 missing)  
## 240 < 1.5 to the right, improve=6.816667, (0 missing)  
## 267 < 251 to the right, improve=6.575397, (0 missing)  
## Surrogate splits:  
## 212 < 30.5 to the right, agree=0.938, adj=0.857, (0 split)  
## 238 < 157 to the right, agree=0.938, adj=0.857, (0 split)  
## 240 < 61.5 to the right, agree=0.906, adj=0.786, (0 split)  
## 211 < 30 to the right, agree=0.875, adj=0.714, (0 split)  
## 241 < 26.5 to the right, agree=0.844, adj=0.643, (0 split)  
##   
## Node number 1542: 11 observations  
## predicted class=0 expected loss=0.09090909 P(node) =0.0004364213  
## class counts: 10 0 1 0 0 0 0 0 0 0  
## probabilities: 0.909 0.000 0.091 0.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 1543: 22 observations  
## predicted class=2 expected loss=0.3181818 P(node) =0.0008728427  
## class counts: 2 0 15 0 0 0 2 3 0 0  
## probabilities: 0.091 0.000 0.682 0.000 0.000 0.000 0.091 0.136 0.000 0.000   
##   
## Node number 1648: 10 observations  
## predicted class=2 expected loss=0.3 P(node) =0.0003967467  
## class counts: 0 0 7 1 0 0 2 0 0 0  
## probabilities: 0.000 0.000 0.700 0.100 0.000 0.000 0.200 0.000 0.000 0.000   
##   
## Node number 1649: 24 observations, complexity param=0.0001786193  
## predicted class=5 expected loss=0.5833333 P(node) =0.000952192  
## class counts: 4 0 1 2 1 10 3 0 3 0  
## probabilities: 0.167 0.000 0.042 0.083 0.042 0.417 0.125 0.000 0.125 0.000   
## left son=3298 (10 obs) right son=3299 (14 obs)  
## Primary splits:  
## 627 < 242 to the right, improve=4.195238, (0 missing)  
## 247 < 3 to the left, improve=4.049020, (0 missing)  
## 184 < 227 to the right, improve=4.000000, (0 missing)  
## 430 < 193.5 to the right, improve=3.528011, (0 missing)  
## 183 < 137.5 to the right, improve=3.131702, (0 missing)  
## Surrogate splits:  
## 214 < 148.5 to the right, agree=0.917, adj=0.8, (0 split)  
## 403 < 240 to the right, agree=0.917, adj=0.8, (0 split)  
## 184 < 240.5 to the right, agree=0.875, adj=0.7, (0 split)  
## 431 < 108.5 to the right, agree=0.875, adj=0.7, (0 split)  
## 183 < 219.5 to the right, agree=0.833, adj=0.6, (0 split)  
##   
## Node number 1732: 18 observations  
## predicted class=1 expected loss=0.6666667 P(node) =0.000714144  
## class counts: 1 6 0 4 0 5 0 0 0 2  
## probabilities: 0.056 0.333 0.000 0.222 0.000 0.278 0.000 0.000 0.000 0.111   
##   
## Node number 1733: 10 observations  
## predicted class=6 expected loss=0.2 P(node) =0.0003967467  
## class counts: 0 1 0 0 0 1 8 0 0 0  
## probabilities: 0.000 0.100 0.000 0.000 0.000 0.100 0.800 0.000 0.000 0.000   
##   
## Node number 1808: 107 observations  
## predicted class=1 expected loss=0.07476636 P(node) =0.004245189  
## class counts: 0 99 3 0 1 1 0 3 0 0  
## probabilities: 0.000 0.925 0.028 0.000 0.009 0.009 0.000 0.028 0.000 0.000   
##   
## Node number 1809: 28 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.5 P(node) =0.001110891  
## class counts: 0 1 14 1 1 2 6 3 0 0  
## probabilities: 0.000 0.036 0.500 0.036 0.036 0.071 0.214 0.107 0.000 0.000   
## left son=3618 (14 obs) right son=3619 (14 obs)  
## Primary splits:  
## 431 < 8.5 to the right, improve=5.428571, (0 missing)  
## 410 < 3 to the right, improve=5.346066, (0 missing)  
## 331 < 48 to the left, improve=5.238095, (0 missing)  
## 359 < 14.5 to the left, improve=5.238095, (0 missing)  
## 387 < 42 to the left, improve=5.238095, (0 missing)  
## Surrogate splits:  
## 430 < 32.5 to the right, agree=0.964, adj=0.929, (0 split)  
## 429 < 11.5 to the right, agree=0.929, adj=0.857, (0 split)  
## 432 < 11.5 to the right, agree=0.893, adj=0.786, (0 split)  
## 458 < 149.5 to the right, agree=0.893, adj=0.786, (0 split)  
## 459 < 216 to the right, agree=0.893, adj=0.786, (0 split)  
##   
## Node number 1810: 72 observations, complexity param=0.0001786193  
## predicted class=4 expected loss=0.25 P(node) =0.002856576  
## class counts: 0 0 2 0 54 2 7 2 3 2  
## probabilities: 0.000 0.000 0.028 0.000 0.750 0.028 0.097 0.028 0.042 0.028   
## left son=3620 (63 obs) right son=3621 (9 obs)  
## Primary splits:  
## 292 < 124 to the left, improve=7.678571, (0 missing)  
## 293 < 96 to the left, improve=7.678571, (0 missing)  
## 294 < 33.5 to the left, improve=7.678571, (0 missing)  
## 265 < 89 to the left, improve=7.456349, (0 missing)  
## 266 < 56.5 to the left, improve=7.456349, (0 missing)  
## Surrogate splits:  
## 293 < 96 to the left, agree=1.000, adj=1.000, (0 split)  
## 294 < 33.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 320 < 14.5 to the left, agree=0.986, adj=0.889, (0 split)  
## 321 < 7.5 to the left, agree=0.986, adj=0.889, (0 split)  
## 265 < 89 to the left, agree=0.972, adj=0.778, (0 split)  
##   
## Node number 1811: 39 observations  
## predicted class=6 expected loss=0.1025641 P(node) =0.001547312  
## class counts: 0 0 0 0 4 0 35 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.103 0.000 0.897 0.000 0.000 0.000   
##   
## Node number 1812: 127 observations, complexity param=0.0005805126  
## predicted class=2 expected loss=0.3622047 P(node) =0.005038683  
## class counts: 0 2 81 5 0 0 0 24 6 9  
## probabilities: 0.000 0.016 0.638 0.039 0.000 0.000 0.000 0.189 0.047 0.071   
## left son=3624 (109 obs) right son=3625 (18 obs)  
## Primary splits:  
## 712 < 40.5 to the left, improve=14.50879, (0 missing)  
## 713 < 7 to the left, improve=13.22317, (0 missing)  
## 568 < 142.5 to the right, improve=11.55354, (0 missing)  
## 569 < 17 to the right, improve=11.38362, (0 missing)  
## 566 < 74 to the right, improve=10.29529, (0 missing)  
## Surrogate splits:  
## 711 < 21.5 to the left, agree=0.953, adj=0.667, (0 split)  
## 710 < 1.5 to the left, agree=0.945, adj=0.611, (0 split)  
## 684 < 94.5 to the left, agree=0.937, adj=0.556, (0 split)  
## 713 < 149 to the left, agree=0.937, adj=0.556, (0 split)  
## 683 < 224.5 to the left, agree=0.921, adj=0.444, (0 split)  
##   
## Node number 1813: 23 observations  
## predicted class=7 expected loss=0.04347826 P(node) =0.0009125174  
## class counts: 0 0 0 0 1 0 0 22 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.043 0.000 0.000 0.957 0.000 0.000   
##   
## Node number 1814: 28 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.5357143 P(node) =0.001110891  
## class counts: 2 0 2 0 1 5 0 2 13 3  
## probabilities: 0.071 0.000 0.071 0.000 0.036 0.179 0.000 0.071 0.464 0.107   
## left son=3628 (14 obs) right son=3629 (14 obs)  
## Primary splits:  
## 467 < 4 to the right, improve=5.571429, (0 missing)  
## 398 < 105.5 to the right, improve=4.663492, (0 missing)  
## 487 < 1 to the left, improve=4.535714, (0 missing)  
## 496 < 49.5 to the right, improve=4.374603, (0 missing)  
## 426 < 17.5 to the right, improve=4.157059, (0 missing)  
## Surrogate splits:  
## 440 < 14.5 to the right, agree=0.893, adj=0.786, (0 split)  
## 468 < 16.5 to the right, agree=0.893, adj=0.786, (0 split)  
## 398 < 105.5 to the right, agree=0.857, adj=0.714, (0 split)  
## 439 < 12 to the right, agree=0.857, adj=0.714, (0 split)  
## 496 < 13.5 to the right, agree=0.857, adj=0.714, (0 split)  
##   
## Node number 1815: 63 observations  
## predicted class=9 expected loss=0.04761905 P(node) =0.002499504  
## class counts: 0 0 2 0 0 0 0 1 0 60  
## probabilities: 0.000 0.000 0.032 0.000 0.000 0.000 0.000 0.016 0.000 0.952   
##   
## Node number 1832: 18 observations  
## predicted class=2 expected loss=0.5 P(node) =0.000714144  
## class counts: 0 0 9 0 0 0 8 0 1 0  
## probabilities: 0.000 0.000 0.500 0.000 0.000 0.000 0.444 0.000 0.056 0.000   
##   
## Node number 1833: 114 observations  
## predicted class=4 expected loss=0.07017544 P(node) =0.004522912  
## class counts: 0 0 1 0 106 1 5 0 1 0  
## probabilities: 0.000 0.000 0.009 0.000 0.930 0.009 0.044 0.000 0.009 0.000   
##   
## Node number 1834: 8 observations  
## predicted class=8 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 3 0 0 0 0 0 5 0  
## probabilities: 0.000 0.000 0.375 0.000 0.000 0.000 0.000 0.000 0.625 0.000   
##   
## Node number 1835: 15 observations  
## predicted class=7 expected loss=0.1333333 P(node) =0.00059512  
## class counts: 0 0 0 0 0 0 0 13 0 2  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.867 0.000 0.133   
##   
## Node number 1836: 56 observations  
## predicted class=2 expected loss=0.25 P(node) =0.002221781  
## class counts: 6 0 42 0 1 1 1 1 3 1  
## probabilities: 0.107 0.000 0.750 0.000 0.018 0.018 0.018 0.018 0.054 0.018   
##   
## Node number 1837: 29 observations, complexity param=0.0002679289  
## predicted class=8 expected loss=0.3103448 P(node) =0.001150565  
## class counts: 6 0 2 0 0 0 0 1 20 0  
## probabilities: 0.207 0.000 0.069 0.000 0.000 0.000 0.000 0.034 0.690 0.000   
## left son=3674 (9 obs) right son=3675 (20 obs)  
## Primary splits:  
## 492 < 236 to the right, improve=9.348659, (0 missing)  
## 464 < 251.5 to the right, improve=8.888342, (0 missing)  
## 520 < 247 to the right, improve=8.888342, (0 missing)  
## 406 < 18 to the left, improve=8.638342, (0 missing)  
## 438 < 232 to the right, improve=8.638342, (0 missing)  
## Surrogate splits:  
## 406 < 18 to the left, agree=0.966, adj=0.889, (0 split)  
## 438 < 232 to the right, agree=0.966, adj=0.889, (0 split)  
## 464 < 242.5 to the right, agree=0.966, adj=0.889, (0 split)  
## 520 < 247 to the right, agree=0.966, adj=0.889, (0 split)  
## 433 < 95.5 to the left, agree=0.931, adj=0.778, (0 split)  
##   
## Node number 1838: 71 observations, complexity param=0.000491203  
## predicted class=7 expected loss=0.5352113 P(node) =0.002816901  
## class counts: 1 0 6 0 5 0 1 33 9 16  
## probabilities: 0.014 0.000 0.085 0.000 0.070 0.000 0.014 0.465 0.127 0.225   
## left son=3676 (43 obs) right son=3677 (28 obs)  
## Primary splits:  
## 404 < 25 to the left, improve=12.44179, (0 missing)  
## 709 < 4 to the left, improve=11.68334, (0 missing)  
## 708 < 1 to the left, improve=11.53947, (0 missing)  
## 405 < 123.5 to the left, improve=10.77252, (0 missing)  
## 710 < 7.5 to the left, improve=10.09426, (0 missing)  
## Surrogate splits:  
## 376 < 40 to the left, agree=0.958, adj=0.893, (0 split)  
## 405 < 123.5 to the left, agree=0.958, adj=0.893, (0 split)  
## 377 < 15.5 to the left, agree=0.944, adj=0.857, (0 split)  
## 403 < 43 to the left, agree=0.930, adj=0.821, (0 split)  
## 432 < 13 to the left, agree=0.930, adj=0.821, (0 split)  
##   
## Node number 1839: 53 observations, complexity param=0.0002456015  
## predicted class=9 expected loss=0.3584906 P(node) =0.002102757  
## class counts: 1 0 3 0 13 0 0 0 2 34  
## probabilities: 0.019 0.000 0.057 0.000 0.245 0.000 0.000 0.000 0.038 0.642   
## left son=3678 (24 obs) right son=3679 (29 obs)  
## Primary splits:  
## 402 < 234.5 to the right, improve=8.051941, (0 missing)  
## 237 < 21 to the left, improve=7.578157, (0 missing)  
## 264 < 34 to the left, improve=7.493425, (0 missing)  
## 375 < 166.5 to the right, improve=6.766152, (0 missing)  
## 349 < 13 to the right, improve=6.300890, (0 missing)  
## Surrogate splits:  
## 375 < 60.5 to the right, agree=0.887, adj=0.750, (0 split)  
## 403 < 63.5 to the right, agree=0.868, adj=0.708, (0 split)  
## 374 < 227.5 to the right, agree=0.849, adj=0.667, (0 split)  
## 347 < 152.5 to the right, agree=0.830, adj=0.625, (0 split)  
## 376 < 9 to the right, agree=0.830, adj=0.625, (0 split)  
##   
## Node number 1844: 14 observations  
## predicted class=0 expected loss=0.2857143 P(node) =0.0005554453  
## class counts: 10 0 0 0 0 4 0 0 0 0  
## probabilities: 0.714 0.000 0.000 0.000 0.000 0.286 0.000 0.000 0.000 0.000   
##   
## Node number 1845: 22 observations  
## predicted class=8 expected loss=0.4090909 P(node) =0.0008728427  
## class counts: 0 0 1 0 0 4 4 0 13 0  
## probabilities: 0.000 0.000 0.045 0.000 0.000 0.182 0.182 0.000 0.591 0.000   
##   
## Node number 1848: 8 observations  
## predicted class=0 expected loss=0.5 P(node) =0.0003173973  
## class counts: 4 0 0 2 0 0 0 1 0 1  
## probabilities: 0.500 0.000 0.000 0.250 0.000 0.000 0.000 0.125 0.000 0.125   
##   
## Node number 1849: 12 observations  
## predicted class=5 expected loss=0.08333333 P(node) =0.000476096  
## class counts: 0 0 0 0 1 11 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.083 0.917 0.000 0.000 0.000 0.000   
##   
## Node number 1860: 268 observations  
## predicted class=2 expected loss=0.05970149 P(node) =0.01063281  
## class counts: 0 3 252 2 3 0 1 4 3 0  
## probabilities: 0.000 0.011 0.940 0.007 0.011 0.000 0.004 0.015 0.011 0.000   
##   
## Node number 1861: 7 observations  
## predicted class=7 expected loss=0.2857143 P(node) =0.0002777227  
## class counts: 1 0 1 0 0 0 0 5 0 0  
## probabilities: 0.143 0.000 0.143 0.000 0.000 0.000 0.000 0.714 0.000 0.000   
##   
## Node number 1894: 15 observations  
## predicted class=6 expected loss=0.2666667 P(node) =0.00059512  
## class counts: 0 0 1 0 2 0 11 0 0 1  
## probabilities: 0.000 0.000 0.067 0.000 0.133 0.000 0.733 0.000 0.000 0.067   
##   
## Node number 1895: 17 observations  
## predicted class=8 expected loss=0.4705882 P(node) =0.0006744694  
## class counts: 0 1 1 0 0 0 1 1 9 4  
## probabilities: 0.000 0.059 0.059 0.000 0.000 0.000 0.059 0.059 0.529 0.235   
##   
## Node number 1910: 1478 observations  
## predicted class=6 expected loss=0.01826793 P(node) =0.05863916  
## class counts: 0 0 4 1 1 12 1451 0 7 2  
## probabilities: 0.000 0.000 0.003 0.001 0.001 0.008 0.982 0.000 0.005 0.001   
##   
## Node number 1911: 7 observations  
## predicted class=9 expected loss=0.4285714 P(node) =0.0002777227  
## class counts: 0 0 0 0 1 2 0 0 0 4  
## probabilities: 0.000 0.000 0.000 0.000 0.143 0.286 0.000 0.000 0.000 0.571   
##   
## Node number 1918: 29 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.5517241 P(node) =0.001150565  
## class counts: 0 0 1 2 0 13 6 1 6 0  
## probabilities: 0.000 0.000 0.034 0.069 0.000 0.448 0.207 0.034 0.207 0.000   
## left son=3836 (13 obs) right son=3837 (16 obs)  
## Primary splits:  
## 186 < 160 to the left, improve=5.098143, (0 missing)  
## 346 < 142 to the right, improve=4.416092, (0 missing)  
## 187 < 3 to the right, improve=4.412052, (0 missing)  
## 374 < 133 to the right, improve=4.319297, (0 missing)  
## 128 < 127 to the left, improve=4.261706, (0 missing)  
## Surrogate splits:  
## 214 < 41 to the left, agree=0.897, adj=0.769, (0 split)  
## 187 < 130 to the left, agree=0.862, adj=0.692, (0 split)  
## 374 < 133 to the left, agree=0.862, adj=0.692, (0 split)  
## 185 < 157 to the left, agree=0.828, adj=0.615, (0 split)  
## 402 < 132.5 to the left, agree=0.828, adj=0.615, (0 split)  
##   
## Node number 1919: 33 observations  
## predicted class=8 expected loss=0.1818182 P(node) =0.001309264  
## class counts: 0 0 1 0 0 3 0 0 27 2  
## probabilities: 0.000 0.000 0.030 0.000 0.000 0.091 0.000 0.000 0.818 0.061   
##   
## Node number 1936: 1325 observations, complexity param=0.0003572385  
## predicted class=4 expected loss=0.03924528 P(node) =0.05256893  
## class counts: 0 6 5 7 1273 0 14 0 5 15  
## probabilities: 0.000 0.005 0.004 0.005 0.961 0.000 0.011 0.000 0.004 0.011   
## left son=3872 (1313 obs) right son=3873 (12 obs)  
## Primary splits:  
## 95 < 32 to the left, improve=15.836140, (0 missing)  
## 96 < 2 to the left, improve=15.836140, (0 missing)  
## 94 < 3.5 to the left, improve=10.278060, (0 missing)  
## 437 < 1 to the right, improve=10.010500, (0 missing)  
## 123 < 251.5 to the left, improve= 9.190573, (0 missing)  
## Surrogate splits:  
## 94 < 3.5 to the left, agree=0.998, adj=0.750, (0 split)  
## 96 < 39 to the left, agree=0.998, adj=0.750, (0 split)  
## 67 < 11 to the left, agree=0.995, adj=0.500, (0 split)  
## 68 < 47 to the left, agree=0.995, adj=0.417, (0 split)  
## 123 < 251.5 to the left, agree=0.994, adj=0.333, (0 split)  
##   
## Node number 1937: 19 observations  
## predicted class=7 expected loss=0.4736842 P(node) =0.0007538187  
## class counts: 0 0 3 2 1 2 0 10 0 1  
## probabilities: 0.000 0.000 0.158 0.105 0.053 0.105 0.000 0.526 0.000 0.053   
##   
## Node number 1938: 48 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.625 P(node) =0.001904384  
## class counts: 0 0 5 7 8 18 0 0 6 4  
## probabilities: 0.000 0.000 0.104 0.146 0.167 0.375 0.000 0.000 0.125 0.083   
## left son=3876 (24 obs) right son=3877 (24 obs)  
## Primary splits:  
## 354 < 4 to the left, improve=6.458333, (0 missing)  
## 215 < 11 to the right, improve=6.229167, (0 missing)  
## 492 < 53.5 to the left, improve=6.136111, (0 missing)  
## 326 < 43 to the left, improve=5.991667, (0 missing)  
## 327 < 9.5 to the right, improve=5.901467, (0 missing)  
## Surrogate splits:  
## 326 < 43 to the left, agree=0.917, adj=0.833, (0 split)  
## 327 < 32 to the left, agree=0.875, adj=0.750, (0 split)  
## 382 < 23 to the left, agree=0.875, adj=0.750, (0 split)  
## 381 < 31 to the left, agree=0.854, adj=0.708, (0 split)  
## 298 < 5 to the left, agree=0.833, adj=0.667, (0 split)  
##   
## Node number 1939: 23 observations  
## predicted class=8 expected loss=0.1304348 P(node) =0.0009125174  
## class counts: 0 0 1 0 0 1 1 0 20 0  
## probabilities: 0.000 0.000 0.043 0.000 0.000 0.043 0.043 0.000 0.870 0.000   
##   
## Node number 1946: 32 observations, complexity param=0.0002232741  
## predicted class=4 expected loss=0.34375 P(node) =0.001269589  
## class counts: 0 0 1 1 21 2 0 0 0 7  
## probabilities: 0.000 0.000 0.031 0.031 0.656 0.062 0.000 0.000 0.000 0.219   
## left son=3892 (24 obs) right son=3893 (8 obs)  
## Primary splits:  
## 323 < 1 to the right, improve=6.083333, (0 missing)  
## 244 < 73.5 to the left, improve=5.435065, (0 missing)  
## 324 < 39 to the right, improve=4.884314, (0 missing)  
## 300 < 6.5 to the left, improve=4.833333, (0 missing)  
## 245 < 14 to the left, improve=4.637143, (0 missing)  
## Surrogate splits:  
## 295 < 90.5 to the right, agree=0.938, adj=0.750, (0 split)  
## 296 < 17 to the right, agree=0.938, adj=0.750, (0 split)  
## 244 < 73.5 to the left, agree=0.906, adj=0.625, (0 split)  
## 245 < 14 to the left, agree=0.906, adj=0.625, (0 split)  
## 265 < 186 to the left, agree=0.906, adj=0.625, (0 split)  
##   
## Node number 1947: 40 observations  
## predicted class=9 expected loss=0.25 P(node) =0.001586987  
## class counts: 0 0 1 1 1 2 0 5 0 30  
## probabilities: 0.000 0.000 0.025 0.025 0.025 0.050 0.000 0.125 0.000 0.750   
##   
## Node number 1952: 24 observations, complexity param=0.0003125837  
## predicted class=3 expected loss=0.3333333 P(node) =0.000952192  
## class counts: 0 0 0 16 0 8 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.667 0.000 0.333 0.000 0.000 0.000 0.000   
## left son=3904 (15 obs) right son=3905 (9 obs)  
## Primary splits:  
## 265 < 169.5 to the left, improve=8.888889, (0 missing)  
## 179 < 3.5 to the right, improve=8.784314, (0 missing)  
## 180 < 3.5 to the right, improve=8.784314, (0 missing)  
## 217 < 48.5 to the left, improve=8.784314, (0 missing)  
## 218 < 38.5 to the left, improve=8.784314, (0 missing)  
## Surrogate splits:  
## 264 < 8.5 to the left, agree=0.958, adj=0.889, (0 split)  
## 573 < 56 to the left, agree=0.958, adj=0.889, (0 split)  
## 574 < 126 to the left, agree=0.958, adj=0.889, (0 split)  
## 179 < 3.5 to the right, agree=0.917, adj=0.778, (0 split)  
## 180 < 3.5 to the right, agree=0.917, adj=0.778, (0 split)  
##   
## Node number 1953: 470 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.08085106 P(node) =0.01864709  
## class counts: 0 0 1 19 1 432 0 1 0 16  
## probabilities: 0.000 0.000 0.002 0.040 0.002 0.919 0.000 0.002 0.000 0.034   
## left son=3906 (9 obs) right son=3907 (461 obs)  
## Primary splits:  
## 123 < 180.5 to the right, improve=9.456185, (0 missing)  
## 718 < 37 to the left, improve=8.900252, (0 missing)  
## 188 < 2 to the right, improve=8.580909, (0 missing)  
## 215 < 27 to the left, improve=8.377046, (0 missing)  
## 216 < 1.5 to the left, improve=7.969778, (0 missing)  
## Surrogate splits:  
## 122 < 11 to the right, agree=0.998, adj=0.889, (0 split)  
## 124 < 251.5 to the right, agree=0.994, adj=0.667, (0 split)  
## 121 < 13 to the right, agree=0.991, adj=0.556, (0 split)  
## 125 < 121.5 to the right, agree=0.991, adj=0.556, (0 split)  
## 120 < 1.5 to the right, agree=0.989, adj=0.444, (0 split)  
##   
## Node number 1956: 18 observations  
## predicted class=2 expected loss=0.2777778 P(node) =0.000714144  
## class counts: 3 0 13 0 0 0 2 0 0 0  
## probabilities: 0.167 0.000 0.722 0.000 0.000 0.000 0.111 0.000 0.000 0.000   
##   
## Node number 1957: 7 observations  
## predicted class=8 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 0 1 0 0 0 0 6 0  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.000 0.000 0.000 0.857 0.000   
##   
## Node number 1958: 11 observations  
## predicted class=4 expected loss=0.5454545 P(node) =0.0004364213  
## class counts: 0 0 0 0 5 2 0 0 3 1  
## probabilities: 0.000 0.000 0.000 0.000 0.455 0.182 0.000 0.000 0.273 0.091   
##   
## Node number 1959: 24 observations  
## predicted class=9 expected loss=0.08333333 P(node) =0.000952192  
## class counts: 0 0 0 1 0 1 0 0 0 22  
## probabilities: 0.000 0.000 0.000 0.042 0.000 0.042 0.000 0.000 0.000 0.917   
##   
## Node number 1964: 60 observations, complexity param=0.000491203  
## predicted class=7 expected loss=0.5666667 P(node) =0.00238048  
## class counts: 0 1 3 14 1 0 1 26 4 10  
## probabilities: 0.000 0.017 0.050 0.233 0.017 0.000 0.017 0.433 0.067 0.167   
## left son=3928 (23 obs) right son=3929 (37 obs)  
## Primary splits:  
## 377 < 4 to the right, improve=10.137090, (0 missing)  
## 406 < 243 to the right, improve= 9.846812, (0 missing)  
## 405 < 95.5 to the right, improve= 9.406748, (0 missing)  
## 574 < 18.5 to the left, improve= 8.147813, (0 missing)  
## 546 < 8 to the left, improve= 7.998405, (0 missing)  
## Surrogate splits:  
## 405 < 163 to the right, agree=0.917, adj=0.783, (0 split)  
## 378 < 142.5 to the right, agree=0.867, adj=0.652, (0 split)  
## 406 < 223.5 to the right, agree=0.867, adj=0.652, (0 split)  
## 376 < 17.5 to the right, agree=0.850, adj=0.609, (0 split)  
## 461 < 124 to the left, agree=0.833, adj=0.565, (0 split)  
##   
## Node number 1965: 67 observations, complexity param=0.0005805126  
## predicted class=9 expected loss=0.4179104 P(node) =0.002658203  
## class counts: 0 0 0 2 19 0 0 2 5 39  
## probabilities: 0.000 0.000 0.000 0.030 0.284 0.000 0.000 0.030 0.075 0.582   
## left son=3930 (13 obs) right son=3931 (54 obs)  
## Primary splits:  
## 454 < 2 to the right, improve=13.86235, (0 missing)  
## 455 < 101.5 to the right, improve=13.86235, (0 missing)  
## 483 < 11.5 to the right, improve=13.86235, (0 missing)  
## 482 < 3 to the right, improve=12.56336, (0 missing)  
## 456 < 226.5 to the right, improve=12.10794, (0 missing)  
## Surrogate splits:  
## 455 < 101.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 483 < 11.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 456 < 226.5 to the right, agree=0.985, adj=0.923, (0 split)  
## 482 < 3 to the right, agree=0.985, adj=0.923, (0 split)  
## 484 < 82.5 to the right, agree=0.970, adj=0.846, (0 split)  
##   
## Node number 1968: 77 observations  
## predicted class=3 expected loss=0.05194805 P(node) =0.003054949  
## class counts: 0 0 1 73 0 0 0 0 1 2  
## probabilities: 0.000 0.000 0.013 0.948 0.000 0.000 0.000 0.000 0.013 0.026   
##   
## Node number 1969: 22 observations, complexity param=0.0002679289  
## predicted class=9 expected loss=0.6363636 P(node) =0.0008728427  
## class counts: 1 0 1 3 1 7 0 0 1 8  
## probabilities: 0.045 0.000 0.045 0.136 0.045 0.318 0.000 0.000 0.045 0.364   
## left son=3938 (14 obs) right son=3939 (8 obs)  
## Primary splits:  
## 188 < 3.5 to the right, improve=6.701299, (0 missing)  
## 376 < 110 to the right, improve=6.187257, (0 missing)  
## 160 < 85.5 to the right, improve=5.951299, (0 missing)  
## 467 < 194 to the right, improve=5.951299, (0 missing)  
## 161 < 68.5 to the right, improve=5.708625, (0 missing)  
## Surrogate splits:  
## 376 < 110 to the right, agree=0.955, adj=0.875, (0 split)  
## 681 < 6.5 to the left, agree=0.955, adj=0.875, (0 split)  
## 158 < 65 to the right, agree=0.909, adj=0.750, (0 split)  
## 159 < 16 to the right, agree=0.909, adj=0.750, (0 split)  
## 187 < 96 to the right, agree=0.909, adj=0.750, (0 split)  
##   
## Node number 1970: 46 observations  
## predicted class=2 expected loss=0.1521739 P(node) =0.001825035  
## class counts: 0 0 39 4 0 1 0 0 1 1  
## probabilities: 0.000 0.000 0.848 0.087 0.000 0.022 0.000 0.000 0.022 0.022   
##   
## Node number 1971: 33 observations  
## predicted class=8 expected loss=0.2727273 P(node) =0.001309264  
## class counts: 1 0 3 2 0 0 3 0 24 0  
## probabilities: 0.030 0.000 0.091 0.061 0.000 0.000 0.091 0.000 0.727 0.000   
##   
## Node number 1972: 90 observations  
## predicted class=4 expected loss=0.1 P(node) =0.00357072  
## class counts: 0 0 3 0 81 0 1 0 0 5  
## probabilities: 0.000 0.000 0.033 0.000 0.900 0.000 0.011 0.000 0.000 0.056   
##   
## Node number 1973: 48 observations, complexity param=0.0003572385  
## predicted class=9 expected loss=0.5625 P(node) =0.001904384  
## class counts: 0 0 2 7 11 2 0 0 5 21  
## probabilities: 0.000 0.000 0.042 0.146 0.229 0.042 0.000 0.000 0.104 0.438   
## left son=3946 (10 obs) right son=3947 (38 obs)  
## Primary splits:  
## 183 < 239 to the left, improve=6.762281, (0 missing)  
## 403 < 157 to the right, improve=6.670290, (0 missing)  
## 376 < 2.5 to the right, improve=5.578042, (0 missing)  
## 372 < 11.5 to the left, improve=5.352564, (0 missing)  
## 178 < 250 to the right, improve=5.238386, (0 missing)  
## Surrogate splits:  
## 182 < 34.5 to the left, agree=0.896, adj=0.5, (0 split)  
## 181 < 15.5 to the left, agree=0.875, adj=0.4, (0 split)  
## 155 < 33 to the left, agree=0.854, adj=0.3, (0 split)  
## 156 < 9 to the left, agree=0.854, adj=0.3, (0 split)  
## 208 < 31.5 to the left, agree=0.854, adj=0.3, (0 split)  
##   
## Node number 1974: 50 observations, complexity param=0.0003572385  
## predicted class=9 expected loss=0.64 P(node) =0.001983733  
## class counts: 0 0 3 9 9 2 0 1 8 18  
## probabilities: 0.000 0.000 0.060 0.180 0.180 0.040 0.000 0.020 0.160 0.360   
## left son=3948 (14 obs) right son=3949 (36 obs)  
## Primary splits:  
## 374 < 58 to the left, improve=5.950159, (0 missing)  
## 407 < 139.5 to the left, improve=5.825263, (0 missing)  
## 179 < 239 to the right, improve=5.676341, (0 missing)  
## 151 < 8 to the right, improve=5.131765, (0 missing)  
## 178 < 62.5 to the right, improve=5.131765, (0 missing)  
## Surrogate splits:  
## 346 < 8 to the left, agree=0.98, adj=0.929, (0 split)  
## 318 < 4 to the left, agree=0.94, adj=0.786, (0 split)  
## 375 < 4 to the left, agree=0.94, adj=0.786, (0 split)  
## 347 < 3.5 to the left, agree=0.90, adj=0.643, (0 split)  
## 402 < 2.5 to the left, agree=0.90, adj=0.643, (0 split)  
##   
## Node number 1975: 40 observations  
## predicted class=8 expected loss=0.075 P(node) =0.001586987  
## class counts: 1 0 1 0 0 0 0 0 37 1  
## probabilities: 0.025 0.000 0.025 0.000 0.000 0.000 0.000 0.000 0.925 0.025   
##   
## Node number 1976: 119 observations, complexity param=0.0006698223  
## predicted class=3 expected loss=0.5798319 P(node) =0.004721285  
## class counts: 1 0 16 50 6 0 0 39 2 5  
## probabilities: 0.008 0.000 0.134 0.420 0.050 0.000 0.000 0.328 0.017 0.042   
## left son=3952 (66 obs) right son=3953 (53 obs)  
## Primary splits:  
## 518 < 96.5 to the left, improve=20.87927, (0 missing)  
## 545 < 130.5 to the left, improve=18.94055, (0 missing)  
## 573 < 90.5 to the left, improve=18.81878, (0 missing)  
## 577 < 10.5 to the right, improve=18.25678, (0 missing)  
## 550 < 3 to the right, improve=18.11945, (0 missing)  
## Surrogate splits:  
## 546 < 101 to the left, agree=0.924, adj=0.830, (0 split)  
## 517 < 1.5 to the left, agree=0.882, adj=0.736, (0 split)  
## 490 < 217.5 to the left, agree=0.874, adj=0.717, (0 split)  
## 545 < 7.5 to the left, agree=0.866, adj=0.698, (0 split)  
## 573 < 160 to the left, agree=0.824, adj=0.604, (0 split)  
##   
## Node number 1977: 57 observations  
## predicted class=9 expected loss=0.1403509 P(node) =0.002261456  
## class counts: 0 0 1 1 2 0 0 0 4 49  
## probabilities: 0.000 0.000 0.018 0.018 0.035 0.000 0.000 0.000 0.070 0.860   
##   
## Node number 1978: 20 observations  
## predicted class=4 expected loss=0.35 P(node) =0.0007934934  
## class counts: 0 0 0 1 13 1 0 0 0 5  
## probabilities: 0.000 0.000 0.000 0.050 0.650 0.050 0.000 0.000 0.000 0.250   
##   
## Node number 1979: 97 observations  
## predicted class=9 expected loss=0.1340206 P(node) =0.003848443  
## class counts: 0 0 0 0 2 0 0 4 7 84  
## probabilities: 0.000 0.000 0.000 0.000 0.021 0.000 0.000 0.041 0.072 0.866   
##   
## Node number 1980: 31 observations  
## predicted class=4 expected loss=0.03225806 P(node) =0.001229915  
## class counts: 0 0 0 0 30 0 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.000 0.968 0.000 0.000 0.000 0.032 0.000   
##   
## Node number 1981: 35 observations  
## predicted class=9 expected loss=0.1714286 P(node) =0.001388613  
## class counts: 0 0 0 0 4 0 0 1 1 29  
## probabilities: 0.000 0.000 0.000 0.000 0.114 0.000 0.000 0.029 0.029 0.829   
##   
## Node number 1982: 72 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.4305556 P(node) =0.002856576  
## class counts: 0 0 0 4 5 2 0 3 17 41  
## probabilities: 0.000 0.000 0.000 0.056 0.069 0.028 0.000 0.042 0.236 0.569   
## left son=3964 (24 obs) right son=3965 (48 obs)  
## Primary splits:  
## 438 < 130.5 to the left, improve=15.34722, (0 missing)  
## 400 < 25 to the left, improve=14.57825, (0 missing)  
## 544 < 138 to the left, improve=14.19766, (0 missing)  
## 429 < 19.5 to the left, improve=13.87868, (0 missing)  
## 517 < 198 to the right, improve=13.83532, (0 missing)  
## Surrogate splits:  
## 410 < 165 to the left, agree=0.875, adj=0.625, (0 split)  
## 466 < 75 to the left, agree=0.875, adj=0.625, (0 split)  
## 544 < 107.5 to the right, agree=0.861, adj=0.583, (0 split)  
## 411 < 13.5 to the left, agree=0.847, adj=0.542, (0 split)  
## 430 < 45.5 to the left, agree=0.847, adj=0.542, (0 split)  
##   
## Node number 1983: 1014 observations  
## predicted class=9 expected loss=0.06213018 P(node) =0.04023011  
## class counts: 0 0 1 6 30 4 0 7 15 951  
## probabilities: 0.000 0.000 0.001 0.006 0.030 0.004 0.000 0.007 0.015 0.938   
##   
## Node number 1988: 16 observations  
## predicted class=3 expected loss=0.25 P(node) =0.0006347947  
## class counts: 0 1 2 12 0 0 0 0 1 0  
## probabilities: 0.000 0.062 0.125 0.750 0.000 0.000 0.000 0.000 0.062 0.000   
##   
## Node number 1989: 9 observations  
## predicted class=5 expected loss=0 P(node) =0.000357072  
## class counts: 0 0 0 0 0 9 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000   
##   
## Node number 1998: 7 observations  
## predicted class=3 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 0 6 0 0 0 0 0 1  
## probabilities: 0.000 0.000 0.000 0.857 0.000 0.000 0.000 0.000 0.000 0.143   
##   
## Node number 1999: 53 observations  
## predicted class=9 expected loss=0.2075472 P(node) =0.002102757  
## class counts: 0 0 1 0 5 0 0 2 3 42  
## probabilities: 0.000 0.000 0.019 0.000 0.094 0.000 0.000 0.038 0.057 0.792   
##   
## Node number 2186: 31 observations, complexity param=0.0002456015  
## predicted class=2 expected loss=0.7741935 P(node) =0.001229915  
## class counts: 4 6 7 3 4 2 1 0 4 0  
## probabilities: 0.129 0.194 0.226 0.097 0.129 0.065 0.032 0.000 0.129 0.000   
## left son=4372 (20 obs) right son=4373 (11 obs)  
## Primary splits:  
## 652 < 147 to the left, improve=4.476246, (0 missing)  
## 653 < 128.5 to the left, improve=4.476246, (0 missing)  
## 654 < 14 to the left, improve=4.476246, (0 missing)  
## 160 < 49.5 to the left, improve=4.155500, (0 missing)  
## 626 < 149 to the left, improve=4.126486, (0 missing)  
## Surrogate splits:  
## 653 < 128.5 to the left, agree=1.000, adj=1.000, (0 split)  
## 654 < 14 to the left, agree=1.000, adj=1.000, (0 split)  
## 626 < 149 to the left, agree=0.968, adj=0.909, (0 split)  
## 160 < 49.5 to the left, agree=0.935, adj=0.818, (0 split)  
## 651 < 34 to the left, agree=0.935, adj=0.818, (0 split)  
##   
## Node number 2187: 23 observations  
## predicted class=5 expected loss=0.2608696 P(node) =0.0009125174  
## class counts: 1 0 1 3 0 17 0 0 1 0  
## probabilities: 0.043 0.000 0.043 0.130 0.000 0.739 0.000 0.000 0.043 0.000   
##   
## Node number 2190: 37 observations, complexity param=0.0003125837  
## predicted class=1 expected loss=0.6756757 P(node) =0.001467963  
## class counts: 0 12 1 1 8 2 3 5 0 5  
## probabilities: 0.000 0.324 0.027 0.027 0.216 0.054 0.081 0.135 0.000 0.135   
## left son=4380 (15 obs) right son=4381 (22 obs)  
## Primary splits:  
## 405 < 205.5 to the right, improve=6.039803, (0 missing)  
## 377 < 245 to the right, improve=5.747548, (0 missing)  
## 349 < 248 to the right, improve=5.137150, (0 missing)  
## 321 < 189.5 to the right, improve=4.770690, (0 missing)  
## 375 < 155 to the left, improve=4.407336, (0 missing)  
## Surrogate splits:  
## 377 < 62 to the right, agree=0.838, adj=0.600, (0 split)  
## 180 < 54 to the right, agree=0.811, adj=0.533, (0 split)  
## 433 < 240.5 to the right, agree=0.811, adj=0.533, (0 split)  
## 153 < 159.5 to the right, agree=0.784, adj=0.467, (0 split)  
## 181 < 97.5 to the right, agree=0.784, adj=0.467, (0 split)  
##   
## Node number 2191: 33 observations  
## predicted class=9 expected loss=0.2727273 P(node) =0.001309264  
## class counts: 0 2 0 0 5 0 0 1 1 24  
## probabilities: 0.000 0.061 0.000 0.000 0.152 0.000 0.000 0.030 0.030 0.727   
##   
## Node number 2222: 10 observations  
## predicted class=8 expected loss=0.3 P(node) =0.0003967467  
## class counts: 1 1 0 0 1 0 0 0 7 0  
## probabilities: 0.100 0.100 0.000 0.000 0.100 0.000 0.000 0.000 0.700 0.000   
##   
## Node number 2223: 11 observations  
## predicted class=9 expected loss=0.5454545 P(node) =0.0004364213  
## class counts: 1 0 0 2 0 0 2 0 1 5  
## probabilities: 0.091 0.000 0.000 0.182 0.000 0.000 0.182 0.000 0.091 0.455   
##   
## Node number 2576: 1350 observations  
## predicted class=3 expected loss=0.01407407 P(node) =0.0535608  
## class counts: 0 2 8 1331 0 6 0 0 3 0  
## probabilities: 0.000 0.001 0.006 0.986 0.000 0.004 0.000 0.000 0.002 0.000   
##   
## Node number 2577: 10 observations  
## predicted class=5 expected loss=0.3 P(node) =0.0003967467  
## class counts: 0 0 0 1 0 7 0 0 2 0  
## probabilities: 0.000 0.000 0.000 0.100 0.000 0.700 0.000 0.000 0.200 0.000   
##   
## Node number 2682: 11 observations  
## predicted class=3 expected loss=0.4545455 P(node) =0.0004364213  
## class counts: 0 0 0 6 4 0 1 0 0 0  
## probabilities: 0.000 0.000 0.000 0.545 0.364 0.000 0.091 0.000 0.000 0.000   
##   
## Node number 2683: 9 observations  
## predicted class=7 expected loss=0 P(node) =0.000357072  
## class counts: 0 0 0 0 0 0 0 9 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000   
##   
## Node number 2684: 13 observations  
## predicted class=1 expected loss=0.4615385 P(node) =0.0005157707  
## class counts: 0 7 0 0 0 0 2 0 4 0  
## probabilities: 0.000 0.538 0.000 0.000 0.000 0.000 0.154 0.000 0.308 0.000   
##   
## Node number 2685: 14 observations  
## predicted class=5 expected loss=0.6428571 P(node) =0.0005554453  
## class counts: 0 0 0 3 2 5 4 0 0 0  
## probabilities: 0.000 0.000 0.000 0.214 0.143 0.357 0.286 0.000 0.000 0.000   
##   
## Node number 2716: 25 observations, complexity param=0.0002232741  
## predicted class=3 expected loss=0.36 P(node) =0.0009918667  
## class counts: 0 1 1 16 0 6 0 0 1 0  
## probabilities: 0.000 0.040 0.040 0.640 0.000 0.240 0.000 0.000 0.040 0.000   
## left son=5432 (16 obs) right son=5433 (9 obs)  
## Primary splits:  
## 270 < 13.5 to the right, improve=6.658333, (0 missing)  
## 269 < 88.5 to the right, improve=6.302941, (0 missing)  
## 262 < 248 to the left, improve=6.302941, (0 missing)  
## 268 < 65.5 to the right, improve=6.152381, (0 missing)  
## 242 < 122 to the right, improve=5.533333, (0 missing)  
## Surrogate splits:  
## 242 < 122 to the right, agree=0.96, adj=0.889, (0 split)  
## 269 < 88.5 to the right, agree=0.96, adj=0.889, (0 split)  
## 261 < 103 to the left, agree=0.92, adj=0.778, (0 split)  
## 268 < 65.5 to the right, agree=0.92, adj=0.778, (0 split)  
## 296 < 233.5 to the right, agree=0.92, adj=0.778, (0 split)  
##   
## Node number 2717: 77 observations, complexity param=0.0002232741  
## predicted class=5 expected loss=0.3896104 P(node) =0.003054949  
## class counts: 5 0 0 9 0 47 2 3 2 9  
## probabilities: 0.065 0.000 0.000 0.117 0.000 0.610 0.026 0.039 0.026 0.117   
## left son=5434 (8 obs) right son=5435 (69 obs)  
## Primary splits:  
## 455 < 193.5 to the right, improve=6.716685, (0 missing)  
## 329 < 218.5 to the right, improve=6.662338, (0 missing)  
## 358 < 11 to the right, improve=6.509649, (0 missing)  
## 482 < 197 to the right, improve=6.348052, (0 missing)  
## 597 < 38.5 to the right, improve=6.068789, (0 missing)  
## Surrogate splits:  
## 456 < 196.5 to the right, agree=0.987, adj=0.875, (0 split)  
## 428 < 246.5 to the right, agree=0.974, adj=0.750, (0 split)  
## 454 < 80 to the right, agree=0.961, adj=0.625, (0 split)  
## 483 < 167.5 to the right, agree=0.961, adj=0.625, (0 split)  
## 484 < 251.5 to the right, agree=0.961, adj=0.625, (0 split)  
##   
## Node number 2718: 30 observations, complexity param=0.0001786193  
## predicted class=8 expected loss=0.4666667 P(node) =0.00119024  
## class counts: 0 0 0 2 0 6 0 0 16 6  
## probabilities: 0.000 0.000 0.000 0.067 0.000 0.200 0.000 0.000 0.533 0.200   
## left son=5436 (14 obs) right son=5437 (16 obs)  
## Primary splits:  
## 431 < 10.5 to the left, improve=5.719048, (0 missing)  
## 433 < 9 to the left, improve=4.869985, (0 missing)  
## 432 < 92 to the left, improve=4.851885, (0 missing)  
## 405 < 194.5 to the left, improve=4.560128, (0 missing)  
## 466 < 105.5 to the right, improve=4.526094, (0 missing)  
## Surrogate splits:  
## 432 < 27.5 to the left, agree=0.867, adj=0.714, (0 split)  
## 402 < 249.5 to the left, agree=0.833, adj=0.643, (0 split)  
## 403 < 161.5 to the left, agree=0.833, adj=0.643, (0 split)  
## 430 < 160 to the left, agree=0.833, adj=0.643, (0 split)  
## 458 < 13 to the left, agree=0.833, adj=0.643, (0 split)  
##   
## Node number 2719: 8 observations  
## predicted class=9 expected loss=0 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 0 0 0 0 8  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000   
##   
## Node number 3066: 8 observations  
## predicted class=5 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 5 1 0 1 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.625 0.125 0.000 0.125 0.125   
##   
## Node number 3067: 17 observations  
## predicted class=8 expected loss=0.05882353 P(node) =0.0006744694  
## class counts: 0 0 0 1 0 0 0 0 16 0  
## probabilities: 0.000 0.000 0.000 0.059 0.000 0.000 0.000 0.000 0.941 0.000   
##   
## Node number 3082: 18 observations  
## predicted class=0 expected loss=0.3888889 P(node) =0.000714144  
## class counts: 11 0 2 5 0 0 0 0 0 0  
## probabilities: 0.611 0.000 0.111 0.278 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3083: 14 observations  
## predicted class=5 expected loss=0.1428571 P(node) =0.0005554453  
## class counts: 1 0 0 1 0 12 0 0 0 0  
## probabilities: 0.071 0.000 0.000 0.071 0.000 0.857 0.000 0.000 0.000 0.000   
##   
## Node number 3298: 10 observations  
## predicted class=0 expected loss=0.6 P(node) =0.0003967467  
## class counts: 4 0 1 1 0 0 2 0 2 0  
## probabilities: 0.400 0.000 0.100 0.100 0.000 0.000 0.200 0.000 0.200 0.000   
##   
## Node number 3299: 14 observations  
## predicted class=5 expected loss=0.2857143 P(node) =0.0005554453  
## class counts: 0 0 0 1 1 10 1 0 1 0  
## probabilities: 0.000 0.000 0.000 0.071 0.071 0.714 0.071 0.000 0.071 0.000   
##   
## Node number 3618: 14 observations  
## predicted class=2 expected loss=0.1428571 P(node) =0.0005554453  
## class counts: 0 0 12 1 1 0 0 0 0 0  
## probabilities: 0.000 0.000 0.857 0.071 0.071 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3619: 14 observations  
## predicted class=6 expected loss=0.5714286 P(node) =0.0005554453  
## class counts: 0 1 2 0 0 2 6 3 0 0  
## probabilities: 0.000 0.071 0.143 0.000 0.000 0.143 0.429 0.214 0.000 0.000   
##   
## Node number 3620: 63 observations, complexity param=0.0001786193  
## predicted class=4 expected loss=0.1428571 P(node) =0.002499504  
## class counts: 0 0 1 0 54 0 7 0 0 1  
## probabilities: 0.000 0.000 0.016 0.000 0.857 0.000 0.111 0.000 0.000 0.016   
## left son=7240 (56 obs) right son=7241 (7 obs)  
## Primary splits:  
## 94 < 7.5 to the left, improve=8.404762, (0 missing)  
## 438 < 65 to the right, improve=5.231293, (0 missing)  
## 121 < 54 to the left, improve=4.680986, (0 missing)  
## 410 < 16.5 to the right, improve=4.640147, (0 missing)  
## 489 < 80.5 to the right, improve=4.554762, (0 missing)  
## Surrogate splits:  
## 93 < 1.5 to the left, agree=0.984, adj=0.857, (0 split)  
## 95 < 19 to the left, agree=0.984, adj=0.857, (0 split)  
## 542 < 252.5 to the left, agree=0.952, adj=0.571, (0 split)  
## 39 < 55 to the left, agree=0.937, adj=0.429, (0 split)  
## 40 < 5 to the left, agree=0.937, adj=0.429, (0 split)  
##   
## Node number 3621: 9 observations  
## predicted class=8 expected loss=0.6666667 P(node) =0.000357072  
## class counts: 0 0 1 0 0 2 0 2 3 1  
## probabilities: 0.000 0.000 0.111 0.000 0.000 0.222 0.000 0.222 0.333 0.111   
##   
## Node number 3624: 109 observations  
## predicted class=2 expected loss=0.266055 P(node) =0.004324539  
## class counts: 0 2 80 5 0 0 0 10 4 8  
## probabilities: 0.000 0.018 0.734 0.046 0.000 0.000 0.000 0.092 0.037 0.073   
##   
## Node number 3625: 18 observations  
## predicted class=7 expected loss=0.2222222 P(node) =0.000714144  
## class counts: 0 0 1 0 0 0 0 14 2 1  
## probabilities: 0.000 0.000 0.056 0.000 0.000 0.000 0.000 0.778 0.111 0.056   
##   
## Node number 3628: 14 observations  
## predicted class=5 expected loss=0.6428571 P(node) =0.0005554453  
## class counts: 2 0 1 0 1 5 0 2 1 2  
## probabilities: 0.143 0.000 0.071 0.000 0.071 0.357 0.000 0.143 0.071 0.143   
##   
## Node number 3629: 14 observations  
## predicted class=8 expected loss=0.1428571 P(node) =0.0005554453  
## class counts: 0 0 1 0 0 0 0 0 12 1  
## probabilities: 0.000 0.000 0.071 0.000 0.000 0.000 0.000 0.000 0.857 0.071   
##   
## Node number 3674: 9 observations  
## predicted class=0 expected loss=0.3333333 P(node) =0.000357072  
## class counts: 6 0 2 0 0 0 0 1 0 0  
## probabilities: 0.667 0.000 0.222 0.000 0.000 0.000 0.000 0.111 0.000 0.000   
##   
## Node number 3675: 20 observations  
## predicted class=8 expected loss=0 P(node) =0.0007934934  
## class counts: 0 0 0 0 0 0 0 0 20 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000   
##   
## Node number 3676: 43 observations, complexity param=0.0001786193  
## predicted class=7 expected loss=0.255814 P(node) =0.001706011  
## class counts: 1 0 4 0 1 0 1 32 0 4  
## probabilities: 0.023 0.000 0.093 0.000 0.023 0.000 0.023 0.744 0.000 0.093   
## left son=7352 (10 obs) right son=7353 (33 obs)  
## Primary splits:  
## 680 < 83 to the left, improve=9.232699, (0 missing)  
## 708 < 1 to the left, improve=8.162943, (0 missing)  
## 513 < 26 to the right, improve=8.162943, (0 missing)  
## 540 < 25 to the right, improve=8.162943, (0 missing)  
## 709 < 4 to the left, improve=7.014517, (0 missing)  
## Surrogate splits:  
## 708 < 1 to the left, agree=0.977, adj=0.9, (0 split)  
## 709 < 4 to the left, agree=0.953, adj=0.8, (0 split)  
## 513 < 26 to the right, agree=0.930, adj=0.7, (0 split)  
## 540 < 25 to the right, agree=0.930, adj=0.7, (0 split)  
## 154 < 1.5 to the right, agree=0.907, adj=0.6, (0 split)  
##   
## Node number 3677: 28 observations, complexity param=0.0003572385  
## predicted class=9 expected loss=0.5714286 P(node) =0.001110891  
## class counts: 0 0 2 0 4 0 0 1 9 12  
## probabilities: 0.000 0.000 0.071 0.000 0.143 0.000 0.000 0.036 0.321 0.429   
## left son=7354 (15 obs) right son=7355 (13 obs)  
## Primary splits:  
## 655 < 18.5 to the right, improve=6.875824, (0 missing)  
## 706 < 57.5 to the left, improve=6.056391, (0 missing)  
## 707 < 23.5 to the left, improve=5.839286, (0 missing)  
## 651 < 14.5 to the left, improve=5.642857, (0 missing)  
## 683 < 35.5 to the left, improve=5.564286, (0 missing)  
## Surrogate splits:  
## 627 < 117 to the right, agree=0.964, adj=0.923, (0 split)  
## 654 < 196 to the right, agree=0.929, adj=0.846, (0 split)  
## 182 < 1.5 to the right, agree=0.893, adj=0.769, (0 split)  
## 183 < 92.5 to the right, agree=0.893, adj=0.769, (0 split)  
## 679 < 35.5 to the left, agree=0.857, adj=0.692, (0 split)  
##   
## Node number 3678: 24 observations, complexity param=0.0002456015  
## predicted class=4 expected loss=0.4583333 P(node) =0.000952192  
## class counts: 1 0 1 0 13 0 0 0 1 8  
## probabilities: 0.042 0.000 0.042 0.000 0.542 0.000 0.000 0.000 0.042 0.333   
## left son=7356 (15 obs) right son=7357 (9 obs)  
## Primary splits:  
## 456 < 71 to the right, improve=5.633333, (0 missing)  
## 455 < 68.5 to the right, improve=5.117716, (0 missing)  
## 427 < 6.5 to the right, improve=4.628205, (0 missing)  
## 428 < 180.5 to the right, improve=4.628205, (0 missing)  
## 485 < 54 to the right, improve=4.423810, (0 missing)  
## Surrogate splits:  
## 428 < 91.5 to the right, agree=0.958, adj=0.889, (0 split)  
## 429 < 245.5 to the right, agree=0.958, adj=0.889, (0 split)  
## 455 < 8.5 to the right, agree=0.958, adj=0.889, (0 split)  
## 400 < 14.5 to the right, agree=0.917, adj=0.778, (0 split)  
## 401 < 191 to the right, agree=0.917, adj=0.778, (0 split)  
##   
## Node number 3679: 29 observations  
## predicted class=9 expected loss=0.1034483 P(node) =0.001150565  
## class counts: 0 0 2 0 0 0 0 0 1 26  
## probabilities: 0.000 0.000 0.069 0.000 0.000 0.000 0.000 0.000 0.034 0.897   
##   
## Node number 3836: 13 observations  
## predicted class=6 expected loss=0.5384615 P(node) =0.0005157707  
## class counts: 0 0 1 2 0 1 6 1 2 0  
## probabilities: 0.000 0.000 0.077 0.154 0.000 0.077 0.462 0.077 0.154 0.000   
##   
## Node number 3837: 16 observations  
## predicted class=5 expected loss=0.25 P(node) =0.0006347947  
## class counts: 0 0 0 0 0 12 0 0 4 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.750 0.000 0.000 0.250 0.000   
##   
## Node number 3872: 1313 observations  
## predicted class=4 expected loss=0.03198781 P(node) =0.05209284  
## class counts: 0 6 5 7 1271 0 4 0 5 15  
## probabilities: 0.000 0.005 0.004 0.005 0.968 0.000 0.003 0.000 0.004 0.011   
##   
## Node number 3873: 12 observations  
## predicted class=6 expected loss=0.1666667 P(node) =0.000476096  
## class counts: 0 0 0 0 2 0 10 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.167 0.000 0.833 0.000 0.000 0.000   
##   
## Node number 3876: 24 observations  
## predicted class=5 expected loss=0.2916667 P(node) =0.000952192  
## class counts: 0 0 1 2 2 17 0 0 1 1  
## probabilities: 0.000 0.000 0.042 0.083 0.083 0.708 0.000 0.000 0.042 0.042   
##   
## Node number 3877: 24 observations, complexity param=0.0002232741  
## predicted class=4 expected loss=0.75 P(node) =0.000952192  
## class counts: 0 0 4 5 6 1 0 0 5 3  
## probabilities: 0.000 0.000 0.167 0.208 0.250 0.042 0.000 0.000 0.208 0.125   
## left son=7754 (7 obs) right son=7755 (17 obs)  
## Primary splits:  
## 461 < 201.5 to the right, improve=4.677871, (0 missing)  
## 460 < 94 to the right, improve=4.333333, (0 missing)  
## 378 < 199.5 to the right, improve=4.123249, (0 missing)  
## 186 < 26.5 to the left, improve=4.083333, (0 missing)  
## 351 < 17 to the right, improve=3.958333, (0 missing)  
## Surrogate splits:  
## 185 < 71 to the left, agree=0.917, adj=0.714, (0 split)  
## 186 < 29 to the left, agree=0.917, adj=0.714, (0 split)  
## 207 < 5 to the left, agree=0.917, adj=0.714, (0 split)  
## 488 < 14.5 to the right, agree=0.917, adj=0.714, (0 split)  
## 153 < 43 to the left, agree=0.875, adj=0.571, (0 split)  
##   
## Node number 3892: 24 observations  
## predicted class=4 expected loss=0.1666667 P(node) =0.000952192  
## class counts: 0 0 1 1 20 1 0 0 0 1  
## probabilities: 0.000 0.000 0.042 0.042 0.833 0.042 0.000 0.000 0.000 0.042   
##   
## Node number 3893: 8 observations  
## predicted class=9 expected loss=0.25 P(node) =0.0003173973  
## class counts: 0 0 0 0 1 1 0 0 0 6  
## probabilities: 0.000 0.000 0.000 0.000 0.125 0.125 0.000 0.000 0.000 0.750   
##   
## Node number 3904: 15 observations  
## predicted class=3 expected loss=0 P(node) =0.00059512  
## class counts: 0 0 0 15 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3905: 9 observations  
## predicted class=5 expected loss=0.1111111 P(node) =0.000357072  
## class counts: 0 0 0 1 0 8 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.111 0.000 0.889 0.000 0.000 0.000 0.000   
##   
## Node number 3906: 9 observations  
## predicted class=3 expected loss=0.2222222 P(node) =0.000357072  
## class counts: 0 0 0 7 0 2 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.778 0.000 0.222 0.000 0.000 0.000 0.000   
##   
## Node number 3907: 461 observations, complexity param=0.0001786193  
## predicted class=5 expected loss=0.06724512 P(node) =0.01829002  
## class counts: 0 0 1 12 1 430 0 1 0 16  
## probabilities: 0.000 0.000 0.002 0.026 0.002 0.933 0.000 0.002 0.000 0.035   
## left son=7814 (450 obs) right son=7815 (11 obs)  
## Primary splits:  
## 718 < 37 to the left, improve=9.084851, (0 missing)  
## 326 < 7.5 to the left, improve=7.839553, (0 missing)  
## 717 < 195.5 to the left, improve=6.760310, (0 missing)  
## 628 < 0.5 to the right, improve=6.449194, (0 missing)  
## 627 < 0.5 to the right, improve=6.242185, (0 missing)  
## Surrogate splits:  
## 717 < 195.5 to the left, agree=0.993, adj=0.727, (0 split)  
## 719 < 15 to the left, agree=0.989, adj=0.545, (0 split)  
## 326 < 163.5 to the left, agree=0.980, adj=0.182, (0 split)  
## 691 < 252.5 to the left, agree=0.980, adj=0.182, (0 split)  
## 720 < 14 to the left, agree=0.980, adj=0.182, (0 split)  
##   
## Node number 3928: 23 observations, complexity param=0.0002679289  
## predicted class=3 expected loss=0.5217391 P(node) =0.0009125174  
## class counts: 0 1 0 11 1 0 1 0 2 7  
## probabilities: 0.000 0.043 0.000 0.478 0.043 0.000 0.043 0.000 0.087 0.304   
## left son=7856 (11 obs) right son=7857 (12 obs)  
## Primary splits:  
## 180 < 95 to the right, improve=5.986166, (0 missing)  
## 179 < 36 to the right, improve=4.888963, (0 missing)  
## 347 < 13 to the left, improve=4.748792, (0 missing)  
## 350 < 42.5 to the right, improve=4.713439, (0 missing)  
## 292 < 5 to the left, improve=4.531621, (0 missing)  
## Surrogate splits:  
## 179 < 36 to the right, agree=0.957, adj=0.909, (0 split)  
## 292 < 5 to the left, agree=0.957, adj=0.909, (0 split)  
## 181 < 110.5 to the right, agree=0.913, adj=0.818, (0 split)  
## 265 < 22 to the left, agree=0.913, adj=0.818, (0 split)  
## 152 < 2 to the right, agree=0.870, adj=0.727, (0 split)  
##   
## Node number 3929: 37 observations  
## predicted class=7 expected loss=0.2972973 P(node) =0.001467963  
## class counts: 0 0 3 3 0 0 0 26 2 3  
## probabilities: 0.000 0.000 0.081 0.081 0.000 0.000 0.000 0.703 0.054 0.081   
##   
## Node number 3930: 13 observations  
## predicted class=4 expected loss=0 P(node) =0.0005157707  
## class counts: 0 0 0 0 13 0 0 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3931: 54 observations  
## predicted class=9 expected loss=0.2777778 P(node) =0.002142432  
## class counts: 0 0 0 2 6 0 0 2 5 39  
## probabilities: 0.000 0.000 0.000 0.037 0.111 0.000 0.000 0.037 0.093 0.722   
##   
## Node number 3938: 14 observations  
## predicted class=5 expected loss=0.5 P(node) =0.0005554453  
## class counts: 1 0 1 3 1 7 0 0 1 0  
## probabilities: 0.071 0.000 0.071 0.214 0.071 0.500 0.000 0.000 0.071 0.000   
##   
## Node number 3939: 8 observations  
## predicted class=9 expected loss=0 P(node) =0.0003173973  
## class counts: 0 0 0 0 0 0 0 0 0 8  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000   
##   
## Node number 3946: 10 observations  
## predicted class=4 expected loss=0.2 P(node) =0.0003967467  
## class counts: 0 0 1 1 8 0 0 0 0 0  
## probabilities: 0.000 0.000 0.100 0.100 0.800 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 3947: 38 observations, complexity param=0.0002679289  
## predicted class=9 expected loss=0.4473684 P(node) =0.001507637  
## class counts: 0 0 1 6 3 2 0 0 5 21  
## probabilities: 0.000 0.000 0.026 0.158 0.079 0.053 0.000 0.000 0.132 0.553   
## left son=7894 (8 obs) right son=7895 (30 obs)  
## Primary splits:  
## 372 < 11.5 to the left, improve=6.837719, (0 missing)  
## 378 < 85.5 to the right, improve=6.051305, (0 missing)  
## 178 < 250 to the right, improve=5.951007, (0 missing)  
## 151 < 9.5 to the right, improve=5.861529, (0 missing)  
## 316 < 22 to the left, improve=5.740918, (0 missing)  
## Surrogate splits:  
## 400 < 35.5 to the left, agree=0.974, adj=0.875, (0 split)  
## 316 < 22 to the left, agree=0.921, adj=0.625, (0 split)  
## 317 < 32 to the left, agree=0.921, adj=0.625, (0 split)  
## 344 < 10 to the left, agree=0.921, adj=0.625, (0 split)  
## 345 < 18.5 to the left, agree=0.921, adj=0.625, (0 split)  
##   
## Node number 3948: 14 observations  
## predicted class=3 expected loss=0.4285714 P(node) =0.0005554453  
## class counts: 0 0 2 8 1 0 0 1 2 0  
## probabilities: 0.000 0.000 0.143 0.571 0.071 0.000 0.000 0.071 0.143 0.000   
##   
## Node number 3949: 36 observations, complexity param=0.0003125837  
## predicted class=9 expected loss=0.5 P(node) =0.001428288  
## class counts: 0 0 1 1 8 2 0 0 6 18  
## probabilities: 0.000 0.000 0.028 0.028 0.222 0.056 0.000 0.000 0.167 0.500   
## left son=7898 (9 obs) right son=7899 (27 obs)  
## Primary splits:  
## 407 < 122 to the left, improve=6.796296, (0 missing)  
## 379 < 5.5 to the left, improve=5.553737, (0 missing)  
## 353 < 227.5 to the left, improve=5.236508, (0 missing)  
## 242 < 2 to the left, improve=5.081530, (0 missing)  
## 297 < 28 to the left, improve=4.893651, (0 missing)  
## Surrogate splits:  
## 379 < 5.5 to the left, agree=0.944, adj=0.778, (0 split)  
## 212 < 85.5 to the left, agree=0.889, adj=0.556, (0 split)  
## 380 < 116 to the left, agree=0.889, adj=0.556, (0 split)  
## 408 < 188 to the left, agree=0.889, adj=0.556, (0 split)  
## 184 < 166 to the left, agree=0.861, adj=0.444, (0 split)  
##   
## Node number 3952: 66 observations, complexity param=0.000491203  
## predicted class=3 expected loss=0.3484848 P(node) =0.002618528  
## class counts: 0 0 14 43 1 0 0 3 1 4  
## probabilities: 0.000 0.000 0.212 0.652 0.015 0.000 0.000 0.045 0.015 0.061   
## left son=7904 (12 obs) right son=7905 (54 obs)  
## Primary splits:  
## 512 < 30 to the right, improve=13.66162, (0 missing)  
## 658 < 0.5 to the right, improve=11.47786, (0 missing)  
## 685 < 8 to the right, improve=10.72371, (0 missing)  
## 513 < 19.5 to the right, improve=10.60606, (0 missing)  
## 511 < 3 to the right, improve=10.55051, (0 missing)  
## Surrogate splits:  
## 513 < 19.5 to the right, agree=0.970, adj=0.833, (0 split)  
## 511 < 10.5 to the right, agree=0.955, adj=0.750, (0 split)  
## 485 < 175 to the right, agree=0.939, adj=0.667, (0 split)  
## 539 < 25.5 to the right, agree=0.924, adj=0.583, (0 split)  
## 540 < 24 to the right, agree=0.924, adj=0.583, (0 split)  
##   
## Node number 3953: 53 observations, complexity param=0.0002232741  
## predicted class=7 expected loss=0.3207547 P(node) =0.002102757  
## class counts: 1 0 2 7 5 0 0 36 1 1  
## probabilities: 0.019 0.000 0.038 0.132 0.094 0.000 0.000 0.679 0.019 0.019   
## left son=7906 (9 obs) right son=7907 (44 obs)  
## Primary splits:  
## 209 < 29 to the left, improve=7.831999, (0 missing)  
## 348 < 108 to the right, improve=7.496646, (0 missing)  
## 349 < 38 to the right, improve=7.496646, (0 missing)  
## 320 < 66 to the right, improve=7.223837, (0 missing)  
## 321 < 125 to the right, improve=7.223837, (0 missing)  
## Surrogate splits:  
## 348 < 108 to the right, agree=0.981, adj=0.889, (0 split)  
## 349 < 38 to the right, agree=0.981, adj=0.889, (0 split)  
## 320 < 66 to the right, agree=0.962, adj=0.778, (0 split)  
## 321 < 125 to the right, agree=0.962, adj=0.778, (0 split)  
## 347 < 52.5 to the right, agree=0.962, adj=0.778, (0 split)  
##   
## Node number 3964: 24 observations  
## predicted class=8 expected loss=0.3333333 P(node) =0.000952192  
## class counts: 0 0 0 2 3 0 0 1 16 2  
## probabilities: 0.000 0.000 0.000 0.083 0.125 0.000 0.000 0.042 0.667 0.083   
##   
## Node number 3965: 48 observations  
## predicted class=9 expected loss=0.1875 P(node) =0.001904384  
## class counts: 0 0 0 2 2 2 0 2 1 39  
## probabilities: 0.000 0.000 0.000 0.042 0.042 0.042 0.000 0.042 0.021 0.812   
##   
## Node number 4372: 20 observations, complexity param=0.0001786193  
## predicted class=2 expected loss=0.65 P(node) =0.0007934934  
## class counts: 3 0 7 3 4 2 1 0 0 0  
## probabilities: 0.150 0.000 0.350 0.150 0.200 0.100 0.050 0.000 0.000 0.000   
## left son=8744 (8 obs) right son=8745 (12 obs)  
## Primary splits:  
## 405 < 210 to the right, improve=4.683333, (0 missing)  
## 266 < 187 to the left, improve=3.400000, (0 missing)  
## 321 < 228 to the left, improve=3.400000, (0 missing)  
## 349 < 252.5 to the left, improve=3.400000, (0 missing)  
## 432 < 63 to the right, improve=3.400000, (0 missing)  
## Surrogate splits:  
## 265 < 4 to the left, agree=0.9, adj=0.75, (0 split)  
## 266 < 156.5 to the left, agree=0.9, adj=0.75, (0 split)  
## 293 < 65 to the left, agree=0.9, adj=0.75, (0 split)  
## 321 < 124.5 to the left, agree=0.9, adj=0.75, (0 split)  
## 349 < 252.5 to the left, agree=0.9, adj=0.75, (0 split)  
##   
## Node number 4373: 11 observations  
## predicted class=1 expected loss=0.4545455 P(node) =0.0004364213  
## class counts: 1 6 0 0 0 0 0 0 4 0  
## probabilities: 0.091 0.545 0.000 0.000 0.000 0.000 0.000 0.000 0.364 0.000   
##   
## Node number 4380: 15 observations  
## predicted class=1 expected loss=0.2666667 P(node) =0.00059512  
## class counts: 0 11 0 0 0 0 2 0 0 2  
## probabilities: 0.000 0.733 0.000 0.000 0.000 0.000 0.133 0.000 0.000 0.133   
##   
## Node number 4381: 22 observations  
## predicted class=4 expected loss=0.6363636 P(node) =0.0008728427  
## class counts: 0 1 1 1 8 2 1 5 0 3  
## probabilities: 0.000 0.045 0.045 0.045 0.364 0.091 0.045 0.227 0.000 0.136   
##   
## Node number 5432: 16 observations  
## predicted class=3 expected loss=0.0625 P(node) =0.0006347947  
## class counts: 0 0 1 15 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.062 0.937 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 5433: 9 observations  
## predicted class=5 expected loss=0.3333333 P(node) =0.000357072  
## class counts: 0 1 0 1 0 6 0 0 1 0  
## probabilities: 0.000 0.111 0.000 0.111 0.000 0.667 0.000 0.000 0.111 0.000   
##   
## Node number 5434: 8 observations  
## predicted class=0 expected loss=0.375 P(node) =0.0003173973  
## class counts: 5 0 0 0 0 0 2 0 0 1  
## probabilities: 0.625 0.000 0.000 0.000 0.000 0.000 0.250 0.000 0.000 0.125   
##   
## Node number 5435: 69 observations, complexity param=0.0001786193  
## predicted class=5 expected loss=0.3188406 P(node) =0.002737552  
## class counts: 0 0 0 9 0 47 0 3 2 8  
## probabilities: 0.000 0.000 0.000 0.130 0.000 0.681 0.000 0.043 0.029 0.116   
## left son=10870 (54 obs) right son=10871 (15 obs)  
## Primary splits:  
## 597 < 38.5 to the right, improve=7.369726, (0 missing)  
## 598 < 61 to the right, improve=7.113953, (0 missing)  
## 596 < 2.5 to the right, improve=6.577728, (0 missing)  
## 568 < 77 to the right, improve=5.824031, (0 missing)  
## 570 < 7 to the right, improve=5.577185, (0 missing)  
## Surrogate splits:  
## 596 < 2.5 to the right, agree=0.928, adj=0.667, (0 split)  
## 568 < 2.5 to the right, agree=0.913, adj=0.600, (0 split)  
## 625 < 74 to the right, agree=0.913, adj=0.600, (0 split)  
## 598 < 32 to the right, agree=0.899, adj=0.533, (0 split)  
## 710 < 158.5 to the left, agree=0.884, adj=0.467, (0 split)  
##   
## Node number 5436: 14 observations  
## predicted class=9 expected loss=0.5714286 P(node) =0.0005554453  
## class counts: 0 0 0 2 0 4 0 0 2 6  
## probabilities: 0.000 0.000 0.000 0.143 0.000 0.286 0.000 0.000 0.143 0.429   
##   
## Node number 5437: 16 observations  
## predicted class=8 expected loss=0.125 P(node) =0.0006347947  
## class counts: 0 0 0 0 0 2 0 0 14 0  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.125 0.000 0.000 0.875 0.000   
##   
## Node number 7240: 56 observations  
## predicted class=4 expected loss=0.05357143 P(node) =0.002221781  
## class counts: 0 0 1 0 53 0 1 0 0 1  
## probabilities: 0.000 0.000 0.018 0.000 0.946 0.000 0.018 0.000 0.000 0.018   
##   
## Node number 7241: 7 observations  
## predicted class=6 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 0 0 1 0 6 0 0 0  
## probabilities: 0.000 0.000 0.000 0.000 0.143 0.000 0.857 0.000 0.000 0.000   
##   
## Node number 7352: 10 observations  
## predicted class=2 expected loss=0.6 P(node) =0.0003967467  
## class counts: 1 0 4 0 1 0 1 0 0 3  
## probabilities: 0.100 0.000 0.400 0.000 0.100 0.000 0.100 0.000 0.000 0.300   
##   
## Node number 7353: 33 observations  
## predicted class=7 expected loss=0.03030303 P(node) =0.001309264  
## class counts: 0 0 0 0 0 0 0 32 0 1  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.970 0.000 0.030   
##   
## Node number 7354: 15 observations  
## predicted class=8 expected loss=0.4 P(node) =0.00059512  
## class counts: 0 0 1 0 3 0 0 1 9 1  
## probabilities: 0.000 0.000 0.067 0.000 0.200 0.000 0.000 0.067 0.600 0.067   
##   
## Node number 7355: 13 observations  
## predicted class=9 expected loss=0.1538462 P(node) =0.0005157707  
## class counts: 0 0 1 0 1 0 0 0 0 11  
## probabilities: 0.000 0.000 0.077 0.000 0.077 0.000 0.000 0.000 0.000 0.846   
##   
## Node number 7356: 15 observations  
## predicted class=4 expected loss=0.2 P(node) =0.00059512  
## class counts: 1 0 1 0 12 0 0 0 0 1  
## probabilities: 0.067 0.000 0.067 0.000 0.800 0.000 0.000 0.000 0.000 0.067   
##   
## Node number 7357: 9 observations  
## predicted class=9 expected loss=0.2222222 P(node) =0.000357072  
## class counts: 0 0 0 0 1 0 0 0 1 7  
## probabilities: 0.000 0.000 0.000 0.000 0.111 0.000 0.000 0.000 0.111 0.778   
##   
## Node number 7754: 7 observations  
## predicted class=4 expected loss=0.1428571 P(node) =0.0002777227  
## class counts: 0 0 1 0 6 0 0 0 0 0  
## probabilities: 0.000 0.000 0.143 0.000 0.857 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 7755: 17 observations  
## predicted class=3 expected loss=0.7058824 P(node) =0.0006744694  
## class counts: 0 0 3 5 0 1 0 0 5 3  
## probabilities: 0.000 0.000 0.176 0.294 0.000 0.059 0.000 0.000 0.294 0.176   
##   
## Node number 7814: 450 observations  
## predicted class=5 expected loss=0.05111111 P(node) =0.0178536  
## class counts: 0 0 1 12 1 427 0 0 0 9  
## probabilities: 0.000 0.000 0.002 0.027 0.002 0.949 0.000 0.000 0.000 0.020   
##   
## Node number 7815: 11 observations  
## predicted class=9 expected loss=0.3636364 P(node) =0.0004364213  
## class counts: 0 0 0 0 0 3 0 1 0 7  
## probabilities: 0.000 0.000 0.000 0.000 0.000 0.273 0.000 0.091 0.000 0.636   
##   
## Node number 7856: 11 observations  
## predicted class=3 expected loss=0.09090909 P(node) =0.0004364213  
## class counts: 0 0 0 10 0 0 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.909 0.000 0.000 0.000 0.000 0.091 0.000   
##   
## Node number 7857: 12 observations  
## predicted class=9 expected loss=0.4166667 P(node) =0.000476096  
## class counts: 0 1 0 1 1 0 1 0 1 7  
## probabilities: 0.000 0.083 0.000 0.083 0.083 0.000 0.083 0.000 0.083 0.583   
##   
## Node number 7894: 8 observations  
## predicted class=3 expected loss=0.25 P(node) =0.0003173973  
## class counts: 0 0 1 6 0 0 0 0 1 0  
## probabilities: 0.000 0.000 0.125 0.750 0.000 0.000 0.000 0.000 0.125 0.000   
##   
## Node number 7895: 30 observations  
## predicted class=9 expected loss=0.3 P(node) =0.00119024  
## class counts: 0 0 0 0 3 2 0 0 4 21  
## probabilities: 0.000 0.000 0.000 0.000 0.100 0.067 0.000 0.000 0.133 0.700   
##   
## Node number 7898: 9 observations  
## predicted class=4 expected loss=0.2222222 P(node) =0.000357072  
## class counts: 0 0 0 0 7 1 0 0 1 0  
## probabilities: 0.000 0.000 0.000 0.000 0.778 0.111 0.000 0.000 0.111 0.000   
##   
## Node number 7899: 27 observations, complexity param=0.0001786193  
## predicted class=9 expected loss=0.3333333 P(node) =0.001071216  
## class counts: 0 0 1 1 1 1 0 0 5 18  
## probabilities: 0.000 0.000 0.037 0.037 0.037 0.037 0.000 0.000 0.185 0.667   
## left son=15798 (8 obs) right son=15799 (19 obs)  
## Primary splits:  
## 551 < 139 to the right, improve=5.741715, (0 missing)  
## 552 < 7.5 to the right, improve=5.741715, (0 missing)  
## 579 < 150 to the right, improve=5.741715, (0 missing)  
## 580 < 7.5 to the right, improve=5.741715, (0 missing)  
## 495 < 29.5 to the right, improve=5.383069, (0 missing)  
## Surrogate splits:  
## 552 < 7.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 579 < 150 to the right, agree=1.000, adj=1.000, (0 split)  
## 580 < 7.5 to the right, agree=1.000, adj=1.000, (0 split)  
## 205 < 123.5 to the right, agree=0.963, adj=0.875, (0 split)  
## 495 < 29.5 to the right, agree=0.963, adj=0.875, (0 split)  
##   
## Node number 7904: 12 observations  
## predicted class=2 expected loss=0.08333333 P(node) =0.000476096  
## class counts: 0 0 11 0 0 0 0 0 1 0  
## probabilities: 0.000 0.000 0.917 0.000 0.000 0.000 0.000 0.000 0.083 0.000   
##   
## Node number 7905: 54 observations  
## predicted class=3 expected loss=0.2037037 P(node) =0.002142432  
## class counts: 0 0 3 43 1 0 0 3 0 4  
## probabilities: 0.000 0.000 0.056 0.796 0.019 0.000 0.000 0.056 0.000 0.074   
##   
## Node number 7906: 9 observations  
## predicted class=4 expected loss=0.4444444 P(node) =0.000357072  
## class counts: 1 0 1 0 5 0 0 0 1 1  
## probabilities: 0.111 0.000 0.111 0.000 0.556 0.000 0.000 0.000 0.111 0.111   
##   
## Node number 7907: 44 observations, complexity param=0.0001786193  
## predicted class=7 expected loss=0.1818182 P(node) =0.001745685  
## class counts: 0 0 1 7 0 0 0 36 0 0  
## probabilities: 0.000 0.000 0.023 0.159 0.000 0.000 0.000 0.818 0.000 0.000   
## left son=15814 (9 obs) right son=15815 (35 obs)  
## Primary splits:  
## 437 < 4 to the left, improve=7.021789, (0 missing)  
## 464 < 12.5 to the left, improve=6.482450, (0 missing)  
## 436 < 201 to the left, improve=6.067914, (0 missing)  
## 576 < 152.5 to the right, improve=6.067914, (0 missing)  
## 463 < 212.5 to the left, improve=5.381313, (0 missing)  
## Surrogate splits:  
## 436 < 201 to the left, agree=0.977, adj=0.889, (0 split)  
## 464 < 38.5 to the left, agree=0.977, adj=0.889, (0 split)  
## 463 < 235 to the left, agree=0.955, adj=0.778, (0 split)  
## 410 < 3 to the left, agree=0.932, adj=0.667, (0 split)  
## 438 < 12.5 to the left, agree=0.932, adj=0.667, (0 split)  
##   
## Node number 8744: 8 observations  
## predicted class=2 expected loss=0.125 P(node) =0.0003173973  
## class counts: 0 0 7 1 0 0 0 0 0 0  
## probabilities: 0.000 0.000 0.875 0.125 0.000 0.000 0.000 0.000 0.000 0.000   
##   
## Node number 8745: 12 observations  
## predicted class=4 expected loss=0.6666667 P(node) =0.000476096  
## class counts: 3 0 0 2 4 2 1 0 0 0  
## probabilities: 0.250 0.000 0.000 0.167 0.333 0.167 0.083 0.000 0.000 0.000   
##   
## Node number 10870: 54 observations  
## predicted class=5 expected loss=0.1851852 P(node) =0.002142432  
## class counts: 0 0 0 8 0 44 0 0 1 1  
## probabilities: 0.000 0.000 0.000 0.148 0.000 0.815 0.000 0.000 0.019 0.019   
##   
## Node number 10871: 15 observations  
## predicted class=9 expected loss=0.5333333 P(node) =0.00059512  
## class counts: 0 0 0 1 0 3 0 3 1 7  
## probabilities: 0.000 0.000 0.000 0.067 0.000 0.200 0.000 0.200 0.067 0.467   
##   
## Node number 15798: 8 observations  
## predicted class=8 expected loss=0.375 P(node) =0.0003173973  
## class counts: 0 0 0 1 0 1 0 0 5 1  
## probabilities: 0.000 0.000 0.000 0.125 0.000 0.125 0.000 0.000 0.625 0.125   
##   
## Node number 15799: 19 observations  
## predicted class=9 expected loss=0.1052632 P(node) =0.0007538187  
## class counts: 0 0 1 0 1 0 0 0 0 17  
## probabilities: 0.000 0.000 0.053 0.000 0.053 0.000 0.000 0.000 0.000 0.895   
##   
## Node number 15814: 9 observations  
## predicted class=3 expected loss=0.3333333 P(node) =0.000357072  
## class counts: 0 0 1 6 0 0 0 2 0 0  
## probabilities: 0.000 0.000 0.111 0.667 0.000 0.000 0.000 0.222 0.000 0.000   
##   
## Node number 15815: 35 observations  
## predicted class=7 expected loss=0.02857143 P(node) =0.001388613  
## class counts: 0 0 0 1 0 0 0 34 0 0  
## probabilities: 0.000 0.000 0.000 0.029 0.000 0.000 0.000 0.971 0.000 0.000

##   
## Classification tree:  
## rpart(formula = label ~ ., data = trainDF, method = "class",   
## control = rpart.control(cp = 0))  
##   
## Variables actually used in tree construction:  
## [1] 103 121 123 124 125 126 127 131 150 152 153 154 155 156 158 159 176 179  
## [19] 180 183 185 186 188 204 205 206 207 208 209 210 211 212 213 214 215 217  
## [37] 220 231 233 234 235 237 239 240 241 242 244 247 264 265 266 267 268 269  
## [55] 270 271 274 276 287 288 289 290 291 292 293 294 295 296 297 299 300 301  
## [73] 315 317 318 319 320 321 322 323 324 325 327 329 341 342 343 344 345 346  
## [91] 347 348 349 350 351 352 353 354 355 359 370 371 372 373 374 375 376 377  
## [109] 379 380 381 382 384 386 398 400 401 402 404 405 406 407 412 413 427 428  
## [127] 429 431 432 434 435 436 437 438 439 442 454 455 456 457 458 459 460 461  
## [145] 462 463 465 466 467 468 470 484 486 487 488 489 490 492 493 494 512 513  
## [163] 514 515 516 518 520 522 524 527 537 538 539 541 542 543 544 545 546 550  
## [181] 551 552 567 568 570 572 573 574 575 580 584 596 597 599 600 601 602 603  
## [199] 608 623 624 626 627 652 653 654 655 656 657 658 662 678 680 681 683 685  
## [217] 686 709 711 712 717 718 94 95 98   
##   
## Root node error: 22394/25205 = 0.88847  
##   
## n= 25205   
##   
## CP nsplit rel error xerror xstd  
## 1 0.09779405 0 1.00000 1.00000 0.0022316  
## 2 0.08256676 1 0.90221 0.90301 0.0028235  
## 3 0.08020005 2 0.81964 0.84822 0.0030549  
## 4 0.05956953 3 0.73944 0.72783 0.0033888  
## 5 0.05193355 4 0.67987 0.66040 0.0034910  
## 6 0.04572653 5 0.62794 0.61914 0.0035269  
## 7 0.04505671 6 0.58221 0.58337 0.0035423  
## 8 0.02545325 7 0.53715 0.53456 0.0035403  
## 9 0.02138966 8 0.51170 0.51112 0.0035298  
## 10 0.01866571 9 0.49031 0.49361 0.0035179  
## 11 0.01576315 10 0.47164 0.48102 0.0035071  
## 12 0.01549522 11 0.45588 0.46745 0.0034935  
## 13 0.01330714 12 0.44039 0.45159 0.0034749  
## 14 0.01107439 13 0.42708 0.43391 0.0034506  
## 15 0.00835045 14 0.41600 0.42051 0.0034296  
## 16 0.00696615 15 0.40765 0.41547 0.0034211  
## 17 0.00611771 16 0.40069 0.40350 0.0033998  
## 18 0.00482272 17 0.39457 0.39149 0.0033766  
## 19 0.00477807 18 0.38975 0.37470 0.0033409  
## 20 0.00473341 19 0.38497 0.37113 0.0033329  
## 21 0.00468876 21 0.37550 0.36916 0.0033284  
## 22 0.00464410 22 0.37081 0.36800 0.0033257  
## 23 0.00442083 23 0.36617 0.36461 0.0033177  
## 24 0.00428686 24 0.36175 0.35679 0.0032988  
## 25 0.00392962 25 0.35746 0.35286 0.0032889  
## 26 0.00379566 26 0.35353 0.34710 0.0032741  
## 27 0.00375100 29 0.34215 0.34594 0.0032711  
## 28 0.00348308 30 0.33839 0.34183 0.0032601  
## 29 0.00339377 31 0.33491 0.33661 0.0032459  
## 30 0.00334911 32 0.33152 0.33647 0.0032455  
## 31 0.00330446 33 0.32817 0.33647 0.0032455  
## 32 0.00285791 34 0.32486 0.33174 0.0032323  
## 33 0.00283558 37 0.31629 0.32218 0.0032045  
## 34 0.00263463 39 0.31062 0.31705 0.0031890  
## 35 0.00258998 40 0.30798 0.31312 0.0031769  
## 36 0.00254532 41 0.30539 0.31053 0.0031687  
## 37 0.00250067 42 0.30285 0.30977 0.0031663  
## 38 0.00245602 43 0.30035 0.30848 0.0031622  
## 39 0.00238903 44 0.29789 0.30731 0.0031585  
## 40 0.00236671 46 0.29311 0.30450 0.0031494  
## 41 0.00227740 47 0.29075 0.30383 0.0031472  
## 42 0.00205412 52 0.27932 0.29401 0.0031144  
## 43 0.00200947 53 0.27726 0.28539 0.0030843  
## 44 0.00183085 59 0.26520 0.28320 0.0030764  
## 45 0.00169688 60 0.26337 0.27713 0.0030542  
## 46 0.00167456 62 0.25998 0.27396 0.0030423  
## 47 0.00162990 64 0.25663 0.27226 0.0030359  
## 48 0.00160757 66 0.25337 0.26936 0.0030248  
## 49 0.00147361 69 0.24855 0.26704 0.0030158  
## 50 0.00140663 70 0.24708 0.26230 0.0029972  
## 51 0.00138430 72 0.24426 0.26007 0.0029883  
## 52 0.00129499 76 0.23872 0.25677 0.0029749  
## 53 0.00125033 77 0.23743 0.25431 0.0029648  
## 54 0.00116103 79 0.23493 0.25230 0.0029565  
## 55 0.00111637 81 0.23261 0.24993 0.0029466  
## 56 0.00109404 83 0.23037 0.24931 0.0029439  
## 57 0.00107172 86 0.22689 0.24779 0.0029375  
## 58 0.00102706 88 0.22475 0.24761 0.0029368  
## 59 0.00098241 90 0.22269 0.24493 0.0029253  
## 60 0.00093775 91 0.22171 0.24221 0.0029135  
## 61 0.00089310 98 0.21515 0.23846 0.0028969  
## 62 0.00087077 100 0.21336 0.23636 0.0028876  
## 63 0.00084844 102 0.21162 0.23524 0.0028826  
## 64 0.00080379 105 0.20907 0.23095 0.0028630  
## 65 0.00075913 111 0.20425 0.22694 0.0028444  
## 66 0.00073680 116 0.20046 0.22595 0.0028398  
## 67 0.00071448 118 0.19898 0.22417 0.0028313  
## 68 0.00066982 124 0.19470 0.22109 0.0028166  
## 69 0.00062517 131 0.18938 0.21966 0.0028097  
## 70 0.00058051 136 0.18626 0.21537 0.0027887  
## 71 0.00053586 147 0.17987 0.21149 0.0027694  
## 72 0.00049120 151 0.17773 0.20693 0.0027462  
## 73 0.00046888 159 0.17380 0.20340 0.0027279  
## 74 0.00044655 161 0.17286 0.20157 0.0027183  
## 75 0.00042422 177 0.16562 0.19764 0.0026974  
## 76 0.00040189 183 0.16259 0.19644 0.0026909  
## 77 0.00037957 197 0.15696 0.19273 0.0026707  
## 78 0.00035724 202 0.15504 0.19170 0.0026650  
## 79 0.00033491 216 0.15004 0.18773 0.0026429  
## 80 0.00031258 218 0.14937 0.18733 0.0026406  
## 81 0.00029770 240 0.14245 0.18639 0.0026353  
## 82 0.00029026 246 0.14066 0.18295 0.0026157  
## 83 0.00026793 250 0.13950 0.18241 0.0026126  
## 84 0.00024560 270 0.13414 0.18116 0.0026053  
## 85 0.00023444 286 0.13017 0.17933 0.0025946  
## 86 0.00022327 290 0.12923 0.17916 0.0025936  
## 87 0.00020839 320 0.12253 0.17857 0.0025902  
## 88 0.00020095 323 0.12191 0.17857 0.0025902  
## 89 0.00017862 325 0.12151 0.17670 0.0025791  
## 90 0.00015629 376 0.11226 0.17643 0.0025775

## Warning in rsq.rpart(treeModel): may not be applicable for this method



## TrueDigits  
## Predicted 0 1 2 3 4 5 6 7 8 9  
## 0 1502 1 25 6 9 44 41 4 28 9  
## 1 2 1757 18 19 9 19 21 12 37 7  
## 2 10 24 1378 69 12 29 42 40 52 25  
## 3 20 20 31 1369 10 76 3 21 53 28  
## 4 11 19 45 20 1363 27 28 22 22 83  
## 5 50 4 18 112 17 1188 46 10 61 53  
## 6 21 14 51 23 21 40 1438 8 42 3  
## 7 7 14 33 24 12 14 8 1553 15 35  
## 8 23 14 49 42 38 36 25 20 1237 44  
## 9 6 6 22 56 137 45 2 70 78 1388  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 8.438821e-01 8.264860e-01 8.383035e-01 8.493414e-01 1.115213e-01   
## AccuracyPValue McnemarPValue   
## 0.000000e+00 2.064701e-18

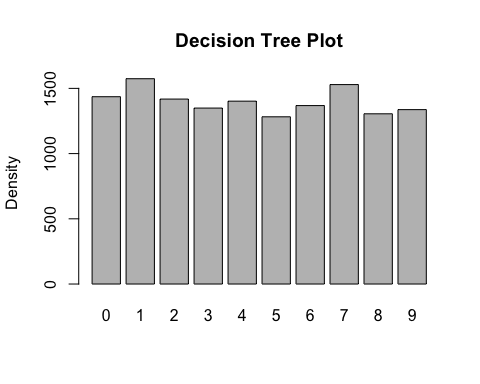
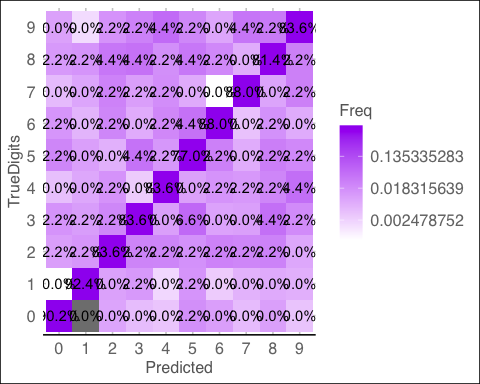


## n= 25205   
##   
## node), split, n, loss, yval, (yprob)  
## \* denotes terminal node  
##   
## 1) root 25205 22394 1 (0.098 0.11 0.099 0.1 0.097 0.09 0.099 0.1 0.097 0.1)   
## 2) 350>=120.5 9068 6479 1 (0.021 0.29 0.053 0.23 0.026 0.11 0.056 0.025 0.13 0.059)   
## 4) 489>=44.5 4400 1969 1 (0.0064 0.55 0.077 0.036 0.025 0.024 0.063 0.027 0.15 0.036)   
## 8) 234< 0.5 3250 861 1 (0.0055 0.74 0.048 0.017 0.023 0.028 0.049 0.0074 0.066 0.021)   
## 16) 347< 1.5 2607 328 1 (0.00038 0.87 0.047 0.0077 0.0054 0.0092 0.012 0.0035 0.038 0.0027)   
## 32) 550< 0.5 2456 189 1 (0 0.92 0.013 0.0049 0.0041 0.0098 0.0033 0.0033 0.037 0.0024)   
## 64) 300< 21.5 2312 96 1 (0 0.96 0.013 0.003 0.003 0.0043 0.0035 0.0035 0.01 0.00087)   
## 128) 608< 6 2291 77 1 (0 0.97 0.0052 0.0026 0.0031 0.0044 0.0035 0.0035 0.01 0.00087)   
## 256) 484< 8 2260 51 1 (0 0.98 0.0018 0.0027 0.00088 0.0022 0.0022 0.0035 0.0084 0.00088) \*  
## 257) 484>=8 31 23 2 (0 0.16 0.26 0 0.16 0.16 0.097 0 0.16 0)   
## 514) 623< 14.5 19 11 2 (0 0 0.42 0 0.26 0.21 0.11 0 0 0) \*  
## 515) 623>=14.5 12 7 1 (0 0.42 0 0 0 0.083 0.083 0 0.42 0) \*  
## 129) 608>=6 21 3 2 (0 0.095 0.86 0.048 0 0 0 0 0 0) \*  
## 65) 300>=21.5 144 78 8 (0 0.35 0.0069 0.035 0.021 0.097 0 0 0.46 0.028)   
## 130) 265< 1.5 72 21 1 (0 0.71 0.014 0.028 0.014 0.18 0 0 0.056 0)   
## 260) 487>=145 55 4 1 (0 0.93 0.018 0.018 0 0.018 0 0 0.018 0) \*  
## 261) 487< 145 17 5 5 (0 0 0 0.059 0.059 0.71 0 0 0.18 0) \*  
## 131) 265>=1.5 72 10 8 (0 0 0 0.042 0.028 0.014 0 0 0.86 0.056) \*  
## 33) 550>=0.5 151 59 2 (0.0066 0.079 0.61 0.053 0.026 0 0.15 0.0066 0.066 0.0066)   
## 66) 152>=12 108 25 2 (0 0.1 0.77 0.046 0.0093 0 0 0 0.074 0)   
## 132) 292< 58.5 91 9 2 (0 0.022 0.9 0.055 0 0 0 0 0.022 0) \*  
## 133) 292>=58.5 17 8 1 (0 0.53 0.059 0 0.059 0 0 0 0.35 0) \*  
## 67) 152< 12 43 21 6 (0.023 0.023 0.21 0.07 0.07 0 0.51 0.023 0.047 0.023)   
## 134) 212>=22 24 16 2 (0.042 0.042 0.33 0.12 0.12 0 0.21 0.042 0.083 0)   
## 268) 349< 206.5 13 5 2 (0.077 0 0.62 0 0.23 0 0 0.077 0 0) \*  
## 269) 349>=206.5 11 6 6 (0 0.091 0 0.27 0 0 0.45 0 0.18 0) \*  
## 135) 212< 22 19 2 6 (0 0 0.053 0 0 0 0.89 0 0 0.053) \*  
## 17) 347>=1.5 643 515 6 (0.026 0.17 0.053 0.056 0.096 0.1 0.2 0.023 0.18 0.093)   
## 34) 103< 1.5 564 451 8 (0.028 0.19 0.059 0.059 0.11 0.12 0.1 0.027 0.2 0.11)   
## 68) 657< 1.5 286 232 5 (0.042 0.12 0.11 0.049 0.15 0.19 0.19 0.028 0.028 0.1)   
## 136) 276< 44.5 252 198 6 (0.048 0.13 0.12 0.056 0.16 0.095 0.21 0.032 0.024 0.12)   
## 272) 574>=233 93 43 6 (0.075 0.14 0.097 0.065 0.032 0.032 0.54 0.011 0 0.011)   
## 544) 486< 67.5 25 12 1 (0 0.52 0.12 0.2 0.08 0.04 0 0.04 0 0)   
## 1088) 603>=181 16 3 1 (0 0.81 0.062 0 0.12 0 0 0 0 0) \*  
## 1089) 603< 181 9 4 3 (0 0 0.22 0.56 0 0.11 0 0.11 0 0) \*  
## 545) 486>=67.5 68 18 6 (0.1 0 0.088 0.015 0.015 0.029 0.74 0 0 0.015)   
## 1090) 244>=56 12 5 0 (0.58 0 0.083 0.083 0 0.083 0.17 0 0 0) \*  
## 1091) 244< 56 56 8 6 (0 0 0.089 0 0.018 0.018 0.86 0 0 0.018) \*  
## 273) 574< 233 159 122 4 (0.031 0.13 0.14 0.05 0.23 0.13 0.025 0.044 0.038 0.18)   
## 546) 539>=2 67 46 2 (0.075 0.09 0.31 0.09 0.06 0.28 0.015 0 0.075 0)   
## 1092) 552>=26 13 0 2 (0 0 1 0 0 0 0 0 0 0) \*  
## 1093) 552< 26 54 35 5 (0.093 0.11 0.15 0.11 0.074 0.35 0.019 0 0.093 0)   
## 2186) 458>=16.5 31 24 2 (0.13 0.19 0.23 0.097 0.13 0.065 0.032 0 0.13 0)   
## 4372) 652< 147 20 13 2 (0.15 0 0.35 0.15 0.2 0.1 0.05 0 0 0)   
## 8744) 405>=210 8 1 2 (0 0 0.88 0.12 0 0 0 0 0 0) \*  
## 8745) 405< 210 12 8 4 (0.25 0 0 0.17 0.33 0.17 0.083 0 0 0) \*  
## 4373) 652>=147 11 5 1 (0.091 0.55 0 0 0 0 0 0 0.36 0) \*  
## 2187) 458< 16.5 23 6 5 (0.043 0 0.043 0.13 0 0.74 0 0 0.043 0) \*  
## 547) 539< 2 92 59 4 (0 0.15 0.011 0.022 0.36 0.022 0.033 0.076 0.011 0.32)   
## 1094) 456>=13.5 22 2 4 (0 0 0 0.045 0.91 0 0 0.045 0 0) \*  
## 1095) 456< 13.5 70 41 9 (0 0.2 0.014 0.014 0.19 0.029 0.043 0.086 0.014 0.41)   
## 2190) 381< 210.5 37 25 1 (0 0.32 0.027 0.027 0.22 0.054 0.081 0.14 0 0.14)   
## 4380) 405>=205.5 15 4 1 (0 0.73 0 0 0 0 0.13 0 0 0.13) \*  
## 4381) 405< 205.5 22 14 4 (0 0.045 0.045 0.045 0.36 0.091 0.045 0.23 0 0.14) \*  
## 2191) 381>=210.5 33 9 9 (0 0.061 0 0 0.15 0 0 0.03 0.03 0.73) \*  
## 137) 276>=44.5 34 4 5 (0 0 0 0 0.059 0.88 0 0 0.059 0) \*  
## 69) 657>=1.5 278 173 8 (0.014 0.27 0.0072 0.068 0.068 0.043 0.014 0.025 0.38 0.11)   
## 138) 294>=216 134 61 1 (0.022 0.54 0.0075 0.03 0.075 0.067 0.03 0.03 0.12 0.075)   
## 276) 429< 10.5 95 23 1 (0.011 0.76 0.011 0.011 0 0.032 0.011 0.042 0.084 0.042)   
## 552) 299< 31 77 7 1 (0 0.91 0.013 0 0 0.013 0.013 0.026 0.013 0.013) \*  
## 553) 299>=31 18 11 8 (0.056 0.11 0 0.056 0 0.11 0 0.11 0.39 0.17) \*  
## 277) 429>=10.5 39 29 4 (0.051 0.026 0 0.077 0.26 0.15 0.077 0 0.21 0.15)   
## 554) 627< 5.5 11 2 4 (0 0 0 0 0.82 0 0.091 0 0 0.091) \*  
## 555) 627>=5.5 28 20 8 (0.071 0.036 0 0.11 0.036 0.21 0.071 0 0.29 0.18)   
## 1110) 379< 17.5 7 1 5 (0 0 0 0.14 0 0.86 0 0 0 0) \*  
## 1111) 379>=17.5 21 13 8 (0.095 0.048 0 0.095 0.048 0 0.095 0 0.38 0.24)   
## 2222) 653>=111.5 10 3 8 (0.1 0.1 0 0 0.1 0 0 0 0.7 0) \*  
## 2223) 653< 111.5 11 6 9 (0.091 0 0 0.18 0 0 0.18 0 0.091 0.45) \*  
## 139) 294< 216 144 55 8 (0.0069 0.021 0.0069 0.1 0.062 0.021 0 0.021 0.62 0.14)   
## 278) 711< 94.5 124 35 8 (0.0081 0.024 0.0081 0.12 0.073 0.024 0 0.0081 0.72 0.016)   
## 556) 265< 15.5 37 24 3 (0.027 0.027 0.027 0.35 0.14 0.054 0 0.027 0.32 0.027)   
## 1112) 317< 4.5 19 6 3 (0 0.053 0.053 0.68 0.11 0.053 0 0 0 0.053) \*  
## 1113) 317>=4.5 18 6 8 (0.056 0 0 0 0.17 0.056 0 0.056 0.67 0) \*  
## 557) 265>=15.5 87 10 8 (0 0.023 0 0.023 0.046 0.011 0 0 0.89 0.011) \*  
## 279) 711>=94.5 20 2 9 (0 0 0 0 0 0 0 0.1 0 0.9) \*  
## 35) 103>=1.5 79 9 6 (0.013 0.013 0.013 0.038 0.013 0.013 0.89 0 0.013 0) \*  
## 9) 234>=0.5 1150 690 8 (0.0087 0.037 0.16 0.09 0.031 0.012 0.1 0.083 0.4 0.079)   
## 18) 658< 13.5 434 291 2 (0.012 0.044 0.33 0.035 0.03 0.014 0.26 0.065 0.085 0.12)   
## 36) 345< 18 228 94 2 (0 0.075 0.59 0.066 0.0044 0.0044 0.039 0.092 0.088 0.044)   
## 72) 541>=1.5 142 23 2 (0 0 0.84 0.014 0 0.007 0.042 0.014 0.077 0.007)   
## 144) 301< 3.5 122 6 2 (0 0 0.95 0.0082 0 0.0082 0.0082 0.016 0.0082 0) \*  
## 145) 301>=3.5 20 10 8 (0 0 0.15 0.05 0 0 0.25 0 0.5 0.05)   
## 290) 291< 86 9 4 6 (0 0 0.33 0.11 0 0 0.56 0 0 0) \*  
## 291) 291>=86 11 1 8 (0 0 0 0 0 0 0 0 0.91 0.091) \*  
## 73) 541< 1.5 86 67 7 (0 0.2 0.17 0.15 0.012 0 0.035 0.22 0.1 0.1)   
## 146) 683< 18 57 40 1 (0 0.3 0.26 0.18 0 0 0.053 0.035 0.14 0.035)   
## 292) 459< 5.5 21 4 1 (0 0.81 0.095 0 0 0 0 0 0.048 0.048) \*  
## 293) 459>=5.5 36 23 2 (0 0 0.36 0.28 0 0 0.083 0.056 0.19 0.028)   
## 586) 516>=7 24 11 2 (0 0 0.54 0.042 0 0 0.12 0.042 0.25 0)   
## 1172) 270< 4.5 16 5 2 (0 0 0.69 0.062 0 0 0.19 0.062 0 0) \*  
## 1173) 270>=4.5 8 2 8 (0 0 0.25 0 0 0 0 0 0.75 0) \*  
## 587) 516< 7 12 3 3 (0 0 0 0.75 0 0 0 0.083 0.083 0.083) \*  
## 147) 683>=18 29 12 7 (0 0 0 0.1 0.034 0 0 0.59 0.034 0.24)   
## 294) 349< 102.5 17 1 7 (0 0 0 0.059 0 0 0 0.94 0 0) \*  
## 295) 349>=102.5 12 5 9 (0 0 0 0.17 0.083 0 0 0.083 0.083 0.58) \*  
## 37) 345>=18 206 101 6 (0.024 0.0097 0.044 0 0.058 0.024 0.51 0.034 0.083 0.21)   
## 74) 575>=51.5 144 39 6 (0.035 0.014 0.021 0 0.021 0.035 0.73 0.035 0.069 0.042)   
## 148) 213< 25.5 112 13 6 (0.0089 0.018 0 0 0.027 0.018 0.88 0.036 0 0.0089) \*  
## 149) 213>=25.5 32 22 8 (0.12 0 0.094 0 0 0.094 0.19 0.031 0.31 0.16)   
## 298) 442>=27 12 6 6 (0.33 0 0.17 0 0 0 0.5 0 0 0) \*  
## 299) 442< 27 20 10 8 (0 0 0.05 0 0 0.15 0 0.05 0.5 0.25)   
## 598) 432< 47.5 9 5 9 (0 0 0.11 0 0 0.33 0 0.11 0 0.44) \*  
## 599) 432>=47.5 11 1 8 (0 0 0 0 0 0 0 0 0.91 0.091) \*  
## 75) 575< 51.5 62 24 9 (0 0 0.097 0 0.15 0 0 0.032 0.11 0.61)   
## 150) 210< 21.5 19 10 4 (0 0 0.16 0 0.47 0 0 0.053 0.16 0.16) \*  
## 151) 210>=21.5 43 8 9 (0 0 0.07 0 0 0 0 0.023 0.093 0.81) \*  
## 19) 658>=13.5 716 293 8 (0.007 0.032 0.052 0.12 0.032 0.011 0.007 0.094 0.59 0.052)   
## 38) 319< 2 218 154 3 (0.0046 0.041 0.16 0.29 0.023 0.0046 0.014 0.2 0.23 0.032)   
## 76) 344< 24 162 100 3 (0 0.056 0.2 0.38 0 0 0 0.27 0.08 0.0062)   
## 152) 404>=228 59 10 3 (0 0 0.12 0.83 0 0 0 0.034 0.017 0)   
## 304) 527>=25.5 7 1 2 (0 0 0.86 0.14 0 0 0 0 0 0) \*  
## 305) 527< 25.5 52 4 3 (0 0 0.019 0.92 0 0 0 0.038 0.019 0) \*  
## 153) 404< 228 103 61 7 (0 0.087 0.25 0.13 0 0 0 0.41 0.12 0.0097)   
## 306) 153>=121 47 23 2 (0 0.085 0.51 0.17 0 0 0 0 0.23 0)   
## 612) 321< 195 34 10 2 (0 0.029 0.71 0.24 0 0 0 0 0.029 0)   
## 1224) 543>=81 24 1 2 (0 0 0.96 0 0 0 0 0 0.042 0) \*  
## 1225) 543< 81 10 2 3 (0 0.1 0.1 0.8 0 0 0 0 0 0) \*  
## 613) 321>=195 13 3 8 (0 0.23 0 0 0 0 0 0 0.77 0) \*  
## 307) 153< 121 56 14 7 (0 0.089 0.036 0.089 0 0 0 0.75 0.018 0.018)   
## 614) 546< 15 7 2 3 (0 0 0 0.71 0 0 0 0.14 0.14 0) \*  
## 615) 546>=15 49 8 7 (0 0.1 0.041 0 0 0 0 0.84 0 0.02) \*  
## 77) 344>=24 56 19 8 (0.018 0 0.018 0.036 0.089 0.018 0.054 0 0.66 0.11)   
## 154) 516< 53 14 8 9 (0 0 0 0.071 0.36 0 0 0 0.14 0.43) \*  
## 155) 516>=53 42 7 8 (0.024 0 0.024 0.024 0 0.024 0.071 0 0.83 0) \*  
## 39) 319>=2 498 125 8 (0.008 0.028 0.006 0.048 0.036 0.014 0.004 0.046 0.75 0.06)   
## 78) 543< 9.5 124 79 8 (0.0081 0.1 0.0081 0.13 0.056 0.016 0 0.097 0.36 0.22)   
## 156) 401< 173 80 39 8 (0 0.16 0.013 0.075 0.05 0.013 0 0.1 0.51 0.075)   
## 312) 294>=148.5 35 22 1 (0 0.37 0 0.086 0 0.029 0 0.23 0.26 0.029)   
## 624) 180>=118.5 26 13 1 (0 0.5 0 0.12 0 0.038 0 0 0.35 0)   
## 1248) 269< 25.5 14 1 1 (0 0.93 0 0 0 0 0 0 0.071 0) \*  
## 1249) 269>=25.5 12 4 8 (0 0 0 0.25 0 0.083 0 0 0.67 0) \*  
## 625) 180< 118.5 9 1 7 (0 0 0 0 0 0 0 0.89 0 0.11) \*  
## 313) 294< 148.5 45 13 8 (0 0 0.022 0.067 0.089 0 0 0 0.71 0.11) \*  
## 157) 401>=173 44 23 9 (0.023 0 0 0.23 0.068 0.023 0 0.091 0.091 0.48)   
## 314) 206>=125 18 8 3 (0 0 0 0.56 0 0.056 0 0.17 0.17 0.056) \*  
## 315) 206< 125 26 6 9 (0.038 0 0 0 0.12 0 0 0.038 0.038 0.77) \*  
## 79) 543>=9.5 374 46 8 (0.008 0.0027 0.0053 0.021 0.029 0.013 0.0053 0.029 0.88 0.008)   
## 158) 470>=156.5 19 13 7 (0.11 0 0.053 0.21 0.053 0.16 0 0.32 0.11 0) \*  
## 159) 470< 156.5 355 29 8 (0.0028 0.0028 0.0028 0.011 0.028 0.0056 0.0056 0.014 0.92 0.0085) \*  
## 5) 489< 44.5 4668 2714 3 (0.036 0.034 0.032 0.42 0.027 0.18 0.05 0.024 0.11 0.082)   
## 10) 486< 76.5 3675 1787 3 (0.027 0.038 0.006 0.51 0.031 0.22 0.0095 0.03 0.031 0.094)   
## 20) 290< 42.5 2318 665 3 (0.015 0.057 0.0082 0.71 0.016 0.12 0.0082 0.013 0.023 0.028)   
## 40) 179>=1.5 1626 234 3 (0.0018 0.025 0.008 0.86 0.0031 0.065 0.0012 0.0043 0.019 0.017)   
## 80) 315< 84.5 1502 128 3 (0 0.027 0.0087 0.91 0 0.026 0 0.0047 0.015 0.0033)   
## 160) 490>=139.5 64 31 1 (0 0.52 0.047 0.31 0 0.016 0 0.078 0.031 0)   
## 320) 297< 26.5 39 6 1 (0 0.85 0.077 0 0 0.026 0 0.051 0 0) \*  
## 321) 297>=26.5 25 5 3 (0 0 0 0.8 0 0 0 0.12 0.08 0) \*  
## 161) 490< 139.5 1438 84 3 (0 0.0056 0.007 0.94 0 0.026 0 0.0014 0.015 0.0035)   
## 322) 264< 244.5 1393 56 3 (0 0.0014 0.0072 0.96 0 0.017 0 0 0.011 0.0036)   
## 644) 317< 206 1370 38 3 (0 0.0015 0.0073 0.97 0 0.01 0 0 0.0088 0)   
## 1288) 487< 148 1360 28 3 (0 0.0015 0.0059 0.98 0 0.0096 0 0 0.0037 0)   
## 2576) 341< 70 1350 19 3 (0 0.0015 0.0059 0.99 0 0.0044 0 0 0.0022 0) \*  
## 2577) 341>=70 10 3 5 (0 0 0 0.1 0 0.7 0 0 0.2 0) \*  
## 1289) 487>=148 10 3 8 (0 0 0.2 0 0 0.1 0 0 0.7 0) \*  
## 645) 317>=206 23 14 5 (0 0 0 0.22 0 0.39 0 0 0.17 0.22)   
## 1290) 524>=20 16 7 5 (0 0 0 0.25 0 0.56 0 0 0.19 0) \*  
## 1291) 524< 20 7 2 9 (0 0 0 0.14 0 0 0 0 0.14 0.71) \*  
## 323) 264>=244.5 45 28 3 (0 0.13 0 0.38 0 0.33 0 0.044 0.11 0)   
## 646) 296>=124.5 16 3 3 (0 0 0 0.81 0 0 0 0.062 0.12 0) \*  
## 647) 296< 124.5 29 14 5 (0 0.21 0 0.14 0 0.52 0 0.034 0.1 0)   
## 1294) 185< 63.5 12 6 1 (0 0.5 0 0.33 0 0 0 0.083 0.083 0) \*  
## 1295) 185>=63.5 17 2 5 (0 0 0 0 0 0.88 0 0 0.12 0) \*  
## 81) 315>=84.5 124 58 5 (0.024 0 0 0.15 0.04 0.53 0.016 0 0.065 0.18)   
## 162) 296< 54 78 17 5 (0.013 0 0 0.038 0.051 0.78 0 0 0.051 0.064) \*  
## 163) 296>=54 46 29 9 (0.043 0 0 0.33 0.022 0.11 0.043 0 0.087 0.37)   
## 326) 493< 1 25 13 3 (0.08 0 0 0.48 0 0.2 0.04 0 0.16 0.04)   
## 652) 401< 112.5 13 1 3 (0.077 0 0 0.92 0 0 0 0 0 0) \*  
## 653) 401>=112.5 12 7 5 (0.083 0 0 0 0 0.42 0.083 0 0.33 0.083) \*  
## 327) 493>=1 21 5 9 (0 0 0 0.14 0.048 0 0.048 0 0 0.76) \*  
## 41) 179< 1.5 692 431 3 (0.045 0.13 0.0087 0.38 0.045 0.25 0.025 0.033 0.032 0.055)   
## 82) 626>=19.5 417 182 3 (0.062 0.0096 0.012 0.56 0 0.29 0.019 0.0096 0.029 0.0096)   
## 164) 265< 148 261 51 3 (0.027 0.015 0.019 0.8 0 0.088 0.011 0.011 0.019 0.0038)   
## 328) 155>=3 202 14 3 (0.0099 0.005 0.02 0.93 0 0.0099 0 0 0.02 0.005) \*  
## 329) 155< 3 59 37 3 (0.085 0.051 0.017 0.37 0 0.36 0.051 0.051 0.017 0)   
## 658) 348< 235 29 9 3 (0 0.1 0.034 0.69 0 0.069 0.1 0 0 0) \*  
## 659) 348>=235 30 11 5 (0.17 0 0 0.067 0 0.63 0 0.1 0.033 0)   
## 1318) 412>=5.5 7 2 0 (0.71 0 0 0.14 0 0 0 0.14 0 0) \*  
## 1319) 412< 5.5 23 4 5 (0 0 0 0.043 0 0.83 0 0.087 0.043 0) \*  
## 165) 265>=148 156 60 5 (0.12 0 0 0.16 0 0.62 0.032 0.0064 0.045 0.019)   
## 330) 456>=235.5 25 6 0 (0.76 0 0 0 0 0.04 0.08 0 0.12 0) \*  
## 331) 456< 235.5 131 36 5 (0 0 0 0.19 0 0.73 0.023 0.0076 0.031 0.023)   
## 662) 299>=40 30 13 3 (0 0 0 0.57 0 0.17 0.067 0.033 0.067 0.1)   
## 1324) 324>=153.5 22 5 3 (0 0 0 0.77 0 0 0.091 0 0.091 0.045) \*  
## 1325) 324< 153.5 8 3 5 (0 0 0 0 0 0.62 0 0.12 0 0.25) \*  
## 663) 299< 40 101 11 5 (0 0 0 0.079 0 0.89 0.0099 0 0.02 0)   
## 1326) 124>=83 8 2 3 (0 0 0 0.75 0 0.12 0 0 0.12 0) \*  
## 1327) 124< 83 93 4 5 (0 0 0 0.022 0 0.96 0.011 0 0.011 0) \*  
## 83) 626< 19.5 275 188 1 (0.018 0.32 0.0036 0.095 0.11 0.19 0.033 0.069 0.036 0.12)   
## 166) 376< 20 104 24 1 (0 0.77 0 0.038 0.0096 0.048 0.0096 0.067 0.029 0.029)   
## 332) 462>=85.5 85 6 1 (0 0.93 0 0 0.012 0 0.012 0.047 0 0) \*  
## 333) 462< 85.5 19 14 5 (0 0.053 0 0.21 0 0.26 0 0.16 0.16 0.16) \*  
## 167) 376>=20 171 123 5 (0.029 0.041 0.0058 0.13 0.18 0.28 0.047 0.07 0.041 0.18)   
## 334) 539>=54.5 58 15 5 (0.086 0 0.017 0.1 0 0.74 0.017 0.017 0.017 0)   
## 668) 413>=194 7 2 0 (0.71 0 0 0.29 0 0 0 0 0 0) \*  
## 669) 413< 194 51 8 5 (0 0 0.02 0.078 0 0.84 0.02 0.02 0.02 0) \*  
## 335) 539< 54.5 113 82 9 (0 0.062 0 0.14 0.27 0.044 0.062 0.097 0.053 0.27)   
## 670) 237< 2 43 17 4 (0 0 0 0.14 0.6 0 0.023 0.23 0 0)   
## 1340) 231>=13 23 1 4 (0 0 0 0 0.96 0 0 0.043 0 0) \*  
## 1341) 231< 13 20 11 7 (0 0 0 0.3 0.2 0 0.05 0.45 0 0)   
## 2682) 345< 12 11 5 3 (0 0 0 0.55 0.36 0 0.091 0 0 0) \*  
## 2683) 345>=12 9 0 7 (0 0 0 0 0 0 0 1 0 0) \*  
## 671) 237>=2 70 39 9 (0 0.1 0 0.14 0.057 0.071 0.086 0.014 0.086 0.44)   
## 1342) 325< 5 27 20 1 (0 0.26 0 0.11 0.074 0.19 0.22 0 0.15 0)   
## 2684) 154>=20 13 6 1 (0 0.54 0 0 0 0 0.15 0 0.31 0) \*  
## 2685) 154< 20 14 9 5 (0 0 0 0.21 0.14 0.36 0.29 0 0 0) \*  
## 1343) 325>=5 43 12 9 (0 0 0 0.16 0.047 0 0 0.023 0.047 0.72) \*  
## 21) 290>=42.5 1357 824 5 (0.049 0.0044 0.0022 0.17 0.057 0.39 0.012 0.058 0.044 0.21)   
## 42) 626>=10.5 836 360 5 (0.071 0.0012 0.0012 0.24 0.0012 0.57 0.011 0.006 0.059 0.044)   
## 84) 297>=29.5 324 179 3 (0.1 0.0031 0.0031 0.45 0 0.21 0.0093 0.015 0.12 0.09)   
## 168) 359>=77 32 4 0 (0.88 0 0 0 0 0 0.031 0.062 0.031 0) \*  
## 169) 359< 77 292 147 3 (0.017 0.0034 0.0034 0.5 0 0.24 0.0068 0.01 0.13 0.099)   
## 338) 318< 219.5 112 26 3 (0 0 0 0.77 0 0.036 0 0 0.14 0.054)   
## 676) 484< 186 101 15 3 (0 0 0 0.85 0 0.03 0 0 0.059 0.059) \*  
## 677) 484>=186 11 1 8 (0 0 0 0 0 0.091 0 0 0.91 0) \*  
## 339) 318>=219.5 180 115 5 (0.028 0.0056 0.0056 0.33 0 0.36 0.011 0.017 0.12 0.13)   
## 678) 176>=79.5 40 8 3 (0 0 0 0.8 0 0.15 0 0 0.05 0)   
## 1356) 288< 216 32 1 3 (0 0 0 0.97 0 0.031 0 0 0 0) \*  
## 1357) 288>=216 8 3 5 (0 0 0 0.12 0 0.62 0 0 0.25 0) \*  
## 679) 176< 79.5 140 81 5 (0.036 0.0071 0.0071 0.19 0 0.42 0.014 0.021 0.14 0.16)   
## 1358) 294>=3 102 49 5 (0.049 0.0098 0.0098 0.25 0 0.52 0.02 0.029 0.029 0.088)   
## 2716) 125>=40.5 25 9 3 (0 0.04 0.04 0.64 0 0.24 0 0 0.04 0)   
## 5432) 270>=13.5 16 1 3 (0 0 0.062 0.94 0 0 0 0 0 0) \*  
## 5433) 270< 13.5 9 3 5 (0 0.11 0 0.11 0 0.67 0 0 0.11 0) \*  
## 2717) 125< 40.5 77 30 5 (0.065 0 0 0.12 0 0.61 0.026 0.039 0.026 0.12)   
## 5434) 455>=193.5 8 3 0 (0.62 0 0 0 0 0 0.25 0 0 0.12) \*  
## 5435) 455< 193.5 69 22 5 (0 0 0 0.13 0 0.68 0 0.043 0.029 0.12)   
## 10870) 597>=38.5 54 10 5 (0 0 0 0.15 0 0.81 0 0 0.019 0.019) \*  
## 10871) 597< 38.5 15 8 9 (0 0 0 0.067 0 0.2 0 0.2 0.067 0.47) \*  
## 1359) 294< 3 38 22 8 (0 0 0 0.053 0 0.16 0 0 0.42 0.37)   
## 2718) 545< 45.5 30 14 8 (0 0 0 0.067 0 0.2 0 0 0.53 0.2)   
## 5436) 431< 10.5 14 8 9 (0 0 0 0.14 0 0.29 0 0 0.14 0.43) \*  
## 5437) 431>=10.5 16 2 8 (0 0 0 0 0 0.12 0 0 0.88 0) \*  
## 2719) 545>=45.5 8 0 9 (0 0 0 0 0 0 0 0 0 1) \*  
## 85) 297< 29.5 512 105 5 (0.051 0 0 0.1 0.002 0.79 0.012 0 0.021 0.016)   
## 170) 301>=74 39 15 0 (0.62 0 0 0.077 0.026 0.026 0 0 0.13 0.13)   
## 340) 293>=187 23 0 0 (1 0 0 0 0 0 0 0 0 0) \*  
## 341) 293< 187 16 11 8 (0.062 0 0 0.19 0.062 0.062 0 0 0.31 0.31) \*  
## 171) 301< 74 473 67 5 (0.0042 0 0 0.11 0 0.86 0.013 0 0.013 0.0063)   
## 342) 295>=219 33 11 3 (0.061 0 0 0.67 0 0.15 0.03 0 0.061 0.03)   
## 684) 214< 206 23 2 3 (0 0 0 0.91 0 0 0 0 0.043 0.043) \*  
## 685) 214>=206 10 5 5 (0.2 0 0 0.1 0 0.5 0.1 0 0.1 0) \*  
## 343) 295< 219 440 39 5 (0 0 0 0.064 0 0.91 0.011 0 0.0091 0.0045)   
## 686) 121>=122.5 18 5 3 (0 0 0 0.72 0 0.22 0 0 0.056 0) \*  
## 687) 121< 122.5 422 25 5 (0 0 0 0.036 0 0.94 0.012 0 0.0071 0.0047) \*  
## 43) 626< 10.5 521 277 9 (0.015 0.0096 0.0038 0.071 0.15 0.11 0.013 0.14 0.021 0.47)   
## 86) 210< 1 164 102 7 (0.024 0.018 0 0.055 0.35 0.067 0.024 0.38 0.018 0.061)   
## 172) 321< 202 85 27 4 (0 0 0 0.047 0.68 0.082 0.047 0.035 0.012 0.094)   
## 344) 266< 36 70 13 4 (0 0 0 0.014 0.81 0.043 0.057 0.029 0 0.043)   
## 688) 124< 37 63 6 4 (0 0 0 0.016 0.9 0 0 0.032 0 0.048) \*  
## 689) 124>=37 7 3 6 (0 0 0 0 0 0.43 0.57 0 0 0) \*  
## 345) 266>=36 15 10 9 (0 0 0 0.2 0.067 0.27 0 0.067 0.067 0.33) \*  
## 173) 321>=202 79 20 7 (0.051 0.038 0 0.063 0 0.051 0 0.75 0.025 0.025)   
## 346) 570>=2 12 8 0 (0.33 0 0 0.17 0 0.33 0 0 0.17 0) \*  
## 347) 570< 2 67 8 7 (0 0.045 0 0.045 0 0 0 0.88 0 0.03) \*  
## 87) 210>=1 357 123 9 (0.011 0.0056 0.0056 0.078 0.05 0.13 0.0084 0.034 0.022 0.66)   
## 174) 297< 5.5 100 56 5 (0 0.02 0 0.16 0.1 0.44 0.03 0.02 0.03 0.2)   
## 348) 295< 99 63 20 5 (0 0 0 0.079 0.063 0.68 0.048 0.016 0.016 0.095) \*  
## 349) 295>=99 37 23 9 (0 0.054 0 0.3 0.16 0.027 0 0.027 0.054 0.38)   
## 698) 468>=26 9 0 3 (0 0 0 1 0 0 0 0 0 0) \*  
## 699) 468< 26 28 14 9 (0 0.071 0 0.071 0.21 0.036 0 0.036 0.071 0.5) \*  
## 175) 297>=5.5 257 43 9 (0.016 0 0.0078 0.047 0.031 0.0078 0 0.039 0.019 0.83)   
## 350) 680>=29 10 2 3 (0.1 0 0 0.8 0 0.1 0 0 0 0) \*  
## 351) 680< 29 247 33 9 (0.012 0 0.0081 0.016 0.032 0.004 0 0.04 0.02 0.87)   
## 702) 515>=44 9 4 8 (0.22 0 0.22 0 0 0 0 0 0.56 0) \*  
## 703) 515< 44 238 24 9 (0.0042 0 0 0.017 0.034 0.0042 0 0.042 0 0.9) \*  
## 11) 486>=76.5 993 580 8 (0.065 0.02 0.13 0.066 0.014 0.053 0.2 0.001 0.42 0.035)   
## 22) 657< 5.5 423 238 6 (0.031 0.047 0.23 0.035 0.033 0.054 0.44 0 0.069 0.061)   
## 44) 270>=51.5 173 104 2 (0.052 0.087 0.4 0.046 0.052 0.04 0.081 0 0.13 0.11)   
## 88) 126>=10 73 16 2 (0 0.014 0.78 0.068 0 0 0.055 0 0.082 0)   
## 176) 466< 39.5 60 5 2 (0 0.017 0.92 0.033 0 0 0.033 0 0 0) \*  
## 177) 466>=39.5 13 7 8 (0 0 0.15 0.23 0 0 0.15 0 0.46 0) \*  
## 89) 126< 10 100 81 9 (0.09 0.14 0.12 0.03 0.09 0.07 0.1 0 0.17 0.19)   
## 178) 717< 5 83 67 8 (0.11 0.17 0.14 0.036 0.11 0.084 0.12 0 0.19 0.036)   
## 356) 211< 22.5 39 25 1 (0 0.36 0 0 0.21 0.18 0.18 0 0.051 0.026)   
## 712) 457< 14.5 14 1 1 (0 0.93 0 0 0 0 0.071 0 0 0) \*  
## 713) 457>=14.5 25 17 4 (0 0.04 0 0 0.32 0.28 0.24 0 0.08 0.04)   
## 1426) 293< 127.5 17 9 4 (0 0.059 0 0 0.47 0 0.35 0 0.059 0.059) \*  
## 1427) 293>=127.5 8 1 5 (0 0 0 0 0 0.88 0 0 0.12 0) \*  
## 357) 211>=22.5 44 30 8 (0.2 0 0.27 0.068 0.023 0 0.068 0 0.32 0.045)   
## 714) 406< 98 9 1 0 (0.89 0 0 0 0 0 0.11 0 0 0) \*  
## 715) 406>=98 35 21 8 (0.029 0 0.34 0.086 0.029 0 0.057 0 0.4 0.057)   
## 1430) 550>=139 16 5 2 (0 0 0.69 0.062 0.062 0 0.062 0 0.062 0.062) \*  
## 1431) 550< 139 19 6 8 (0.053 0 0.053 0.11 0 0 0.053 0 0.68 0.053) \*  
## 179) 717>=5 17 1 9 (0 0 0 0 0 0 0 0 0.059 0.94) \*  
## 45) 270< 51.5 250 79 6 (0.016 0.02 0.12 0.028 0.02 0.064 0.68 0 0.024 0.028)   
## 90) 601< 36.5 41 32 2 (0.049 0.12 0.22 0.073 0.12 0.098 0.098 0 0.049 0.17)   
## 180) 380< 19.5 18 9 2 (0.056 0.28 0.5 0 0 0.11 0.056 0 0 0) \*  
## 181) 380>=19.5 23 16 9 (0.043 0 0 0.13 0.22 0.087 0.13 0 0.087 0.3)   
## 362) 428< 201 13 9 4 (0 0 0 0.23 0.31 0.077 0.23 0 0.15 0) \*  
## 363) 428>=201 10 3 9 (0.1 0 0 0 0.1 0.1 0 0 0 0.7) \*  
## 91) 601>=36.5 209 42 6 (0.0096 0 0.096 0.019 0 0.057 0.8 0 0.019 0)   
## 182) 584>=8 16 3 2 (0 0 0.81 0 0 0 0.19 0 0 0) \*  
## 183) 584< 8 193 29 6 (0.01 0 0.036 0.021 0 0.062 0.85 0 0.021 0)   
## 366) 431< 1 21 11 5 (0 0 0 0.14 0 0.48 0.38 0 0 0)   
## 732) 321>=93.5 14 4 5 (0 0 0 0.21 0 0.71 0.071 0 0 0) \*  
## 733) 321< 93.5 7 0 6 (0 0 0 0 0 0 1 0 0 0) \*  
## 367) 431>=1 172 16 6 (0.012 0 0.041 0.0058 0 0.012 0.91 0 0.023 0) \*  
## 23) 657>=5.5 570 186 8 (0.091 0 0.049 0.089 0 0.053 0.026 0.0018 0.67 0.016)   
## 46) 407< 1.5 97 53 0 (0.45 0 0.082 0.062 0 0.15 0.031 0 0.22 0)   
## 92) 329>=11 41 4 0 (0.9 0 0 0.024 0 0.049 0 0 0.024 0) \*  
## 93) 329< 11 56 36 8 (0.12 0 0.14 0.089 0 0.23 0.054 0 0.36 0)   
## 186) 347>=0.5 40 27 5 (0.17 0 0 0.12 0 0.33 0.075 0 0.3 0)   
## 372) 351< 190 12 5 0 (0.58 0 0 0.083 0 0.25 0.083 0 0 0) \*  
## 373) 351>=190 28 16 8 (0 0 0 0.14 0 0.36 0.071 0 0.43 0)   
## 746) 297< 178 16 6 5 (0 0 0 0.12 0 0.62 0.062 0 0.19 0) \*  
## 747) 297>=178 12 3 8 (0 0 0 0.17 0 0 0.083 0 0.75 0) \*  
## 187) 347< 0.5 16 8 2 (0 0 0.5 0 0 0 0 0 0.5 0) \*  
## 47) 407>=1.5 473 110 8 (0.017 0 0.042 0.095 0 0.032 0.025 0.0021 0.77 0.019)   
## 94) 514< 1 43 21 3 (0 0 0.023 0.51 0 0.047 0 0 0.3 0.12)   
## 188) 512< 70.5 27 6 3 (0 0 0 0.78 0 0.037 0 0 0 0.19)   
## 376) 320< 71.5 20 0 3 (0 0 0 1 0 0 0 0 0 0) \*  
## 377) 320>=71.5 7 2 9 (0 0 0 0.14 0 0.14 0 0 0 0.71) \*  
## 189) 512>=70.5 16 3 8 (0 0 0.062 0.062 0 0.062 0 0 0.81 0) \*  
## 95) 514>=1 430 80 8 (0.019 0 0.044 0.053 0 0.03 0.028 0.0023 0.81 0.0093)   
## 190) 432< 1 28 20 3 (0.21 0 0.036 0.29 0 0.21 0.036 0 0.18 0.036)   
## 380) 429>=101.5 13 7 0 (0.46 0 0.077 0 0 0 0.077 0 0.38 0) \*  
## 381) 429< 101.5 15 7 3 (0 0 0 0.53 0 0.4 0 0 0 0.067) \*  
## 191) 432>=1 402 57 8 (0.005 0 0.045 0.037 0 0.017 0.027 0.0025 0.86 0.0075)   
## 382) 436< 7 57 25 8 (0.018 0 0.32 0.053 0 0.018 0.018 0.018 0.56 0)   
## 764) 126>=44.5 24 7 2 (0 0 0.71 0.042 0 0 0.042 0 0.21 0)   
## 1528) 602>=175 17 1 2 (0 0 0.94 0 0 0 0.059 0 0 0) \*  
## 1529) 602< 175 7 2 8 (0 0 0.14 0.14 0 0 0 0 0.71 0) \*  
## 765) 126< 44.5 33 6 8 (0.03 0 0.03 0.061 0 0.03 0 0.03 0.82 0) \*  
## 383) 436>=7 345 32 8 (0.0029 0 0 0.035 0 0.017 0.029 0 0.91 0.0087)   
## 766) 439>=250.5 36 18 8 (0 0 0 0.28 0 0.14 0.056 0 0.5 0.028)   
## 1532) 289< 1.5 11 2 3 (0 0 0 0.82 0 0 0.091 0 0.091 0) \*  
## 1533) 289>=1.5 25 8 8 (0 0 0 0.04 0 0.2 0.04 0 0.68 0.04)   
## 3066) 270< 126 8 3 5 (0 0 0 0 0 0.62 0.12 0 0.12 0.12) \*  
## 3067) 270>=126 17 1 8 (0 0 0 0.059 0 0 0 0 0.94 0) \*  
## 767) 439< 250.5 309 14 8 (0.0032 0 0 0.0065 0 0.0032 0.026 0 0.95 0.0065) \*  
## 3) 350< 120.5 16137 13725 7 (0.14 0.014 0.13 0.031 0.14 0.081 0.12 0.15 0.077 0.12)   
## 6) 435< 0.5 4294 2072 0 (0.52 0.004 0.066 0.03 0.039 0.086 0.053 0.15 0.0086 0.042)   
## 12) 597>=1.5 2737 684 0 (0.75 0.0022 0.084 0.031 0.0018 0.08 0.03 0.0058 0.011 0.0033)   
## 24) 489< 0.5 2295 319 0 (0.86 0.00044 0.021 0.033 0.00087 0.053 0.02 0.0052 0.0026 0.0026)   
## 48) 380< 1.5 2072 142 0 (0.93 0 0.015 0.015 0.00048 0.021 0.01 0.0048 0.00048 0.00097)   
## 96) 324< 172 1973 88 0 (0.96 0 0.015 0.0035 0.00051 0.0096 0.0091 0.0051 0.00051 0.001)   
## 192) 463< 80 1955 73 0 (0.96 0 0.013 0.0036 0.00051 0.0082 0.0087 0.002 0 0.001)   
## 384) 400>=3.5 1623 17 0 (0.99 0 0.00062 0 0.00062 0.0012 0.0074 0 0 0.00062) \*  
## 385) 400< 3.5 332 56 0 (0.83 0 0.075 0.021 0 0.042 0.015 0.012 0 0.003)   
## 770) 545< 198.5 299 35 0 (0.88 0 0.03 0.023 0 0.047 0.01 0.0033 0 0.0033)   
## 1540) 296< 135 267 15 0 (0.94 0 0.026 0.0037 0 0.0075 0.011 0.0037 0 0.0037) \*  
## 1541) 296>=135 32 20 0 (0.38 0 0.062 0.19 0 0.38 0 0 0 0)   
## 3082) 239>=145 18 7 0 (0.61 0 0.11 0.28 0 0 0 0 0 0) \*  
## 3083) 239< 145 14 2 5 (0.071 0 0 0.071 0 0.86 0 0 0 0) \*  
## 771) 545>=198.5 33 17 2 (0.36 0 0.48 0 0 0 0.061 0.091 0 0)   
## 1542) 455>=4 11 1 0 (0.91 0 0.091 0 0 0 0 0 0 0) \*  
## 1543) 455< 4 22 7 2 (0.091 0 0.68 0 0 0 0.091 0.14 0 0) \*  
## 193) 463>=80 18 12 7 (0.17 0 0.22 0 0 0.17 0.056 0.33 0.056 0) \*  
## 97) 324>=172 99 54 0 (0.45 0 0.02 0.24 0 0.25 0.03 0 0 0)   
## 194) 427>=40 42 2 0 (0.95 0 0 0.024 0 0.024 0 0 0 0) \*  
## 195) 427< 40 57 33 5 (0.088 0 0.035 0.4 0 0.42 0.053 0 0 0)   
## 390) 240>=64.5 30 9 3 (0.13 0 0.033 0.7 0 0.13 0 0 0 0) \*  
## 391) 240< 64.5 27 7 5 (0.037 0 0.037 0.074 0 0.74 0.11 0 0 0) \*  
## 49) 380>=1.5 223 146 5 (0.21 0.0045 0.076 0.2 0.0045 0.35 0.12 0.009 0.022 0.018)   
## 98) 484>=42 84 45 0 (0.46 0 0.071 0.024 0.012 0.13 0.26 0 0.024 0.012)   
## 196) 270>=21.5 45 9 0 (0.8 0 0.067 0 0.022 0.044 0 0 0.044 0.022) \*  
## 197) 270< 21.5 39 17 6 (0.077 0 0.077 0.051 0 0.23 0.56 0 0 0)   
## 394) 325>=145 13 7 5 (0.15 0 0.23 0.15 0 0.46 0 0 0 0) \*  
## 395) 325< 145 26 4 6 (0.038 0 0 0 0 0.12 0.85 0 0 0) \*  
## 99) 484< 42 139 73 5 (0.05 0.0072 0.079 0.3 0 0.47 0.029 0.014 0.022 0.022)   
## 198) 375< 95 65 34 3 (0.046 0.015 0.15 0.48 0 0.22 0.046 0.031 0.015 0)   
## 396) 287< 38.5 55 24 3 (0.055 0.018 0.18 0.56 0 0.13 0.018 0.036 0 0)   
## 792) 514>=4 11 5 2 (0.091 0.091 0.55 0 0 0.18 0.091 0 0 0) \*  
## 793) 514< 4 44 13 3 (0.045 0 0.091 0.7 0 0.11 0 0.045 0 0) \*  
## 397) 287>=38.5 10 3 5 (0 0 0 0 0 0.7 0.2 0 0.1 0) \*  
## 199) 375>=95 74 22 5 (0.054 0 0.014 0.15 0 0.7 0.014 0 0.027 0.041) \*  
## 25) 489>=0.5 442 261 2 (0.17 0.011 0.41 0.023 0.0068 0.22 0.081 0.009 0.054 0.0068)   
## 50) 347< 2.5 218 48 2 (0.032 0.023 0.78 0.028 0.0092 0.046 0.032 0.014 0.028 0.0092)   
## 100) 344< 154.5 192 23 2 (0 0.026 0.88 0.031 0.0052 0.01 0.0052 0.016 0.026 0) \*  
## 101) 344>=154.5 26 18 5 (0.27 0 0.038 0 0.038 0.31 0.23 0 0.038 0.077)   
## 202) 512>=14.5 17 10 0 (0.41 0 0.059 0 0.059 0 0.29 0 0.059 0.12) \*  
## 203) 512< 14.5 9 1 5 (0 0 0 0 0 0.89 0.11 0 0 0) \*  
## 51) 347>=2.5 224 135 5 (0.31 0 0.049 0.018 0.0045 0.4 0.13 0.0045 0.08 0.0045)   
## 102) 386>=3.5 73 9 0 (0.88 0 0.014 0 0 0 0.068 0.014 0.014 0.014) \*  
## 103) 386< 3.5 151 62 5 (0.04 0 0.066 0.026 0.0066 0.59 0.16 0 0.11 0)   
## 206) 513>=12.5 64 41 6 (0.078 0 0.14 0.062 0.016 0.16 0.36 0 0.19 0)   
## 412) 131< 89 44 32 8 (0.091 0 0.18 0.068 0.023 0.23 0.14 0 0.27 0)   
## 824) 407< 63 34 24 5 (0.12 0 0.24 0.088 0.029 0.29 0.15 0 0.088 0)   
## 1648) 580>=144 10 3 2 (0 0 0.7 0.1 0 0 0.2 0 0 0) \*  
## 1649) 580< 144 24 14 5 (0.17 0 0.042 0.083 0.042 0.42 0.12 0 0.12 0)   
## 3298) 627>=242 10 6 0 (0.4 0 0.1 0.1 0 0 0.2 0 0.2 0) \*  
## 3299) 627< 242 14 4 5 (0 0 0 0.071 0.071 0.71 0.071 0 0.071 0) \*  
## 825) 407>=63 10 1 8 (0 0 0 0 0 0 0.1 0 0.9 0) \*  
## 413) 131>=89 20 3 6 (0.05 0 0.05 0.05 0 0 0.85 0 0 0) \*  
## 207) 513< 12.5 87 8 5 (0.011 0 0.011 0 0 0.91 0.011 0 0.057 0) \*  
## 13) 597< 1.5 1557 909 7 (0.11 0.0071 0.033 0.029 0.1 0.095 0.094 0.42 0.0045 0.11)   
## 26) 486>=0.5 603 470 6 (0.18 0.0017 0.073 0.018 0.21 0.1 0.22 0.043 0.0083 0.15)   
## 52) 572>=5.5 309 186 6 (0.32 0.0032 0.097 0.019 0.029 0.061 0.4 0.0097 0.0097 0.052)   
## 104) 241>=12 151 61 0 (0.6 0 0.11 0.02 0.02 0.093 0.033 0.02 0.013 0.099)   
## 208) 518< 102 93 13 0 (0.86 0 0.032 0.011 0 0.022 0.022 0.022 0.011 0.022) \*  
## 209) 518>=102 58 45 2 (0.17 0 0.22 0.034 0.052 0.21 0.052 0.017 0.017 0.22)   
## 418) 438< 23.5 25 13 5 (0.32 0 0 0.04 0 0.48 0.12 0 0.04 0)   
## 836) 370>=3 8 0 0 (1 0 0 0 0 0 0 0 0 0) \*  
## 837) 370< 3 17 5 5 (0 0 0 0.059 0 0.71 0.18 0 0.059 0) \*  
## 419) 438>=23.5 33 20 2 (0.061 0 0.39 0.03 0.091 0 0 0.03 0 0.39)   
## 838) 343< 29 19 6 2 (0.11 0 0.68 0.053 0.11 0 0 0 0 0.053) \*  
## 839) 343>=29 14 2 9 (0 0 0 0 0.071 0 0 0.071 0 0.86) \*  
## 105) 241< 12 158 40 6 (0.057 0.0063 0.089 0.019 0.038 0.032 0.75 0 0.0063 0.0063)   
## 210) 215>=15 15 8 0 (0.47 0 0.2 0 0.13 0 0.067 0 0.067 0.067) \*  
## 211) 215< 15 143 26 6 (0.014 0.007 0.077 0.021 0.028 0.035 0.82 0 0 0) \*  
## 53) 572< 5.5 294 178 4 (0.031 0 0.048 0.017 0.39 0.14 0.034 0.078 0.0068 0.25)   
## 106) 211< 8 119 27 4 (0.017 0 0.05 0 0.77 0.025 0.042 0.05 0 0.042)   
## 212) 294< 30.5 103 11 4 (0.0097 0 0.029 0 0.89 0 0.049 0 0 0.019) \*  
## 213) 294>=30.5 16 10 7 (0.062 0 0.19 0 0 0.19 0 0.38 0 0.19) \*  
## 107) 211>=8 175 106 9 (0.04 0 0.046 0.029 0.14 0.22 0.029 0.097 0.011 0.39)   
## 214) 465< 104 69 31 5 (0.087 0 0.072 0.072 0.014 0.55 0.058 0.058 0.014 0.072) \*  
## 215) 465>=104 106 42 9 (0.0094 0 0.028 0 0.22 0 0.0094 0.12 0.0094 0.6)   
## 430) 208< 2.5 24 7 4 (0.042 0 0.042 0 0.71 0 0 0.083 0 0.12) \*  
## 431) 208>=2.5 82 21 9 (0 0 0.024 0 0.073 0 0.012 0.13 0.012 0.74) \*  
## 27) 486< 0.5 954 332 7 (0.064 0.01 0.0084 0.036 0.038 0.092 0.014 0.65 0.0021 0.084)   
## 54) 404>=1 208 143 9 (0.019 0.034 0.014 0.12 0.11 0.3 0.043 0.043 0.0096 0.31)   
## 108) 354< 26 106 47 5 (0.019 0.066 0 0.16 0.019 0.56 0.085 0.019 0.019 0.057)   
## 216) 290< 0.5 53 36 3 (0.019 0.13 0 0.32 0.019 0.32 0.15 0 0 0.038)   
## 432) 205>=9.5 16 3 3 (0 0 0 0.81 0.062 0.12 0 0 0 0) \*  
## 433) 205< 9.5 37 22 5 (0.027 0.19 0 0.11 0 0.41 0.22 0 0 0.054)   
## 866) 541< 12 28 20 6 (0.036 0.25 0 0.14 0 0.21 0.29 0 0 0.071)   
## 1732) 515< 28.5 18 12 1 (0.056 0.33 0 0.22 0 0.28 0 0 0 0.11) \*  
## 1733) 515>=28.5 10 2 6 (0 0.1 0 0 0 0.1 0.8 0 0 0) \*  
## 867) 541>=12 9 0 5 (0 0 0 0 0 1 0 0 0 0) \*  
## 217) 290>=0.5 53 11 5 (0.019 0 0 0 0.019 0.79 0.019 0.038 0.038 0.075) \*  
## 109) 354>=26 102 43 9 (0.02 0 0.029 0.078 0.2 0.029 0 0.069 0 0.58)   
## 218) 239< 1.5 31 12 4 (0 0 0.032 0.13 0.61 0.032 0 0.097 0 0.097)   
## 436) 155>=78.5 7 3 3 (0 0 0.14 0.57 0 0 0 0 0 0.29) \*  
## 437) 155< 78.5 24 5 4 (0 0 0 0 0.79 0.042 0 0.12 0 0.042) \*  
## 219) 239>=1.5 71 15 9 (0.028 0 0.028 0.056 0.014 0.028 0 0.056 0 0.79) \*  
## 55) 404< 1 746 133 7 (0.076 0.004 0.0067 0.012 0.019 0.035 0.0054 0.82 0 0.02)   
## 110) 538>=1 68 19 0 (0.72 0 0 0.015 0.029 0.13 0 0.059 0 0.044)   
## 220) 323< 203 59 10 0 (0.83 0 0 0 0.034 0.051 0 0.034 0 0.051) \*  
## 221) 323>=203 9 3 5 (0 0 0 0.11 0 0.67 0 0.22 0 0) \*  
## 111) 538< 1 678 69 7 (0.012 0.0044 0.0074 0.012 0.018 0.025 0.0059 0.9 0 0.018)   
## 222) 460>=13 30 20 5 (0 0.067 0.033 0.033 0.27 0.33 0.033 0.067 0 0.17)   
## 444) 381< 10.5 14 4 5 (0 0.14 0 0.071 0 0.71 0.071 0 0 0) \*  
## 445) 381>=10.5 16 8 4 (0 0 0.062 0 0.5 0 0 0.12 0 0.31) \*  
## 223) 460< 13 648 41 7 (0.012 0.0015 0.0062 0.011 0.0062 0.011 0.0046 0.94 0 0.011)   
## 446) 153>=27 19 14 3 (0.16 0.053 0.16 0.26 0 0.21 0 0.053 0 0.11) \*  
## 447) 153< 27 629 23 7 (0.0079 0 0.0016 0.0032 0.0064 0.0048 0.0048 0.96 0 0.0079) \*  
## 7) 435>=0.5 11843 9804 4 (0.0054 0.017 0.15 0.031 0.17 0.079 0.15 0.15 0.1 0.15)   
## 14) 542>=1.5 5226 3621 6 (0.0094 0.025 0.28 0.0077 0.052 0.045 0.31 0.054 0.18 0.038)   
## 28) 271>=0.5 2838 1751 2 (0.014 0.036 0.38 0.0099 0.076 0.046 0.027 0.088 0.26 0.057)   
## 56) 347< 1.5 1644 635 2 (0.003 0.062 0.61 0.014 0.04 0.0073 0.03 0.12 0.057 0.055)   
## 112) 155>=1 1021 119 2 (0.0029 0 0.88 0.016 0.002 0.002 0.002 0.012 0.065 0.016)   
## 224) 344< 82 936 54 2 (0 0 0.94 0.016 0 0.0011 0 0.013 0.027 0.0011)   
## 448) 349< 134.5 922 40 2 (0 0 0.96 0.016 0 0.0011 0 0.013 0.012 0.0011)   
## 896) 345< 104.5 912 31 2 (0 0 0.97 0.016 0 0 0 0.013 0.0044 0) \*  
## 897) 345>=104.5 10 3 8 (0 0 0.1 0 0 0.1 0 0 0.7 0.1) \*  
## 449) 349>=134.5 14 0 8 (0 0 0 0 0 0 0 0 1 0) \*  
## 225) 344>=82 85 44 8 (0.035 0 0.24 0.012 0.024 0.012 0.024 0 0.48 0.18)   
## 450) 402< 51.5 35 18 2 (0.086 0 0.49 0 0.057 0 0.057 0 0 0.31)   
## 900) 570>=169.5 22 5 2 (0.14 0 0.77 0 0 0 0.091 0 0 0) \*  
## 901) 570< 169.5 13 2 9 (0 0 0 0 0.15 0 0 0 0 0.85) \*  
## 451) 402>=51.5 50 9 8 (0 0 0.06 0.02 0 0.02 0 0 0.82 0.08) \*  
## 113) 155< 1 623 442 7 (0.0032 0.16 0.17 0.011 0.1 0.016 0.077 0.29 0.045 0.12)   
## 226) 709< 1.5 487 383 2 (0.0041 0.21 0.21 0.012 0.13 0.021 0.099 0.12 0.045 0.15)   
## 452) 211< 1 246 146 1 (0 0.41 0.077 0.0041 0.24 0.02 0.2 0.033 0.012 0.0081)   
## 904) 344< 1.5 135 35 1 (0 0.74 0.13 0.0074 0.015 0.022 0.044 0.044 0 0)   
## 1808) 520< 3 107 8 1 (0 0.93 0.028 0 0.0093 0.0093 0 0.028 0 0) \*  
## 1809) 520>=3 28 14 2 (0 0.036 0.5 0.036 0.036 0.071 0.21 0.11 0 0)   
## 3618) 431>=8.5 14 2 2 (0 0 0.86 0.071 0.071 0 0 0 0 0) \*  
## 3619) 431< 8.5 14 8 6 (0 0.071 0.14 0 0 0.14 0.43 0.21 0 0) \*  
## 905) 344>=1.5 111 53 4 (0 0 0.018 0 0.52 0.018 0.38 0.018 0.027 0.018)   
## 1810) 573< 221 72 18 4 (0 0 0.028 0 0.75 0.028 0.097 0.028 0.042 0.028)   
## 3620) 292< 124 63 9 4 (0 0 0.016 0 0.86 0 0.11 0 0 0.016)   
## 7240) 94< 7.5 56 3 4 (0 0 0.018 0 0.95 0 0.018 0 0 0.018) \*  
## 7241) 94>=7.5 7 1 6 (0 0 0 0 0.14 0 0.86 0 0 0) \*  
## 3621) 292>=124 9 6 8 (0 0 0.11 0 0 0.22 0 0.22 0.33 0.11) \*  
## 1811) 573>=221 39 4 6 (0 0 0 0 0.1 0 0.9 0 0 0) \*  
## 453) 211>=1 241 156 2 (0.0083 0.0083 0.35 0.021 0.0083 0.021 0 0.2 0.079 0.3)   
## 906) 371< 1.5 150 69 2 (0 0.013 0.54 0.033 0.0067 0 0 0.31 0.04 0.06)   
## 1812) 678< 45.5 127 46 2 (0 0.016 0.64 0.039 0 0 0 0.19 0.047 0.071)   
## 3624) 712< 40.5 109 29 2 (0 0.018 0.73 0.046 0 0 0 0.092 0.037 0.073) \*  
## 3625) 712>=40.5 18 4 7 (0 0 0.056 0 0 0 0 0.78 0.11 0.056) \*  
## 1813) 678>=45.5 23 1 7 (0 0 0 0 0.043 0 0 0.96 0 0) \*  
## 907) 371>=1.5 91 28 9 (0.022 0 0.044 0 0.011 0.055 0 0.033 0.14 0.69)   
## 1814) 599>=6.5 28 15 8 (0.071 0 0.071 0 0.036 0.18 0 0.071 0.46 0.11)   
## 3628) 467>=4 14 9 5 (0.14 0 0.071 0 0.071 0.36 0 0.14 0.071 0.14) \*  
## 3629) 467< 4 14 2 8 (0 0 0.071 0 0 0 0 0 0.86 0.071) \*  
## 1815) 599< 6.5 63 3 9 (0 0 0.032 0 0 0 0 0.016 0 0.95) \*  
## 227) 709>=1.5 136 12 7 (0 0 0.022 0.0074 0.0074 0 0 0.91 0.044 0.0074)   
## 454) 373< 182.5 128 4 7 (0 0 0.023 0.0078 0 0 0 0.97 0 0) \*  
## 455) 373>=182.5 8 2 8 (0 0 0 0 0.12 0 0 0 0.75 0.12) \*  
## 57) 347>=1.5 1194 546 8 (0.03 0 0.065 0.0042 0.13 0.1 0.023 0.047 0.54 0.06)   
## 114) 657< 15 485 357 4 (0.039 0 0.15 0 0.26 0.2 0.039 0.099 0.1 0.11)   
## 228) 354< 1 121 27 5 (0.041 0 0.058 0 0.025 0.78 0.033 0 0.066 0)   
## 456) 384>=14 20 14 8 (0.25 0 0.25 0 0.05 0 0.15 0 0.3 0)   
## 912) 522>=13.5 13 8 0 (0.38 0 0.38 0 0 0 0.23 0 0 0) \*  
## 913) 522< 13.5 7 1 8 (0 0 0 0 0.14 0 0 0 0.86 0) \*  
## 457) 384< 14 101 7 5 (0 0 0.02 0 0.02 0.93 0.0099 0 0.02 0) \*  
## 229) 354>=1 364 239 4 (0.038 0 0.18 0 0.34 0.0055 0.041 0.13 0.11 0.15)   
## 458) 212< 1.5 155 49 4 (0 0 0.084 0 0.68 0.0065 0.084 0.084 0.045 0.013)   
## 916) 268< 136 132 26 4 (0 0 0.076 0 0.8 0.0076 0.098 0 0.015 0)   
## 1832) 127>=2.5 18 9 2 (0 0 0.5 0 0 0 0.44 0 0.056 0) \*  
## 1833) 127< 2.5 114 8 4 (0 0 0.0088 0 0.93 0.0088 0.044 0 0.0088 0) \*  
## 917) 268>=136 23 10 7 (0 0 0.13 0 0 0 0 0.57 0.22 0.087)   
## 1834) 486>=162.5 8 3 8 (0 0 0.38 0 0 0 0 0 0.62 0) \*  
## 1835) 486< 162.5 15 2 7 (0 0 0 0 0 0 0 0.87 0 0.13) \*  
## 459) 212>=1.5 209 156 2 (0.067 0 0.25 0 0.091 0.0048 0.0096 0.17 0.16 0.24)   
## 918) 567>=25 85 41 2 (0.14 0 0.52 0 0.012 0.012 0.012 0.024 0.27 0.012)   
## 1836) 654< 33 56 14 2 (0.11 0 0.75 0 0.018 0.018 0.018 0.018 0.054 0.018) \*  
## 1837) 654>=33 29 9 8 (0.21 0 0.069 0 0 0 0 0.034 0.69 0)   
## 3674) 492>=236 9 3 0 (0.67 0 0.22 0 0 0 0 0.11 0 0) \*  
## 3675) 492< 236 20 0 8 (0 0 0 0 0 0 0 0 1 0) \*  
## 919) 567< 25 124 74 9 (0.016 0 0.073 0 0.15 0 0.0081 0.27 0.089 0.4)   
## 1838) 458< 5 71 38 7 (0.014 0 0.085 0 0.07 0 0.014 0.46 0.13 0.23)   
## 3676) 404< 25 43 11 7 (0.023 0 0.093 0 0.023 0 0.023 0.74 0 0.093)   
## 7352) 680< 83 10 6 2 (0.1 0 0.4 0 0.1 0 0.1 0 0 0.3) \*  
## 7353) 680>=83 33 1 7 (0 0 0 0 0 0 0 0.97 0 0.03) \*  
## 3677) 404>=25 28 16 9 (0 0 0.071 0 0.14 0 0 0.036 0.32 0.43)   
## 7354) 655>=18.5 15 6 8 (0 0 0.067 0 0.2 0 0 0.067 0.6 0.067) \*  
## 7355) 655< 18.5 13 2 9 (0 0 0.077 0 0.077 0 0 0 0 0.85) \*  
## 1839) 458>=5 53 19 9 (0.019 0 0.057 0 0.25 0 0 0 0.038 0.64)   
## 3678) 402>=234.5 24 11 4 (0.042 0 0.042 0 0.54 0 0 0 0.042 0.33)   
## 7356) 456>=71 15 3 4 (0.067 0 0.067 0 0.8 0 0 0 0 0.067) \*  
## 7357) 456< 71 9 2 9 (0 0 0 0 0.11 0 0 0 0.11 0.78) \*  
## 3679) 402< 234.5 29 3 9 (0 0 0.069 0 0 0 0 0 0.034 0.9) \*  
## 115) 657>=15 709 110 8 (0.024 0 0.0071 0.0071 0.034 0.032 0.013 0.011 0.84 0.027)   
## 230) 428>=111.5 74 53 4 (0.14 0 0.014 0 0.28 0.12 0.068 0 0.2 0.18)   
## 460) 212< 40.5 21 2 4 (0 0 0 0 0.9 0 0 0 0.095 0) \*  
## 461) 212>=40.5 53 40 8 (0.19 0 0.019 0 0.038 0.17 0.094 0 0.25 0.25)   
## 922) 597>=24.5 36 23 8 (0.28 0 0.028 0 0 0.22 0.11 0 0.36 0)   
## 1844) 266>=251.5 14 4 0 (0.71 0 0 0 0 0.29 0 0 0 0) \*  
## 1845) 266< 251.5 22 9 8 (0 0 0.045 0 0 0.18 0.18 0 0.59 0) \*  
## 923) 597< 24.5 17 4 9 (0 0 0 0 0.12 0.059 0.059 0 0 0.76) \*  
## 231) 428< 111.5 635 51 8 (0.011 0 0.0063 0.0079 0.0047 0.022 0.0063 0.013 0.92 0.0094)   
## 462) 488< 14.5 47 24 8 (0.085 0 0 0.043 0.021 0.26 0.021 0.043 0.49 0.043)   
## 924) 600>=214 20 9 5 (0.2 0 0 0.1 0.05 0.55 0 0.05 0 0.05)   
## 1848) 327>=46.5 8 4 0 (0.5 0 0 0.25 0 0 0 0.12 0 0.12) \*  
## 1849) 327< 46.5 12 1 5 (0 0 0 0 0.083 0.92 0 0 0 0) \*  
## 925) 600< 214 27 4 8 (0 0 0 0 0 0.037 0.037 0.037 0.85 0.037) \*  
## 463) 488>=14.5 588 27 8 (0.0051 0 0.0068 0.0051 0.0034 0.0034 0.0051 0.01 0.95 0.0068) \*  
## 29) 271< 0.5 2388 861 6 (0.0034 0.012 0.16 0.005 0.023 0.044 0.64 0.015 0.086 0.014)   
## 58) 297>=53.5 447 177 2 (0.011 0.058 0.6 0.0089 0.076 0.0022 0.049 0.069 0.083 0.038)   
## 116) 346< 7.5 344 84 2 (0.0087 0.073 0.76 0.012 0.029 0 0.0087 0.078 0.017 0.017)   
## 232) 686< 2.5 318 58 2 (0.0063 0.079 0.82 0.0063 0.025 0 0.0094 0.028 0.013 0.016)   
## 464) 159>=0.5 32 10 1 (0.031 0.69 0.22 0 0.031 0 0 0 0.031 0)   
## 928) 127< 5 24 2 1 (0 0.92 0 0 0.042 0 0 0 0.042 0) \*  
## 929) 127>=5 8 1 2 (0.12 0 0.88 0 0 0 0 0 0 0) \*  
## 465) 159< 0.5 286 33 2 (0.0035 0.01 0.88 0.007 0.024 0 0.01 0.031 0.01 0.017)   
## 930) 398< 100.5 275 22 2 (0.0036 0.011 0.92 0.0073 0.011 0 0.0036 0.033 0.011 0)   
## 1860) 681< 13 268 16 2 (0 0.011 0.94 0.0075 0.011 0 0.0037 0.015 0.011 0) \*  
## 1861) 681>=13 7 2 7 (0.14 0 0.14 0 0 0 0 0.71 0 0) \*  
## 931) 398>=100.5 11 6 9 (0 0 0 0 0.36 0 0.18 0 0 0.45) \*  
## 233) 686>=2.5 26 8 7 (0.038 0 0 0.077 0.077 0 0 0.69 0.077 0.038) \*  
## 117) 346>=7.5 103 72 8 (0.019 0.0097 0.097 0 0.23 0.0097 0.18 0.039 0.3 0.11)   
## 234) 656< 105 73 49 4 (0 0.014 0.12 0 0.33 0.014 0.26 0.055 0.055 0.15)   
## 468) 573< 214 48 24 4 (0 0.021 0.1 0 0.5 0.021 0 0.042 0.083 0.23) \*  
## 469) 573>=214 25 6 6 (0 0 0.16 0 0 0 0.76 0.08 0 0) \*  
## 235) 656>=105 30 3 8 (0.067 0 0.033 0 0 0 0 0 0.9 0) \*  
## 59) 297< 53.5 1941 436 6 (0.0015 0.0015 0.057 0.0041 0.01 0.053 0.78 0.0021 0.087 0.0082)   
## 118) 274>=2.5 241 122 8 (0.012 0.0041 0.32 0.012 0.062 0.0041 0.058 0.0083 0.49 0.021)   
## 236) 655< 30.5 127 55 2 (0.024 0.0079 0.57 0.024 0.094 0.0079 0.11 0.0079 0.12 0.039)   
## 472) 537>=23.5 83 13 2 (0.036 0 0.84 0.036 0 0 0.024 0 0.06 0) \*  
## 473) 537< 23.5 44 32 4 (0 0.023 0.045 0 0.27 0.023 0.27 0.023 0.23 0.11)   
## 946) 220>=30 12 2 4 (0 0 0 0 0.83 0.083 0 0 0.083 0) \*  
## 947) 220< 30 32 20 6 (0 0.031 0.062 0 0.062 0 0.38 0.031 0.28 0.16)   
## 1894) 494>=33.5 15 4 6 (0 0 0.067 0 0.13 0 0.73 0 0 0.067) \*  
## 1895) 494< 33.5 17 8 8 (0 0.059 0.059 0 0 0 0.059 0.059 0.53 0.24) \*  
## 237) 655>=30.5 114 10 8 (0 0 0.053 0 0.026 0 0 0.0088 0.91 0) \*  
## 119) 274< 2.5 1700 209 6 (0 0.0012 0.019 0.0029 0.0029 0.06 0.88 0.0012 0.029 0.0065)   
## 238) 658< 1.5 1537 83 6 (0 0.0013 0.02 0.00065 0.0026 0.018 0.95 0.00065 0.0072 0.0046)   
## 476) 323>=161.5 34 8 2 (0 0.059 0.76 0 0.059 0 0.029 0.029 0.059 0) \*  
## 477) 323< 161.5 1503 50 6 (0 0 0.0027 0.00067 0.0013 0.018 0.97 0 0.006 0.0047)   
## 954) 217>=164 18 5 5 (0 0 0 0 0 0.72 0.11 0 0.11 0.056) \*  
## 955) 217< 164 1485 34 6 (0 0 0.0027 0.00067 0.0013 0.0094 0.98 0 0.0047 0.004)   
## 1910) 662< 2 1478 27 6 (0 0 0.0027 0.00068 0.00068 0.0081 0.98 0 0.0047 0.0014) \*  
## 1911) 662>=2 7 3 9 (0 0 0 0 0.14 0.29 0 0 0 0.57) \*  
## 239) 658>=1.5 163 88 5 (0 0 0.012 0.025 0.0061 0.46 0.23 0.0061 0.24 0.025)   
## 478) 515< 12.5 67 11 5 (0 0 0 0.03 0.015 0.84 0.09 0 0.03 0)   
## 956) 456< 140 58 3 5 (0 0 0 0.034 0 0.95 0 0 0.017 0) \*  
## 957) 456>=140 9 3 6 (0 0 0 0 0.11 0.11 0.67 0 0.11 0) \*  
## 479) 515>=12.5 96 59 8 (0 0 0.021 0.021 0 0.2 0.32 0.01 0.39 0.042)   
## 958) 457>=103 34 9 6 (0 0 0 0 0 0.088 0.74 0 0.12 0.059) \*  
## 959) 457< 103 62 29 8 (0 0 0.032 0.032 0 0.26 0.097 0.016 0.53 0.032)   
## 1918) 354< 0.5 29 16 5 (0 0 0.034 0.069 0 0.45 0.21 0.034 0.21 0)   
## 3836) 186< 160 13 7 6 (0 0 0.077 0.15 0 0.077 0.46 0.077 0.15 0) \*  
## 3837) 186>=160 16 4 5 (0 0 0 0 0 0.75 0 0 0.25 0) \*  
## 1919) 354>=0.5 33 6 8 (0 0 0.03 0 0 0.091 0 0 0.82 0.061) \*  
## 15) 542< 1.5 6617 4849 4 (0.0023 0.011 0.041 0.05 0.27 0.11 0.021 0.22 0.038 0.24)   
## 30) 432>=0.5 4489 2890 4 (0.0016 0.0018 0.045 0.058 0.36 0.13 0.022 0.029 0.048 0.31)   
## 60) 211< 31.5 1830 519 4 (0 0.0033 0.061 0.024 0.72 0.067 0.037 0.024 0.031 0.037)   
## 120) 596>=1.5 221 133 2 (0 0 0.4 0.11 0.018 0.37 0.009 0 0.1 0)   
## 240) 346< 3 109 25 2 (0 0 0.77 0.16 0 0.018 0 0 0.055 0)   
## 480) 379< 151.5 87 5 2 (0 0 0.94 0.023 0 0.023 0 0 0.011 0) \*  
## 481) 379>=151.5 22 7 3 (0 0 0.091 0.68 0 0 0 0 0.23 0)   
## 962) 484< 42.5 15 0 3 (0 0 0 1 0 0 0 0 0 0) \*  
## 963) 484>=42.5 7 2 8 (0 0 0.29 0 0 0 0 0 0.71 0) \*  
## 241) 346>=3 112 33 5 (0 0 0.036 0.062 0.036 0.71 0.018 0 0.14 0)   
## 482) 355< 10 87 9 5 (0 0 0.023 0.057 0 0.9 0.011 0 0.011 0) \*  
## 483) 355>=10 25 10 8 (0 0 0.08 0.08 0.16 0.04 0.04 0 0.6 0)   
## 966) 400>=192 7 3 4 (0 0 0.29 0.14 0.57 0 0 0 0 0) \*  
## 967) 400< 192 18 3 8 (0 0 0 0.056 0 0.056 0.056 0 0.83 0) \*  
## 121) 596< 1.5 1609 302 4 (0 0.0037 0.014 0.012 0.81 0.026 0.041 0.027 0.021 0.042)   
## 242) 267< 139 1469 186 4 (0 0.0041 0.011 0.011 0.87 0.014 0.045 0.0068 0.021 0.014)   
## 484) 98< 3 1415 133 4 (0 0.0042 0.0099 0.011 0.91 0.015 0.011 0.0071 0.022 0.014)   
## 968) 155< 120.5 1344 70 4 (0 0.0045 0.006 0.0067 0.95 0.0015 0.01 0.0074 0.0037 0.012)   
## 1936) 295< 222 1325 52 4 (0 0.0045 0.0038 0.0053 0.96 0 0.011 0 0.0038 0.011)   
## 3872) 95< 32 1313 42 4 (0 0.0046 0.0038 0.0053 0.97 0 0.003 0 0.0038 0.011) \*  
## 3873) 95>=32 12 2 6 (0 0 0 0 0.17 0 0.83 0 0 0) \*  
## 1937) 295>=222 19 9 7 (0 0 0.16 0.11 0.053 0.11 0 0.53 0 0.053) \*  
## 969) 155>=120.5 71 45 8 (0 0 0.085 0.099 0.11 0.27 0.014 0 0.37 0.056)   
## 1938) 516< 47 48 30 5 (0 0 0.1 0.15 0.17 0.38 0 0 0.12 0.083)   
## 3876) 354< 4 24 7 5 (0 0 0.042 0.083 0.083 0.71 0 0 0.042 0.042) \*  
## 3877) 354>=4 24 18 4 (0 0 0.17 0.21 0.25 0.042 0 0 0.21 0.12)   
## 7754) 461>=201.5 7 1 4 (0 0 0.14 0 0.86 0 0 0 0 0) \*  
## 7755) 461< 201.5 17 12 3 (0 0 0.18 0.29 0 0.059 0 0 0.29 0.18) \*  
## 1939) 516>=47 23 3 8 (0 0 0.043 0 0 0.043 0.043 0 0.87 0) \*  
## 485) 98>=3 54 3 6 (0 0 0.037 0 0.019 0 0.94 0 0 0) \*  
## 243) 267>=139 140 93 9 (0 0 0.05 0.029 0.17 0.15 0 0.24 0.021 0.34)   
## 486) 401>=2.5 93 54 9 (0 0 0.022 0.022 0.26 0.22 0 0.054 0.011 0.42)   
## 972) 247>=1.5 21 5 5 (0 0 0 0 0.095 0.76 0 0 0.048 0.095) \*  
## 973) 247< 1.5 72 35 9 (0 0 0.028 0.028 0.31 0.056 0 0.069 0 0.51)   
## 1946) 237< 23.5 32 11 4 (0 0 0.031 0.031 0.66 0.062 0 0 0 0.22)   
## 3892) 323>=1 24 4 4 (0 0 0.042 0.042 0.83 0.042 0 0 0 0.042) \*  
## 3893) 323< 1 8 2 9 (0 0 0 0 0.12 0.12 0 0 0 0.75) \*  
## 1947) 237>=23.5 40 10 9 (0 0 0.025 0.025 0.025 0.05 0 0.12 0 0.75) \*  
## 487) 401< 2.5 47 18 7 (0 0 0.11 0.043 0 0.021 0 0.62 0.043 0.17)   
## 974) 455< 81.5 36 7 7 (0 0 0.056 0.056 0 0 0 0.81 0.056 0.028) \*  
## 975) 455>=81.5 11 4 9 (0 0 0.27 0 0 0.091 0 0 0 0.64) \*  
## 61) 211>=31.5 2659 1347 9 (0.0026 0.00075 0.034 0.081 0.11 0.17 0.012 0.033 0.061 0.49)   
## 122) 354< 2.5 808 363 5 (0.0037 0.0025 0.024 0.068 0.12 0.55 0.035 0.041 0.046 0.11)   
## 244) 352< 55 581 136 5 (0.0052 0 0.024 0.064 0.01 0.77 0.045 0.0017 0.015 0.069)   
## 488) 384< 17.5 521 79 5 (0 0 0.0019 0.067 0.0019 0.85 0.046 0.0019 0 0.033)   
## 976) 516< 166.5 494 54 5 (0 0 0.002 0.071 0.002 0.89 0 0.002 0 0.032)   
## 1952) 322>=187.5 24 8 3 (0 0 0 0.67 0 0.33 0 0 0 0)   
## 3904) 265< 169.5 15 0 3 (0 0 0 1 0 0 0 0 0 0) \*  
## 3905) 265>=169.5 9 1 5 (0 0 0 0.11 0 0.89 0 0 0 0) \*  
## 1953) 322< 187.5 470 38 5 (0 0 0.0021 0.04 0.0021 0.92 0 0.0021 0 0.034)   
## 3906) 123>=180.5 9 2 3 (0 0 0 0.78 0 0.22 0 0 0 0) \*  
## 3907) 123< 180.5 461 31 5 (0 0 0.0022 0.026 0.0022 0.93 0 0.0022 0 0.035)   
## 7814) 718< 37 450 23 5 (0 0 0.0022 0.027 0.0022 0.95 0 0 0 0.02) \*  
## 7815) 718>=37 11 4 9 (0 0 0 0 0 0.27 0 0.091 0 0.64) \*  
## 977) 516>=166.5 27 3 6 (0 0 0 0 0 0.074 0.89 0 0 0.037) \*  
## 489) 384>=17.5 60 37 9 (0.05 0 0.22 0.033 0.083 0.05 0.033 0 0.15 0.38)   
## 978) 596>=14 25 12 2 (0.12 0 0.52 0.04 0 0 0.08 0 0.24 0)   
## 1956) 685< 1.5 18 5 2 (0.17 0 0.72 0 0 0 0.11 0 0 0) \*  
## 1957) 685>=1.5 7 1 8 (0 0 0 0.14 0 0 0 0 0.86 0) \*  
## 979) 596< 14 35 12 9 (0 0 0 0.029 0.14 0.086 0 0 0.086 0.66)   
## 1958) 242< 14.5 11 6 4 (0 0 0 0 0.45 0.18 0 0 0.27 0.091) \*  
## 1959) 242>=14.5 24 2 9 (0 0 0 0.042 0 0.042 0 0 0 0.92) \*  
## 245) 352>=55 227 139 4 (0 0.0088 0.022 0.079 0.39 0 0.0088 0.14 0.12 0.23)   
## 490) 209< 16.5 79 11 4 (0 0.013 0.013 0.013 0.86 0 0 0.051 0.013 0.038) \*  
## 491) 209>=16.5 148 99 9 (0 0.0068 0.027 0.11 0.14 0 0.014 0.19 0.18 0.33)   
## 982) 544< 172.5 127 78 9 (0 0.0079 0.024 0.13 0.16 0 0.0079 0.22 0.071 0.39)   
## 1964) 373< 9.5 60 34 7 (0 0.017 0.05 0.23 0.017 0 0.017 0.43 0.067 0.17)   
## 3928) 377>=4 23 12 3 (0 0.043 0 0.48 0.043 0 0.043 0 0.087 0.3)   
## 7856) 180>=95 11 1 3 (0 0 0 0.91 0 0 0 0 0.091 0) \*  
## 7857) 180< 95 12 5 9 (0 0.083 0 0.083 0.083 0 0.083 0 0.083 0.58) \*  
## 3929) 377< 4 37 11 7 (0 0 0.081 0.081 0 0 0 0.7 0.054 0.081) \*  
## 1965) 373>=9.5 67 28 9 (0 0 0 0.03 0.28 0 0 0.03 0.075 0.58)   
## 3930) 454>=2 13 0 4 (0 0 0 0 1 0 0 0 0 0) \*  
## 3931) 454< 2 54 15 9 (0 0 0 0.037 0.11 0 0 0.037 0.093 0.72) \*  
## 983) 544>=172.5 21 3 8 (0 0 0.048 0.048 0 0 0.048 0 0.86 0) \*  
## 123) 354>=2.5 1851 631 9 (0.0022 0 0.038 0.086 0.1 0.01 0.0022 0.03 0.067 0.66)   
## 246) 156>=0.5 406 304 4 (0.0074 0 0.13 0.24 0.25 0.03 0.0099 0.0025 0.19 0.14)   
## 492) 624>=1 178 96 3 (0.011 0 0.25 0.46 0.0056 0.045 0.017 0 0.15 0.062)   
## 984) 484< 46 99 23 3 (0.01 0 0.02 0.77 0.01 0.071 0 0 0.02 0.1)   
## 1968) 373< 63 77 4 3 (0 0 0.013 0.95 0 0 0 0 0.013 0.026) \*  
## 1969) 373>=63 22 14 9 (0.045 0 0.045 0.14 0.045 0.32 0 0 0.045 0.36)   
## 3938) 188>=3.5 14 7 5 (0.071 0 0.071 0.21 0.071 0.5 0 0 0.071 0) \*  
## 3939) 188< 3.5 8 0 9 (0 0 0 0 0 0 0 0 0 1) \*  
## 985) 484>=46 79 37 2 (0.013 0 0.53 0.076 0 0.013 0.038 0 0.32 0.013)   
## 1970) 465>=96.5 46 7 2 (0 0 0.85 0.087 0 0.022 0 0 0.022 0.022) \*  
## 1971) 465< 96.5 33 9 8 (0.03 0 0.091 0.061 0 0 0.091 0 0.73 0) \*  
## 493) 624< 1 228 127 4 (0.0044 0 0.039 0.07 0.44 0.018 0.0044 0.0044 0.22 0.2)   
## 986) 428>=25 138 46 4 (0 0 0.036 0.051 0.67 0.014 0.0072 0 0.036 0.19)   
## 1972) 207< 10 90 9 4 (0 0 0.033 0 0.9 0 0.011 0 0 0.056) \*  
## 1973) 207>=10 48 27 9 (0 0 0.042 0.15 0.23 0.042 0 0 0.1 0.44)   
## 3946) 183< 239 10 2 4 (0 0 0.1 0.1 0.8 0 0 0 0 0) \*  
## 3947) 183>=239 38 17 9 (0 0 0.026 0.16 0.079 0.053 0 0 0.13 0.55)   
## 7894) 372< 11.5 8 2 3 (0 0 0.12 0.75 0 0 0 0 0.12 0) \*  
## 7895) 372>=11.5 30 9 9 (0 0 0 0 0.1 0.067 0 0 0.13 0.7) \*  
## 987) 428< 25 90 45 8 (0.011 0 0.044 0.1 0.1 0.022 0 0.011 0.5 0.21)   
## 1974) 544< 147 50 32 9 (0 0 0.06 0.18 0.18 0.04 0 0.02 0.16 0.36)   
## 3948) 374< 58 14 6 3 (0 0 0.14 0.57 0.071 0 0 0.071 0.14 0) \*  
## 3949) 374>=58 36 18 9 (0 0 0.028 0.028 0.22 0.056 0 0 0.17 0.5)   
## 7898) 407< 122 9 2 4 (0 0 0 0 0.78 0.11 0 0 0.11 0) \*  
## 7899) 407>=122 27 9 9 (0 0 0.037 0.037 0.037 0.037 0 0 0.19 0.67)   
## 15798) 551>=139 8 3 8 (0 0 0 0.12 0 0.12 0 0 0.62 0.12) \*  
## 15799) 551< 139 19 2 9 (0 0 0.053 0 0.053 0 0 0 0 0.89) \*  
## 1975) 544>=147 40 3 8 (0.025 0 0.025 0 0 0 0 0 0.93 0.025) \*  
## 247) 156< 0.5 1445 281 9 (0.00069 0 0.012 0.043 0.064 0.0048 0 0.037 0.033 0.81)   
## 494) 317< 1 293 150 9 (0.0034 0 0.058 0.18 0.078 0.0034 0 0.15 0.044 0.49)   
## 988) 319< 108.5 176 122 9 (0.0057 0 0.097 0.29 0.045 0 0 0.22 0.034 0.31)   
## 1976) 342< 10 119 69 3 (0.0084 0 0.13 0.42 0.05 0 0 0.33 0.017 0.042)   
## 3952) 518< 96.5 66 23 3 (0 0 0.21 0.65 0.015 0 0 0.045 0.015 0.061)   
## 7904) 512>=30 12 1 2 (0 0 0.92 0 0 0 0 0 0.083 0) \*  
## 7905) 512< 30 54 11 3 (0 0 0.056 0.8 0.019 0 0 0.056 0 0.074) \*  
## 3953) 518>=96.5 53 17 7 (0.019 0 0.038 0.13 0.094 0 0 0.68 0.019 0.019)   
## 7906) 209< 29 9 4 4 (0.11 0 0.11 0 0.56 0 0 0 0.11 0.11) \*  
## 7907) 209>=29 44 8 7 (0 0 0.023 0.16 0 0 0 0.82 0 0)   
## 15814) 437< 4 9 3 3 (0 0 0.11 0.67 0 0 0 0.22 0 0) \*  
## 15815) 437>=4 35 1 7 (0 0 0 0.029 0 0 0 0.97 0 0) \*  
## 1977) 342>=10 57 8 9 (0 0 0.018 0.018 0.035 0 0 0 0.07 0.86) \*  
## 989) 319>=108.5 117 28 9 (0 0 0 0.0085 0.13 0.0085 0 0.034 0.06 0.76)   
## 1978) 428>=71.5 20 7 4 (0 0 0 0.05 0.65 0.05 0 0 0 0.25) \*  
## 1979) 428< 71.5 97 13 9 (0 0 0 0 0.021 0 0 0.041 0.072 0.87) \*  
## 495) 317>=1 1152 131 9 (0 0 0.00087 0.0087 0.06 0.0052 0 0.0095 0.03 0.89)   
## 990) 212< 14 66 32 4 (0 0 0 0 0.52 0 0 0.015 0.03 0.44)   
## 1980) 319>=195 31 1 4 (0 0 0 0 0.97 0 0 0 0.032 0) \*  
## 1981) 319< 195 35 6 9 (0 0 0 0 0.11 0 0 0.029 0.029 0.83) \*  
## 991) 212>=14 1086 94 9 (0 0 0.00092 0.0092 0.032 0.0055 0 0.0092 0.029 0.91)   
## 1982) 204>=10.5 72 31 9 (0 0 0 0.056 0.069 0.028 0 0.042 0.24 0.57)   
## 3964) 438< 130.5 24 8 8 (0 0 0 0.083 0.12 0 0 0.042 0.67 0.083) \*  
## 3965) 438>=130.5 48 9 9 (0 0 0 0.042 0.042 0.042 0 0.042 0.021 0.81) \*  
## 1983) 204< 10.5 1014 63 9 (0 0 0.00099 0.0059 0.03 0.0039 0 0.0069 0.015 0.94) \*  
## 31) 432< 0.5 2128 796 7 (0.0038 0.031 0.034 0.032 0.079 0.056 0.017 0.63 0.017 0.1)   
## 62) 487< 75.5 1766 457 7 (0.004 0.037 0.03 0.039 0.019 0.067 0.012 0.74 0.018 0.034)   
## 124) 377>=6.5 313 197 5 (0.0032 0.038 0.026 0.18 0.096 0.37 0.0064 0.026 0.096 0.16)   
## 248) 353< 1 175 60 5 (0.0057 0.04 0.023 0.23 0.017 0.66 0.011 0 0.0057 0.011)   
## 496) 323>=1.5 40 16 3 (0.025 0.15 0 0.6 0.075 0.1 0.025 0 0 0.025)   
## 992) 490< 1 26 2 3 (0 0 0 0.92 0.038 0.038 0 0 0 0) \*  
## 993) 490>=1 14 8 1 (0.071 0.43 0 0 0.14 0.21 0.071 0 0 0.071) \*  
## 497) 323< 1.5 135 24 5 (0 0.0074 0.03 0.12 0 0.82 0.0074 0 0.0074 0.0074)   
## 994) 150>=65 25 13 3 (0 0.04 0.08 0.48 0 0.36 0 0 0.04 0)   
## 1988) 233< 6 16 4 3 (0 0.062 0.12 0.75 0 0 0 0 0.062 0) \*  
## 1989) 233>=6 9 0 5 (0 0 0 0 0 1 0 0 0 0) \*  
## 995) 150< 65 110 8 5 (0 0 0.018 0.036 0 0.93 0.0091 0 0 0.0091) \*  
## 249) 353>=1 138 91 9 (0 0.036 0.029 0.12 0.2 0.0072 0 0.058 0.21 0.34)   
## 498) 434>=208.5 46 20 8 (0 0.11 0.043 0.2 0 0 0 0.065 0.57 0.022)   
## 996) 348< 11.5 18 9 3 (0 0.28 0 0.5 0 0 0 0.17 0 0.056) \*  
## 997) 348>=11.5 28 2 8 (0 0 0.071 0 0 0 0 0 0.93 0) \*  
## 499) 434< 208.5 92 46 9 (0 0 0.022 0.087 0.29 0.011 0 0.054 0.033 0.5)   
## 998) 210< 49 32 10 4 (0 0 0.031 0.062 0.69 0.031 0 0.094 0 0.094) \*  
## 999) 210>=49 60 17 9 (0 0 0.017 0.1 0.083 0 0 0.033 0.05 0.72)   
## 1998) 623>=10 7 1 3 (0 0 0 0.86 0 0 0 0 0 0.14) \*  
## 1999) 623< 10 53 11 9 (0 0 0.019 0 0.094 0 0 0.038 0.057 0.79) \*  
## 125) 377< 6.5 1453 152 7 (0.0041 0.036 0.031 0.0076 0.0028 0.0014 0.013 0.9 0.00069 0.0076)   
## 250) 156>=0.5 93 52 1 (0.043 0.44 0.26 0.054 0 0.022 0.13 0.054 0 0)   
## 500) 179< 7 54 16 1 (0.037 0.7 0 0.019 0 0.037 0.2 0 0 0)   
## 1000) 568< 14 39 1 1 (0 0.97 0 0 0 0.026 0 0 0 0) \*  
## 1001) 568>=14 15 4 6 (0.13 0 0 0.067 0 0.067 0.73 0 0 0) \*  
## 501) 179>=7 39 15 2 (0.051 0.077 0.62 0.1 0 0 0.026 0.13 0 0) \*  
## 251) 156< 0.5 1360 64 7 (0.0015 0.0088 0.015 0.0044 0.0029 0 0.0051 0.95 0.00074 0.0081)   
## 502) 153>=57 23 13 2 (0 0.13 0.43 0.087 0.043 0 0.22 0.043 0.043 0)   
## 1004) 176>=25.5 12 2 2 (0 0 0.83 0.17 0 0 0 0 0 0) \*  
## 1005) 176< 25.5 11 6 6 (0 0.27 0 0 0.091 0 0.45 0.091 0.091 0) \*  
## 503) 153< 57 1337 42 7 (0.0015 0.0067 0.0082 0.003 0.0022 0 0.0015 0.97 0 0.0082)   
## 1006) 158>=54 10 2 1 (0.2 0.8 0 0 0 0 0 0 0 0) \*  
## 1007) 158< 54 1327 32 7 (0 0.00075 0.0083 0.003 0.0023 0 0.0015 0.98 0 0.0083) \*  
## 63) 487>=75.5 362 202 9 (0.0028 0.0028 0.052 0.0028 0.37 0.0028 0.044 0.064 0.014 0.44)   
## 126) 211< 5.5 144 38 4 (0.0069 0.0069 0.076 0 0.74 0.0069 0.1 0.0069 0.0069 0.049)   
## 252) 95< 6.5 132 26 4 (0.0076 0.0076 0.061 0 0.8 0.0076 0.045 0.0076 0.0076 0.053) \*  
## 253) 95>=6.5 12 3 6 (0 0 0.25 0 0 0 0.75 0 0 0) \*  
## 127) 211>=5.5 218 65 9 (0 0 0.037 0.0046 0.13 0 0.0046 0.1 0.018 0.7)   
## 254) 518>=241.5 50 34 7 (0 0 0.08 0 0.24 0 0 0.32 0.06 0.3)   
## 508) 429< 48.5 24 8 7 (0 0 0.17 0 0.083 0 0 0.67 0 0.083) \*  
## 509) 429>=48.5 26 13 9 (0 0 0 0 0.38 0 0 0 0.12 0.5)   
## 1018) 382< 178.5 12 3 4 (0 0 0 0 0.75 0 0 0 0.17 0.083) \*  
## 1019) 382>=178.5 14 2 9 (0 0 0 0 0.071 0 0 0 0.071 0.86) \*  
## 255) 518< 241.5 168 30 9 (0 0 0.024 0.006 0.1 0 0.006 0.036 0.006 0.82)   
## 510) 235< 0.5 25 11 4 (0 0 0.04 0 0.56 0 0 0.04 0 0.36)   
## 1020) 434< 94 17 3 4 (0 0 0.059 0 0.82 0 0 0.059 0 0.059) \*  
## 1021) 434>=94 8 0 9 (0 0 0 0 0 0 0 0 0 1) \*  
## 511) 235>=0.5 143 14 9 (0 0 0.021 0.007 0.021 0 0.007 0.035 0.007 0.9) \*

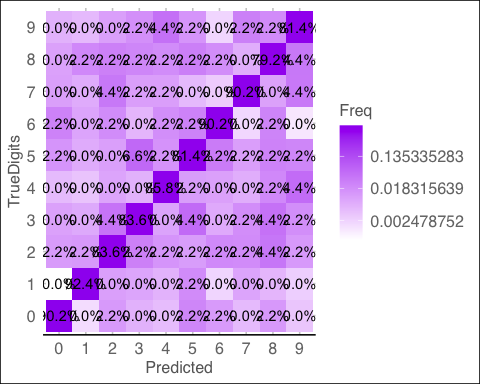
#K-Fold Validation  
N <- nrow(DigitTotalDF)  
kfolds <- 3  
holdout <- split(sample(1:N), 1:kfolds)  
  
AllResults<-list()   
AllLabels<-list()   
for (k in 1:kfolds){  
 kFold\_Test <- DigitTotalDF[holdout[[k]], ]   
 kFold\_Train<-DigitTotalDF[-holdout[[k]], ]  
  
 tree\_model<-rpart(label ~., data = kFold\_Train, method="class", control=rpart.control(cp=0))  
 purned\_tree<- prune(tree\_model, cp=tree\_model$cptable[which.min(tree\_model$cptable[,"xerror"]),"CP"])  
  
 predicted <- predict(purned\_tree, kFold\_Test,type="class")   
 (plotConfusionMatrix(predicted, kFold\_Test$label))  
 # Accumulate results from each fold, if you like  
 AllResults<- c(AllResults,predicted)  
 AllLabels<- c(AllLabels, kFold\_Test$label)  
 ##Visualize  
 plot(predicted, ylab = "Density", main = "Decision Tree Plot")   
}

## TrueDigits  
## Predicted 0 1 2 3 4 5 6 7 8 9  
## 0 1300 1 16 22 6 32 20 7 18 14  
## 1 0 1455 22 18 13 17 9 14 23 3  
## 2 13 14 1188 31 22 9 32 35 52 22  
## 3 6 17 33 1117 4 55 10 15 57 35  
## 4 5 3 33 15 1176 19 30 25 24 72  
## 5 22 19 21 72 13 998 54 10 45 28  
## 6 15 4 34 13 21 36 1203 1 29 12  
## 7 7 9 34 16 20 11 6 1356 11 59  
## 8 14 10 33 59 29 37 21 12 1048 42  
## 9 5 9 11 26 63 28 10 36 36 1113  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 0.8538571429 0.8375605280 0.8478964549 0.8596703546 0.1100714286   
## AccuracyPValue McnemarPValue   
## 0.0000000000 0.0005455309

## Warning: Transformation introduced infinite values in discrete y-axis

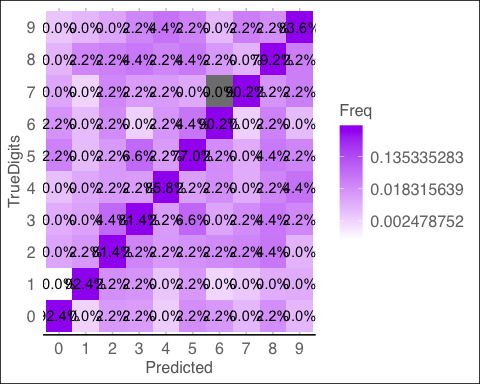


## TrueDigits  
## Predicted 0 1 2 3 4 5 6 7 8 9  
## 0 1276 1 17 14 7 21 35 15 14 9  
## 1 3 1462 21 13 6 12 15 12 34 8  
## 2 18 15 1160 55 13 15 27 49 38 15  
## 3 9 13 39 1191 9 81 8 16 32 24  
## 4 6 8 20 13 1149 21 24 15 25 59  
## 5 27 24 14 64 14 973 30 6 34 18  
## 6 17 3 28 11 14 43 1221 4 25 3  
## 7 7 13 28 26 10 16 3 1268 10 39  
## 8 19 8 53 61 30 36 35 14 1134 28  
## 9 5 4 18 25 71 32 2 49 50 1171  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 8.575000e-01 8.416094e-01 8.515996e-01 8.632514e-01 1.107857e-01   
## AccuracyPValue McnemarPValue   
## 0.000000e+00 5.319509e-06



## TrueDigits  
## Predicted 0 1 2 3 4 5 6 7 8 9  
## 0 1232 1 13 10 6 36 21 12 8 5  
## 1 4 1493 23 16 14 8 8 4 38 9  
## 2 18 24 1123 76 18 18 28 32 39 13  
## 3 17 22 35 1169 17 81 4 17 52 33  
## 4 4 5 18 17 1182 17 20 17 33 57  
## 5 25 18 22 82 15 1028 52 11 45 34  
## 6 18 3 26 12 24 25 1162 0 18 7  
## 7 8 5 35 28 11 11 4 1288 9 43  
## 8 24 10 50 48 32 45 36 20 1039 25  
## 9 8 11 9 31 63 34 7 41 43 1188  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 8.502857e-01 8.335852e-01 8.442671e-01 8.561583e-01 1.137143e-01   
## AccuracyPValue McnemarPValue   
## 0.000000e+00 4.926062e-06

## Warning: Transformation introduced infinite values in discrete y-axis

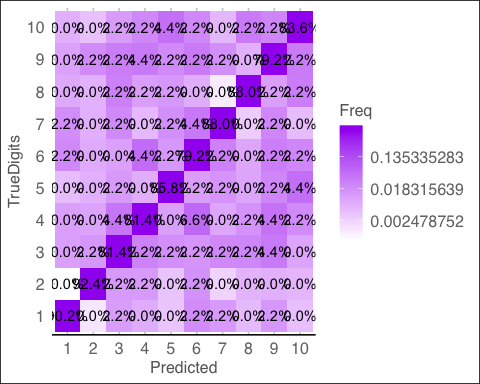


table<-(table(Predicted=unlist(AllResults),TrueDigit=unlist(AllLabels)))  
print(table)

## TrueDigit  
## Predicted 1 2 3 4 5 6 7 8 9 10  
## 1 3808 3 46 46 19 89 76 34 40 28  
## 2 7 4410 66 47 33 37 32 30 95 20  
## 3 49 53 3471 162 53 42 87 116 129 50  
## 4 32 52 107 3477 30 217 22 48 141 92  
## 5 15 16 71 45 3507 57 74 57 82 188  
## 6 74 61 57 218 42 2999 136 27 124 80  
## 7 50 10 88 36 59 104 3586 5 72 22  
## 8 22 27 97 70 41 38 13 3912 30 141  
## 9 57 28 136 168 91 118 92 46 3221 95  
## 10 18 24 38 82 197 94 19 126 129 3472

plotConfusionMatrix(unlist(AllResults),unlist(AllLabels))

## TrueDigits  
## Predicted 1 2 3 4 5 6 7 8 9 10  
## 1 3808 3 46 46 19 89 76 34 40 28  
## 2 7 4410 66 47 33 37 32 30 95 20  
## 3 49 53 3471 162 53 42 87 116 129 50  
## 4 32 52 107 3477 30 217 22 48 141 92  
## 5 15 16 71 45 3507 57 74 57 82 188  
## 6 74 61 57 218 42 2999 136 27 124 80  
## 7 50 10 88 36 59 104 3586 5 72 22  
## 8 22 27 97 70 41 38 13 3912 30 141  
## 9 57 28 136 168 91 118 92 46 3221 95  
## 10 18 24 38 82 197 94 19 126 129 3472  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 8.538810e-01 8.375925e-01 8.504665e-01 8.572464e-01 1.115238e-01   
## AccuracyPValue McnemarPValue   
## 0.000000e+00 2.330412e-12



## Confusion Matrix and Statistics  
##   
## TrueDigits  
## Predicted 1 2 3 4 5 6 7 8 9 10  
## 1 3808 3 46 46 19 89 76 34 40 28  
## 2 7 4410 66 47 33 37 32 30 95 20  
## 3 49 53 3471 162 53 42 87 116 129 50  
## 4 32 52 107 3477 30 217 22 48 141 92  
## 5 15 16 71 45 3507 57 74 57 82 188  
## 6 74 61 57 218 42 2999 136 27 124 80  
## 7 50 10 88 36 59 104 3586 5 72 22  
## 8 22 27 97 70 41 38 13 3912 30 141  
## 9 57 28 136 168 91 118 92 46 3221 95  
## 10 18 24 38 82 197 94 19 126 129 3472  
##   
## Overall Statistics  
##   
## Accuracy : 0.8539   
## 95% CI : (0.8505, 0.8572)  
## No Information Rate : 0.1115   
## P-Value [Acc > NIR] : < 2.2e-16   
##   
## Kappa : 0.8376   
##   
## Mcnemar's Test P-Value : 2.33e-12   
##   
## Statistics by Class:  
##   
## Class: 1 Class: 2 Class: 3 Class: 4 Class: 5 Class: 6  
## Sensitivity 0.92159 0.9415 0.83098 0.79913 0.86125 0.79025  
## Specificity 0.98994 0.9902 0.98041 0.98032 0.98405 0.97856  
## Pos Pred Value 0.90905 0.9232 0.82407 0.82432 0.85287 0.78549  
## Neg Pred Value 0.99143 0.9926 0.98132 0.97687 0.98509 0.97915  
## Prevalence 0.09838 0.1115 0.09945 0.10360 0.09695 0.09036  
## Detection Rate 0.09067 0.1050 0.08264 0.08279 0.08350 0.07140  
## Detection Prevalence 0.09974 0.1137 0.10029 0.10043 0.09790 0.09090  
## Balanced Accuracy 0.95576 0.9658 0.90569 0.88972 0.92265 0.88441  
## Class: 7 Class: 8 Class: 9 Class: 10  
## Sensitivity 0.86681 0.88889 0.79276 0.82904  
## Specificity 0.98822 0.98726 0.97810 0.98077  
## Pos Pred Value 0.88938 0.89091 0.79492 0.82686  
## Neg Pred Value 0.98549 0.98700 0.97781 0.98106  
## Prevalence 0.09850 0.10479 0.09674 0.09971  
## Detection Rate 0.08538 0.09314 0.07669 0.08267  
## Detection Prevalence 0.09600 0.10455 0.09648 0.09998  
## Balanced Accuracy 0.92752 0.93807 0.88543 0.90490

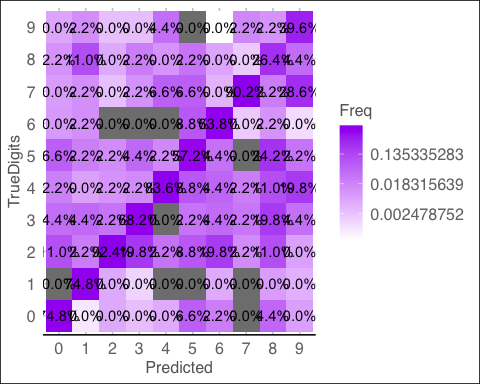
#NB  
  
getTopPCAFeatures<- function(df,ncp){  
 pca\_digits = PCA(t(select(df,-label)),ncp = ncp,graph=FALSE)  
 summary(pca\_digits)  
 #plot(pca\_digits, select="contrib 1",choix = "var")  
 #res <- Factoshiny(pca\_digits)  
   
 #select the pca variables only  
 pca\_df<-data.frame(df$label,pca\_digits$var$coord)  
 names(pca\_df)[1]<-"label"  
 return(pca\_df)  
}  
  
runNB<-function(pca\_df){  
 trainIndex <- createDataPartition(pca\_df$label, p = .6, list = FALSE,   
 times = 1)  
 #head(trainIndex)  
 trainDF <- pca\_df[ trainIndex,]  
 testDF <- pca\_df[-trainIndex,]  
 model\_nb = naivebayes::naive\_bayes(label ~., data = trainDF)  
 summary(model\_nb)  
 predicted\_nb= predict(model\_nb, testDF, type="class")   
 plotConfusionMatrix(predicted\_nb,testDF$label)  
 return(model\_nb)  
}  
  
model\_nb\_full<-runNB(DigitTotalDF)

##   
## ================================== Naive Bayes ==================================   
##   
## - Call: naive\_bayes.formula(formula = label ~ ., data = trainDF)   
## - Laplace: 0   
## - Classes: 10   
## - Samples: 25205   
## - Features: 784   
## - Conditional distributions:   
## - Gaussian: 784  
## - Prior probabilities:   
## - 0: 0.0984  
## - 1: 0.1115  
## - 2: 0.0995  
## - 3: 0.1036  
## - 4: 0.097  
## - 5: 0.0903  
## - 6: 0.0985  
## - 7: 0.1048  
## - 8: 0.0967  
## - 9: 0.0997  
##   
## ---------------------------------------------------------------------------------

## Warning: predict.naive\_bayes(): more features in the newdata are provided as  
## there are probability tables in the object. Calculation is performed based on  
## features to be found in the tables.

## TrueDigits  
## Predicted 0 1 2 3 4 5 6 7 8 9  
## 0 1343 0 185 72 38 113 16 15 21 12  
## 1 2 1802 58 106 18 51 31 30 258 32  
## 2 2 2 319 11 4 5 0 1 2 1  
## 3 2 1 140 468 10 31 0 8 16 2  
## 4 1 0 6 0 155 3 0 11 2 7  
## 5 4 0 5 2 5 37 5 4 2 0  
## 6 56 13 464 101 120 82 1546 10 16 1  
## 7 0 0 7 14 11 0 1 436 1 8  
## 8 211 36 456 823 454 1070 50 102 1141 51  
## 9 31 19 30 143 813 126 5 1143 166 1561  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 0.5244418 0.4712908 0.5168555 0.5320196 0.1115213   
## AccuracyPValue McnemarPValue   
## 0.0000000 0.0000000

## Warning: Transformation introduced infinite values in discrete y-axis



pca\_10<-getTopPCAFeatures(DigitTotalDF,10)

##   
## Call:  
## PCA(X = t(select(df, -label)), ncp = ncp, graph = FALSE)   
##   
##   
## Eigenvalues  
## Dim.1 Dim.2 Dim.3 Dim.4 Dim.5  
## Variance 12975.886 2635.187 2146.048 1747.535 1465.951  
## % of var. 30.895 6.274 5.110 4.161 3.490  
## Cumulative % of var. 30.895 37.169 42.279 46.440 49.930  
## Dim.6 Dim.7 Dim.8 Dim.9 Dim.10  
## Variance 1358.547 1135.701 884.896 855.251 734.998  
## % of var. 3.235 2.704 2.107 2.036 1.750  
## Cumulative % of var. 53.165 55.869 57.976 60.012 61.762  
## Dim.11 Dim.12 Dim.13 Dim.14 Dim.15  
## Variance 664.973 634.157 551.036 515.912 483.259  
## % of var. 1.583 1.510 1.312 1.228 1.151  
## Cumulative % of var. 63.345 64.855 66.167 67.395 68.546  
## Dim.16 Dim.17 Dim.18 Dim.19 Dim.20  
## Variance 451.099 420.945 388.013 361.053 349.113  
## % of var. 1.074 1.002 0.924 0.860 0.831  
## Cumulative % of var. 69.620 70.622 71.546 72.406 73.237  
## Dim.21 Dim.22 Dim.23 Dim.24 Dim.25  
## Variance 329.622 310.712 298.708 281.495 275.884  
## % of var. 0.785 0.740 0.711 0.670 0.657  
## Cumulative % of var. 74.022 74.762 75.473 76.143 76.800  
## Dim.26 Dim.27 Dim.28 Dim.29 Dim.30  
## Variance 268.984 252.330 236.925 226.065 219.194  
## % of var. 0.640 0.601 0.564 0.538 0.522  
## Cumulative % of var. 77.440 78.041 78.605 79.144 79.665  
## Dim.31 Dim.32 Dim.33 Dim.34 Dim.35  
## Variance 203.959 202.286 185.225 181.697 173.988  
## % of var. 0.486 0.482 0.441 0.433 0.414  
## Cumulative % of var. 80.151 80.633 81.074 81.506 81.921  
## Dim.36 Dim.37 Dim.38 Dim.39 Dim.40  
## Variance 172.056 160.255 156.645 149.836 146.561  
## % of var. 0.410 0.382 0.373 0.357 0.349  
## Cumulative % of var. 82.330 82.712 83.085 83.441 83.790  
## Dim.41 Dim.42 Dim.43 Dim.44 Dim.45  
## Variance 140.441 137.162 131.753 125.734 123.529  
## % of var. 0.334 0.327 0.314 0.299 0.294  
## Cumulative % of var. 84.125 84.451 84.765 85.064 85.359  
## Dim.46 Dim.47 Dim.48 Dim.49 Dim.50  
## Variance 122.862 115.733 109.800 108.063 100.205  
## % of var. 0.293 0.276 0.261 0.257 0.239  
## Cumulative % of var. 85.651 85.927 86.188 86.445 86.684  
## Dim.51 Dim.52 Dim.53 Dim.54 Dim.55  
## Variance 99.257 98.063 93.201 92.249 89.483  
## % of var. 0.236 0.233 0.222 0.220 0.213  
## Cumulative % of var. 86.920 87.154 87.376 87.595 87.808  
## Dim.56 Dim.57 Dim.58 Dim.59 Dim.60  
## Variance 87.033 85.270 83.513 81.175 78.975  
## % of var. 0.207 0.203 0.199 0.193 0.188  
## Cumulative % of var. 88.016 88.219 88.417 88.611 88.799  
## Dim.61 Dim.62 Dim.63 Dim.64 Dim.65  
## Variance 76.732 76.033 73.240 71.087 69.891  
## % of var. 0.183 0.181 0.174 0.169 0.166  
## Cumulative % of var. 88.981 89.163 89.337 89.506 89.673  
## Dim.66 Dim.67 Dim.68 Dim.69 Dim.70  
## Variance 67.076 65.846 63.704 62.539 61.504  
## % of var. 0.160 0.157 0.152 0.149 0.146  
## Cumulative % of var. 89.832 89.989 90.141 90.290 90.436  
## Dim.71 Dim.72 Dim.73 Dim.74 Dim.75  
## Variance 58.632 58.470 56.065 55.675 53.772  
## % of var. 0.140 0.139 0.133 0.133 0.128  
## Cumulative % of var. 90.576 90.715 90.848 90.981 91.109  
## Dim.76 Dim.77 Dim.78 Dim.79 Dim.80  
## Variance 52.344 50.752 50.151 47.664 47.097  
## % of var. 0.125 0.121 0.119 0.113 0.112  
## Cumulative % of var. 91.234 91.354 91.474 91.587 91.699  
## Dim.81 Dim.82 Dim.83 Dim.84 Dim.85  
## Variance 45.959 45.670 45.134 43.399 43.159  
## % of var. 0.109 0.109 0.107 0.103 0.103  
## Cumulative % of var. 91.809 91.918 92.025 92.128 92.231  
## Dim.86 Dim.87 Dim.88 Dim.89 Dim.90  
## Variance 42.732 41.986 40.222 39.688 38.618  
## % of var. 0.102 0.100 0.096 0.094 0.092  
## Cumulative % of var. 92.333 92.433 92.529 92.623 92.715  
## Dim.91 Dim.92 Dim.93 Dim.94 Dim.95  
## Variance 37.900 37.111 36.558 35.693 35.451  
## % of var. 0.090 0.088 0.087 0.085 0.084  
## Cumulative % of var. 92.805 92.894 92.981 93.066 93.150  
## Dim.96 Dim.97 Dim.98 Dim.99 Dim.100  
## Variance 35.000 33.741 33.657 33.108 32.255  
## % of var. 0.083 0.080 0.080 0.079 0.077  
## Cumulative % of var. 93.233 93.314 93.394 93.473 93.550  
## Dim.101 Dim.102 Dim.103 Dim.104 Dim.105  
## Variance 31.708 30.818 30.512 29.322 28.925  
## % of var. 0.075 0.073 0.073 0.070 0.069  
## Cumulative % of var. 93.625 93.698 93.771 93.841 93.910  
## Dim.106 Dim.107 Dim.108 Dim.109 Dim.110  
## Variance 28.795 27.708 27.390 27.292 26.586  
## % of var. 0.069 0.066 0.065 0.065 0.063  
## Cumulative % of var. 93.978 94.044 94.109 94.174 94.238  
## Dim.111 Dim.112 Dim.113 Dim.114 Dim.115  
## Variance 26.039 25.709 25.584 25.304 25.182  
## % of var. 0.062 0.061 0.061 0.060 0.060  
## Cumulative % of var. 94.300 94.361 94.422 94.482 94.542  
## Dim.116 Dim.117 Dim.118 Dim.119 Dim.120  
## Variance 24.206 23.951 23.818 23.054 22.815  
## % of var. 0.058 0.057 0.057 0.055 0.054  
## Cumulative % of var. 94.600 94.657 94.713 94.768 94.823  
## Dim.121 Dim.122 Dim.123 Dim.124 Dim.125  
## Variance 22.628 22.352 22.224 21.862 21.222  
## % of var. 0.054 0.053 0.053 0.052 0.051  
## Cumulative % of var. 94.877 94.930 94.983 95.035 95.085  
## Dim.126 Dim.127 Dim.128 Dim.129 Dim.130  
## Variance 21.059 20.634 20.467 20.033 19.894  
## % of var. 0.050 0.049 0.049 0.048 0.047  
## Cumulative % of var. 95.135 95.185 95.233 95.281 95.328  
## Dim.131 Dim.132 Dim.133 Dim.134 Dim.135  
## Variance 19.503 19.289 19.223 18.915 18.460  
## % of var. 0.046 0.046 0.046 0.045 0.044  
## Cumulative % of var. 95.375 95.421 95.466 95.511 95.555  
## Dim.136 Dim.137 Dim.138 Dim.139 Dim.140  
## Variance 18.290 18.250 18.088 17.507 17.219  
## % of var. 0.044 0.043 0.043 0.042 0.041  
## Cumulative % of var. 95.599 95.642 95.686 95.727 95.768  
## Dim.141 Dim.142 Dim.143 Dim.144 Dim.145  
## Variance 16.825 16.398 16.186 16.169 15.900  
## % of var. 0.040 0.039 0.039 0.038 0.038  
## Cumulative % of var. 95.808 95.847 95.886 95.924 95.962  
## Dim.146 Dim.147 Dim.148 Dim.149 Dim.150  
## Variance 15.761 15.658 15.577 15.477 15.321  
## % of var. 0.038 0.037 0.037 0.037 0.036  
## Cumulative % of var. 96.000 96.037 96.074 96.111 96.147  
## Dim.151 Dim.152 Dim.153 Dim.154 Dim.155  
## Variance 15.094 14.926 14.829 14.612 14.562  
## % of var. 0.036 0.036 0.035 0.035 0.035  
## Cumulative % of var. 96.183 96.219 96.254 96.289 96.324  
## Dim.156 Dim.157 Dim.158 Dim.159 Dim.160  
## Variance 14.468 14.192 13.834 13.675 13.475  
## % of var. 0.034 0.034 0.033 0.033 0.032  
## Cumulative % of var. 96.358 96.392 96.425 96.457 96.489  
## Dim.161 Dim.162 Dim.163 Dim.164 Dim.165  
## Variance 13.389 13.298 13.073 12.872 12.801  
## % of var. 0.032 0.032 0.031 0.031 0.030  
## Cumulative % of var. 96.521 96.553 96.584 96.615 96.645  
## Dim.166 Dim.167 Dim.168 Dim.169 Dim.170  
## Variance 12.616 12.526 12.381 12.338 12.194  
## % of var. 0.030 0.030 0.029 0.029 0.029  
## Cumulative % of var. 96.675 96.705 96.735 96.764 96.793  
## Dim.171 Dim.172 Dim.173 Dim.174 Dim.175  
## Variance 12.051 11.965 11.780 11.716 11.592  
## % of var. 0.029 0.028 0.028 0.028 0.028  
## Cumulative % of var. 96.822 96.850 96.878 96.906 96.934  
## Dim.176 Dim.177 Dim.178 Dim.179 Dim.180  
## Variance 11.287 11.160 11.056 10.858 10.780  
## % of var. 0.027 0.027 0.026 0.026 0.026  
## Cumulative % of var. 96.961 96.987 97.014 97.039 97.065  
## Dim.181 Dim.182 Dim.183 Dim.184 Dim.185  
## Variance 10.626 10.585 10.574 10.451 10.389  
## % of var. 0.025 0.025 0.025 0.025 0.025  
## Cumulative % of var. 97.090 97.116 97.141 97.166 97.190  
## Dim.186 Dim.187 Dim.188 Dim.189 Dim.190  
## Variance 10.327 10.181 10.151 9.965 9.863  
## % of var. 0.025 0.024 0.024 0.024 0.023  
## Cumulative % of var. 97.215 97.239 97.263 97.287 97.311  
## Dim.191 Dim.192 Dim.193 Dim.194 Dim.195  
## Variance 9.825 9.749 9.691 9.637 9.542  
## % of var. 0.023 0.023 0.023 0.023 0.023  
## Cumulative % of var. 97.334 97.357 97.380 97.403 97.426  
## Dim.196 Dim.197 Dim.198 Dim.199 Dim.200  
## Variance 9.502 9.399 9.342 9.198 9.163  
## % of var. 0.023 0.022 0.022 0.022 0.022  
## Cumulative % of var. 97.448 97.471 97.493 97.515 97.537  
## Dim.201 Dim.202 Dim.203 Dim.204 Dim.205  
## Variance 9.071 8.888 8.812 8.673 8.653  
## % of var. 0.022 0.021 0.021 0.021 0.021  
## Cumulative % of var. 97.558 97.580 97.601 97.621 97.642  
## Dim.206 Dim.207 Dim.208 Dim.209 Dim.210  
## Variance 8.584 8.445 8.376 8.341 8.302  
## % of var. 0.020 0.020 0.020 0.020 0.020  
## Cumulative % of var. 97.662 97.682 97.702 97.722 97.742  
## Dim.211 Dim.212 Dim.213 Dim.214 Dim.215  
## Variance 8.247 8.225 8.151 8.076 8.001  
## % of var. 0.020 0.020 0.019 0.019 0.019  
## Cumulative % of var. 97.762 97.781 97.801 97.820 97.839  
## Dim.216 Dim.217 Dim.218 Dim.219 Dim.220  
## Variance 7.939 7.859 7.823 7.807 7.708  
## % of var. 0.019 0.019 0.019 0.019 0.018  
## Cumulative % of var. 97.858 97.876 97.895 97.914 97.932  
## Dim.221 Dim.222 Dim.223 Dim.224 Dim.225  
## Variance 7.679 7.574 7.502 7.472 7.428  
## % of var. 0.018 0.018 0.018 0.018 0.018  
## Cumulative % of var. 97.950 97.968 97.986 98.004 98.022  
## Dim.226 Dim.227 Dim.228 Dim.229 Dim.230  
## Variance 7.380 7.295 7.171 7.139 7.066  
## % of var. 0.018 0.017 0.017 0.017 0.017  
## Cumulative % of var. 98.039 98.057 98.074 98.091 98.108  
## Dim.231 Dim.232 Dim.233 Dim.234 Dim.235  
## Variance 6.982 6.966 6.898 6.861 6.811  
## % of var. 0.017 0.017 0.016 0.016 0.016  
## Cumulative % of var. 98.124 98.141 98.157 98.173 98.190  
## Dim.236 Dim.237 Dim.238 Dim.239 Dim.240  
## Variance 6.726 6.659 6.631 6.563 6.485  
## % of var. 0.016 0.016 0.016 0.016 0.015  
## Cumulative % of var. 98.206 98.222 98.237 98.253 98.268  
## Dim.241 Dim.242 Dim.243 Dim.244 Dim.245  
## Variance 6.449 6.408 6.366 6.331 6.306  
## % of var. 0.015 0.015 0.015 0.015 0.015  
## Cumulative % of var. 98.284 98.299 98.314 98.329 98.344  
## Dim.246 Dim.247 Dim.248 Dim.249 Dim.250  
## Variance 6.230 6.177 6.149 6.014 6.005  
## % of var. 0.015 0.015 0.015 0.014 0.014  
## Cumulative % of var. 98.359 98.374 98.388 98.403 98.417  
## Dim.251 Dim.252 Dim.253 Dim.254 Dim.255  
## Variance 5.957 5.900 5.878 5.854 5.783  
## % of var. 0.014 0.014 0.014 0.014 0.014  
## Cumulative % of var. 98.431 98.445 98.459 98.473 98.487  
## Dim.256 Dim.257 Dim.258 Dim.259 Dim.260  
## Variance 5.769 5.685 5.658 5.632 5.605  
## % of var. 0.014 0.014 0.013 0.013 0.013  
## Cumulative % of var. 98.501 98.514 98.528 98.541 98.555  
## Dim.261 Dim.262 Dim.263 Dim.264 Dim.265  
## Variance 5.539 5.491 5.438 5.435 5.400  
## % of var. 0.013 0.013 0.013 0.013 0.013  
## Cumulative % of var. 98.568 98.581 98.594 98.607 98.620  
## Dim.266 Dim.267 Dim.268 Dim.269 Dim.270  
## Variance 5.343 5.329 5.233 5.218 5.188  
## % of var. 0.013 0.013 0.012 0.012 0.012  
## Cumulative % of var. 98.632 98.645 98.657 98.670 98.682  
## Dim.271 Dim.272 Dim.273 Dim.274 Dim.275  
## Variance 5.123 5.080 5.060 5.041 4.981  
## % of var. 0.012 0.012 0.012 0.012 0.012  
## Cumulative % of var. 98.694 98.706 98.719 98.731 98.742  
## Dim.276 Dim.277 Dim.278 Dim.279 Dim.280  
## Variance 4.964 4.911 4.873 4.857 4.850  
## % of var. 0.012 0.012 0.012 0.012 0.012  
## Cumulative % of var. 98.754 98.766 98.777 98.789 98.801  
## Dim.281 Dim.282 Dim.283 Dim.284 Dim.285  
## Variance 4.817 4.797 4.743 4.690 4.672  
## % of var. 0.011 0.011 0.011 0.011 0.011  
## Cumulative % of var. 98.812 98.823 98.835 98.846 98.857  
## Dim.286 Dim.287 Dim.288 Dim.289 Dim.290  
## Variance 4.640 4.599 4.585 4.555 4.495  
## % of var. 0.011 0.011 0.011 0.011 0.011  
## Cumulative % of var. 98.868 98.879 98.890 98.901 98.912  
## Dim.291 Dim.292 Dim.293 Dim.294 Dim.295  
## Variance 4.487 4.459 4.427 4.403 4.373  
## % of var. 0.011 0.011 0.011 0.010 0.010  
## Cumulative % of var. 98.922 98.933 98.943 98.954 98.964  
## Dim.296 Dim.297 Dim.298 Dim.299 Dim.300  
## Variance 4.344 4.304 4.278 4.250 4.174  
## % of var. 0.010 0.010 0.010 0.010 0.010  
## Cumulative % of var. 98.975 98.985 98.995 99.005 99.015  
## Dim.301 Dim.302 Dim.303 Dim.304 Dim.305  
## Variance 4.159 4.147 4.104 4.099 4.041  
## % of var. 0.010 0.010 0.010 0.010 0.010  
## Cumulative % of var. 99.025 99.035 99.045 99.054 99.064  
## Dim.306 Dim.307 Dim.308 Dim.309 Dim.310  
## Variance 4.012 3.996 3.948 3.919 3.906  
## % of var. 0.010 0.010 0.009 0.009 0.009  
## Cumulative % of var. 99.074 99.083 99.092 99.102 99.111  
## Dim.311 Dim.312 Dim.313 Dim.314 Dim.315  
## Variance 3.889 3.875 3.839 3.785 3.741  
## % of var. 0.009 0.009 0.009 0.009 0.009  
## Cumulative % of var. 99.120 99.130 99.139 99.148 99.157  
## Dim.316 Dim.317 Dim.318 Dim.319 Dim.320  
## Variance 3.724 3.682 3.668 3.644 3.624  
## % of var. 0.009 0.009 0.009 0.009 0.009  
## Cumulative % of var. 99.166 99.174 99.183 99.192 99.200  
## Dim.321 Dim.322 Dim.323 Dim.324 Dim.325  
## Variance 3.582 3.576 3.538 3.490 3.472  
## % of var. 0.009 0.009 0.008 0.008 0.008  
## Cumulative % of var. 99.209 99.217 99.226 99.234 99.242  
## Dim.326 Dim.327 Dim.328 Dim.329 Dim.330  
## Variance 3.443 3.392 3.378 3.353 3.342  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.251 99.259 99.267 99.275 99.283  
## Dim.331 Dim.332 Dim.333 Dim.334 Dim.335  
## Variance 3.335 3.289 3.266 3.250 3.243  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.291 99.298 99.306 99.314 99.322  
## Dim.336 Dim.337 Dim.338 Dim.339 Dim.340  
## Variance 3.228 3.202 3.183 3.169 3.157  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.329 99.337 99.345 99.352 99.360  
## Dim.341 Dim.342 Dim.343 Dim.344 Dim.345  
## Variance 3.103 3.083 3.070 3.052 3.031  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.367 99.374 99.382 99.389 99.396  
## Dim.346 Dim.347 Dim.348 Dim.349 Dim.350  
## Variance 3.011 3.002 2.950 2.918 2.889  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.403 99.410 99.417 99.424 99.431  
## Dim.351 Dim.352 Dim.353 Dim.354 Dim.355  
## Variance 2.832 2.819 2.810 2.768 2.757  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.438 99.445 99.451 99.458 99.465  
## Dim.356 Dim.357 Dim.358 Dim.359 Dim.360  
## Variance 2.733 2.709 2.695 2.678 2.671  
## % of var. 0.007 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.471 99.478 99.484 99.490 99.497  
## Dim.361 Dim.362 Dim.363 Dim.364 Dim.365  
## Variance 2.652 2.645 2.610 2.542 2.519  
## % of var. 0.006 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.503 99.509 99.516 99.522 99.528  
## Dim.366 Dim.367 Dim.368 Dim.369 Dim.370  
## Variance 2.515 2.492 2.468 2.448 2.434  
## % of var. 0.006 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.534 99.539 99.545 99.551 99.557  
## Dim.371 Dim.372 Dim.373 Dim.374 Dim.375  
## Variance 2.412 2.378 2.340 2.326 2.306  
## % of var. 0.006 0.006 0.006 0.006 0.005  
## Cumulative % of var. 99.563 99.568 99.574 99.580 99.585  
## Dim.376 Dim.377 Dim.378 Dim.379 Dim.380  
## Variance 2.300 2.281 2.263 2.240 2.216  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.590 99.596 99.601 99.607 99.612  
## Dim.381 Dim.382 Dim.383 Dim.384 Dim.385  
## Variance 2.203 2.175 2.146 2.087 2.077  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.617 99.622 99.627 99.632 99.637  
## Dim.386 Dim.387 Dim.388 Dim.389 Dim.390  
## Variance 2.044 2.036 2.020 1.995 1.976  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.642 99.647 99.652 99.657 99.661  
## Dim.391 Dim.392 Dim.393 Dim.394 Dim.395  
## Variance 1.959 1.942 1.918 1.895 1.886  
## % of var. 0.005 0.005 0.005 0.005 0.004  
## Cumulative % of var. 99.666 99.671 99.675 99.680 99.684  
## Dim.396 Dim.397 Dim.398 Dim.399 Dim.400  
## Variance 1.849 1.820 1.810 1.779 1.761  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.689 99.693 99.697 99.701 99.706  
## Dim.401 Dim.402 Dim.403 Dim.404 Dim.405  
## Variance 1.746 1.731 1.714 1.701 1.676  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.710 99.714 99.718 99.722 99.726  
## Dim.406 Dim.407 Dim.408 Dim.409 Dim.410  
## Variance 1.670 1.633 1.619 1.590 1.581  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.730 99.734 99.738 99.742 99.745  
## Dim.411 Dim.412 Dim.413 Dim.414 Dim.415  
## Variance 1.570 1.554 1.545 1.538 1.516  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.749 99.753 99.756 99.760 99.764  
## Dim.416 Dim.417 Dim.418 Dim.419 Dim.420  
## Variance 1.512 1.502 1.484 1.462 1.435  
## % of var. 0.004 0.004 0.004 0.003 0.003  
## Cumulative % of var. 99.767 99.771 99.774 99.778 99.781  
## Dim.421 Dim.422 Dim.423 Dim.424 Dim.425  
## Variance 1.421 1.390 1.380 1.369 1.344  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.785 99.788 99.791 99.795 99.798  
## Dim.426 Dim.427 Dim.428 Dim.429 Dim.430  
## Variance 1.335 1.292 1.289 1.277 1.236  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.801 99.804 99.807 99.810 99.813  
## Dim.431 Dim.432 Dim.433 Dim.434 Dim.435  
## Variance 1.213 1.205 1.200 1.189 1.172  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.816 99.819 99.822 99.825 99.827  
## Dim.436 Dim.437 Dim.438 Dim.439 Dim.440  
## Variance 1.148 1.132 1.114 1.103 1.096  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.830 99.833 99.835 99.838 99.841  
## Dim.441 Dim.442 Dim.443 Dim.444 Dim.445  
## Variance 1.085 1.057 1.053 1.031 1.027  
## % of var. 0.003 0.003 0.003 0.002 0.002  
## Cumulative % of var. 99.843 99.846 99.848 99.851 99.853  
## Dim.446 Dim.447 Dim.448 Dim.449 Dim.450  
## Variance 1.019 0.999 0.986 0.973 0.960  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.856 99.858 99.860 99.863 99.865  
## Dim.451 Dim.452 Dim.453 Dim.454 Dim.455  
## Variance 0.958 0.934 0.912 0.896 0.892  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.867 99.869 99.872 99.874 99.876  
## Dim.456 Dim.457 Dim.458 Dim.459 Dim.460  
## Variance 0.887 0.868 0.863 0.857 0.831  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.878 99.880 99.882 99.884 99.886  
## Dim.461 Dim.462 Dim.463 Dim.464 Dim.465  
## Variance 0.819 0.810 0.800 0.771 0.761  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.888 99.890 99.892 99.894 99.895  
## Dim.466 Dim.467 Dim.468 Dim.469 Dim.470  
## Variance 0.758 0.753 0.745 0.736 0.727  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.897 99.899 99.901 99.903 99.904  
## Dim.471 Dim.472 Dim.473 Dim.474 Dim.475  
## Variance 0.719 0.707 0.700 0.691 0.683  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.906 99.908 99.909 99.911 99.913  
## Dim.476 Dim.477 Dim.478 Dim.479 Dim.480  
## Variance 0.679 0.673 0.651 0.642 0.627  
## % of var. 0.002 0.002 0.002 0.002 0.001  
## Cumulative % of var. 99.914 99.916 99.917 99.919 99.920  
## Dim.481 Dim.482 Dim.483 Dim.484 Dim.485  
## Variance 0.619 0.612 0.604 0.591 0.580  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.922 99.923 99.925 99.926 99.928  
## Dim.486 Dim.487 Dim.488 Dim.489 Dim.490  
## Variance 0.572 0.568 0.559 0.553 0.546  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.929 99.930 99.932 99.933 99.934  
## Dim.491 Dim.492 Dim.493 Dim.494 Dim.495  
## Variance 0.535 0.532 0.518 0.510 0.500  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.936 99.937 99.938 99.939 99.940  
## Dim.496 Dim.497 Dim.498 Dim.499 Dim.500  
## Variance 0.483 0.480 0.472 0.467 0.458  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.942 99.943 99.944 99.945 99.946  
## Dim.501 Dim.502 Dim.503 Dim.504 Dim.505  
## Variance 0.457 0.452 0.445 0.441 0.431  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.947 99.948 99.949 99.950 99.951  
## Dim.506 Dim.507 Dim.508 Dim.509 Dim.510  
## Variance 0.412 0.403 0.397 0.392 0.386  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.952 99.953 99.954 99.955 99.956  
## Dim.511 Dim.512 Dim.513 Dim.514 Dim.515  
## Variance 0.383 0.376 0.373 0.365 0.355  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.957 99.958 99.959 99.960 99.961  
## Dim.516 Dim.517 Dim.518 Dim.519 Dim.520  
## Variance 0.350 0.348 0.346 0.343 0.337  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.961 99.962 99.963 99.964 99.965  
## Dim.521 Dim.522 Dim.523 Dim.524 Dim.525  
## Variance 0.327 0.326 0.315 0.311 0.311  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.965 99.966 99.967 99.968 99.968  
## Dim.526 Dim.527 Dim.528 Dim.529 Dim.530  
## Variance 0.307 0.302 0.299 0.297 0.279  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.969 99.970 99.971 99.971 99.972  
## Dim.531 Dim.532 Dim.533 Dim.534 Dim.535  
## Variance 0.278 0.268 0.264 0.261 0.256  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.973 99.973 99.974 99.975 99.975  
## Dim.536 Dim.537 Dim.538 Dim.539 Dim.540  
## Variance 0.253 0.247 0.241 0.234 0.232  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.976 99.976 99.977 99.977 99.978  
## Dim.541 Dim.542 Dim.543 Dim.544 Dim.545  
## Variance 0.229 0.227 0.220 0.218 0.217  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.979 99.979 99.980 99.980 99.981  
## Dim.546 Dim.547 Dim.548 Dim.549 Dim.550  
## Variance 0.214 0.205 0.195 0.194 0.186  
## % of var. 0.001 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.981 99.982 99.982 99.983 99.983  
## Dim.551 Dim.552 Dim.553 Dim.554 Dim.555  
## Variance 0.182 0.180 0.173 0.171 0.165  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.983 99.984 99.984 99.985 99.985  
## Dim.556 Dim.557 Dim.558 Dim.559 Dim.560  
## Variance 0.163 0.161 0.159 0.152 0.150  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.985 99.986 99.986 99.987 99.987  
## Dim.561 Dim.562 Dim.563 Dim.564 Dim.565  
## Variance 0.148 0.146 0.144 0.142 0.135  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.987 99.988 99.988 99.988 99.989  
## Dim.566 Dim.567 Dim.568 Dim.569 Dim.570  
## Variance 0.133 0.131 0.123 0.121 0.121  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.989 99.989 99.990 99.990 99.990  
## Dim.571 Dim.572 Dim.573 Dim.574 Dim.575  
## Variance 0.119 0.118 0.118 0.114 0.113  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.990 99.991 99.991 99.991 99.992  
## Dim.576 Dim.577 Dim.578 Dim.579 Dim.580  
## Variance 0.107 0.104 0.103 0.098 0.096  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.992 99.992 99.992 99.993 99.993  
## Dim.581 Dim.582 Dim.583 Dim.584 Dim.585  
## Variance 0.090 0.089 0.088 0.085 0.085  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.993 99.993 99.993 99.994 99.994  
## Dim.586 Dim.587 Dim.588 Dim.589 Dim.590  
## Variance 0.083 0.082 0.078 0.077 0.074  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.994 99.994 99.994 99.995 99.995  
## Dim.591 Dim.592 Dim.593 Dim.594 Dim.595  
## Variance 0.074 0.074 0.070 0.068 0.066  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.995 99.995 99.995 99.995 99.996  
## Dim.596 Dim.597 Dim.598 Dim.599 Dim.600  
## Variance 0.064 0.062 0.060 0.060 0.058  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.996 99.996 99.996 99.996 99.996  
## Dim.601 Dim.602 Dim.603 Dim.604 Dim.605  
## Variance 0.055 0.052 0.051 0.050 0.049  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.996 99.997 99.997 99.997 99.997  
## Dim.606 Dim.607 Dim.608 Dim.609 Dim.610  
## Variance 0.049 0.048 0.047 0.046 0.044  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.997 99.997 99.997 99.997 99.997  
## Dim.611 Dim.612 Dim.613 Dim.614 Dim.615  
## Variance 0.041 0.040 0.036 0.035 0.034  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.998 99.998  
## Dim.616 Dim.617 Dim.618 Dim.619 Dim.620  
## Variance 0.034 0.033 0.032 0.032 0.031  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.998 99.998  
## Dim.621 Dim.622 Dim.623 Dim.624 Dim.625  
## Variance 0.030 0.030 0.028 0.028 0.027  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.999 99.999  
## Dim.626 Dim.627 Dim.628 Dim.629 Dim.630  
## Variance 0.026 0.025 0.024 0.024 0.023  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.631 Dim.632 Dim.633 Dim.634 Dim.635  
## Variance 0.022 0.021 0.021 0.020 0.020  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.636 Dim.637 Dim.638 Dim.639 Dim.640  
## Variance 0.020 0.019 0.019 0.016 0.016  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.641 Dim.642 Dim.643 Dim.644 Dim.645  
## Variance 0.015 0.015 0.014 0.013 0.013  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 100.000 100.000  
## Dim.646 Dim.647 Dim.648 Dim.649 Dim.650  
## Variance 0.011 0.011 0.010 0.010 0.009  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.651 Dim.652 Dim.653 Dim.654 Dim.655  
## Variance 0.009 0.009 0.008 0.008 0.007  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.656 Dim.657 Dim.658 Dim.659 Dim.660  
## Variance 0.007 0.007 0.007 0.006 0.006  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.661 Dim.662 Dim.663 Dim.664 Dim.665  
## Variance 0.006 0.006 0.006 0.004 0.004  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.666 Dim.667 Dim.668 Dim.669 Dim.670  
## Variance 0.004 0.003 0.003 0.003 0.003  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.671 Dim.672 Dim.673 Dim.674 Dim.675  
## Variance 0.002 0.002 0.002 0.002 0.002  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.676 Dim.677 Dim.678 Dim.679 Dim.680  
## Variance 0.001 0.001 0.001 0.001 0.001  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.681 Dim.682 Dim.683 Dim.684 Dim.685  
## Variance 0.001 0.001 0.001 0.001 0.001  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.686 Dim.687 Dim.688 Dim.689 Dim.690  
## Variance 0.001 0.001 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.691 Dim.692 Dim.693 Dim.694 Dim.695  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.696 Dim.697 Dim.698 Dim.699 Dim.700  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.701 Dim.702 Dim.703 Dim.704 Dim.705  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.706 Dim.707 Dim.708 Dim.709 Dim.710  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.711 Dim.712 Dim.713 Dim.714 Dim.715  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.716 Dim.717 Dim.718 Dim.719 Dim.720  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.721 Dim.722 Dim.723 Dim.724 Dim.725  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.726 Dim.727 Dim.728 Dim.729 Dim.730  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.731 Dim.732 Dim.733 Dim.734 Dim.735  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.736 Dim.737 Dim.738 Dim.739 Dim.740  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.741 Dim.742 Dim.743 Dim.744 Dim.745  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.746 Dim.747 Dim.748 Dim.749 Dim.750  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.751 Dim.752 Dim.753 Dim.754 Dim.755  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.756 Dim.757 Dim.758 Dim.759 Dim.760  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.761 Dim.762 Dim.763 Dim.764 Dim.765  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.766 Dim.767 Dim.768 Dim.769 Dim.770  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.771 Dim.772 Dim.773 Dim.774 Dim.775  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.776 Dim.777 Dim.778 Dim.779 Dim.780  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.781 Dim.782 Dim.783  
## Variance 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000  
##   
## Individuals (the 10 first)  
## Dist Dim.1 ctr cos2 Dim.2 ctr cos2 Dim.3  
## 0 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 1 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 2 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 3 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 4 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 5 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 6 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 7 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 8 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 9 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## ctr cos2   
## 0 0.005 0.012 |  
## 1 0.005 0.012 |  
## 2 0.005 0.012 |  
## 3 0.005 0.012 |  
## 4 0.005 0.012 |  
## 5 0.005 0.012 |  
## 6 0.005 0.012 |  
## 7 0.005 0.012 |  
## 8 0.005 0.012 |  
## 9 0.005 0.012 |  
##   
## Variables (the 10 first)  
## Dim.1 ctr cos2 Dim.2 ctr cos2 Dim.3 ctr cos2   
## V1 | 0.419 0.001 0.176 | -0.407 0.006 0.165 | 0.198 0.002 0.039 |  
## V2 | 0.501 0.002 0.251 | 0.374 0.005 0.140 | 0.434 0.009 0.189 |  
## V3 | 0.534 0.002 0.285 | -0.467 0.008 0.218 | -0.077 0.000 0.006 |  
## V4 | 0.269 0.001 0.073 | 0.244 0.002 0.060 | -0.020 0.000 0.000 |  
## V5 | 0.452 0.002 0.205 | 0.373 0.005 0.139 | 0.449 0.009 0.202 |  
## V6 | 0.576 0.003 0.332 | 0.350 0.005 0.122 | 0.116 0.001 0.013 |  
## V7 | 0.502 0.002 0.252 | -0.054 0.000 0.003 | -0.407 0.008 0.166 |  
## V8 | 0.347 0.001 0.120 | 0.069 0.000 0.005 | 0.021 0.000 0.000 |  
## V9 | 0.640 0.003 0.410 | 0.221 0.002 0.049 | 0.050 0.000 0.002 |  
## V10 | 0.570 0.003 0.325 | -0.084 0.000 0.007 | 0.337 0.005 0.114 |

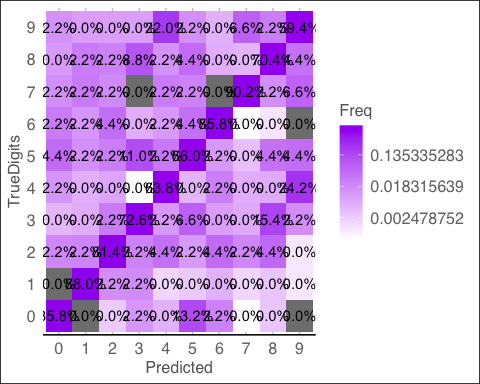
model\_nb\_10<-runNB(pca\_10)

##   
## ================================== Naive Bayes ==================================   
##   
## - Call: naive\_bayes.formula(formula = label ~ ., data = trainDF)   
## - Laplace: 0   
## - Classes: 10   
## - Samples: 25205   
## - Features: 10   
## - Conditional distributions:   
## - Gaussian: 10  
## - Prior probabilities:   
## - 0: 0.0984  
## - 1: 0.1115  
## - 2: 0.0995  
## - 3: 0.1036  
## - 4: 0.097  
## - 5: 0.0903  
## - 6: 0.0985  
## - 7: 0.1048  
## - 8: 0.0967  
## - 9: 0.0997  
##   
## ---------------------------------------------------------------------------------

## Warning: predict.naive\_bayes(): more features in the newdata are provided as  
## there are probability tables in the object. Calculation is performed based on  
## features to be found in the tables.

## TrueDigits  
## Predicted 0 1 2 3 4 5 6 7 8 9  
## 0 1391 0 33 8 21 78 46 24 18 23  
## 1 0 1792 44 13 12 30 25 58 57 20  
## 2 4 25 1277 44 12 41 69 28 36 15  
## 3 22 30 39 1260 1 202 11 0 171 16  
## 4 9 3 66 19 1063 51 19 46 23 356  
## 5 182 4 16 95 7 948 57 32 65 22  
## 6 38 9 78 16 42 19 1424 0 10 9  
## 7 1 3 32 11 10 6 1 1442 8 104  
## 8 5 5 83 245 11 63 2 25 1168 44  
## 9 0 2 2 29 449 80 0 105 69 1066  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 0.7639774 0.7376314 0.7574801 0.7703831 0.1115213   
## AccuracyPValue McnemarPValue   
## 0.0000000 NaN

## Warning: Transformation introduced infinite values in discrete y-axis



pca\_50<-getTopPCAFeatures(DigitTotalDF,50)

##   
## Call:  
## PCA(X = t(select(df, -label)), ncp = ncp, graph = FALSE)   
##   
##   
## Eigenvalues  
## Dim.1 Dim.2 Dim.3 Dim.4 Dim.5  
## Variance 12975.886 2635.187 2146.048 1747.535 1465.951  
## % of var. 30.895 6.274 5.110 4.161 3.490  
## Cumulative % of var. 30.895 37.169 42.279 46.440 49.930  
## Dim.6 Dim.7 Dim.8 Dim.9 Dim.10  
## Variance 1358.547 1135.701 884.896 855.251 734.998  
## % of var. 3.235 2.704 2.107 2.036 1.750  
## Cumulative % of var. 53.165 55.869 57.976 60.012 61.762  
## Dim.11 Dim.12 Dim.13 Dim.14 Dim.15  
## Variance 664.973 634.157 551.036 515.912 483.259  
## % of var. 1.583 1.510 1.312 1.228 1.151  
## Cumulative % of var. 63.345 64.855 66.167 67.395 68.546  
## Dim.16 Dim.17 Dim.18 Dim.19 Dim.20  
## Variance 451.099 420.945 388.013 361.053 349.113  
## % of var. 1.074 1.002 0.924 0.860 0.831  
## Cumulative % of var. 69.620 70.622 71.546 72.406 73.237  
## Dim.21 Dim.22 Dim.23 Dim.24 Dim.25  
## Variance 329.622 310.712 298.708 281.495 275.884  
## % of var. 0.785 0.740 0.711 0.670 0.657  
## Cumulative % of var. 74.022 74.762 75.473 76.143 76.800  
## Dim.26 Dim.27 Dim.28 Dim.29 Dim.30  
## Variance 268.984 252.330 236.925 226.065 219.194  
## % of var. 0.640 0.601 0.564 0.538 0.522  
## Cumulative % of var. 77.440 78.041 78.605 79.144 79.665  
## Dim.31 Dim.32 Dim.33 Dim.34 Dim.35  
## Variance 203.959 202.286 185.225 181.697 173.988  
## % of var. 0.486 0.482 0.441 0.433 0.414  
## Cumulative % of var. 80.151 80.633 81.074 81.506 81.921  
## Dim.36 Dim.37 Dim.38 Dim.39 Dim.40  
## Variance 172.056 160.255 156.645 149.836 146.561  
## % of var. 0.410 0.382 0.373 0.357 0.349  
## Cumulative % of var. 82.330 82.712 83.085 83.441 83.790  
## Dim.41 Dim.42 Dim.43 Dim.44 Dim.45  
## Variance 140.441 137.162 131.753 125.734 123.529  
## % of var. 0.334 0.327 0.314 0.299 0.294  
## Cumulative % of var. 84.125 84.451 84.765 85.064 85.359  
## Dim.46 Dim.47 Dim.48 Dim.49 Dim.50  
## Variance 122.862 115.733 109.800 108.063 100.205  
## % of var. 0.293 0.276 0.261 0.257 0.239  
## Cumulative % of var. 85.651 85.927 86.188 86.445 86.684  
## Dim.51 Dim.52 Dim.53 Dim.54 Dim.55  
## Variance 99.257 98.063 93.201 92.249 89.483  
## % of var. 0.236 0.233 0.222 0.220 0.213  
## Cumulative % of var. 86.920 87.154 87.376 87.595 87.808  
## Dim.56 Dim.57 Dim.58 Dim.59 Dim.60  
## Variance 87.033 85.270 83.513 81.175 78.975  
## % of var. 0.207 0.203 0.199 0.193 0.188  
## Cumulative % of var. 88.016 88.219 88.417 88.611 88.799  
## Dim.61 Dim.62 Dim.63 Dim.64 Dim.65  
## Variance 76.732 76.033 73.240 71.087 69.891  
## % of var. 0.183 0.181 0.174 0.169 0.166  
## Cumulative % of var. 88.981 89.163 89.337 89.506 89.673  
## Dim.66 Dim.67 Dim.68 Dim.69 Dim.70  
## Variance 67.076 65.846 63.704 62.539 61.504  
## % of var. 0.160 0.157 0.152 0.149 0.146  
## Cumulative % of var. 89.832 89.989 90.141 90.290 90.436  
## Dim.71 Dim.72 Dim.73 Dim.74 Dim.75  
## Variance 58.632 58.470 56.065 55.675 53.772  
## % of var. 0.140 0.139 0.133 0.133 0.128  
## Cumulative % of var. 90.576 90.715 90.848 90.981 91.109  
## Dim.76 Dim.77 Dim.78 Dim.79 Dim.80  
## Variance 52.344 50.752 50.151 47.664 47.097  
## % of var. 0.125 0.121 0.119 0.113 0.112  
## Cumulative % of var. 91.234 91.354 91.474 91.587 91.699  
## Dim.81 Dim.82 Dim.83 Dim.84 Dim.85  
## Variance 45.959 45.670 45.134 43.399 43.159  
## % of var. 0.109 0.109 0.107 0.103 0.103  
## Cumulative % of var. 91.809 91.918 92.025 92.128 92.231  
## Dim.86 Dim.87 Dim.88 Dim.89 Dim.90  
## Variance 42.732 41.986 40.222 39.688 38.618  
## % of var. 0.102 0.100 0.096 0.094 0.092  
## Cumulative % of var. 92.333 92.433 92.529 92.623 92.715  
## Dim.91 Dim.92 Dim.93 Dim.94 Dim.95  
## Variance 37.900 37.111 36.558 35.693 35.451  
## % of var. 0.090 0.088 0.087 0.085 0.084  
## Cumulative % of var. 92.805 92.894 92.981 93.066 93.150  
## Dim.96 Dim.97 Dim.98 Dim.99 Dim.100  
## Variance 35.000 33.741 33.657 33.108 32.255  
## % of var. 0.083 0.080 0.080 0.079 0.077  
## Cumulative % of var. 93.233 93.314 93.394 93.473 93.550  
## Dim.101 Dim.102 Dim.103 Dim.104 Dim.105  
## Variance 31.708 30.818 30.512 29.322 28.925  
## % of var. 0.075 0.073 0.073 0.070 0.069  
## Cumulative % of var. 93.625 93.698 93.771 93.841 93.910  
## Dim.106 Dim.107 Dim.108 Dim.109 Dim.110  
## Variance 28.795 27.708 27.390 27.292 26.586  
## % of var. 0.069 0.066 0.065 0.065 0.063  
## Cumulative % of var. 93.978 94.044 94.109 94.174 94.238  
## Dim.111 Dim.112 Dim.113 Dim.114 Dim.115  
## Variance 26.039 25.709 25.584 25.304 25.182  
## % of var. 0.062 0.061 0.061 0.060 0.060  
## Cumulative % of var. 94.300 94.361 94.422 94.482 94.542  
## Dim.116 Dim.117 Dim.118 Dim.119 Dim.120  
## Variance 24.206 23.951 23.818 23.054 22.815  
## % of var. 0.058 0.057 0.057 0.055 0.054  
## Cumulative % of var. 94.600 94.657 94.713 94.768 94.823  
## Dim.121 Dim.122 Dim.123 Dim.124 Dim.125  
## Variance 22.628 22.352 22.224 21.862 21.222  
## % of var. 0.054 0.053 0.053 0.052 0.051  
## Cumulative % of var. 94.877 94.930 94.983 95.035 95.085  
## Dim.126 Dim.127 Dim.128 Dim.129 Dim.130  
## Variance 21.059 20.634 20.467 20.033 19.894  
## % of var. 0.050 0.049 0.049 0.048 0.047  
## Cumulative % of var. 95.135 95.185 95.233 95.281 95.328  
## Dim.131 Dim.132 Dim.133 Dim.134 Dim.135  
## Variance 19.503 19.289 19.223 18.915 18.460  
## % of var. 0.046 0.046 0.046 0.045 0.044  
## Cumulative % of var. 95.375 95.421 95.466 95.511 95.555  
## Dim.136 Dim.137 Dim.138 Dim.139 Dim.140  
## Variance 18.290 18.250 18.088 17.507 17.219  
## % of var. 0.044 0.043 0.043 0.042 0.041  
## Cumulative % of var. 95.599 95.642 95.686 95.727 95.768  
## Dim.141 Dim.142 Dim.143 Dim.144 Dim.145  
## Variance 16.825 16.398 16.186 16.169 15.900  
## % of var. 0.040 0.039 0.039 0.038 0.038  
## Cumulative % of var. 95.808 95.847 95.886 95.924 95.962  
## Dim.146 Dim.147 Dim.148 Dim.149 Dim.150  
## Variance 15.761 15.658 15.577 15.477 15.321  
## % of var. 0.038 0.037 0.037 0.037 0.036  
## Cumulative % of var. 96.000 96.037 96.074 96.111 96.147  
## Dim.151 Dim.152 Dim.153 Dim.154 Dim.155  
## Variance 15.094 14.926 14.829 14.612 14.562  
## % of var. 0.036 0.036 0.035 0.035 0.035  
## Cumulative % of var. 96.183 96.219 96.254 96.289 96.324  
## Dim.156 Dim.157 Dim.158 Dim.159 Dim.160  
## Variance 14.468 14.192 13.834 13.675 13.475  
## % of var. 0.034 0.034 0.033 0.033 0.032  
## Cumulative % of var. 96.358 96.392 96.425 96.457 96.489  
## Dim.161 Dim.162 Dim.163 Dim.164 Dim.165  
## Variance 13.389 13.298 13.073 12.872 12.801  
## % of var. 0.032 0.032 0.031 0.031 0.030  
## Cumulative % of var. 96.521 96.553 96.584 96.615 96.645  
## Dim.166 Dim.167 Dim.168 Dim.169 Dim.170  
## Variance 12.616 12.526 12.381 12.338 12.194  
## % of var. 0.030 0.030 0.029 0.029 0.029  
## Cumulative % of var. 96.675 96.705 96.735 96.764 96.793  
## Dim.171 Dim.172 Dim.173 Dim.174 Dim.175  
## Variance 12.051 11.965 11.780 11.716 11.592  
## % of var. 0.029 0.028 0.028 0.028 0.028  
## Cumulative % of var. 96.822 96.850 96.878 96.906 96.934  
## Dim.176 Dim.177 Dim.178 Dim.179 Dim.180  
## Variance 11.287 11.160 11.056 10.858 10.780  
## % of var. 0.027 0.027 0.026 0.026 0.026  
## Cumulative % of var. 96.961 96.987 97.014 97.039 97.065  
## Dim.181 Dim.182 Dim.183 Dim.184 Dim.185  
## Variance 10.626 10.585 10.574 10.451 10.389  
## % of var. 0.025 0.025 0.025 0.025 0.025  
## Cumulative % of var. 97.090 97.116 97.141 97.166 97.190  
## Dim.186 Dim.187 Dim.188 Dim.189 Dim.190  
## Variance 10.327 10.181 10.151 9.965 9.863  
## % of var. 0.025 0.024 0.024 0.024 0.023  
## Cumulative % of var. 97.215 97.239 97.263 97.287 97.311  
## Dim.191 Dim.192 Dim.193 Dim.194 Dim.195  
## Variance 9.825 9.749 9.691 9.637 9.542  
## % of var. 0.023 0.023 0.023 0.023 0.023  
## Cumulative % of var. 97.334 97.357 97.380 97.403 97.426  
## Dim.196 Dim.197 Dim.198 Dim.199 Dim.200  
## Variance 9.502 9.399 9.342 9.198 9.163  
## % of var. 0.023 0.022 0.022 0.022 0.022  
## Cumulative % of var. 97.448 97.471 97.493 97.515 97.537  
## Dim.201 Dim.202 Dim.203 Dim.204 Dim.205  
## Variance 9.071 8.888 8.812 8.673 8.653  
## % of var. 0.022 0.021 0.021 0.021 0.021  
## Cumulative % of var. 97.558 97.580 97.601 97.621 97.642  
## Dim.206 Dim.207 Dim.208 Dim.209 Dim.210  
## Variance 8.584 8.445 8.376 8.341 8.302  
## % of var. 0.020 0.020 0.020 0.020 0.020  
## Cumulative % of var. 97.662 97.682 97.702 97.722 97.742  
## Dim.211 Dim.212 Dim.213 Dim.214 Dim.215  
## Variance 8.247 8.225 8.151 8.076 8.001  
## % of var. 0.020 0.020 0.019 0.019 0.019  
## Cumulative % of var. 97.762 97.781 97.801 97.820 97.839  
## Dim.216 Dim.217 Dim.218 Dim.219 Dim.220  
## Variance 7.939 7.859 7.823 7.807 7.708  
## % of var. 0.019 0.019 0.019 0.019 0.018  
## Cumulative % of var. 97.858 97.876 97.895 97.914 97.932  
## Dim.221 Dim.222 Dim.223 Dim.224 Dim.225  
## Variance 7.679 7.574 7.502 7.472 7.428  
## % of var. 0.018 0.018 0.018 0.018 0.018  
## Cumulative % of var. 97.950 97.968 97.986 98.004 98.022  
## Dim.226 Dim.227 Dim.228 Dim.229 Dim.230  
## Variance 7.380 7.295 7.171 7.139 7.066  
## % of var. 0.018 0.017 0.017 0.017 0.017  
## Cumulative % of var. 98.039 98.057 98.074 98.091 98.108  
## Dim.231 Dim.232 Dim.233 Dim.234 Dim.235  
## Variance 6.982 6.966 6.898 6.861 6.811  
## % of var. 0.017 0.017 0.016 0.016 0.016  
## Cumulative % of var. 98.124 98.141 98.157 98.173 98.190  
## Dim.236 Dim.237 Dim.238 Dim.239 Dim.240  
## Variance 6.726 6.659 6.631 6.563 6.485  
## % of var. 0.016 0.016 0.016 0.016 0.015  
## Cumulative % of var. 98.206 98.222 98.237 98.253 98.268  
## Dim.241 Dim.242 Dim.243 Dim.244 Dim.245  
## Variance 6.449 6.408 6.366 6.331 6.306  
## % of var. 0.015 0.015 0.015 0.015 0.015  
## Cumulative % of var. 98.284 98.299 98.314 98.329 98.344  
## Dim.246 Dim.247 Dim.248 Dim.249 Dim.250  
## Variance 6.230 6.177 6.149 6.014 6.005  
## % of var. 0.015 0.015 0.015 0.014 0.014  
## Cumulative % of var. 98.359 98.374 98.388 98.403 98.417  
## Dim.251 Dim.252 Dim.253 Dim.254 Dim.255  
## Variance 5.957 5.900 5.878 5.854 5.783  
## % of var. 0.014 0.014 0.014 0.014 0.014  
## Cumulative % of var. 98.431 98.445 98.459 98.473 98.487  
## Dim.256 Dim.257 Dim.258 Dim.259 Dim.260  
## Variance 5.769 5.685 5.658 5.632 5.605  
## % of var. 0.014 0.014 0.013 0.013 0.013  
## Cumulative % of var. 98.501 98.514 98.528 98.541 98.555  
## Dim.261 Dim.262 Dim.263 Dim.264 Dim.265  
## Variance 5.539 5.491 5.438 5.435 5.400  
## % of var. 0.013 0.013 0.013 0.013 0.013  
## Cumulative % of var. 98.568 98.581 98.594 98.607 98.620  
## Dim.266 Dim.267 Dim.268 Dim.269 Dim.270  
## Variance 5.343 5.329 5.233 5.218 5.188  
## % of var. 0.013 0.013 0.012 0.012 0.012  
## Cumulative % of var. 98.632 98.645 98.657 98.670 98.682  
## Dim.271 Dim.272 Dim.273 Dim.274 Dim.275  
## Variance 5.123 5.080 5.060 5.041 4.981  
## % of var. 0.012 0.012 0.012 0.012 0.012  
## Cumulative % of var. 98.694 98.706 98.719 98.731 98.742  
## Dim.276 Dim.277 Dim.278 Dim.279 Dim.280  
## Variance 4.964 4.911 4.873 4.857 4.850  
## % of var. 0.012 0.012 0.012 0.012 0.012  
## Cumulative % of var. 98.754 98.766 98.777 98.789 98.801  
## Dim.281 Dim.282 Dim.283 Dim.284 Dim.285  
## Variance 4.817 4.797 4.743 4.690 4.672  
## % of var. 0.011 0.011 0.011 0.011 0.011  
## Cumulative % of var. 98.812 98.823 98.835 98.846 98.857  
## Dim.286 Dim.287 Dim.288 Dim.289 Dim.290  
## Variance 4.640 4.599 4.585 4.555 4.495  
## % of var. 0.011 0.011 0.011 0.011 0.011  
## Cumulative % of var. 98.868 98.879 98.890 98.901 98.912  
## Dim.291 Dim.292 Dim.293 Dim.294 Dim.295  
## Variance 4.487 4.459 4.427 4.403 4.373  
## % of var. 0.011 0.011 0.011 0.010 0.010  
## Cumulative % of var. 98.922 98.933 98.943 98.954 98.964  
## Dim.296 Dim.297 Dim.298 Dim.299 Dim.300  
## Variance 4.344 4.304 4.278 4.250 4.174  
## % of var. 0.010 0.010 0.010 0.010 0.010  
## Cumulative % of var. 98.975 98.985 98.995 99.005 99.015  
## Dim.301 Dim.302 Dim.303 Dim.304 Dim.305  
## Variance 4.159 4.147 4.104 4.099 4.041  
## % of var. 0.010 0.010 0.010 0.010 0.010  
## Cumulative % of var. 99.025 99.035 99.045 99.054 99.064  
## Dim.306 Dim.307 Dim.308 Dim.309 Dim.310  
## Variance 4.012 3.996 3.948 3.919 3.906  
## % of var. 0.010 0.010 0.009 0.009 0.009  
## Cumulative % of var. 99.074 99.083 99.092 99.102 99.111  
## Dim.311 Dim.312 Dim.313 Dim.314 Dim.315  
## Variance 3.889 3.875 3.839 3.785 3.741  
## % of var. 0.009 0.009 0.009 0.009 0.009  
## Cumulative % of var. 99.120 99.130 99.139 99.148 99.157  
## Dim.316 Dim.317 Dim.318 Dim.319 Dim.320  
## Variance 3.724 3.682 3.668 3.644 3.624  
## % of var. 0.009 0.009 0.009 0.009 0.009  
## Cumulative % of var. 99.166 99.174 99.183 99.192 99.200  
## Dim.321 Dim.322 Dim.323 Dim.324 Dim.325  
## Variance 3.582 3.576 3.538 3.490 3.472  
## % of var. 0.009 0.009 0.008 0.008 0.008  
## Cumulative % of var. 99.209 99.217 99.226 99.234 99.242  
## Dim.326 Dim.327 Dim.328 Dim.329 Dim.330  
## Variance 3.443 3.392 3.378 3.353 3.342  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.251 99.259 99.267 99.275 99.283  
## Dim.331 Dim.332 Dim.333 Dim.334 Dim.335  
## Variance 3.335 3.289 3.266 3.250 3.243  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.291 99.298 99.306 99.314 99.322  
## Dim.336 Dim.337 Dim.338 Dim.339 Dim.340  
## Variance 3.228 3.202 3.183 3.169 3.157  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.329 99.337 99.345 99.352 99.360  
## Dim.341 Dim.342 Dim.343 Dim.344 Dim.345  
## Variance 3.103 3.083 3.070 3.052 3.031  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.367 99.374 99.382 99.389 99.396  
## Dim.346 Dim.347 Dim.348 Dim.349 Dim.350  
## Variance 3.011 3.002 2.950 2.918 2.889  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.403 99.410 99.417 99.424 99.431  
## Dim.351 Dim.352 Dim.353 Dim.354 Dim.355  
## Variance 2.832 2.819 2.810 2.768 2.757  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.438 99.445 99.451 99.458 99.465  
## Dim.356 Dim.357 Dim.358 Dim.359 Dim.360  
## Variance 2.733 2.709 2.695 2.678 2.671  
## % of var. 0.007 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.471 99.478 99.484 99.490 99.497  
## Dim.361 Dim.362 Dim.363 Dim.364 Dim.365  
## Variance 2.652 2.645 2.610 2.542 2.519  
## % of var. 0.006 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.503 99.509 99.516 99.522 99.528  
## Dim.366 Dim.367 Dim.368 Dim.369 Dim.370  
## Variance 2.515 2.492 2.468 2.448 2.434  
## % of var. 0.006 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.534 99.539 99.545 99.551 99.557  
## Dim.371 Dim.372 Dim.373 Dim.374 Dim.375  
## Variance 2.412 2.378 2.340 2.326 2.306  
## % of var. 0.006 0.006 0.006 0.006 0.005  
## Cumulative % of var. 99.563 99.568 99.574 99.580 99.585  
## Dim.376 Dim.377 Dim.378 Dim.379 Dim.380  
## Variance 2.300 2.281 2.263 2.240 2.216  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.590 99.596 99.601 99.607 99.612  
## Dim.381 Dim.382 Dim.383 Dim.384 Dim.385  
## Variance 2.203 2.175 2.146 2.087 2.077  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.617 99.622 99.627 99.632 99.637  
## Dim.386 Dim.387 Dim.388 Dim.389 Dim.390  
## Variance 2.044 2.036 2.020 1.995 1.976  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.642 99.647 99.652 99.657 99.661  
## Dim.391 Dim.392 Dim.393 Dim.394 Dim.395  
## Variance 1.959 1.942 1.918 1.895 1.886  
## % of var. 0.005 0.005 0.005 0.005 0.004  
## Cumulative % of var. 99.666 99.671 99.675 99.680 99.684  
## Dim.396 Dim.397 Dim.398 Dim.399 Dim.400  
## Variance 1.849 1.820 1.810 1.779 1.761  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.689 99.693 99.697 99.701 99.706  
## Dim.401 Dim.402 Dim.403 Dim.404 Dim.405  
## Variance 1.746 1.731 1.714 1.701 1.676  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.710 99.714 99.718 99.722 99.726  
## Dim.406 Dim.407 Dim.408 Dim.409 Dim.410  
## Variance 1.670 1.633 1.619 1.590 1.581  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.730 99.734 99.738 99.742 99.745  
## Dim.411 Dim.412 Dim.413 Dim.414 Dim.415  
## Variance 1.570 1.554 1.545 1.538 1.516  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.749 99.753 99.756 99.760 99.764  
## Dim.416 Dim.417 Dim.418 Dim.419 Dim.420  
## Variance 1.512 1.502 1.484 1.462 1.435  
## % of var. 0.004 0.004 0.004 0.003 0.003  
## Cumulative % of var. 99.767 99.771 99.774 99.778 99.781  
## Dim.421 Dim.422 Dim.423 Dim.424 Dim.425  
## Variance 1.421 1.390 1.380 1.369 1.344  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.785 99.788 99.791 99.795 99.798  
## Dim.426 Dim.427 Dim.428 Dim.429 Dim.430  
## Variance 1.335 1.292 1.289 1.277 1.236  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.801 99.804 99.807 99.810 99.813  
## Dim.431 Dim.432 Dim.433 Dim.434 Dim.435  
## Variance 1.213 1.205 1.200 1.189 1.172  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.816 99.819 99.822 99.825 99.827  
## Dim.436 Dim.437 Dim.438 Dim.439 Dim.440  
## Variance 1.148 1.132 1.114 1.103 1.096  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.830 99.833 99.835 99.838 99.841  
## Dim.441 Dim.442 Dim.443 Dim.444 Dim.445  
## Variance 1.085 1.057 1.053 1.031 1.027  
## % of var. 0.003 0.003 0.003 0.002 0.002  
## Cumulative % of var. 99.843 99.846 99.848 99.851 99.853  
## Dim.446 Dim.447 Dim.448 Dim.449 Dim.450  
## Variance 1.019 0.999 0.986 0.973 0.960  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.856 99.858 99.860 99.863 99.865  
## Dim.451 Dim.452 Dim.453 Dim.454 Dim.455  
## Variance 0.958 0.934 0.912 0.896 0.892  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.867 99.869 99.872 99.874 99.876  
## Dim.456 Dim.457 Dim.458 Dim.459 Dim.460  
## Variance 0.887 0.868 0.863 0.857 0.831  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.878 99.880 99.882 99.884 99.886  
## Dim.461 Dim.462 Dim.463 Dim.464 Dim.465  
## Variance 0.819 0.810 0.800 0.771 0.761  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.888 99.890 99.892 99.894 99.895  
## Dim.466 Dim.467 Dim.468 Dim.469 Dim.470  
## Variance 0.758 0.753 0.745 0.736 0.727  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.897 99.899 99.901 99.903 99.904  
## Dim.471 Dim.472 Dim.473 Dim.474 Dim.475  
## Variance 0.719 0.707 0.700 0.691 0.683  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.906 99.908 99.909 99.911 99.913  
## Dim.476 Dim.477 Dim.478 Dim.479 Dim.480  
## Variance 0.679 0.673 0.651 0.642 0.627  
## % of var. 0.002 0.002 0.002 0.002 0.001  
## Cumulative % of var. 99.914 99.916 99.917 99.919 99.920  
## Dim.481 Dim.482 Dim.483 Dim.484 Dim.485  
## Variance 0.619 0.612 0.604 0.591 0.580  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.922 99.923 99.925 99.926 99.928  
## Dim.486 Dim.487 Dim.488 Dim.489 Dim.490  
## Variance 0.572 0.568 0.559 0.553 0.546  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.929 99.930 99.932 99.933 99.934  
## Dim.491 Dim.492 Dim.493 Dim.494 Dim.495  
## Variance 0.535 0.532 0.518 0.510 0.500  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.936 99.937 99.938 99.939 99.940  
## Dim.496 Dim.497 Dim.498 Dim.499 Dim.500  
## Variance 0.483 0.480 0.472 0.467 0.458  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.942 99.943 99.944 99.945 99.946  
## Dim.501 Dim.502 Dim.503 Dim.504 Dim.505  
## Variance 0.457 0.452 0.445 0.441 0.431  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.947 99.948 99.949 99.950 99.951  
## Dim.506 Dim.507 Dim.508 Dim.509 Dim.510  
## Variance 0.412 0.403 0.397 0.392 0.386  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.952 99.953 99.954 99.955 99.956  
## Dim.511 Dim.512 Dim.513 Dim.514 Dim.515  
## Variance 0.383 0.376 0.373 0.365 0.355  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.957 99.958 99.959 99.960 99.961  
## Dim.516 Dim.517 Dim.518 Dim.519 Dim.520  
## Variance 0.350 0.348 0.346 0.343 0.337  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.961 99.962 99.963 99.964 99.965  
## Dim.521 Dim.522 Dim.523 Dim.524 Dim.525  
## Variance 0.327 0.326 0.315 0.311 0.311  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.965 99.966 99.967 99.968 99.968  
## Dim.526 Dim.527 Dim.528 Dim.529 Dim.530  
## Variance 0.307 0.302 0.299 0.297 0.279  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.969 99.970 99.971 99.971 99.972  
## Dim.531 Dim.532 Dim.533 Dim.534 Dim.535  
## Variance 0.278 0.268 0.264 0.261 0.256  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.973 99.973 99.974 99.975 99.975  
## Dim.536 Dim.537 Dim.538 Dim.539 Dim.540  
## Variance 0.253 0.247 0.241 0.234 0.232  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.976 99.976 99.977 99.977 99.978  
## Dim.541 Dim.542 Dim.543 Dim.544 Dim.545  
## Variance 0.229 0.227 0.220 0.218 0.217  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.979 99.979 99.980 99.980 99.981  
## Dim.546 Dim.547 Dim.548 Dim.549 Dim.550  
## Variance 0.214 0.205 0.195 0.194 0.186  
## % of var. 0.001 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.981 99.982 99.982 99.983 99.983  
## Dim.551 Dim.552 Dim.553 Dim.554 Dim.555  
## Variance 0.182 0.180 0.173 0.171 0.165  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.983 99.984 99.984 99.985 99.985  
## Dim.556 Dim.557 Dim.558 Dim.559 Dim.560  
## Variance 0.163 0.161 0.159 0.152 0.150  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.985 99.986 99.986 99.987 99.987  
## Dim.561 Dim.562 Dim.563 Dim.564 Dim.565  
## Variance 0.148 0.146 0.144 0.142 0.135  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.987 99.988 99.988 99.988 99.989  
## Dim.566 Dim.567 Dim.568 Dim.569 Dim.570  
## Variance 0.133 0.131 0.123 0.121 0.121  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.989 99.989 99.990 99.990 99.990  
## Dim.571 Dim.572 Dim.573 Dim.574 Dim.575  
## Variance 0.119 0.118 0.118 0.114 0.113  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.990 99.991 99.991 99.991 99.992  
## Dim.576 Dim.577 Dim.578 Dim.579 Dim.580  
## Variance 0.107 0.104 0.103 0.098 0.096  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.992 99.992 99.992 99.993 99.993  
## Dim.581 Dim.582 Dim.583 Dim.584 Dim.585  
## Variance 0.090 0.089 0.088 0.085 0.085  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.993 99.993 99.993 99.994 99.994  
## Dim.586 Dim.587 Dim.588 Dim.589 Dim.590  
## Variance 0.083 0.082 0.078 0.077 0.074  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.994 99.994 99.994 99.995 99.995  
## Dim.591 Dim.592 Dim.593 Dim.594 Dim.595  
## Variance 0.074 0.074 0.070 0.068 0.066  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.995 99.995 99.995 99.995 99.996  
## Dim.596 Dim.597 Dim.598 Dim.599 Dim.600  
## Variance 0.064 0.062 0.060 0.060 0.058  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.996 99.996 99.996 99.996 99.996  
## Dim.601 Dim.602 Dim.603 Dim.604 Dim.605  
## Variance 0.055 0.052 0.051 0.050 0.049  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.996 99.997 99.997 99.997 99.997  
## Dim.606 Dim.607 Dim.608 Dim.609 Dim.610  
## Variance 0.049 0.048 0.047 0.046 0.044  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.997 99.997 99.997 99.997 99.997  
## Dim.611 Dim.612 Dim.613 Dim.614 Dim.615  
## Variance 0.041 0.040 0.036 0.035 0.034  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.998 99.998  
## Dim.616 Dim.617 Dim.618 Dim.619 Dim.620  
## Variance 0.034 0.033 0.032 0.032 0.031  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.998 99.998  
## Dim.621 Dim.622 Dim.623 Dim.624 Dim.625  
## Variance 0.030 0.030 0.028 0.028 0.027  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.999 99.999  
## Dim.626 Dim.627 Dim.628 Dim.629 Dim.630  
## Variance 0.026 0.025 0.024 0.024 0.023  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.631 Dim.632 Dim.633 Dim.634 Dim.635  
## Variance 0.022 0.021 0.021 0.020 0.020  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.636 Dim.637 Dim.638 Dim.639 Dim.640  
## Variance 0.020 0.019 0.019 0.016 0.016  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.641 Dim.642 Dim.643 Dim.644 Dim.645  
## Variance 0.015 0.015 0.014 0.013 0.013  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 100.000 100.000  
## Dim.646 Dim.647 Dim.648 Dim.649 Dim.650  
## Variance 0.011 0.011 0.010 0.010 0.009  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.651 Dim.652 Dim.653 Dim.654 Dim.655  
## Variance 0.009 0.009 0.008 0.008 0.007  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.656 Dim.657 Dim.658 Dim.659 Dim.660  
## Variance 0.007 0.007 0.007 0.006 0.006  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.661 Dim.662 Dim.663 Dim.664 Dim.665  
## Variance 0.006 0.006 0.006 0.004 0.004  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.666 Dim.667 Dim.668 Dim.669 Dim.670  
## Variance 0.004 0.003 0.003 0.003 0.003  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.671 Dim.672 Dim.673 Dim.674 Dim.675  
## Variance 0.002 0.002 0.002 0.002 0.002  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.676 Dim.677 Dim.678 Dim.679 Dim.680  
## Variance 0.001 0.001 0.001 0.001 0.001  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.681 Dim.682 Dim.683 Dim.684 Dim.685  
## Variance 0.001 0.001 0.001 0.001 0.001  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.686 Dim.687 Dim.688 Dim.689 Dim.690  
## Variance 0.001 0.001 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.691 Dim.692 Dim.693 Dim.694 Dim.695  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.696 Dim.697 Dim.698 Dim.699 Dim.700  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.701 Dim.702 Dim.703 Dim.704 Dim.705  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.706 Dim.707 Dim.708 Dim.709 Dim.710  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.711 Dim.712 Dim.713 Dim.714 Dim.715  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.716 Dim.717 Dim.718 Dim.719 Dim.720  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.721 Dim.722 Dim.723 Dim.724 Dim.725  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.726 Dim.727 Dim.728 Dim.729 Dim.730  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.731 Dim.732 Dim.733 Dim.734 Dim.735  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.736 Dim.737 Dim.738 Dim.739 Dim.740  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.741 Dim.742 Dim.743 Dim.744 Dim.745  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.746 Dim.747 Dim.748 Dim.749 Dim.750  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.751 Dim.752 Dim.753 Dim.754 Dim.755  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.756 Dim.757 Dim.758 Dim.759 Dim.760  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.761 Dim.762 Dim.763 Dim.764 Dim.765  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.766 Dim.767 Dim.768 Dim.769 Dim.770  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.771 Dim.772 Dim.773 Dim.774 Dim.775  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.776 Dim.777 Dim.778 Dim.779 Dim.780  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.781 Dim.782 Dim.783  
## Variance 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000  
##   
## Individuals (the 10 first)  
## Dist Dim.1 ctr cos2 Dim.2 ctr cos2 Dim.3  
## 0 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 1 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 2 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 3 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 4 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 5 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 6 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 7 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 8 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 9 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## ctr cos2   
## 0 0.005 0.012 |  
## 1 0.005 0.012 |  
## 2 0.005 0.012 |  
## 3 0.005 0.012 |  
## 4 0.005 0.012 |  
## 5 0.005 0.012 |  
## 6 0.005 0.012 |  
## 7 0.005 0.012 |  
## 8 0.005 0.012 |  
## 9 0.005 0.012 |  
##   
## Variables (the 10 first)  
## Dim.1 ctr cos2 Dim.2 ctr cos2 Dim.3 ctr cos2   
## V1 | 0.419 0.001 0.176 | -0.407 0.006 0.165 | 0.198 0.002 0.039 |  
## V2 | 0.501 0.002 0.251 | 0.374 0.005 0.140 | 0.434 0.009 0.189 |  
## V3 | 0.534 0.002 0.285 | -0.467 0.008 0.218 | -0.077 0.000 0.006 |  
## V4 | 0.269 0.001 0.073 | 0.244 0.002 0.060 | -0.020 0.000 0.000 |  
## V5 | 0.452 0.002 0.205 | 0.373 0.005 0.139 | 0.449 0.009 0.202 |  
## V6 | 0.576 0.003 0.332 | 0.350 0.005 0.122 | 0.116 0.001 0.013 |  
## V7 | 0.502 0.002 0.252 | -0.054 0.000 0.003 | -0.407 0.008 0.166 |  
## V8 | 0.347 0.001 0.120 | 0.069 0.000 0.005 | 0.021 0.000 0.000 |  
## V9 | 0.640 0.003 0.410 | 0.221 0.002 0.049 | 0.050 0.000 0.002 |  
## V10 | 0.570 0.003 0.325 | -0.084 0.000 0.007 | 0.337 0.005 0.114 |

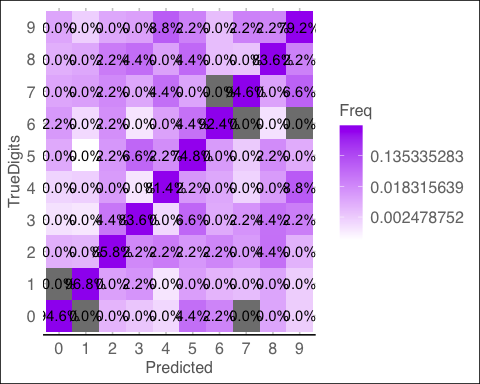
model\_nb\_50<-runNB(pca\_50)

##   
## ================================== Naive Bayes ==================================   
##   
## - Call: naive\_bayes.formula(formula = label ~ ., data = trainDF)   
## - Laplace: 0   
## - Classes: 10   
## - Samples: 25205   
## - Features: 50   
## - Conditional distributions:   
## - Gaussian: 50  
## - Prior probabilities:   
## - 0: 0.0984  
## - 1: 0.1115  
## - 2: 0.0995  
## - 3: 0.1036  
## - 4: 0.097  
## - 5: 0.0903  
## - 6: 0.0985  
## - 7: 0.1048  
## - 8: 0.0967  
## - 9: 0.0997  
##   
## ---------------------------------------------------------------------------------

## Warning: predict.naive\_bayes(): more features in the newdata are provided as  
## there are probability tables in the object. Calculation is performed based on  
## features to be found in the tables.

## TrueDigits  
## Predicted 0 1 2 3 4 5 6 7 8 9  
## 0 1507 0 9 2 3 11 18 12 9 12  
## 1 0 1787 9 2 4 1 3 17 13 4  
## 2 8 15 1427 56 17 20 25 30 46 12  
## 3 5 22 32 1441 2 94 2 12 77 15  
## 4 3 2 49 3 1409 28 15 74 15 134  
## 5 77 17 21 97 21 1305 68 14 90 41  
## 6 36 8 34 11 12 17 1521 0 6 6  
## 7 0 6 16 21 3 4 0 1477 5 37  
## 8 12 12 64 62 16 27 2 13 1323 32  
## 9 4 4 9 45 141 11 0 111 41 1382  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 0.8680560 0.8533846 0.8628441 0.8731400 0.1115213   
## AccuracyPValue McnemarPValue   
## 0.0000000 NaN

## Warning: Transformation introduced infinite values in discrete y-axis



pca\_100<-getTopPCAFeatures(DigitTotalDF,100)

##   
## Call:  
## PCA(X = t(select(df, -label)), ncp = ncp, graph = FALSE)   
##   
##   
## Eigenvalues  
## Dim.1 Dim.2 Dim.3 Dim.4 Dim.5  
## Variance 12975.886 2635.187 2146.048 1747.535 1465.951  
## % of var. 30.895 6.274 5.110 4.161 3.490  
## Cumulative % of var. 30.895 37.169 42.279 46.440 49.930  
## Dim.6 Dim.7 Dim.8 Dim.9 Dim.10  
## Variance 1358.547 1135.701 884.896 855.251 734.998  
## % of var. 3.235 2.704 2.107 2.036 1.750  
## Cumulative % of var. 53.165 55.869 57.976 60.012 61.762  
## Dim.11 Dim.12 Dim.13 Dim.14 Dim.15  
## Variance 664.973 634.157 551.036 515.912 483.259  
## % of var. 1.583 1.510 1.312 1.228 1.151  
## Cumulative % of var. 63.345 64.855 66.167 67.395 68.546  
## Dim.16 Dim.17 Dim.18 Dim.19 Dim.20  
## Variance 451.099 420.945 388.013 361.053 349.113  
## % of var. 1.074 1.002 0.924 0.860 0.831  
## Cumulative % of var. 69.620 70.622 71.546 72.406 73.237  
## Dim.21 Dim.22 Dim.23 Dim.24 Dim.25  
## Variance 329.622 310.712 298.708 281.495 275.884  
## % of var. 0.785 0.740 0.711 0.670 0.657  
## Cumulative % of var. 74.022 74.762 75.473 76.143 76.800  
## Dim.26 Dim.27 Dim.28 Dim.29 Dim.30  
## Variance 268.984 252.330 236.925 226.065 219.194  
## % of var. 0.640 0.601 0.564 0.538 0.522  
## Cumulative % of var. 77.440 78.041 78.605 79.144 79.665  
## Dim.31 Dim.32 Dim.33 Dim.34 Dim.35  
## Variance 203.959 202.286 185.225 181.697 173.988  
## % of var. 0.486 0.482 0.441 0.433 0.414  
## Cumulative % of var. 80.151 80.633 81.074 81.506 81.921  
## Dim.36 Dim.37 Dim.38 Dim.39 Dim.40  
## Variance 172.056 160.255 156.645 149.836 146.561  
## % of var. 0.410 0.382 0.373 0.357 0.349  
## Cumulative % of var. 82.330 82.712 83.085 83.441 83.790  
## Dim.41 Dim.42 Dim.43 Dim.44 Dim.45  
## Variance 140.441 137.162 131.753 125.734 123.529  
## % of var. 0.334 0.327 0.314 0.299 0.294  
## Cumulative % of var. 84.125 84.451 84.765 85.064 85.359  
## Dim.46 Dim.47 Dim.48 Dim.49 Dim.50  
## Variance 122.862 115.733 109.800 108.063 100.205  
## % of var. 0.293 0.276 0.261 0.257 0.239  
## Cumulative % of var. 85.651 85.927 86.188 86.445 86.684  
## Dim.51 Dim.52 Dim.53 Dim.54 Dim.55  
## Variance 99.257 98.063 93.201 92.249 89.483  
## % of var. 0.236 0.233 0.222 0.220 0.213  
## Cumulative % of var. 86.920 87.154 87.376 87.595 87.808  
## Dim.56 Dim.57 Dim.58 Dim.59 Dim.60  
## Variance 87.033 85.270 83.513 81.175 78.975  
## % of var. 0.207 0.203 0.199 0.193 0.188  
## Cumulative % of var. 88.016 88.219 88.417 88.611 88.799  
## Dim.61 Dim.62 Dim.63 Dim.64 Dim.65  
## Variance 76.732 76.033 73.240 71.087 69.891  
## % of var. 0.183 0.181 0.174 0.169 0.166  
## Cumulative % of var. 88.981 89.163 89.337 89.506 89.673  
## Dim.66 Dim.67 Dim.68 Dim.69 Dim.70  
## Variance 67.076 65.846 63.704 62.539 61.504  
## % of var. 0.160 0.157 0.152 0.149 0.146  
## Cumulative % of var. 89.832 89.989 90.141 90.290 90.436  
## Dim.71 Dim.72 Dim.73 Dim.74 Dim.75  
## Variance 58.632 58.470 56.065 55.675 53.772  
## % of var. 0.140 0.139 0.133 0.133 0.128  
## Cumulative % of var. 90.576 90.715 90.848 90.981 91.109  
## Dim.76 Dim.77 Dim.78 Dim.79 Dim.80  
## Variance 52.344 50.752 50.151 47.664 47.097  
## % of var. 0.125 0.121 0.119 0.113 0.112  
## Cumulative % of var. 91.234 91.354 91.474 91.587 91.699  
## Dim.81 Dim.82 Dim.83 Dim.84 Dim.85  
## Variance 45.959 45.670 45.134 43.399 43.159  
## % of var. 0.109 0.109 0.107 0.103 0.103  
## Cumulative % of var. 91.809 91.918 92.025 92.128 92.231  
## Dim.86 Dim.87 Dim.88 Dim.89 Dim.90  
## Variance 42.732 41.986 40.222 39.688 38.618  
## % of var. 0.102 0.100 0.096 0.094 0.092  
## Cumulative % of var. 92.333 92.433 92.529 92.623 92.715  
## Dim.91 Dim.92 Dim.93 Dim.94 Dim.95  
## Variance 37.900 37.111 36.558 35.693 35.451  
## % of var. 0.090 0.088 0.087 0.085 0.084  
## Cumulative % of var. 92.805 92.894 92.981 93.066 93.150  
## Dim.96 Dim.97 Dim.98 Dim.99 Dim.100  
## Variance 35.000 33.741 33.657 33.108 32.255  
## % of var. 0.083 0.080 0.080 0.079 0.077  
## Cumulative % of var. 93.233 93.314 93.394 93.473 93.550  
## Dim.101 Dim.102 Dim.103 Dim.104 Dim.105  
## Variance 31.708 30.818 30.512 29.322 28.925  
## % of var. 0.075 0.073 0.073 0.070 0.069  
## Cumulative % of var. 93.625 93.698 93.771 93.841 93.910  
## Dim.106 Dim.107 Dim.108 Dim.109 Dim.110  
## Variance 28.795 27.708 27.390 27.292 26.586  
## % of var. 0.069 0.066 0.065 0.065 0.063  
## Cumulative % of var. 93.978 94.044 94.109 94.174 94.238  
## Dim.111 Dim.112 Dim.113 Dim.114 Dim.115  
## Variance 26.039 25.709 25.584 25.304 25.182  
## % of var. 0.062 0.061 0.061 0.060 0.060  
## Cumulative % of var. 94.300 94.361 94.422 94.482 94.542  
## Dim.116 Dim.117 Dim.118 Dim.119 Dim.120  
## Variance 24.206 23.951 23.818 23.054 22.815  
## % of var. 0.058 0.057 0.057 0.055 0.054  
## Cumulative % of var. 94.600 94.657 94.713 94.768 94.823  
## Dim.121 Dim.122 Dim.123 Dim.124 Dim.125  
## Variance 22.628 22.352 22.224 21.862 21.222  
## % of var. 0.054 0.053 0.053 0.052 0.051  
## Cumulative % of var. 94.877 94.930 94.983 95.035 95.085  
## Dim.126 Dim.127 Dim.128 Dim.129 Dim.130  
## Variance 21.059 20.634 20.467 20.033 19.894  
## % of var. 0.050 0.049 0.049 0.048 0.047  
## Cumulative % of var. 95.135 95.185 95.233 95.281 95.328  
## Dim.131 Dim.132 Dim.133 Dim.134 Dim.135  
## Variance 19.503 19.289 19.223 18.915 18.460  
## % of var. 0.046 0.046 0.046 0.045 0.044  
## Cumulative % of var. 95.375 95.421 95.466 95.511 95.555  
## Dim.136 Dim.137 Dim.138 Dim.139 Dim.140  
## Variance 18.290 18.250 18.088 17.507 17.219  
## % of var. 0.044 0.043 0.043 0.042 0.041  
## Cumulative % of var. 95.599 95.642 95.686 95.727 95.768  
## Dim.141 Dim.142 Dim.143 Dim.144 Dim.145  
## Variance 16.825 16.398 16.186 16.169 15.900  
## % of var. 0.040 0.039 0.039 0.038 0.038  
## Cumulative % of var. 95.808 95.847 95.886 95.924 95.962  
## Dim.146 Dim.147 Dim.148 Dim.149 Dim.150  
## Variance 15.761 15.658 15.577 15.477 15.321  
## % of var. 0.038 0.037 0.037 0.037 0.036  
## Cumulative % of var. 96.000 96.037 96.074 96.111 96.147  
## Dim.151 Dim.152 Dim.153 Dim.154 Dim.155  
## Variance 15.094 14.926 14.829 14.612 14.562  
## % of var. 0.036 0.036 0.035 0.035 0.035  
## Cumulative % of var. 96.183 96.219 96.254 96.289 96.324  
## Dim.156 Dim.157 Dim.158 Dim.159 Dim.160  
## Variance 14.468 14.192 13.834 13.675 13.475  
## % of var. 0.034 0.034 0.033 0.033 0.032  
## Cumulative % of var. 96.358 96.392 96.425 96.457 96.489  
## Dim.161 Dim.162 Dim.163 Dim.164 Dim.165  
## Variance 13.389 13.298 13.073 12.872 12.801  
## % of var. 0.032 0.032 0.031 0.031 0.030  
## Cumulative % of var. 96.521 96.553 96.584 96.615 96.645  
## Dim.166 Dim.167 Dim.168 Dim.169 Dim.170  
## Variance 12.616 12.526 12.381 12.338 12.194  
## % of var. 0.030 0.030 0.029 0.029 0.029  
## Cumulative % of var. 96.675 96.705 96.735 96.764 96.793  
## Dim.171 Dim.172 Dim.173 Dim.174 Dim.175  
## Variance 12.051 11.965 11.780 11.716 11.592  
## % of var. 0.029 0.028 0.028 0.028 0.028  
## Cumulative % of var. 96.822 96.850 96.878 96.906 96.934  
## Dim.176 Dim.177 Dim.178 Dim.179 Dim.180  
## Variance 11.287 11.160 11.056 10.858 10.780  
## % of var. 0.027 0.027 0.026 0.026 0.026  
## Cumulative % of var. 96.961 96.987 97.014 97.039 97.065  
## Dim.181 Dim.182 Dim.183 Dim.184 Dim.185  
## Variance 10.626 10.585 10.574 10.451 10.389  
## % of var. 0.025 0.025 0.025 0.025 0.025  
## Cumulative % of var. 97.090 97.116 97.141 97.166 97.190  
## Dim.186 Dim.187 Dim.188 Dim.189 Dim.190  
## Variance 10.327 10.181 10.151 9.965 9.863  
## % of var. 0.025 0.024 0.024 0.024 0.023  
## Cumulative % of var. 97.215 97.239 97.263 97.287 97.311  
## Dim.191 Dim.192 Dim.193 Dim.194 Dim.195  
## Variance 9.825 9.749 9.691 9.637 9.542  
## % of var. 0.023 0.023 0.023 0.023 0.023  
## Cumulative % of var. 97.334 97.357 97.380 97.403 97.426  
## Dim.196 Dim.197 Dim.198 Dim.199 Dim.200  
## Variance 9.502 9.399 9.342 9.198 9.163  
## % of var. 0.023 0.022 0.022 0.022 0.022  
## Cumulative % of var. 97.448 97.471 97.493 97.515 97.537  
## Dim.201 Dim.202 Dim.203 Dim.204 Dim.205  
## Variance 9.071 8.888 8.812 8.673 8.653  
## % of var. 0.022 0.021 0.021 0.021 0.021  
## Cumulative % of var. 97.558 97.580 97.601 97.621 97.642  
## Dim.206 Dim.207 Dim.208 Dim.209 Dim.210  
## Variance 8.584 8.445 8.376 8.341 8.302  
## % of var. 0.020 0.020 0.020 0.020 0.020  
## Cumulative % of var. 97.662 97.682 97.702 97.722 97.742  
## Dim.211 Dim.212 Dim.213 Dim.214 Dim.215  
## Variance 8.247 8.225 8.151 8.076 8.001  
## % of var. 0.020 0.020 0.019 0.019 0.019  
## Cumulative % of var. 97.762 97.781 97.801 97.820 97.839  
## Dim.216 Dim.217 Dim.218 Dim.219 Dim.220  
## Variance 7.939 7.859 7.823 7.807 7.708  
## % of var. 0.019 0.019 0.019 0.019 0.018  
## Cumulative % of var. 97.858 97.876 97.895 97.914 97.932  
## Dim.221 Dim.222 Dim.223 Dim.224 Dim.225  
## Variance 7.679 7.574 7.502 7.472 7.428  
## % of var. 0.018 0.018 0.018 0.018 0.018  
## Cumulative % of var. 97.950 97.968 97.986 98.004 98.022  
## Dim.226 Dim.227 Dim.228 Dim.229 Dim.230  
## Variance 7.380 7.295 7.171 7.139 7.066  
## % of var. 0.018 0.017 0.017 0.017 0.017  
## Cumulative % of var. 98.039 98.057 98.074 98.091 98.108  
## Dim.231 Dim.232 Dim.233 Dim.234 Dim.235  
## Variance 6.982 6.966 6.898 6.861 6.811  
## % of var. 0.017 0.017 0.016 0.016 0.016  
## Cumulative % of var. 98.124 98.141 98.157 98.173 98.190  
## Dim.236 Dim.237 Dim.238 Dim.239 Dim.240  
## Variance 6.726 6.659 6.631 6.563 6.485  
## % of var. 0.016 0.016 0.016 0.016 0.015  
## Cumulative % of var. 98.206 98.222 98.237 98.253 98.268  
## Dim.241 Dim.242 Dim.243 Dim.244 Dim.245  
## Variance 6.449 6.408 6.366 6.331 6.306  
## % of var. 0.015 0.015 0.015 0.015 0.015  
## Cumulative % of var. 98.284 98.299 98.314 98.329 98.344  
## Dim.246 Dim.247 Dim.248 Dim.249 Dim.250  
## Variance 6.230 6.177 6.149 6.014 6.005  
## % of var. 0.015 0.015 0.015 0.014 0.014  
## Cumulative % of var. 98.359 98.374 98.388 98.403 98.417  
## Dim.251 Dim.252 Dim.253 Dim.254 Dim.255  
## Variance 5.957 5.900 5.878 5.854 5.783  
## % of var. 0.014 0.014 0.014 0.014 0.014  
## Cumulative % of var. 98.431 98.445 98.459 98.473 98.487  
## Dim.256 Dim.257 Dim.258 Dim.259 Dim.260  
## Variance 5.769 5.685 5.658 5.632 5.605  
## % of var. 0.014 0.014 0.013 0.013 0.013  
## Cumulative % of var. 98.501 98.514 98.528 98.541 98.555  
## Dim.261 Dim.262 Dim.263 Dim.264 Dim.265  
## Variance 5.539 5.491 5.438 5.435 5.400  
## % of var. 0.013 0.013 0.013 0.013 0.013  
## Cumulative % of var. 98.568 98.581 98.594 98.607 98.620  
## Dim.266 Dim.267 Dim.268 Dim.269 Dim.270  
## Variance 5.343 5.329 5.233 5.218 5.188  
## % of var. 0.013 0.013 0.012 0.012 0.012  
## Cumulative % of var. 98.632 98.645 98.657 98.670 98.682  
## Dim.271 Dim.272 Dim.273 Dim.274 Dim.275  
## Variance 5.123 5.080 5.060 5.041 4.981  
## % of var. 0.012 0.012 0.012 0.012 0.012  
## Cumulative % of var. 98.694 98.706 98.719 98.731 98.742  
## Dim.276 Dim.277 Dim.278 Dim.279 Dim.280  
## Variance 4.964 4.911 4.873 4.857 4.850  
## % of var. 0.012 0.012 0.012 0.012 0.012  
## Cumulative % of var. 98.754 98.766 98.777 98.789 98.801  
## Dim.281 Dim.282 Dim.283 Dim.284 Dim.285  
## Variance 4.817 4.797 4.743 4.690 4.672  
## % of var. 0.011 0.011 0.011 0.011 0.011  
## Cumulative % of var. 98.812 98.823 98.835 98.846 98.857  
## Dim.286 Dim.287 Dim.288 Dim.289 Dim.290  
## Variance 4.640 4.599 4.585 4.555 4.495  
## % of var. 0.011 0.011 0.011 0.011 0.011  
## Cumulative % of var. 98.868 98.879 98.890 98.901 98.912  
## Dim.291 Dim.292 Dim.293 Dim.294 Dim.295  
## Variance 4.487 4.459 4.427 4.403 4.373  
## % of var. 0.011 0.011 0.011 0.010 0.010  
## Cumulative % of var. 98.922 98.933 98.943 98.954 98.964  
## Dim.296 Dim.297 Dim.298 Dim.299 Dim.300  
## Variance 4.344 4.304 4.278 4.250 4.174  
## % of var. 0.010 0.010 0.010 0.010 0.010  
## Cumulative % of var. 98.975 98.985 98.995 99.005 99.015  
## Dim.301 Dim.302 Dim.303 Dim.304 Dim.305  
## Variance 4.159 4.147 4.104 4.099 4.041  
## % of var. 0.010 0.010 0.010 0.010 0.010  
## Cumulative % of var. 99.025 99.035 99.045 99.054 99.064  
## Dim.306 Dim.307 Dim.308 Dim.309 Dim.310  
## Variance 4.012 3.996 3.948 3.919 3.906  
## % of var. 0.010 0.010 0.009 0.009 0.009  
## Cumulative % of var. 99.074 99.083 99.092 99.102 99.111  
## Dim.311 Dim.312 Dim.313 Dim.314 Dim.315  
## Variance 3.889 3.875 3.839 3.785 3.741  
## % of var. 0.009 0.009 0.009 0.009 0.009  
## Cumulative % of var. 99.120 99.130 99.139 99.148 99.157  
## Dim.316 Dim.317 Dim.318 Dim.319 Dim.320  
## Variance 3.724 3.682 3.668 3.644 3.624  
## % of var. 0.009 0.009 0.009 0.009 0.009  
## Cumulative % of var. 99.166 99.174 99.183 99.192 99.200  
## Dim.321 Dim.322 Dim.323 Dim.324 Dim.325  
## Variance 3.582 3.576 3.538 3.490 3.472  
## % of var. 0.009 0.009 0.008 0.008 0.008  
## Cumulative % of var. 99.209 99.217 99.226 99.234 99.242  
## Dim.326 Dim.327 Dim.328 Dim.329 Dim.330  
## Variance 3.443 3.392 3.378 3.353 3.342  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.251 99.259 99.267 99.275 99.283  
## Dim.331 Dim.332 Dim.333 Dim.334 Dim.335  
## Variance 3.335 3.289 3.266 3.250 3.243  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.291 99.298 99.306 99.314 99.322  
## Dim.336 Dim.337 Dim.338 Dim.339 Dim.340  
## Variance 3.228 3.202 3.183 3.169 3.157  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.329 99.337 99.345 99.352 99.360  
## Dim.341 Dim.342 Dim.343 Dim.344 Dim.345  
## Variance 3.103 3.083 3.070 3.052 3.031  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.367 99.374 99.382 99.389 99.396  
## Dim.346 Dim.347 Dim.348 Dim.349 Dim.350  
## Variance 3.011 3.002 2.950 2.918 2.889  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.403 99.410 99.417 99.424 99.431  
## Dim.351 Dim.352 Dim.353 Dim.354 Dim.355  
## Variance 2.832 2.819 2.810 2.768 2.757  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.438 99.445 99.451 99.458 99.465  
## Dim.356 Dim.357 Dim.358 Dim.359 Dim.360  
## Variance 2.733 2.709 2.695 2.678 2.671  
## % of var. 0.007 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.471 99.478 99.484 99.490 99.497  
## Dim.361 Dim.362 Dim.363 Dim.364 Dim.365  
## Variance 2.652 2.645 2.610 2.542 2.519  
## % of var. 0.006 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.503 99.509 99.516 99.522 99.528  
## Dim.366 Dim.367 Dim.368 Dim.369 Dim.370  
## Variance 2.515 2.492 2.468 2.448 2.434  
## % of var. 0.006 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.534 99.539 99.545 99.551 99.557  
## Dim.371 Dim.372 Dim.373 Dim.374 Dim.375  
## Variance 2.412 2.378 2.340 2.326 2.306  
## % of var. 0.006 0.006 0.006 0.006 0.005  
## Cumulative % of var. 99.563 99.568 99.574 99.580 99.585  
## Dim.376 Dim.377 Dim.378 Dim.379 Dim.380  
## Variance 2.300 2.281 2.263 2.240 2.216  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.590 99.596 99.601 99.607 99.612  
## Dim.381 Dim.382 Dim.383 Dim.384 Dim.385  
## Variance 2.203 2.175 2.146 2.087 2.077  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.617 99.622 99.627 99.632 99.637  
## Dim.386 Dim.387 Dim.388 Dim.389 Dim.390  
## Variance 2.044 2.036 2.020 1.995 1.976  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.642 99.647 99.652 99.657 99.661  
## Dim.391 Dim.392 Dim.393 Dim.394 Dim.395  
## Variance 1.959 1.942 1.918 1.895 1.886  
## % of var. 0.005 0.005 0.005 0.005 0.004  
## Cumulative % of var. 99.666 99.671 99.675 99.680 99.684  
## Dim.396 Dim.397 Dim.398 Dim.399 Dim.400  
## Variance 1.849 1.820 1.810 1.779 1.761  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.689 99.693 99.697 99.701 99.706  
## Dim.401 Dim.402 Dim.403 Dim.404 Dim.405  
## Variance 1.746 1.731 1.714 1.701 1.676  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.710 99.714 99.718 99.722 99.726  
## Dim.406 Dim.407 Dim.408 Dim.409 Dim.410  
## Variance 1.670 1.633 1.619 1.590 1.581  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.730 99.734 99.738 99.742 99.745  
## Dim.411 Dim.412 Dim.413 Dim.414 Dim.415  
## Variance 1.570 1.554 1.545 1.538 1.516  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.749 99.753 99.756 99.760 99.764  
## Dim.416 Dim.417 Dim.418 Dim.419 Dim.420  
## Variance 1.512 1.502 1.484 1.462 1.435  
## % of var. 0.004 0.004 0.004 0.003 0.003  
## Cumulative % of var. 99.767 99.771 99.774 99.778 99.781  
## Dim.421 Dim.422 Dim.423 Dim.424 Dim.425  
## Variance 1.421 1.390 1.380 1.369 1.344  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.785 99.788 99.791 99.795 99.798  
## Dim.426 Dim.427 Dim.428 Dim.429 Dim.430  
## Variance 1.335 1.292 1.289 1.277 1.236  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.801 99.804 99.807 99.810 99.813  
## Dim.431 Dim.432 Dim.433 Dim.434 Dim.435  
## Variance 1.213 1.205 1.200 1.189 1.172  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.816 99.819 99.822 99.825 99.827  
## Dim.436 Dim.437 Dim.438 Dim.439 Dim.440  
## Variance 1.148 1.132 1.114 1.103 1.096  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.830 99.833 99.835 99.838 99.841  
## Dim.441 Dim.442 Dim.443 Dim.444 Dim.445  
## Variance 1.085 1.057 1.053 1.031 1.027  
## % of var. 0.003 0.003 0.003 0.002 0.002  
## Cumulative % of var. 99.843 99.846 99.848 99.851 99.853  
## Dim.446 Dim.447 Dim.448 Dim.449 Dim.450  
## Variance 1.019 0.999 0.986 0.973 0.960  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.856 99.858 99.860 99.863 99.865  
## Dim.451 Dim.452 Dim.453 Dim.454 Dim.455  
## Variance 0.958 0.934 0.912 0.896 0.892  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.867 99.869 99.872 99.874 99.876  
## Dim.456 Dim.457 Dim.458 Dim.459 Dim.460  
## Variance 0.887 0.868 0.863 0.857 0.831  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.878 99.880 99.882 99.884 99.886  
## Dim.461 Dim.462 Dim.463 Dim.464 Dim.465  
## Variance 0.819 0.810 0.800 0.771 0.761  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.888 99.890 99.892 99.894 99.895  
## Dim.466 Dim.467 Dim.468 Dim.469 Dim.470  
## Variance 0.758 0.753 0.745 0.736 0.727  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.897 99.899 99.901 99.903 99.904  
## Dim.471 Dim.472 Dim.473 Dim.474 Dim.475  
## Variance 0.719 0.707 0.700 0.691 0.683  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.906 99.908 99.909 99.911 99.913  
## Dim.476 Dim.477 Dim.478 Dim.479 Dim.480  
## Variance 0.679 0.673 0.651 0.642 0.627  
## % of var. 0.002 0.002 0.002 0.002 0.001  
## Cumulative % of var. 99.914 99.916 99.917 99.919 99.920  
## Dim.481 Dim.482 Dim.483 Dim.484 Dim.485  
## Variance 0.619 0.612 0.604 0.591 0.580  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.922 99.923 99.925 99.926 99.928  
## Dim.486 Dim.487 Dim.488 Dim.489 Dim.490  
## Variance 0.572 0.568 0.559 0.553 0.546  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.929 99.930 99.932 99.933 99.934  
## Dim.491 Dim.492 Dim.493 Dim.494 Dim.495  
## Variance 0.535 0.532 0.518 0.510 0.500  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.936 99.937 99.938 99.939 99.940  
## Dim.496 Dim.497 Dim.498 Dim.499 Dim.500  
## Variance 0.483 0.480 0.472 0.467 0.458  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.942 99.943 99.944 99.945 99.946  
## Dim.501 Dim.502 Dim.503 Dim.504 Dim.505  
## Variance 0.457 0.452 0.445 0.441 0.431  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.947 99.948 99.949 99.950 99.951  
## Dim.506 Dim.507 Dim.508 Dim.509 Dim.510  
## Variance 0.412 0.403 0.397 0.392 0.386  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.952 99.953 99.954 99.955 99.956  
## Dim.511 Dim.512 Dim.513 Dim.514 Dim.515  
## Variance 0.383 0.376 0.373 0.365 0.355  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.957 99.958 99.959 99.960 99.961  
## Dim.516 Dim.517 Dim.518 Dim.519 Dim.520  
## Variance 0.350 0.348 0.346 0.343 0.337  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.961 99.962 99.963 99.964 99.965  
## Dim.521 Dim.522 Dim.523 Dim.524 Dim.525  
## Variance 0.327 0.326 0.315 0.311 0.311  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.965 99.966 99.967 99.968 99.968  
## Dim.526 Dim.527 Dim.528 Dim.529 Dim.530  
## Variance 0.307 0.302 0.299 0.297 0.279  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.969 99.970 99.971 99.971 99.972  
## Dim.531 Dim.532 Dim.533 Dim.534 Dim.535  
## Variance 0.278 0.268 0.264 0.261 0.256  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.973 99.973 99.974 99.975 99.975  
## Dim.536 Dim.537 Dim.538 Dim.539 Dim.540  
## Variance 0.253 0.247 0.241 0.234 0.232  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.976 99.976 99.977 99.977 99.978  
## Dim.541 Dim.542 Dim.543 Dim.544 Dim.545  
## Variance 0.229 0.227 0.220 0.218 0.217  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.979 99.979 99.980 99.980 99.981  
## Dim.546 Dim.547 Dim.548 Dim.549 Dim.550  
## Variance 0.214 0.205 0.195 0.194 0.186  
## % of var. 0.001 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.981 99.982 99.982 99.983 99.983  
## Dim.551 Dim.552 Dim.553 Dim.554 Dim.555  
## Variance 0.182 0.180 0.173 0.171 0.165  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.983 99.984 99.984 99.985 99.985  
## Dim.556 Dim.557 Dim.558 Dim.559 Dim.560  
## Variance 0.163 0.161 0.159 0.152 0.150  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.985 99.986 99.986 99.987 99.987  
## Dim.561 Dim.562 Dim.563 Dim.564 Dim.565  
## Variance 0.148 0.146 0.144 0.142 0.135  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.987 99.988 99.988 99.988 99.989  
## Dim.566 Dim.567 Dim.568 Dim.569 Dim.570  
## Variance 0.133 0.131 0.123 0.121 0.121  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.989 99.989 99.990 99.990 99.990  
## Dim.571 Dim.572 Dim.573 Dim.574 Dim.575  
## Variance 0.119 0.118 0.118 0.114 0.113  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.990 99.991 99.991 99.991 99.992  
## Dim.576 Dim.577 Dim.578 Dim.579 Dim.580  
## Variance 0.107 0.104 0.103 0.098 0.096  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.992 99.992 99.992 99.993 99.993  
## Dim.581 Dim.582 Dim.583 Dim.584 Dim.585  
## Variance 0.090 0.089 0.088 0.085 0.085  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.993 99.993 99.993 99.994 99.994  
## Dim.586 Dim.587 Dim.588 Dim.589 Dim.590  
## Variance 0.083 0.082 0.078 0.077 0.074  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.994 99.994 99.994 99.995 99.995  
## Dim.591 Dim.592 Dim.593 Dim.594 Dim.595  
## Variance 0.074 0.074 0.070 0.068 0.066  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.995 99.995 99.995 99.995 99.996  
## Dim.596 Dim.597 Dim.598 Dim.599 Dim.600  
## Variance 0.064 0.062 0.060 0.060 0.058  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.996 99.996 99.996 99.996 99.996  
## Dim.601 Dim.602 Dim.603 Dim.604 Dim.605  
## Variance 0.055 0.052 0.051 0.050 0.049  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.996 99.997 99.997 99.997 99.997  
## Dim.606 Dim.607 Dim.608 Dim.609 Dim.610  
## Variance 0.049 0.048 0.047 0.046 0.044  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.997 99.997 99.997 99.997 99.997  
## Dim.611 Dim.612 Dim.613 Dim.614 Dim.615  
## Variance 0.041 0.040 0.036 0.035 0.034  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.998 99.998  
## Dim.616 Dim.617 Dim.618 Dim.619 Dim.620  
## Variance 0.034 0.033 0.032 0.032 0.031  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.998 99.998  
## Dim.621 Dim.622 Dim.623 Dim.624 Dim.625  
## Variance 0.030 0.030 0.028 0.028 0.027  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.999 99.999  
## Dim.626 Dim.627 Dim.628 Dim.629 Dim.630  
## Variance 0.026 0.025 0.024 0.024 0.023  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.631 Dim.632 Dim.633 Dim.634 Dim.635  
## Variance 0.022 0.021 0.021 0.020 0.020  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.636 Dim.637 Dim.638 Dim.639 Dim.640  
## Variance 0.020 0.019 0.019 0.016 0.016  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.641 Dim.642 Dim.643 Dim.644 Dim.645  
## Variance 0.015 0.015 0.014 0.013 0.013  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 100.000 100.000  
## Dim.646 Dim.647 Dim.648 Dim.649 Dim.650  
## Variance 0.011 0.011 0.010 0.010 0.009  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.651 Dim.652 Dim.653 Dim.654 Dim.655  
## Variance 0.009 0.009 0.008 0.008 0.007  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.656 Dim.657 Dim.658 Dim.659 Dim.660  
## Variance 0.007 0.007 0.007 0.006 0.006  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.661 Dim.662 Dim.663 Dim.664 Dim.665  
## Variance 0.006 0.006 0.006 0.004 0.004  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.666 Dim.667 Dim.668 Dim.669 Dim.670  
## Variance 0.004 0.003 0.003 0.003 0.003  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.671 Dim.672 Dim.673 Dim.674 Dim.675  
## Variance 0.002 0.002 0.002 0.002 0.002  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.676 Dim.677 Dim.678 Dim.679 Dim.680  
## Variance 0.001 0.001 0.001 0.001 0.001  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.681 Dim.682 Dim.683 Dim.684 Dim.685  
## Variance 0.001 0.001 0.001 0.001 0.001  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.686 Dim.687 Dim.688 Dim.689 Dim.690  
## Variance 0.001 0.001 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.691 Dim.692 Dim.693 Dim.694 Dim.695  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.696 Dim.697 Dim.698 Dim.699 Dim.700  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.701 Dim.702 Dim.703 Dim.704 Dim.705  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.706 Dim.707 Dim.708 Dim.709 Dim.710  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.711 Dim.712 Dim.713 Dim.714 Dim.715  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.716 Dim.717 Dim.718 Dim.719 Dim.720  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.721 Dim.722 Dim.723 Dim.724 Dim.725  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.726 Dim.727 Dim.728 Dim.729 Dim.730  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.731 Dim.732 Dim.733 Dim.734 Dim.735  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.736 Dim.737 Dim.738 Dim.739 Dim.740  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.741 Dim.742 Dim.743 Dim.744 Dim.745  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.746 Dim.747 Dim.748 Dim.749 Dim.750  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.751 Dim.752 Dim.753 Dim.754 Dim.755  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.756 Dim.757 Dim.758 Dim.759 Dim.760  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.761 Dim.762 Dim.763 Dim.764 Dim.765  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.766 Dim.767 Dim.768 Dim.769 Dim.770  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.771 Dim.772 Dim.773 Dim.774 Dim.775  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.776 Dim.777 Dim.778 Dim.779 Dim.780  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.781 Dim.782 Dim.783  
## Variance 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000  
##   
## Individuals (the 10 first)  
## Dist Dim.1 ctr cos2 Dim.2 ctr cos2 Dim.3  
## 0 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 1 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 2 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 3 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 4 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 5 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 6 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 7 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 8 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 9 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## ctr cos2   
## 0 0.005 0.012 |  
## 1 0.005 0.012 |  
## 2 0.005 0.012 |  
## 3 0.005 0.012 |  
## 4 0.005 0.012 |  
## 5 0.005 0.012 |  
## 6 0.005 0.012 |  
## 7 0.005 0.012 |  
## 8 0.005 0.012 |  
## 9 0.005 0.012 |  
##   
## Variables (the 10 first)  
## Dim.1 ctr cos2 Dim.2 ctr cos2 Dim.3 ctr cos2   
## V1 | 0.419 0.001 0.176 | -0.407 0.006 0.165 | 0.198 0.002 0.039 |  
## V2 | 0.501 0.002 0.251 | 0.374 0.005 0.140 | 0.434 0.009 0.189 |  
## V3 | 0.534 0.002 0.285 | -0.467 0.008 0.218 | -0.077 0.000 0.006 |  
## V4 | 0.269 0.001 0.073 | 0.244 0.002 0.060 | -0.020 0.000 0.000 |  
## V5 | 0.452 0.002 0.205 | 0.373 0.005 0.139 | 0.449 0.009 0.202 |  
## V6 | 0.576 0.003 0.332 | 0.350 0.005 0.122 | 0.116 0.001 0.013 |  
## V7 | 0.502 0.002 0.252 | -0.054 0.000 0.003 | -0.407 0.008 0.166 |  
## V8 | 0.347 0.001 0.120 | 0.069 0.000 0.005 | 0.021 0.000 0.000 |  
## V9 | 0.640 0.003 0.410 | 0.221 0.002 0.049 | 0.050 0.000 0.002 |  
## V10 | 0.570 0.003 0.325 | -0.084 0.000 0.007 | 0.337 0.005 0.114 |

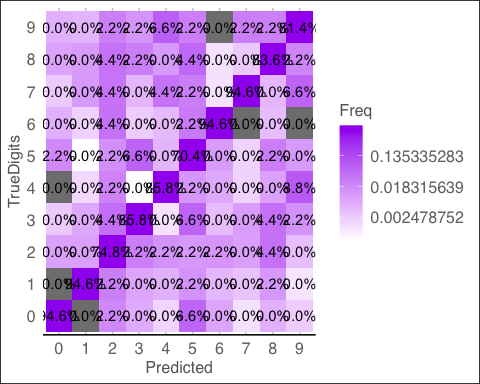
model\_nb\_100<-runNB(pca\_100)

##   
## ================================== Naive Bayes ==================================   
##   
## - Call: naive\_bayes.formula(formula = label ~ ., data = trainDF)   
## - Laplace: 0   
## - Classes: 10   
## - Samples: 25205   
## - Features: 100   
## - Conditional distributions:   
## - Gaussian: 100  
## - Prior probabilities:   
## - 0: 0.0984  
## - 1: 0.1115  
## - 2: 0.0995  
## - 3: 0.1036  
## - 4: 0.097  
## - 5: 0.0903  
## - 6: 0.0985  
## - 7: 0.1048  
## - 8: 0.0967  
## - 9: 0.0997  
##   
## ---------------------------------------------------------------------------------

## Warning: predict.naive\_bayes(): more features in the newdata are provided as  
## there are probability tables in the object. Calculation is performed based on  
## features to be found in the tables.

## TrueDigits  
## Predicted 0 1 2 3 4 5 6 7 8 9  
## 0 1470 0 14 4 0 29 9 4 13 9  
## 1 0 1743 17 13 3 1 4 20 19 9  
## 2 37 49 1450 84 44 29 77 71 76 49  
## 3 11 13 43 1425 1 105 4 8 44 22  
## 4 3 9 23 2 1393 8 7 61 18 116  
## 5 104 26 21 107 22 1267 53 47 97 47  
## 6 12 7 20 6 11 16 1494 2 2 0  
## 7 2 5 14 15 3 3 0 1442 4 41  
## 8 9 19 62 60 14 42 6 7 1317 38  
## 9 4 2 6 24 137 18 0 98 35 1344  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 0.8541233 0.8379083 0.8486938 0.8594298 0.1115213   
## AccuracyPValue McnemarPValue   
## 0.0000000 NaN

## Warning: Transformation introduced infinite values in discrete y-axis



pca\_75<-getTopPCAFeatures(DigitTotalDF,75)

##   
## Call:  
## PCA(X = t(select(df, -label)), ncp = ncp, graph = FALSE)   
##   
##   
## Eigenvalues  
## Dim.1 Dim.2 Dim.3 Dim.4 Dim.5  
## Variance 12975.886 2635.187 2146.048 1747.535 1465.951  
## % of var. 30.895 6.274 5.110 4.161 3.490  
## Cumulative % of var. 30.895 37.169 42.279 46.440 49.930  
## Dim.6 Dim.7 Dim.8 Dim.9 Dim.10  
## Variance 1358.547 1135.701 884.896 855.251 734.998  
## % of var. 3.235 2.704 2.107 2.036 1.750  
## Cumulative % of var. 53.165 55.869 57.976 60.012 61.762  
## Dim.11 Dim.12 Dim.13 Dim.14 Dim.15  
## Variance 664.973 634.157 551.036 515.912 483.259  
## % of var. 1.583 1.510 1.312 1.228 1.151  
## Cumulative % of var. 63.345 64.855 66.167 67.395 68.546  
## Dim.16 Dim.17 Dim.18 Dim.19 Dim.20  
## Variance 451.099 420.945 388.013 361.053 349.113  
## % of var. 1.074 1.002 0.924 0.860 0.831  
## Cumulative % of var. 69.620 70.622 71.546 72.406 73.237  
## Dim.21 Dim.22 Dim.23 Dim.24 Dim.25  
## Variance 329.622 310.712 298.708 281.495 275.884  
## % of var. 0.785 0.740 0.711 0.670 0.657  
## Cumulative % of var. 74.022 74.762 75.473 76.143 76.800  
## Dim.26 Dim.27 Dim.28 Dim.29 Dim.30  
## Variance 268.984 252.330 236.925 226.065 219.194  
## % of var. 0.640 0.601 0.564 0.538 0.522  
## Cumulative % of var. 77.440 78.041 78.605 79.144 79.665  
## Dim.31 Dim.32 Dim.33 Dim.34 Dim.35  
## Variance 203.959 202.286 185.225 181.697 173.988  
## % of var. 0.486 0.482 0.441 0.433 0.414  
## Cumulative % of var. 80.151 80.633 81.074 81.506 81.921  
## Dim.36 Dim.37 Dim.38 Dim.39 Dim.40  
## Variance 172.056 160.255 156.645 149.836 146.561  
## % of var. 0.410 0.382 0.373 0.357 0.349  
## Cumulative % of var. 82.330 82.712 83.085 83.441 83.790  
## Dim.41 Dim.42 Dim.43 Dim.44 Dim.45  
## Variance 140.441 137.162 131.753 125.734 123.529  
## % of var. 0.334 0.327 0.314 0.299 0.294  
## Cumulative % of var. 84.125 84.451 84.765 85.064 85.359  
## Dim.46 Dim.47 Dim.48 Dim.49 Dim.50  
## Variance 122.862 115.733 109.800 108.063 100.205  
## % of var. 0.293 0.276 0.261 0.257 0.239  
## Cumulative % of var. 85.651 85.927 86.188 86.445 86.684  
## Dim.51 Dim.52 Dim.53 Dim.54 Dim.55  
## Variance 99.257 98.063 93.201 92.249 89.483  
## % of var. 0.236 0.233 0.222 0.220 0.213  
## Cumulative % of var. 86.920 87.154 87.376 87.595 87.808  
## Dim.56 Dim.57 Dim.58 Dim.59 Dim.60  
## Variance 87.033 85.270 83.513 81.175 78.975  
## % of var. 0.207 0.203 0.199 0.193 0.188  
## Cumulative % of var. 88.016 88.219 88.417 88.611 88.799  
## Dim.61 Dim.62 Dim.63 Dim.64 Dim.65  
## Variance 76.732 76.033 73.240 71.087 69.891  
## % of var. 0.183 0.181 0.174 0.169 0.166  
## Cumulative % of var. 88.981 89.163 89.337 89.506 89.673  
## Dim.66 Dim.67 Dim.68 Dim.69 Dim.70  
## Variance 67.076 65.846 63.704 62.539 61.504  
## % of var. 0.160 0.157 0.152 0.149 0.146  
## Cumulative % of var. 89.832 89.989 90.141 90.290 90.436  
## Dim.71 Dim.72 Dim.73 Dim.74 Dim.75  
## Variance 58.632 58.470 56.065 55.675 53.772  
## % of var. 0.140 0.139 0.133 0.133 0.128  
## Cumulative % of var. 90.576 90.715 90.848 90.981 91.109  
## Dim.76 Dim.77 Dim.78 Dim.79 Dim.80  
## Variance 52.344 50.752 50.151 47.664 47.097  
## % of var. 0.125 0.121 0.119 0.113 0.112  
## Cumulative % of var. 91.234 91.354 91.474 91.587 91.699  
## Dim.81 Dim.82 Dim.83 Dim.84 Dim.85  
## Variance 45.959 45.670 45.134 43.399 43.159  
## % of var. 0.109 0.109 0.107 0.103 0.103  
## Cumulative % of var. 91.809 91.918 92.025 92.128 92.231  
## Dim.86 Dim.87 Dim.88 Dim.89 Dim.90  
## Variance 42.732 41.986 40.222 39.688 38.618  
## % of var. 0.102 0.100 0.096 0.094 0.092  
## Cumulative % of var. 92.333 92.433 92.529 92.623 92.715  
## Dim.91 Dim.92 Dim.93 Dim.94 Dim.95  
## Variance 37.900 37.111 36.558 35.693 35.451  
## % of var. 0.090 0.088 0.087 0.085 0.084  
## Cumulative % of var. 92.805 92.894 92.981 93.066 93.150  
## Dim.96 Dim.97 Dim.98 Dim.99 Dim.100  
## Variance 35.000 33.741 33.657 33.108 32.255  
## % of var. 0.083 0.080 0.080 0.079 0.077  
## Cumulative % of var. 93.233 93.314 93.394 93.473 93.550  
## Dim.101 Dim.102 Dim.103 Dim.104 Dim.105  
## Variance 31.708 30.818 30.512 29.322 28.925  
## % of var. 0.075 0.073 0.073 0.070 0.069  
## Cumulative % of var. 93.625 93.698 93.771 93.841 93.910  
## Dim.106 Dim.107 Dim.108 Dim.109 Dim.110  
## Variance 28.795 27.708 27.390 27.292 26.586  
## % of var. 0.069 0.066 0.065 0.065 0.063  
## Cumulative % of var. 93.978 94.044 94.109 94.174 94.238  
## Dim.111 Dim.112 Dim.113 Dim.114 Dim.115  
## Variance 26.039 25.709 25.584 25.304 25.182  
## % of var. 0.062 0.061 0.061 0.060 0.060  
## Cumulative % of var. 94.300 94.361 94.422 94.482 94.542  
## Dim.116 Dim.117 Dim.118 Dim.119 Dim.120  
## Variance 24.206 23.951 23.818 23.054 22.815  
## % of var. 0.058 0.057 0.057 0.055 0.054  
## Cumulative % of var. 94.600 94.657 94.713 94.768 94.823  
## Dim.121 Dim.122 Dim.123 Dim.124 Dim.125  
## Variance 22.628 22.352 22.224 21.862 21.222  
## % of var. 0.054 0.053 0.053 0.052 0.051  
## Cumulative % of var. 94.877 94.930 94.983 95.035 95.085  
## Dim.126 Dim.127 Dim.128 Dim.129 Dim.130  
## Variance 21.059 20.634 20.467 20.033 19.894  
## % of var. 0.050 0.049 0.049 0.048 0.047  
## Cumulative % of var. 95.135 95.185 95.233 95.281 95.328  
## Dim.131 Dim.132 Dim.133 Dim.134 Dim.135  
## Variance 19.503 19.289 19.223 18.915 18.460  
## % of var. 0.046 0.046 0.046 0.045 0.044  
## Cumulative % of var. 95.375 95.421 95.466 95.511 95.555  
## Dim.136 Dim.137 Dim.138 Dim.139 Dim.140  
## Variance 18.290 18.250 18.088 17.507 17.219  
## % of var. 0.044 0.043 0.043 0.042 0.041  
## Cumulative % of var. 95.599 95.642 95.686 95.727 95.768  
## Dim.141 Dim.142 Dim.143 Dim.144 Dim.145  
## Variance 16.825 16.398 16.186 16.169 15.900  
## % of var. 0.040 0.039 0.039 0.038 0.038  
## Cumulative % of var. 95.808 95.847 95.886 95.924 95.962  
## Dim.146 Dim.147 Dim.148 Dim.149 Dim.150  
## Variance 15.761 15.658 15.577 15.477 15.321  
## % of var. 0.038 0.037 0.037 0.037 0.036  
## Cumulative % of var. 96.000 96.037 96.074 96.111 96.147  
## Dim.151 Dim.152 Dim.153 Dim.154 Dim.155  
## Variance 15.094 14.926 14.829 14.612 14.562  
## % of var. 0.036 0.036 0.035 0.035 0.035  
## Cumulative % of var. 96.183 96.219 96.254 96.289 96.324  
## Dim.156 Dim.157 Dim.158 Dim.159 Dim.160  
## Variance 14.468 14.192 13.834 13.675 13.475  
## % of var. 0.034 0.034 0.033 0.033 0.032  
## Cumulative % of var. 96.358 96.392 96.425 96.457 96.489  
## Dim.161 Dim.162 Dim.163 Dim.164 Dim.165  
## Variance 13.389 13.298 13.073 12.872 12.801  
## % of var. 0.032 0.032 0.031 0.031 0.030  
## Cumulative % of var. 96.521 96.553 96.584 96.615 96.645  
## Dim.166 Dim.167 Dim.168 Dim.169 Dim.170  
## Variance 12.616 12.526 12.381 12.338 12.194  
## % of var. 0.030 0.030 0.029 0.029 0.029  
## Cumulative % of var. 96.675 96.705 96.735 96.764 96.793  
## Dim.171 Dim.172 Dim.173 Dim.174 Dim.175  
## Variance 12.051 11.965 11.780 11.716 11.592  
## % of var. 0.029 0.028 0.028 0.028 0.028  
## Cumulative % of var. 96.822 96.850 96.878 96.906 96.934  
## Dim.176 Dim.177 Dim.178 Dim.179 Dim.180  
## Variance 11.287 11.160 11.056 10.858 10.780  
## % of var. 0.027 0.027 0.026 0.026 0.026  
## Cumulative % of var. 96.961 96.987 97.014 97.039 97.065  
## Dim.181 Dim.182 Dim.183 Dim.184 Dim.185  
## Variance 10.626 10.585 10.574 10.451 10.389  
## % of var. 0.025 0.025 0.025 0.025 0.025  
## Cumulative % of var. 97.090 97.116 97.141 97.166 97.190  
## Dim.186 Dim.187 Dim.188 Dim.189 Dim.190  
## Variance 10.327 10.181 10.151 9.965 9.863  
## % of var. 0.025 0.024 0.024 0.024 0.023  
## Cumulative % of var. 97.215 97.239 97.263 97.287 97.311  
## Dim.191 Dim.192 Dim.193 Dim.194 Dim.195  
## Variance 9.825 9.749 9.691 9.637 9.542  
## % of var. 0.023 0.023 0.023 0.023 0.023  
## Cumulative % of var. 97.334 97.357 97.380 97.403 97.426  
## Dim.196 Dim.197 Dim.198 Dim.199 Dim.200  
## Variance 9.502 9.399 9.342 9.198 9.163  
## % of var. 0.023 0.022 0.022 0.022 0.022  
## Cumulative % of var. 97.448 97.471 97.493 97.515 97.537  
## Dim.201 Dim.202 Dim.203 Dim.204 Dim.205  
## Variance 9.071 8.888 8.812 8.673 8.653  
## % of var. 0.022 0.021 0.021 0.021 0.021  
## Cumulative % of var. 97.558 97.580 97.601 97.621 97.642  
## Dim.206 Dim.207 Dim.208 Dim.209 Dim.210  
## Variance 8.584 8.445 8.376 8.341 8.302  
## % of var. 0.020 0.020 0.020 0.020 0.020  
## Cumulative % of var. 97.662 97.682 97.702 97.722 97.742  
## Dim.211 Dim.212 Dim.213 Dim.214 Dim.215  
## Variance 8.247 8.225 8.151 8.076 8.001  
## % of var. 0.020 0.020 0.019 0.019 0.019  
## Cumulative % of var. 97.762 97.781 97.801 97.820 97.839  
## Dim.216 Dim.217 Dim.218 Dim.219 Dim.220  
## Variance 7.939 7.859 7.823 7.807 7.708  
## % of var. 0.019 0.019 0.019 0.019 0.018  
## Cumulative % of var. 97.858 97.876 97.895 97.914 97.932  
## Dim.221 Dim.222 Dim.223 Dim.224 Dim.225  
## Variance 7.679 7.574 7.502 7.472 7.428  
## % of var. 0.018 0.018 0.018 0.018 0.018  
## Cumulative % of var. 97.950 97.968 97.986 98.004 98.022  
## Dim.226 Dim.227 Dim.228 Dim.229 Dim.230  
## Variance 7.380 7.295 7.171 7.139 7.066  
## % of var. 0.018 0.017 0.017 0.017 0.017  
## Cumulative % of var. 98.039 98.057 98.074 98.091 98.108  
## Dim.231 Dim.232 Dim.233 Dim.234 Dim.235  
## Variance 6.982 6.966 6.898 6.861 6.811  
## % of var. 0.017 0.017 0.016 0.016 0.016  
## Cumulative % of var. 98.124 98.141 98.157 98.173 98.190  
## Dim.236 Dim.237 Dim.238 Dim.239 Dim.240  
## Variance 6.726 6.659 6.631 6.563 6.485  
## % of var. 0.016 0.016 0.016 0.016 0.015  
## Cumulative % of var. 98.206 98.222 98.237 98.253 98.268  
## Dim.241 Dim.242 Dim.243 Dim.244 Dim.245  
## Variance 6.449 6.408 6.366 6.331 6.306  
## % of var. 0.015 0.015 0.015 0.015 0.015  
## Cumulative % of var. 98.284 98.299 98.314 98.329 98.344  
## Dim.246 Dim.247 Dim.248 Dim.249 Dim.250  
## Variance 6.230 6.177 6.149 6.014 6.005  
## % of var. 0.015 0.015 0.015 0.014 0.014  
## Cumulative % of var. 98.359 98.374 98.388 98.403 98.417  
## Dim.251 Dim.252 Dim.253 Dim.254 Dim.255  
## Variance 5.957 5.900 5.878 5.854 5.783  
## % of var. 0.014 0.014 0.014 0.014 0.014  
## Cumulative % of var. 98.431 98.445 98.459 98.473 98.487  
## Dim.256 Dim.257 Dim.258 Dim.259 Dim.260  
## Variance 5.769 5.685 5.658 5.632 5.605  
## % of var. 0.014 0.014 0.013 0.013 0.013  
## Cumulative % of var. 98.501 98.514 98.528 98.541 98.555  
## Dim.261 Dim.262 Dim.263 Dim.264 Dim.265  
## Variance 5.539 5.491 5.438 5.435 5.400  
## % of var. 0.013 0.013 0.013 0.013 0.013  
## Cumulative % of var. 98.568 98.581 98.594 98.607 98.620  
## Dim.266 Dim.267 Dim.268 Dim.269 Dim.270  
## Variance 5.343 5.329 5.233 5.218 5.188  
## % of var. 0.013 0.013 0.012 0.012 0.012  
## Cumulative % of var. 98.632 98.645 98.657 98.670 98.682  
## Dim.271 Dim.272 Dim.273 Dim.274 Dim.275  
## Variance 5.123 5.080 5.060 5.041 4.981  
## % of var. 0.012 0.012 0.012 0.012 0.012  
## Cumulative % of var. 98.694 98.706 98.719 98.731 98.742  
## Dim.276 Dim.277 Dim.278 Dim.279 Dim.280  
## Variance 4.964 4.911 4.873 4.857 4.850  
## % of var. 0.012 0.012 0.012 0.012 0.012  
## Cumulative % of var. 98.754 98.766 98.777 98.789 98.801  
## Dim.281 Dim.282 Dim.283 Dim.284 Dim.285  
## Variance 4.817 4.797 4.743 4.690 4.672  
## % of var. 0.011 0.011 0.011 0.011 0.011  
## Cumulative % of var. 98.812 98.823 98.835 98.846 98.857  
## Dim.286 Dim.287 Dim.288 Dim.289 Dim.290  
## Variance 4.640 4.599 4.585 4.555 4.495  
## % of var. 0.011 0.011 0.011 0.011 0.011  
## Cumulative % of var. 98.868 98.879 98.890 98.901 98.912  
## Dim.291 Dim.292 Dim.293 Dim.294 Dim.295  
## Variance 4.487 4.459 4.427 4.403 4.373  
## % of var. 0.011 0.011 0.011 0.010 0.010  
## Cumulative % of var. 98.922 98.933 98.943 98.954 98.964  
## Dim.296 Dim.297 Dim.298 Dim.299 Dim.300  
## Variance 4.344 4.304 4.278 4.250 4.174  
## % of var. 0.010 0.010 0.010 0.010 0.010  
## Cumulative % of var. 98.975 98.985 98.995 99.005 99.015  
## Dim.301 Dim.302 Dim.303 Dim.304 Dim.305  
## Variance 4.159 4.147 4.104 4.099 4.041  
## % of var. 0.010 0.010 0.010 0.010 0.010  
## Cumulative % of var. 99.025 99.035 99.045 99.054 99.064  
## Dim.306 Dim.307 Dim.308 Dim.309 Dim.310  
## Variance 4.012 3.996 3.948 3.919 3.906  
## % of var. 0.010 0.010 0.009 0.009 0.009  
## Cumulative % of var. 99.074 99.083 99.092 99.102 99.111  
## Dim.311 Dim.312 Dim.313 Dim.314 Dim.315  
## Variance 3.889 3.875 3.839 3.785 3.741  
## % of var. 0.009 0.009 0.009 0.009 0.009  
## Cumulative % of var. 99.120 99.130 99.139 99.148 99.157  
## Dim.316 Dim.317 Dim.318 Dim.319 Dim.320  
## Variance 3.724 3.682 3.668 3.644 3.624  
## % of var. 0.009 0.009 0.009 0.009 0.009  
## Cumulative % of var. 99.166 99.174 99.183 99.192 99.200  
## Dim.321 Dim.322 Dim.323 Dim.324 Dim.325  
## Variance 3.582 3.576 3.538 3.490 3.472  
## % of var. 0.009 0.009 0.008 0.008 0.008  
## Cumulative % of var. 99.209 99.217 99.226 99.234 99.242  
## Dim.326 Dim.327 Dim.328 Dim.329 Dim.330  
## Variance 3.443 3.392 3.378 3.353 3.342  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.251 99.259 99.267 99.275 99.283  
## Dim.331 Dim.332 Dim.333 Dim.334 Dim.335  
## Variance 3.335 3.289 3.266 3.250 3.243  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.291 99.298 99.306 99.314 99.322  
## Dim.336 Dim.337 Dim.338 Dim.339 Dim.340  
## Variance 3.228 3.202 3.183 3.169 3.157  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.329 99.337 99.345 99.352 99.360  
## Dim.341 Dim.342 Dim.343 Dim.344 Dim.345  
## Variance 3.103 3.083 3.070 3.052 3.031  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.367 99.374 99.382 99.389 99.396  
## Dim.346 Dim.347 Dim.348 Dim.349 Dim.350  
## Variance 3.011 3.002 2.950 2.918 2.889  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.403 99.410 99.417 99.424 99.431  
## Dim.351 Dim.352 Dim.353 Dim.354 Dim.355  
## Variance 2.832 2.819 2.810 2.768 2.757  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.438 99.445 99.451 99.458 99.465  
## Dim.356 Dim.357 Dim.358 Dim.359 Dim.360  
## Variance 2.733 2.709 2.695 2.678 2.671  
## % of var. 0.007 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.471 99.478 99.484 99.490 99.497  
## Dim.361 Dim.362 Dim.363 Dim.364 Dim.365  
## Variance 2.652 2.645 2.610 2.542 2.519  
## % of var. 0.006 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.503 99.509 99.516 99.522 99.528  
## Dim.366 Dim.367 Dim.368 Dim.369 Dim.370  
## Variance 2.515 2.492 2.468 2.448 2.434  
## % of var. 0.006 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.534 99.539 99.545 99.551 99.557  
## Dim.371 Dim.372 Dim.373 Dim.374 Dim.375  
## Variance 2.412 2.378 2.340 2.326 2.306  
## % of var. 0.006 0.006 0.006 0.006 0.005  
## Cumulative % of var. 99.563 99.568 99.574 99.580 99.585  
## Dim.376 Dim.377 Dim.378 Dim.379 Dim.380  
## Variance 2.300 2.281 2.263 2.240 2.216  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.590 99.596 99.601 99.607 99.612  
## Dim.381 Dim.382 Dim.383 Dim.384 Dim.385  
## Variance 2.203 2.175 2.146 2.087 2.077  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.617 99.622 99.627 99.632 99.637  
## Dim.386 Dim.387 Dim.388 Dim.389 Dim.390  
## Variance 2.044 2.036 2.020 1.995 1.976  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.642 99.647 99.652 99.657 99.661  
## Dim.391 Dim.392 Dim.393 Dim.394 Dim.395  
## Variance 1.959 1.942 1.918 1.895 1.886  
## % of var. 0.005 0.005 0.005 0.005 0.004  
## Cumulative % of var. 99.666 99.671 99.675 99.680 99.684  
## Dim.396 Dim.397 Dim.398 Dim.399 Dim.400  
## Variance 1.849 1.820 1.810 1.779 1.761  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.689 99.693 99.697 99.701 99.706  
## Dim.401 Dim.402 Dim.403 Dim.404 Dim.405  
## Variance 1.746 1.731 1.714 1.701 1.676  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.710 99.714 99.718 99.722 99.726  
## Dim.406 Dim.407 Dim.408 Dim.409 Dim.410  
## Variance 1.670 1.633 1.619 1.590 1.581  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.730 99.734 99.738 99.742 99.745  
## Dim.411 Dim.412 Dim.413 Dim.414 Dim.415  
## Variance 1.570 1.554 1.545 1.538 1.516  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.749 99.753 99.756 99.760 99.764  
## Dim.416 Dim.417 Dim.418 Dim.419 Dim.420  
## Variance 1.512 1.502 1.484 1.462 1.435  
## % of var. 0.004 0.004 0.004 0.003 0.003  
## Cumulative % of var. 99.767 99.771 99.774 99.778 99.781  
## Dim.421 Dim.422 Dim.423 Dim.424 Dim.425  
## Variance 1.421 1.390 1.380 1.369 1.344  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.785 99.788 99.791 99.795 99.798  
## Dim.426 Dim.427 Dim.428 Dim.429 Dim.430  
## Variance 1.335 1.292 1.289 1.277 1.236  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.801 99.804 99.807 99.810 99.813  
## Dim.431 Dim.432 Dim.433 Dim.434 Dim.435  
## Variance 1.213 1.205 1.200 1.189 1.172  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.816 99.819 99.822 99.825 99.827  
## Dim.436 Dim.437 Dim.438 Dim.439 Dim.440  
## Variance 1.148 1.132 1.114 1.103 1.096  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.830 99.833 99.835 99.838 99.841  
## Dim.441 Dim.442 Dim.443 Dim.444 Dim.445  
## Variance 1.085 1.057 1.053 1.031 1.027  
## % of var. 0.003 0.003 0.003 0.002 0.002  
## Cumulative % of var. 99.843 99.846 99.848 99.851 99.853  
## Dim.446 Dim.447 Dim.448 Dim.449 Dim.450  
## Variance 1.019 0.999 0.986 0.973 0.960  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.856 99.858 99.860 99.863 99.865  
## Dim.451 Dim.452 Dim.453 Dim.454 Dim.455  
## Variance 0.958 0.934 0.912 0.896 0.892  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.867 99.869 99.872 99.874 99.876  
## Dim.456 Dim.457 Dim.458 Dim.459 Dim.460  
## Variance 0.887 0.868 0.863 0.857 0.831  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.878 99.880 99.882 99.884 99.886  
## Dim.461 Dim.462 Dim.463 Dim.464 Dim.465  
## Variance 0.819 0.810 0.800 0.771 0.761  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.888 99.890 99.892 99.894 99.895  
## Dim.466 Dim.467 Dim.468 Dim.469 Dim.470  
## Variance 0.758 0.753 0.745 0.736 0.727  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.897 99.899 99.901 99.903 99.904  
## Dim.471 Dim.472 Dim.473 Dim.474 Dim.475  
## Variance 0.719 0.707 0.700 0.691 0.683  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.906 99.908 99.909 99.911 99.913  
## Dim.476 Dim.477 Dim.478 Dim.479 Dim.480  
## Variance 0.679 0.673 0.651 0.642 0.627  
## % of var. 0.002 0.002 0.002 0.002 0.001  
## Cumulative % of var. 99.914 99.916 99.917 99.919 99.920  
## Dim.481 Dim.482 Dim.483 Dim.484 Dim.485  
## Variance 0.619 0.612 0.604 0.591 0.580  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.922 99.923 99.925 99.926 99.928  
## Dim.486 Dim.487 Dim.488 Dim.489 Dim.490  
## Variance 0.572 0.568 0.559 0.553 0.546  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.929 99.930 99.932 99.933 99.934  
## Dim.491 Dim.492 Dim.493 Dim.494 Dim.495  
## Variance 0.535 0.532 0.518 0.510 0.500  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.936 99.937 99.938 99.939 99.940  
## Dim.496 Dim.497 Dim.498 Dim.499 Dim.500  
## Variance 0.483 0.480 0.472 0.467 0.458  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.942 99.943 99.944 99.945 99.946  
## Dim.501 Dim.502 Dim.503 Dim.504 Dim.505  
## Variance 0.457 0.452 0.445 0.441 0.431  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.947 99.948 99.949 99.950 99.951  
## Dim.506 Dim.507 Dim.508 Dim.509 Dim.510  
## Variance 0.412 0.403 0.397 0.392 0.386  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.952 99.953 99.954 99.955 99.956  
## Dim.511 Dim.512 Dim.513 Dim.514 Dim.515  
## Variance 0.383 0.376 0.373 0.365 0.355  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.957 99.958 99.959 99.960 99.961  
## Dim.516 Dim.517 Dim.518 Dim.519 Dim.520  
## Variance 0.350 0.348 0.346 0.343 0.337  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.961 99.962 99.963 99.964 99.965  
## Dim.521 Dim.522 Dim.523 Dim.524 Dim.525  
## Variance 0.327 0.326 0.315 0.311 0.311  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.965 99.966 99.967 99.968 99.968  
## Dim.526 Dim.527 Dim.528 Dim.529 Dim.530  
## Variance 0.307 0.302 0.299 0.297 0.279  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.969 99.970 99.971 99.971 99.972  
## Dim.531 Dim.532 Dim.533 Dim.534 Dim.535  
## Variance 0.278 0.268 0.264 0.261 0.256  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.973 99.973 99.974 99.975 99.975  
## Dim.536 Dim.537 Dim.538 Dim.539 Dim.540  
## Variance 0.253 0.247 0.241 0.234 0.232  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.976 99.976 99.977 99.977 99.978  
## Dim.541 Dim.542 Dim.543 Dim.544 Dim.545  
## Variance 0.229 0.227 0.220 0.218 0.217  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.979 99.979 99.980 99.980 99.981  
## Dim.546 Dim.547 Dim.548 Dim.549 Dim.550  
## Variance 0.214 0.205 0.195 0.194 0.186  
## % of var. 0.001 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.981 99.982 99.982 99.983 99.983  
## Dim.551 Dim.552 Dim.553 Dim.554 Dim.555  
## Variance 0.182 0.180 0.173 0.171 0.165  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.983 99.984 99.984 99.985 99.985  
## Dim.556 Dim.557 Dim.558 Dim.559 Dim.560  
## Variance 0.163 0.161 0.159 0.152 0.150  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.985 99.986 99.986 99.987 99.987  
## Dim.561 Dim.562 Dim.563 Dim.564 Dim.565  
## Variance 0.148 0.146 0.144 0.142 0.135  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.987 99.988 99.988 99.988 99.989  
## Dim.566 Dim.567 Dim.568 Dim.569 Dim.570  
## Variance 0.133 0.131 0.123 0.121 0.121  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.989 99.989 99.990 99.990 99.990  
## Dim.571 Dim.572 Dim.573 Dim.574 Dim.575  
## Variance 0.119 0.118 0.118 0.114 0.113  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.990 99.991 99.991 99.991 99.992  
## Dim.576 Dim.577 Dim.578 Dim.579 Dim.580  
## Variance 0.107 0.104 0.103 0.098 0.096  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.992 99.992 99.992 99.993 99.993  
## Dim.581 Dim.582 Dim.583 Dim.584 Dim.585  
## Variance 0.090 0.089 0.088 0.085 0.085  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.993 99.993 99.993 99.994 99.994  
## Dim.586 Dim.587 Dim.588 Dim.589 Dim.590  
## Variance 0.083 0.082 0.078 0.077 0.074  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.994 99.994 99.994 99.995 99.995  
## Dim.591 Dim.592 Dim.593 Dim.594 Dim.595  
## Variance 0.074 0.074 0.070 0.068 0.066  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.995 99.995 99.995 99.995 99.996  
## Dim.596 Dim.597 Dim.598 Dim.599 Dim.600  
## Variance 0.064 0.062 0.060 0.060 0.058  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.996 99.996 99.996 99.996 99.996  
## Dim.601 Dim.602 Dim.603 Dim.604 Dim.605  
## Variance 0.055 0.052 0.051 0.050 0.049  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.996 99.997 99.997 99.997 99.997  
## Dim.606 Dim.607 Dim.608 Dim.609 Dim.610  
## Variance 0.049 0.048 0.047 0.046 0.044  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.997 99.997 99.997 99.997 99.997  
## Dim.611 Dim.612 Dim.613 Dim.614 Dim.615  
## Variance 0.041 0.040 0.036 0.035 0.034  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.998 99.998  
## Dim.616 Dim.617 Dim.618 Dim.619 Dim.620  
## Variance 0.034 0.033 0.032 0.032 0.031  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.998 99.998  
## Dim.621 Dim.622 Dim.623 Dim.624 Dim.625  
## Variance 0.030 0.030 0.028 0.028 0.027  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.999 99.999  
## Dim.626 Dim.627 Dim.628 Dim.629 Dim.630  
## Variance 0.026 0.025 0.024 0.024 0.023  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.631 Dim.632 Dim.633 Dim.634 Dim.635  
## Variance 0.022 0.021 0.021 0.020 0.020  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.636 Dim.637 Dim.638 Dim.639 Dim.640  
## Variance 0.020 0.019 0.019 0.016 0.016  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.641 Dim.642 Dim.643 Dim.644 Dim.645  
## Variance 0.015 0.015 0.014 0.013 0.013  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 100.000 100.000  
## Dim.646 Dim.647 Dim.648 Dim.649 Dim.650  
## Variance 0.011 0.011 0.010 0.010 0.009  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.651 Dim.652 Dim.653 Dim.654 Dim.655  
## Variance 0.009 0.009 0.008 0.008 0.007  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.656 Dim.657 Dim.658 Dim.659 Dim.660  
## Variance 0.007 0.007 0.007 0.006 0.006  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.661 Dim.662 Dim.663 Dim.664 Dim.665  
## Variance 0.006 0.006 0.006 0.004 0.004  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.666 Dim.667 Dim.668 Dim.669 Dim.670  
## Variance 0.004 0.003 0.003 0.003 0.003  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.671 Dim.672 Dim.673 Dim.674 Dim.675  
## Variance 0.002 0.002 0.002 0.002 0.002  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.676 Dim.677 Dim.678 Dim.679 Dim.680  
## Variance 0.001 0.001 0.001 0.001 0.001  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.681 Dim.682 Dim.683 Dim.684 Dim.685  
## Variance 0.001 0.001 0.001 0.001 0.001  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.686 Dim.687 Dim.688 Dim.689 Dim.690  
## Variance 0.001 0.001 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.691 Dim.692 Dim.693 Dim.694 Dim.695  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.696 Dim.697 Dim.698 Dim.699 Dim.700  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.701 Dim.702 Dim.703 Dim.704 Dim.705  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.706 Dim.707 Dim.708 Dim.709 Dim.710  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.711 Dim.712 Dim.713 Dim.714 Dim.715  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.716 Dim.717 Dim.718 Dim.719 Dim.720  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.721 Dim.722 Dim.723 Dim.724 Dim.725  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.726 Dim.727 Dim.728 Dim.729 Dim.730  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.731 Dim.732 Dim.733 Dim.734 Dim.735  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.736 Dim.737 Dim.738 Dim.739 Dim.740  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.741 Dim.742 Dim.743 Dim.744 Dim.745  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.746 Dim.747 Dim.748 Dim.749 Dim.750  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.751 Dim.752 Dim.753 Dim.754 Dim.755  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.756 Dim.757 Dim.758 Dim.759 Dim.760  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.761 Dim.762 Dim.763 Dim.764 Dim.765  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.766 Dim.767 Dim.768 Dim.769 Dim.770  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.771 Dim.772 Dim.773 Dim.774 Dim.775  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.776 Dim.777 Dim.778 Dim.779 Dim.780  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.781 Dim.782 Dim.783  
## Variance 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000  
##   
## Individuals (the 10 first)  
## Dist Dim.1 ctr cos2 Dim.2 ctr cos2 Dim.3  
## 0 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 1 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 2 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 3 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 4 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 5 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 6 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 7 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 8 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 9 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## ctr cos2   
## 0 0.005 0.012 |  
## 1 0.005 0.012 |  
## 2 0.005 0.012 |  
## 3 0.005 0.012 |  
## 4 0.005 0.012 |  
## 5 0.005 0.012 |  
## 6 0.005 0.012 |  
## 7 0.005 0.012 |  
## 8 0.005 0.012 |  
## 9 0.005 0.012 |  
##   
## Variables (the 10 first)  
## Dim.1 ctr cos2 Dim.2 ctr cos2 Dim.3 ctr cos2   
## V1 | 0.419 0.001 0.176 | -0.407 0.006 0.165 | 0.198 0.002 0.039 |  
## V2 | 0.501 0.002 0.251 | 0.374 0.005 0.140 | 0.434 0.009 0.189 |  
## V3 | 0.534 0.002 0.285 | -0.467 0.008 0.218 | -0.077 0.000 0.006 |  
## V4 | 0.269 0.001 0.073 | 0.244 0.002 0.060 | -0.020 0.000 0.000 |  
## V5 | 0.452 0.002 0.205 | 0.373 0.005 0.139 | 0.449 0.009 0.202 |  
## V6 | 0.576 0.003 0.332 | 0.350 0.005 0.122 | 0.116 0.001 0.013 |  
## V7 | 0.502 0.002 0.252 | -0.054 0.000 0.003 | -0.407 0.008 0.166 |  
## V8 | 0.347 0.001 0.120 | 0.069 0.000 0.005 | 0.021 0.000 0.000 |  
## V9 | 0.640 0.003 0.410 | 0.221 0.002 0.049 | 0.050 0.000 0.002 |  
## V10 | 0.570 0.003 0.325 | -0.084 0.000 0.007 | 0.337 0.005 0.114 |

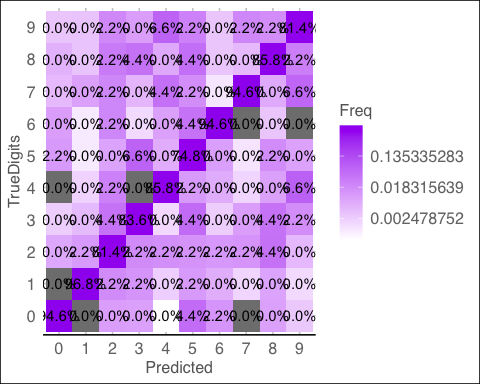
model\_nb\_75<-runNB(pca\_75)

##   
## ================================== Naive Bayes ==================================   
##   
## - Call: naive\_bayes.formula(formula = label ~ ., data = trainDF)   
## - Laplace: 0   
## - Classes: 10   
## - Samples: 25205   
## - Features: 75   
## - Conditional distributions:   
## - Gaussian: 75  
## - Prior probabilities:   
## - 0: 0.0984  
## - 1: 0.1115  
## - 2: 0.0995  
## - 3: 0.1036  
## - 4: 0.097  
## - 5: 0.0903  
## - 6: 0.0985  
## - 7: 0.1048  
## - 8: 0.0967  
## - 9: 0.0997  
##   
## ---------------------------------------------------------------------------------

## Warning: predict.naive\_bayes(): more features in the newdata are provided as  
## there are probability tables in the object. Calculation is performed based on  
## features to be found in the tables.

## TrueDigits  
## Predicted 0 1 2 3 4 5 6 7 8 9  
## 0 1491 0 12 4 0 18 16 7 9 5  
## 1 0 1761 21 8 4 2 2 17 6 6  
## 2 18 33 1442 70 44 16 37 37 55 36  
## 3 16 24 32 1456 0 114 3 9 71 18  
## 4 1 4 26 3 1411 11 15 73 12 108  
## 5 84 21 25 89 20 1296 68 30 79 43  
## 6 22 10 20 4 11 16 1508 2 5 5  
## 7 0 3 21 16 3 2 0 1475 7 33  
## 8 15 14 63 61 15 28 5 11 1334 27  
## 9 5 3 8 29 120 15 0 99 47 1394  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 0.8674010 0.8526555 0.8621785 0.8724959 0.1115213   
## AccuracyPValue McnemarPValue   
## 0.0000000 NaN

## Warning: Transformation introduced infinite values in discrete y-axis



pca\_80<-getTopPCAFeatures(DigitTotalDF,80)

##   
## Call:  
## PCA(X = t(select(df, -label)), ncp = ncp, graph = FALSE)   
##   
##   
## Eigenvalues  
## Dim.1 Dim.2 Dim.3 Dim.4 Dim.5  
## Variance 12975.886 2635.187 2146.048 1747.535 1465.951  
## % of var. 30.895 6.274 5.110 4.161 3.490  
## Cumulative % of var. 30.895 37.169 42.279 46.440 49.930  
## Dim.6 Dim.7 Dim.8 Dim.9 Dim.10  
## Variance 1358.547 1135.701 884.896 855.251 734.998  
## % of var. 3.235 2.704 2.107 2.036 1.750  
## Cumulative % of var. 53.165 55.869 57.976 60.012 61.762  
## Dim.11 Dim.12 Dim.13 Dim.14 Dim.15  
## Variance 664.973 634.157 551.036 515.912 483.259  
## % of var. 1.583 1.510 1.312 1.228 1.151  
## Cumulative % of var. 63.345 64.855 66.167 67.395 68.546  
## Dim.16 Dim.17 Dim.18 Dim.19 Dim.20  
## Variance 451.099 420.945 388.013 361.053 349.113  
## % of var. 1.074 1.002 0.924 0.860 0.831  
## Cumulative % of var. 69.620 70.622 71.546 72.406 73.237  
## Dim.21 Dim.22 Dim.23 Dim.24 Dim.25  
## Variance 329.622 310.712 298.708 281.495 275.884  
## % of var. 0.785 0.740 0.711 0.670 0.657  
## Cumulative % of var. 74.022 74.762 75.473 76.143 76.800  
## Dim.26 Dim.27 Dim.28 Dim.29 Dim.30  
## Variance 268.984 252.330 236.925 226.065 219.194  
## % of var. 0.640 0.601 0.564 0.538 0.522  
## Cumulative % of var. 77.440 78.041 78.605 79.144 79.665  
## Dim.31 Dim.32 Dim.33 Dim.34 Dim.35  
## Variance 203.959 202.286 185.225 181.697 173.988  
## % of var. 0.486 0.482 0.441 0.433 0.414  
## Cumulative % of var. 80.151 80.633 81.074 81.506 81.921  
## Dim.36 Dim.37 Dim.38 Dim.39 Dim.40  
## Variance 172.056 160.255 156.645 149.836 146.561  
## % of var. 0.410 0.382 0.373 0.357 0.349  
## Cumulative % of var. 82.330 82.712 83.085 83.441 83.790  
## Dim.41 Dim.42 Dim.43 Dim.44 Dim.45  
## Variance 140.441 137.162 131.753 125.734 123.529  
## % of var. 0.334 0.327 0.314 0.299 0.294  
## Cumulative % of var. 84.125 84.451 84.765 85.064 85.359  
## Dim.46 Dim.47 Dim.48 Dim.49 Dim.50  
## Variance 122.862 115.733 109.800 108.063 100.205  
## % of var. 0.293 0.276 0.261 0.257 0.239  
## Cumulative % of var. 85.651 85.927 86.188 86.445 86.684  
## Dim.51 Dim.52 Dim.53 Dim.54 Dim.55  
## Variance 99.257 98.063 93.201 92.249 89.483  
## % of var. 0.236 0.233 0.222 0.220 0.213  
## Cumulative % of var. 86.920 87.154 87.376 87.595 87.808  
## Dim.56 Dim.57 Dim.58 Dim.59 Dim.60  
## Variance 87.033 85.270 83.513 81.175 78.975  
## % of var. 0.207 0.203 0.199 0.193 0.188  
## Cumulative % of var. 88.016 88.219 88.417 88.611 88.799  
## Dim.61 Dim.62 Dim.63 Dim.64 Dim.65  
## Variance 76.732 76.033 73.240 71.087 69.891  
## % of var. 0.183 0.181 0.174 0.169 0.166  
## Cumulative % of var. 88.981 89.163 89.337 89.506 89.673  
## Dim.66 Dim.67 Dim.68 Dim.69 Dim.70  
## Variance 67.076 65.846 63.704 62.539 61.504  
## % of var. 0.160 0.157 0.152 0.149 0.146  
## Cumulative % of var. 89.832 89.989 90.141 90.290 90.436  
## Dim.71 Dim.72 Dim.73 Dim.74 Dim.75  
## Variance 58.632 58.470 56.065 55.675 53.772  
## % of var. 0.140 0.139 0.133 0.133 0.128  
## Cumulative % of var. 90.576 90.715 90.848 90.981 91.109  
## Dim.76 Dim.77 Dim.78 Dim.79 Dim.80  
## Variance 52.344 50.752 50.151 47.664 47.097  
## % of var. 0.125 0.121 0.119 0.113 0.112  
## Cumulative % of var. 91.234 91.354 91.474 91.587 91.699  
## Dim.81 Dim.82 Dim.83 Dim.84 Dim.85  
## Variance 45.959 45.670 45.134 43.399 43.159  
## % of var. 0.109 0.109 0.107 0.103 0.103  
## Cumulative % of var. 91.809 91.918 92.025 92.128 92.231  
## Dim.86 Dim.87 Dim.88 Dim.89 Dim.90  
## Variance 42.732 41.986 40.222 39.688 38.618  
## % of var. 0.102 0.100 0.096 0.094 0.092  
## Cumulative % of var. 92.333 92.433 92.529 92.623 92.715  
## Dim.91 Dim.92 Dim.93 Dim.94 Dim.95  
## Variance 37.900 37.111 36.558 35.693 35.451  
## % of var. 0.090 0.088 0.087 0.085 0.084  
## Cumulative % of var. 92.805 92.894 92.981 93.066 93.150  
## Dim.96 Dim.97 Dim.98 Dim.99 Dim.100  
## Variance 35.000 33.741 33.657 33.108 32.255  
## % of var. 0.083 0.080 0.080 0.079 0.077  
## Cumulative % of var. 93.233 93.314 93.394 93.473 93.550  
## Dim.101 Dim.102 Dim.103 Dim.104 Dim.105  
## Variance 31.708 30.818 30.512 29.322 28.925  
## % of var. 0.075 0.073 0.073 0.070 0.069  
## Cumulative % of var. 93.625 93.698 93.771 93.841 93.910  
## Dim.106 Dim.107 Dim.108 Dim.109 Dim.110  
## Variance 28.795 27.708 27.390 27.292 26.586  
## % of var. 0.069 0.066 0.065 0.065 0.063  
## Cumulative % of var. 93.978 94.044 94.109 94.174 94.238  
## Dim.111 Dim.112 Dim.113 Dim.114 Dim.115  
## Variance 26.039 25.709 25.584 25.304 25.182  
## % of var. 0.062 0.061 0.061 0.060 0.060  
## Cumulative % of var. 94.300 94.361 94.422 94.482 94.542  
## Dim.116 Dim.117 Dim.118 Dim.119 Dim.120  
## Variance 24.206 23.951 23.818 23.054 22.815  
## % of var. 0.058 0.057 0.057 0.055 0.054  
## Cumulative % of var. 94.600 94.657 94.713 94.768 94.823  
## Dim.121 Dim.122 Dim.123 Dim.124 Dim.125  
## Variance 22.628 22.352 22.224 21.862 21.222  
## % of var. 0.054 0.053 0.053 0.052 0.051  
## Cumulative % of var. 94.877 94.930 94.983 95.035 95.085  
## Dim.126 Dim.127 Dim.128 Dim.129 Dim.130  
## Variance 21.059 20.634 20.467 20.033 19.894  
## % of var. 0.050 0.049 0.049 0.048 0.047  
## Cumulative % of var. 95.135 95.185 95.233 95.281 95.328  
## Dim.131 Dim.132 Dim.133 Dim.134 Dim.135  
## Variance 19.503 19.289 19.223 18.915 18.460  
## % of var. 0.046 0.046 0.046 0.045 0.044  
## Cumulative % of var. 95.375 95.421 95.466 95.511 95.555  
## Dim.136 Dim.137 Dim.138 Dim.139 Dim.140  
## Variance 18.290 18.250 18.088 17.507 17.219  
## % of var. 0.044 0.043 0.043 0.042 0.041  
## Cumulative % of var. 95.599 95.642 95.686 95.727 95.768  
## Dim.141 Dim.142 Dim.143 Dim.144 Dim.145  
## Variance 16.825 16.398 16.186 16.169 15.900  
## % of var. 0.040 0.039 0.039 0.038 0.038  
## Cumulative % of var. 95.808 95.847 95.886 95.924 95.962  
## Dim.146 Dim.147 Dim.148 Dim.149 Dim.150  
## Variance 15.761 15.658 15.577 15.477 15.321  
## % of var. 0.038 0.037 0.037 0.037 0.036  
## Cumulative % of var. 96.000 96.037 96.074 96.111 96.147  
## Dim.151 Dim.152 Dim.153 Dim.154 Dim.155  
## Variance 15.094 14.926 14.829 14.612 14.562  
## % of var. 0.036 0.036 0.035 0.035 0.035  
## Cumulative % of var. 96.183 96.219 96.254 96.289 96.324  
## Dim.156 Dim.157 Dim.158 Dim.159 Dim.160  
## Variance 14.468 14.192 13.834 13.675 13.475  
## % of var. 0.034 0.034 0.033 0.033 0.032  
## Cumulative % of var. 96.358 96.392 96.425 96.457 96.489  
## Dim.161 Dim.162 Dim.163 Dim.164 Dim.165  
## Variance 13.389 13.298 13.073 12.872 12.801  
## % of var. 0.032 0.032 0.031 0.031 0.030  
## Cumulative % of var. 96.521 96.553 96.584 96.615 96.645  
## Dim.166 Dim.167 Dim.168 Dim.169 Dim.170  
## Variance 12.616 12.526 12.381 12.338 12.194  
## % of var. 0.030 0.030 0.029 0.029 0.029  
## Cumulative % of var. 96.675 96.705 96.735 96.764 96.793  
## Dim.171 Dim.172 Dim.173 Dim.174 Dim.175  
## Variance 12.051 11.965 11.780 11.716 11.592  
## % of var. 0.029 0.028 0.028 0.028 0.028  
## Cumulative % of var. 96.822 96.850 96.878 96.906 96.934  
## Dim.176 Dim.177 Dim.178 Dim.179 Dim.180  
## Variance 11.287 11.160 11.056 10.858 10.780  
## % of var. 0.027 0.027 0.026 0.026 0.026  
## Cumulative % of var. 96.961 96.987 97.014 97.039 97.065  
## Dim.181 Dim.182 Dim.183 Dim.184 Dim.185  
## Variance 10.626 10.585 10.574 10.451 10.389  
## % of var. 0.025 0.025 0.025 0.025 0.025  
## Cumulative % of var. 97.090 97.116 97.141 97.166 97.190  
## Dim.186 Dim.187 Dim.188 Dim.189 Dim.190  
## Variance 10.327 10.181 10.151 9.965 9.863  
## % of var. 0.025 0.024 0.024 0.024 0.023  
## Cumulative % of var. 97.215 97.239 97.263 97.287 97.311  
## Dim.191 Dim.192 Dim.193 Dim.194 Dim.195  
## Variance 9.825 9.749 9.691 9.637 9.542  
## % of var. 0.023 0.023 0.023 0.023 0.023  
## Cumulative % of var. 97.334 97.357 97.380 97.403 97.426  
## Dim.196 Dim.197 Dim.198 Dim.199 Dim.200  
## Variance 9.502 9.399 9.342 9.198 9.163  
## % of var. 0.023 0.022 0.022 0.022 0.022  
## Cumulative % of var. 97.448 97.471 97.493 97.515 97.537  
## Dim.201 Dim.202 Dim.203 Dim.204 Dim.205  
## Variance 9.071 8.888 8.812 8.673 8.653  
## % of var. 0.022 0.021 0.021 0.021 0.021  
## Cumulative % of var. 97.558 97.580 97.601 97.621 97.642  
## Dim.206 Dim.207 Dim.208 Dim.209 Dim.210  
## Variance 8.584 8.445 8.376 8.341 8.302  
## % of var. 0.020 0.020 0.020 0.020 0.020  
## Cumulative % of var. 97.662 97.682 97.702 97.722 97.742  
## Dim.211 Dim.212 Dim.213 Dim.214 Dim.215  
## Variance 8.247 8.225 8.151 8.076 8.001  
## % of var. 0.020 0.020 0.019 0.019 0.019  
## Cumulative % of var. 97.762 97.781 97.801 97.820 97.839  
## Dim.216 Dim.217 Dim.218 Dim.219 Dim.220  
## Variance 7.939 7.859 7.823 7.807 7.708  
## % of var. 0.019 0.019 0.019 0.019 0.018  
## Cumulative % of var. 97.858 97.876 97.895 97.914 97.932  
## Dim.221 Dim.222 Dim.223 Dim.224 Dim.225  
## Variance 7.679 7.574 7.502 7.472 7.428  
## % of var. 0.018 0.018 0.018 0.018 0.018  
## Cumulative % of var. 97.950 97.968 97.986 98.004 98.022  
## Dim.226 Dim.227 Dim.228 Dim.229 Dim.230  
## Variance 7.380 7.295 7.171 7.139 7.066  
## % of var. 0.018 0.017 0.017 0.017 0.017  
## Cumulative % of var. 98.039 98.057 98.074 98.091 98.108  
## Dim.231 Dim.232 Dim.233 Dim.234 Dim.235  
## Variance 6.982 6.966 6.898 6.861 6.811  
## % of var. 0.017 0.017 0.016 0.016 0.016  
## Cumulative % of var. 98.124 98.141 98.157 98.173 98.190  
## Dim.236 Dim.237 Dim.238 Dim.239 Dim.240  
## Variance 6.726 6.659 6.631 6.563 6.485  
## % of var. 0.016 0.016 0.016 0.016 0.015  
## Cumulative % of var. 98.206 98.222 98.237 98.253 98.268  
## Dim.241 Dim.242 Dim.243 Dim.244 Dim.245  
## Variance 6.449 6.408 6.366 6.331 6.306  
## % of var. 0.015 0.015 0.015 0.015 0.015  
## Cumulative % of var. 98.284 98.299 98.314 98.329 98.344  
## Dim.246 Dim.247 Dim.248 Dim.249 Dim.250  
## Variance 6.230 6.177 6.149 6.014 6.005  
## % of var. 0.015 0.015 0.015 0.014 0.014  
## Cumulative % of var. 98.359 98.374 98.388 98.403 98.417  
## Dim.251 Dim.252 Dim.253 Dim.254 Dim.255  
## Variance 5.957 5.900 5.878 5.854 5.783  
## % of var. 0.014 0.014 0.014 0.014 0.014  
## Cumulative % of var. 98.431 98.445 98.459 98.473 98.487  
## Dim.256 Dim.257 Dim.258 Dim.259 Dim.260  
## Variance 5.769 5.685 5.658 5.632 5.605  
## % of var. 0.014 0.014 0.013 0.013 0.013  
## Cumulative % of var. 98.501 98.514 98.528 98.541 98.555  
## Dim.261 Dim.262 Dim.263 Dim.264 Dim.265  
## Variance 5.539 5.491 5.438 5.435 5.400  
## % of var. 0.013 0.013 0.013 0.013 0.013  
## Cumulative % of var. 98.568 98.581 98.594 98.607 98.620  
## Dim.266 Dim.267 Dim.268 Dim.269 Dim.270  
## Variance 5.343 5.329 5.233 5.218 5.188  
## % of var. 0.013 0.013 0.012 0.012 0.012  
## Cumulative % of var. 98.632 98.645 98.657 98.670 98.682  
## Dim.271 Dim.272 Dim.273 Dim.274 Dim.275  
## Variance 5.123 5.080 5.060 5.041 4.981  
## % of var. 0.012 0.012 0.012 0.012 0.012  
## Cumulative % of var. 98.694 98.706 98.719 98.731 98.742  
## Dim.276 Dim.277 Dim.278 Dim.279 Dim.280  
## Variance 4.964 4.911 4.873 4.857 4.850  
## % of var. 0.012 0.012 0.012 0.012 0.012  
## Cumulative % of var. 98.754 98.766 98.777 98.789 98.801  
## Dim.281 Dim.282 Dim.283 Dim.284 Dim.285  
## Variance 4.817 4.797 4.743 4.690 4.672  
## % of var. 0.011 0.011 0.011 0.011 0.011  
## Cumulative % of var. 98.812 98.823 98.835 98.846 98.857  
## Dim.286 Dim.287 Dim.288 Dim.289 Dim.290  
## Variance 4.640 4.599 4.585 4.555 4.495  
## % of var. 0.011 0.011 0.011 0.011 0.011  
## Cumulative % of var. 98.868 98.879 98.890 98.901 98.912  
## Dim.291 Dim.292 Dim.293 Dim.294 Dim.295  
## Variance 4.487 4.459 4.427 4.403 4.373  
## % of var. 0.011 0.011 0.011 0.010 0.010  
## Cumulative % of var. 98.922 98.933 98.943 98.954 98.964  
## Dim.296 Dim.297 Dim.298 Dim.299 Dim.300  
## Variance 4.344 4.304 4.278 4.250 4.174  
## % of var. 0.010 0.010 0.010 0.010 0.010  
## Cumulative % of var. 98.975 98.985 98.995 99.005 99.015  
## Dim.301 Dim.302 Dim.303 Dim.304 Dim.305  
## Variance 4.159 4.147 4.104 4.099 4.041  
## % of var. 0.010 0.010 0.010 0.010 0.010  
## Cumulative % of var. 99.025 99.035 99.045 99.054 99.064  
## Dim.306 Dim.307 Dim.308 Dim.309 Dim.310  
## Variance 4.012 3.996 3.948 3.919 3.906  
## % of var. 0.010 0.010 0.009 0.009 0.009  
## Cumulative % of var. 99.074 99.083 99.092 99.102 99.111  
## Dim.311 Dim.312 Dim.313 Dim.314 Dim.315  
## Variance 3.889 3.875 3.839 3.785 3.741  
## % of var. 0.009 0.009 0.009 0.009 0.009  
## Cumulative % of var. 99.120 99.130 99.139 99.148 99.157  
## Dim.316 Dim.317 Dim.318 Dim.319 Dim.320  
## Variance 3.724 3.682 3.668 3.644 3.624  
## % of var. 0.009 0.009 0.009 0.009 0.009  
## Cumulative % of var. 99.166 99.174 99.183 99.192 99.200  
## Dim.321 Dim.322 Dim.323 Dim.324 Dim.325  
## Variance 3.582 3.576 3.538 3.490 3.472  
## % of var. 0.009 0.009 0.008 0.008 0.008  
## Cumulative % of var. 99.209 99.217 99.226 99.234 99.242  
## Dim.326 Dim.327 Dim.328 Dim.329 Dim.330  
## Variance 3.443 3.392 3.378 3.353 3.342  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.251 99.259 99.267 99.275 99.283  
## Dim.331 Dim.332 Dim.333 Dim.334 Dim.335  
## Variance 3.335 3.289 3.266 3.250 3.243  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.291 99.298 99.306 99.314 99.322  
## Dim.336 Dim.337 Dim.338 Dim.339 Dim.340  
## Variance 3.228 3.202 3.183 3.169 3.157  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.329 99.337 99.345 99.352 99.360  
## Dim.341 Dim.342 Dim.343 Dim.344 Dim.345  
## Variance 3.103 3.083 3.070 3.052 3.031  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.367 99.374 99.382 99.389 99.396  
## Dim.346 Dim.347 Dim.348 Dim.349 Dim.350  
## Variance 3.011 3.002 2.950 2.918 2.889  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.403 99.410 99.417 99.424 99.431  
## Dim.351 Dim.352 Dim.353 Dim.354 Dim.355  
## Variance 2.832 2.819 2.810 2.768 2.757  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.438 99.445 99.451 99.458 99.465  
## Dim.356 Dim.357 Dim.358 Dim.359 Dim.360  
## Variance 2.733 2.709 2.695 2.678 2.671  
## % of var. 0.007 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.471 99.478 99.484 99.490 99.497  
## Dim.361 Dim.362 Dim.363 Dim.364 Dim.365  
## Variance 2.652 2.645 2.610 2.542 2.519  
## % of var. 0.006 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.503 99.509 99.516 99.522 99.528  
## Dim.366 Dim.367 Dim.368 Dim.369 Dim.370  
## Variance 2.515 2.492 2.468 2.448 2.434  
## % of var. 0.006 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.534 99.539 99.545 99.551 99.557  
## Dim.371 Dim.372 Dim.373 Dim.374 Dim.375  
## Variance 2.412 2.378 2.340 2.326 2.306  
## % of var. 0.006 0.006 0.006 0.006 0.005  
## Cumulative % of var. 99.563 99.568 99.574 99.580 99.585  
## Dim.376 Dim.377 Dim.378 Dim.379 Dim.380  
## Variance 2.300 2.281 2.263 2.240 2.216  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.590 99.596 99.601 99.607 99.612  
## Dim.381 Dim.382 Dim.383 Dim.384 Dim.385  
## Variance 2.203 2.175 2.146 2.087 2.077  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.617 99.622 99.627 99.632 99.637  
## Dim.386 Dim.387 Dim.388 Dim.389 Dim.390  
## Variance 2.044 2.036 2.020 1.995 1.976  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.642 99.647 99.652 99.657 99.661  
## Dim.391 Dim.392 Dim.393 Dim.394 Dim.395  
## Variance 1.959 1.942 1.918 1.895 1.886  
## % of var. 0.005 0.005 0.005 0.005 0.004  
## Cumulative % of var. 99.666 99.671 99.675 99.680 99.684  
## Dim.396 Dim.397 Dim.398 Dim.399 Dim.400  
## Variance 1.849 1.820 1.810 1.779 1.761  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.689 99.693 99.697 99.701 99.706  
## Dim.401 Dim.402 Dim.403 Dim.404 Dim.405  
## Variance 1.746 1.731 1.714 1.701 1.676  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.710 99.714 99.718 99.722 99.726  
## Dim.406 Dim.407 Dim.408 Dim.409 Dim.410  
## Variance 1.670 1.633 1.619 1.590 1.581  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.730 99.734 99.738 99.742 99.745  
## Dim.411 Dim.412 Dim.413 Dim.414 Dim.415  
## Variance 1.570 1.554 1.545 1.538 1.516  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.749 99.753 99.756 99.760 99.764  
## Dim.416 Dim.417 Dim.418 Dim.419 Dim.420  
## Variance 1.512 1.502 1.484 1.462 1.435  
## % of var. 0.004 0.004 0.004 0.003 0.003  
## Cumulative % of var. 99.767 99.771 99.774 99.778 99.781  
## Dim.421 Dim.422 Dim.423 Dim.424 Dim.425  
## Variance 1.421 1.390 1.380 1.369 1.344  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.785 99.788 99.791 99.795 99.798  
## Dim.426 Dim.427 Dim.428 Dim.429 Dim.430  
## Variance 1.335 1.292 1.289 1.277 1.236  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.801 99.804 99.807 99.810 99.813  
## Dim.431 Dim.432 Dim.433 Dim.434 Dim.435  
## Variance 1.213 1.205 1.200 1.189 1.172  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.816 99.819 99.822 99.825 99.827  
## Dim.436 Dim.437 Dim.438 Dim.439 Dim.440  
## Variance 1.148 1.132 1.114 1.103 1.096  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.830 99.833 99.835 99.838 99.841  
## Dim.441 Dim.442 Dim.443 Dim.444 Dim.445  
## Variance 1.085 1.057 1.053 1.031 1.027  
## % of var. 0.003 0.003 0.003 0.002 0.002  
## Cumulative % of var. 99.843 99.846 99.848 99.851 99.853  
## Dim.446 Dim.447 Dim.448 Dim.449 Dim.450  
## Variance 1.019 0.999 0.986 0.973 0.960  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.856 99.858 99.860 99.863 99.865  
## Dim.451 Dim.452 Dim.453 Dim.454 Dim.455  
## Variance 0.958 0.934 0.912 0.896 0.892  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.867 99.869 99.872 99.874 99.876  
## Dim.456 Dim.457 Dim.458 Dim.459 Dim.460  
## Variance 0.887 0.868 0.863 0.857 0.831  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.878 99.880 99.882 99.884 99.886  
## Dim.461 Dim.462 Dim.463 Dim.464 Dim.465  
## Variance 0.819 0.810 0.800 0.771 0.761  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.888 99.890 99.892 99.894 99.895  
## Dim.466 Dim.467 Dim.468 Dim.469 Dim.470  
## Variance 0.758 0.753 0.745 0.736 0.727  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.897 99.899 99.901 99.903 99.904  
## Dim.471 Dim.472 Dim.473 Dim.474 Dim.475  
## Variance 0.719 0.707 0.700 0.691 0.683  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.906 99.908 99.909 99.911 99.913  
## Dim.476 Dim.477 Dim.478 Dim.479 Dim.480  
## Variance 0.679 0.673 0.651 0.642 0.627  
## % of var. 0.002 0.002 0.002 0.002 0.001  
## Cumulative % of var. 99.914 99.916 99.917 99.919 99.920  
## Dim.481 Dim.482 Dim.483 Dim.484 Dim.485  
## Variance 0.619 0.612 0.604 0.591 0.580  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.922 99.923 99.925 99.926 99.928  
## Dim.486 Dim.487 Dim.488 Dim.489 Dim.490  
## Variance 0.572 0.568 0.559 0.553 0.546  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.929 99.930 99.932 99.933 99.934  
## Dim.491 Dim.492 Dim.493 Dim.494 Dim.495  
## Variance 0.535 0.532 0.518 0.510 0.500  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.936 99.937 99.938 99.939 99.940  
## Dim.496 Dim.497 Dim.498 Dim.499 Dim.500  
## Variance 0.483 0.480 0.472 0.467 0.458  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.942 99.943 99.944 99.945 99.946  
## Dim.501 Dim.502 Dim.503 Dim.504 Dim.505  
## Variance 0.457 0.452 0.445 0.441 0.431  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.947 99.948 99.949 99.950 99.951  
## Dim.506 Dim.507 Dim.508 Dim.509 Dim.510  
## Variance 0.412 0.403 0.397 0.392 0.386  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.952 99.953 99.954 99.955 99.956  
## Dim.511 Dim.512 Dim.513 Dim.514 Dim.515  
## Variance 0.383 0.376 0.373 0.365 0.355  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.957 99.958 99.959 99.960 99.961  
## Dim.516 Dim.517 Dim.518 Dim.519 Dim.520  
## Variance 0.350 0.348 0.346 0.343 0.337  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.961 99.962 99.963 99.964 99.965  
## Dim.521 Dim.522 Dim.523 Dim.524 Dim.525  
## Variance 0.327 0.326 0.315 0.311 0.311  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.965 99.966 99.967 99.968 99.968  
## Dim.526 Dim.527 Dim.528 Dim.529 Dim.530  
## Variance 0.307 0.302 0.299 0.297 0.279  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.969 99.970 99.971 99.971 99.972  
## Dim.531 Dim.532 Dim.533 Dim.534 Dim.535  
## Variance 0.278 0.268 0.264 0.261 0.256  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.973 99.973 99.974 99.975 99.975  
## Dim.536 Dim.537 Dim.538 Dim.539 Dim.540  
## Variance 0.253 0.247 0.241 0.234 0.232  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.976 99.976 99.977 99.977 99.978  
## Dim.541 Dim.542 Dim.543 Dim.544 Dim.545  
## Variance 0.229 0.227 0.220 0.218 0.217  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.979 99.979 99.980 99.980 99.981  
## Dim.546 Dim.547 Dim.548 Dim.549 Dim.550  
## Variance 0.214 0.205 0.195 0.194 0.186  
## % of var. 0.001 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.981 99.982 99.982 99.983 99.983  
## Dim.551 Dim.552 Dim.553 Dim.554 Dim.555  
## Variance 0.182 0.180 0.173 0.171 0.165  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.983 99.984 99.984 99.985 99.985  
## Dim.556 Dim.557 Dim.558 Dim.559 Dim.560  
## Variance 0.163 0.161 0.159 0.152 0.150  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.985 99.986 99.986 99.987 99.987  
## Dim.561 Dim.562 Dim.563 Dim.564 Dim.565  
## Variance 0.148 0.146 0.144 0.142 0.135  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.987 99.988 99.988 99.988 99.989  
## Dim.566 Dim.567 Dim.568 Dim.569 Dim.570  
## Variance 0.133 0.131 0.123 0.121 0.121  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.989 99.989 99.990 99.990 99.990  
## Dim.571 Dim.572 Dim.573 Dim.574 Dim.575  
## Variance 0.119 0.118 0.118 0.114 0.113  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.990 99.991 99.991 99.991 99.992  
## Dim.576 Dim.577 Dim.578 Dim.579 Dim.580  
## Variance 0.107 0.104 0.103 0.098 0.096  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.992 99.992 99.992 99.993 99.993  
## Dim.581 Dim.582 Dim.583 Dim.584 Dim.585  
## Variance 0.090 0.089 0.088 0.085 0.085  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.993 99.993 99.993 99.994 99.994  
## Dim.586 Dim.587 Dim.588 Dim.589 Dim.590  
## Variance 0.083 0.082 0.078 0.077 0.074  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.994 99.994 99.994 99.995 99.995  
## Dim.591 Dim.592 Dim.593 Dim.594 Dim.595  
## Variance 0.074 0.074 0.070 0.068 0.066  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.995 99.995 99.995 99.995 99.996  
## Dim.596 Dim.597 Dim.598 Dim.599 Dim.600  
## Variance 0.064 0.062 0.060 0.060 0.058  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.996 99.996 99.996 99.996 99.996  
## Dim.601 Dim.602 Dim.603 Dim.604 Dim.605  
## Variance 0.055 0.052 0.051 0.050 0.049  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.996 99.997 99.997 99.997 99.997  
## Dim.606 Dim.607 Dim.608 Dim.609 Dim.610  
## Variance 0.049 0.048 0.047 0.046 0.044  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.997 99.997 99.997 99.997 99.997  
## Dim.611 Dim.612 Dim.613 Dim.614 Dim.615  
## Variance 0.041 0.040 0.036 0.035 0.034  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.998 99.998  
## Dim.616 Dim.617 Dim.618 Dim.619 Dim.620  
## Variance 0.034 0.033 0.032 0.032 0.031  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.998 99.998  
## Dim.621 Dim.622 Dim.623 Dim.624 Dim.625  
## Variance 0.030 0.030 0.028 0.028 0.027  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.999 99.999  
## Dim.626 Dim.627 Dim.628 Dim.629 Dim.630  
## Variance 0.026 0.025 0.024 0.024 0.023  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.631 Dim.632 Dim.633 Dim.634 Dim.635  
## Variance 0.022 0.021 0.021 0.020 0.020  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.636 Dim.637 Dim.638 Dim.639 Dim.640  
## Variance 0.020 0.019 0.019 0.016 0.016  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.641 Dim.642 Dim.643 Dim.644 Dim.645  
## Variance 0.015 0.015 0.014 0.013 0.013  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 100.000 100.000  
## Dim.646 Dim.647 Dim.648 Dim.649 Dim.650  
## Variance 0.011 0.011 0.010 0.010 0.009  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.651 Dim.652 Dim.653 Dim.654 Dim.655  
## Variance 0.009 0.009 0.008 0.008 0.007  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.656 Dim.657 Dim.658 Dim.659 Dim.660  
## Variance 0.007 0.007 0.007 0.006 0.006  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.661 Dim.662 Dim.663 Dim.664 Dim.665  
## Variance 0.006 0.006 0.006 0.004 0.004  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.666 Dim.667 Dim.668 Dim.669 Dim.670  
## Variance 0.004 0.003 0.003 0.003 0.003  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.671 Dim.672 Dim.673 Dim.674 Dim.675  
## Variance 0.002 0.002 0.002 0.002 0.002  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.676 Dim.677 Dim.678 Dim.679 Dim.680  
## Variance 0.001 0.001 0.001 0.001 0.001  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.681 Dim.682 Dim.683 Dim.684 Dim.685  
## Variance 0.001 0.001 0.001 0.001 0.001  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.686 Dim.687 Dim.688 Dim.689 Dim.690  
## Variance 0.001 0.001 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.691 Dim.692 Dim.693 Dim.694 Dim.695  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.696 Dim.697 Dim.698 Dim.699 Dim.700  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.701 Dim.702 Dim.703 Dim.704 Dim.705  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.706 Dim.707 Dim.708 Dim.709 Dim.710  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.711 Dim.712 Dim.713 Dim.714 Dim.715  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.716 Dim.717 Dim.718 Dim.719 Dim.720  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.721 Dim.722 Dim.723 Dim.724 Dim.725  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.726 Dim.727 Dim.728 Dim.729 Dim.730  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.731 Dim.732 Dim.733 Dim.734 Dim.735  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.736 Dim.737 Dim.738 Dim.739 Dim.740  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.741 Dim.742 Dim.743 Dim.744 Dim.745  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.746 Dim.747 Dim.748 Dim.749 Dim.750  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.751 Dim.752 Dim.753 Dim.754 Dim.755  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.756 Dim.757 Dim.758 Dim.759 Dim.760  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.761 Dim.762 Dim.763 Dim.764 Dim.765  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.766 Dim.767 Dim.768 Dim.769 Dim.770  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.771 Dim.772 Dim.773 Dim.774 Dim.775  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.776 Dim.777 Dim.778 Dim.779 Dim.780  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.781 Dim.782 Dim.783  
## Variance 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000  
##   
## Individuals (the 10 first)  
## Dist Dim.1 ctr cos2 Dim.2 ctr cos2 Dim.3  
## 0 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 1 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 2 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 3 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 4 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 5 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 6 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 7 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 8 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 9 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## ctr cos2   
## 0 0.005 0.012 |  
## 1 0.005 0.012 |  
## 2 0.005 0.012 |  
## 3 0.005 0.012 |  
## 4 0.005 0.012 |  
## 5 0.005 0.012 |  
## 6 0.005 0.012 |  
## 7 0.005 0.012 |  
## 8 0.005 0.012 |  
## 9 0.005 0.012 |  
##   
## Variables (the 10 first)  
## Dim.1 ctr cos2 Dim.2 ctr cos2 Dim.3 ctr cos2   
## V1 | 0.419 0.001 0.176 | -0.407 0.006 0.165 | 0.198 0.002 0.039 |  
## V2 | 0.501 0.002 0.251 | 0.374 0.005 0.140 | 0.434 0.009 0.189 |  
## V3 | 0.534 0.002 0.285 | -0.467 0.008 0.218 | -0.077 0.000 0.006 |  
## V4 | 0.269 0.001 0.073 | 0.244 0.002 0.060 | -0.020 0.000 0.000 |  
## V5 | 0.452 0.002 0.205 | 0.373 0.005 0.139 | 0.449 0.009 0.202 |  
## V6 | 0.576 0.003 0.332 | 0.350 0.005 0.122 | 0.116 0.001 0.013 |  
## V7 | 0.502 0.002 0.252 | -0.054 0.000 0.003 | -0.407 0.008 0.166 |  
## V8 | 0.347 0.001 0.120 | 0.069 0.000 0.005 | 0.021 0.000 0.000 |  
## V9 | 0.640 0.003 0.410 | 0.221 0.002 0.049 | 0.050 0.000 0.002 |  
## V10 | 0.570 0.003 0.325 | -0.084 0.000 0.007 | 0.337 0.005 0.114 |

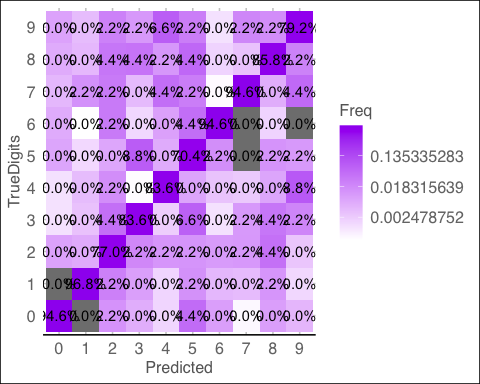
model\_nb\_80<-runNB(pca\_80)

##   
## ================================== Naive Bayes ==================================   
##   
## - Call: naive\_bayes.formula(formula = label ~ ., data = trainDF)   
## - Laplace: 0   
## - Classes: 10   
## - Samples: 25205   
## - Features: 80   
## - Conditional distributions:   
## - Gaussian: 80  
## - Prior probabilities:   
## - 0: 0.0984  
## - 1: 0.1115  
## - 2: 0.0995  
## - 3: 0.1036  
## - 4: 0.097  
## - 5: 0.0903  
## - 6: 0.0985  
## - 7: 0.1048  
## - 8: 0.0967  
## - 9: 0.0997  
##   
## ---------------------------------------------------------------------------------

## Warning: predict.naive\_bayes(): more features in the newdata are provided as  
## there are probability tables in the object. Calculation is performed based on  
## features to be found in the tables.

## TrueDigits  
## Predicted 0 1 2 3 4 5 6 7 8 9  
## 0 1489 0 13 2 2 12 10 7 10 13  
## 1 0 1747 12 6 7 3 1 26 8 7  
## 2 26 45 1466 80 31 14 55 55 64 44  
## 3 10 16 33 1418 1 131 3 7 61 20  
## 4 3 3 21 4 1407 11 15 74 20 127  
## 5 85 27 24 124 15 1283 81 50 101 50  
## 6 15 7 16 2 5 24 1486 1 3 2  
## 7 1 6 18 17 4 0 0 1445 5 31  
## 8 15 19 62 52 12 21 3 9 1314 25  
## 9 8 3 5 35 144 19 0 86 39 1356  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 0.8580530 0.8422800 0.8526831 0.8632985 0.1115213   
## AccuracyPValue McnemarPValue   
## 0.0000000 NaN

## Warning: Transformation introduced infinite values in discrete y-axis



pca\_150<-getTopPCAFeatures(DigitTotalDF,150)

##   
## Call:  
## PCA(X = t(select(df, -label)), ncp = ncp, graph = FALSE)   
##   
##   
## Eigenvalues  
## Dim.1 Dim.2 Dim.3 Dim.4 Dim.5  
## Variance 12975.886 2635.187 2146.048 1747.535 1465.951  
## % of var. 30.895 6.274 5.110 4.161 3.490  
## Cumulative % of var. 30.895 37.169 42.279 46.440 49.930  
## Dim.6 Dim.7 Dim.8 Dim.9 Dim.10  
## Variance 1358.547 1135.701 884.896 855.251 734.998  
## % of var. 3.235 2.704 2.107 2.036 1.750  
## Cumulative % of var. 53.165 55.869 57.976 60.012 61.762  
## Dim.11 Dim.12 Dim.13 Dim.14 Dim.15  
## Variance 664.973 634.157 551.036 515.912 483.259  
## % of var. 1.583 1.510 1.312 1.228 1.151  
## Cumulative % of var. 63.345 64.855 66.167 67.395 68.546  
## Dim.16 Dim.17 Dim.18 Dim.19 Dim.20  
## Variance 451.099 420.945 388.013 361.053 349.113  
## % of var. 1.074 1.002 0.924 0.860 0.831  
## Cumulative % of var. 69.620 70.622 71.546 72.406 73.237  
## Dim.21 Dim.22 Dim.23 Dim.24 Dim.25  
## Variance 329.622 310.712 298.708 281.495 275.884  
## % of var. 0.785 0.740 0.711 0.670 0.657  
## Cumulative % of var. 74.022 74.762 75.473 76.143 76.800  
## Dim.26 Dim.27 Dim.28 Dim.29 Dim.30  
## Variance 268.984 252.330 236.925 226.065 219.194  
## % of var. 0.640 0.601 0.564 0.538 0.522  
## Cumulative % of var. 77.440 78.041 78.605 79.144 79.665  
## Dim.31 Dim.32 Dim.33 Dim.34 Dim.35  
## Variance 203.959 202.286 185.225 181.697 173.988  
## % of var. 0.486 0.482 0.441 0.433 0.414  
## Cumulative % of var. 80.151 80.633 81.074 81.506 81.921  
## Dim.36 Dim.37 Dim.38 Dim.39 Dim.40  
## Variance 172.056 160.255 156.645 149.836 146.561  
## % of var. 0.410 0.382 0.373 0.357 0.349  
## Cumulative % of var. 82.330 82.712 83.085 83.441 83.790  
## Dim.41 Dim.42 Dim.43 Dim.44 Dim.45  
## Variance 140.441 137.162 131.753 125.734 123.529  
## % of var. 0.334 0.327 0.314 0.299 0.294  
## Cumulative % of var. 84.125 84.451 84.765 85.064 85.359  
## Dim.46 Dim.47 Dim.48 Dim.49 Dim.50  
## Variance 122.862 115.733 109.800 108.063 100.205  
## % of var. 0.293 0.276 0.261 0.257 0.239  
## Cumulative % of var. 85.651 85.927 86.188 86.445 86.684  
## Dim.51 Dim.52 Dim.53 Dim.54 Dim.55  
## Variance 99.257 98.063 93.201 92.249 89.483  
## % of var. 0.236 0.233 0.222 0.220 0.213  
## Cumulative % of var. 86.920 87.154 87.376 87.595 87.808  
## Dim.56 Dim.57 Dim.58 Dim.59 Dim.60  
## Variance 87.033 85.270 83.513 81.175 78.975  
## % of var. 0.207 0.203 0.199 0.193 0.188  
## Cumulative % of var. 88.016 88.219 88.417 88.611 88.799  
## Dim.61 Dim.62 Dim.63 Dim.64 Dim.65  
## Variance 76.732 76.033 73.240 71.087 69.891  
## % of var. 0.183 0.181 0.174 0.169 0.166  
## Cumulative % of var. 88.981 89.163 89.337 89.506 89.673  
## Dim.66 Dim.67 Dim.68 Dim.69 Dim.70  
## Variance 67.076 65.846 63.704 62.539 61.504  
## % of var. 0.160 0.157 0.152 0.149 0.146  
## Cumulative % of var. 89.832 89.989 90.141 90.290 90.436  
## Dim.71 Dim.72 Dim.73 Dim.74 Dim.75  
## Variance 58.632 58.470 56.065 55.675 53.772  
## % of var. 0.140 0.139 0.133 0.133 0.128  
## Cumulative % of var. 90.576 90.715 90.848 90.981 91.109  
## Dim.76 Dim.77 Dim.78 Dim.79 Dim.80  
## Variance 52.344 50.752 50.151 47.664 47.097  
## % of var. 0.125 0.121 0.119 0.113 0.112  
## Cumulative % of var. 91.234 91.354 91.474 91.587 91.699  
## Dim.81 Dim.82 Dim.83 Dim.84 Dim.85  
## Variance 45.959 45.670 45.134 43.399 43.159  
## % of var. 0.109 0.109 0.107 0.103 0.103  
## Cumulative % of var. 91.809 91.918 92.025 92.128 92.231  
## Dim.86 Dim.87 Dim.88 Dim.89 Dim.90  
## Variance 42.732 41.986 40.222 39.688 38.618  
## % of var. 0.102 0.100 0.096 0.094 0.092  
## Cumulative % of var. 92.333 92.433 92.529 92.623 92.715  
## Dim.91 Dim.92 Dim.93 Dim.94 Dim.95  
## Variance 37.900 37.111 36.558 35.693 35.451  
## % of var. 0.090 0.088 0.087 0.085 0.084  
## Cumulative % of var. 92.805 92.894 92.981 93.066 93.150  
## Dim.96 Dim.97 Dim.98 Dim.99 Dim.100  
## Variance 35.000 33.741 33.657 33.108 32.255  
## % of var. 0.083 0.080 0.080 0.079 0.077  
## Cumulative % of var. 93.233 93.314 93.394 93.473 93.550  
## Dim.101 Dim.102 Dim.103 Dim.104 Dim.105  
## Variance 31.708 30.818 30.512 29.322 28.925  
## % of var. 0.075 0.073 0.073 0.070 0.069  
## Cumulative % of var. 93.625 93.698 93.771 93.841 93.910  
## Dim.106 Dim.107 Dim.108 Dim.109 Dim.110  
## Variance 28.795 27.708 27.390 27.292 26.586  
## % of var. 0.069 0.066 0.065 0.065 0.063  
## Cumulative % of var. 93.978 94.044 94.109 94.174 94.238  
## Dim.111 Dim.112 Dim.113 Dim.114 Dim.115  
## Variance 26.039 25.709 25.584 25.304 25.182  
## % of var. 0.062 0.061 0.061 0.060 0.060  
## Cumulative % of var. 94.300 94.361 94.422 94.482 94.542  
## Dim.116 Dim.117 Dim.118 Dim.119 Dim.120  
## Variance 24.206 23.951 23.818 23.054 22.815  
## % of var. 0.058 0.057 0.057 0.055 0.054  
## Cumulative % of var. 94.600 94.657 94.713 94.768 94.823  
## Dim.121 Dim.122 Dim.123 Dim.124 Dim.125  
## Variance 22.628 22.352 22.224 21.862 21.222  
## % of var. 0.054 0.053 0.053 0.052 0.051  
## Cumulative % of var. 94.877 94.930 94.983 95.035 95.085  
## Dim.126 Dim.127 Dim.128 Dim.129 Dim.130  
## Variance 21.059 20.634 20.467 20.033 19.894  
## % of var. 0.050 0.049 0.049 0.048 0.047  
## Cumulative % of var. 95.135 95.185 95.233 95.281 95.328  
## Dim.131 Dim.132 Dim.133 Dim.134 Dim.135  
## Variance 19.503 19.289 19.223 18.915 18.460  
## % of var. 0.046 0.046 0.046 0.045 0.044  
## Cumulative % of var. 95.375 95.421 95.466 95.511 95.555  
## Dim.136 Dim.137 Dim.138 Dim.139 Dim.140  
## Variance 18.290 18.250 18.088 17.507 17.219  
## % of var. 0.044 0.043 0.043 0.042 0.041  
## Cumulative % of var. 95.599 95.642 95.686 95.727 95.768  
## Dim.141 Dim.142 Dim.143 Dim.144 Dim.145  
## Variance 16.825 16.398 16.186 16.169 15.900  
## % of var. 0.040 0.039 0.039 0.038 0.038  
## Cumulative % of var. 95.808 95.847 95.886 95.924 95.962  
## Dim.146 Dim.147 Dim.148 Dim.149 Dim.150  
## Variance 15.761 15.658 15.577 15.477 15.321  
## % of var. 0.038 0.037 0.037 0.037 0.036  
## Cumulative % of var. 96.000 96.037 96.074 96.111 96.147  
## Dim.151 Dim.152 Dim.153 Dim.154 Dim.155  
## Variance 15.094 14.926 14.829 14.612 14.562  
## % of var. 0.036 0.036 0.035 0.035 0.035  
## Cumulative % of var. 96.183 96.219 96.254 96.289 96.324  
## Dim.156 Dim.157 Dim.158 Dim.159 Dim.160  
## Variance 14.468 14.192 13.834 13.675 13.475  
## % of var. 0.034 0.034 0.033 0.033 0.032  
## Cumulative % of var. 96.358 96.392 96.425 96.457 96.489  
## Dim.161 Dim.162 Dim.163 Dim.164 Dim.165  
## Variance 13.389 13.298 13.073 12.872 12.801  
## % of var. 0.032 0.032 0.031 0.031 0.030  
## Cumulative % of var. 96.521 96.553 96.584 96.615 96.645  
## Dim.166 Dim.167 Dim.168 Dim.169 Dim.170  
## Variance 12.616 12.526 12.381 12.338 12.194  
## % of var. 0.030 0.030 0.029 0.029 0.029  
## Cumulative % of var. 96.675 96.705 96.735 96.764 96.793  
## Dim.171 Dim.172 Dim.173 Dim.174 Dim.175  
## Variance 12.051 11.965 11.780 11.716 11.592  
## % of var. 0.029 0.028 0.028 0.028 0.028  
## Cumulative % of var. 96.822 96.850 96.878 96.906 96.934  
## Dim.176 Dim.177 Dim.178 Dim.179 Dim.180  
## Variance 11.287 11.160 11.056 10.858 10.780  
## % of var. 0.027 0.027 0.026 0.026 0.026  
## Cumulative % of var. 96.961 96.987 97.014 97.039 97.065  
## Dim.181 Dim.182 Dim.183 Dim.184 Dim.185  
## Variance 10.626 10.585 10.574 10.451 10.389  
## % of var. 0.025 0.025 0.025 0.025 0.025  
## Cumulative % of var. 97.090 97.116 97.141 97.166 97.190  
## Dim.186 Dim.187 Dim.188 Dim.189 Dim.190  
## Variance 10.327 10.181 10.151 9.965 9.863  
## % of var. 0.025 0.024 0.024 0.024 0.023  
## Cumulative % of var. 97.215 97.239 97.263 97.287 97.311  
## Dim.191 Dim.192 Dim.193 Dim.194 Dim.195  
## Variance 9.825 9.749 9.691 9.637 9.542  
## % of var. 0.023 0.023 0.023 0.023 0.023  
## Cumulative % of var. 97.334 97.357 97.380 97.403 97.426  
## Dim.196 Dim.197 Dim.198 Dim.199 Dim.200  
## Variance 9.502 9.399 9.342 9.198 9.163  
## % of var. 0.023 0.022 0.022 0.022 0.022  
## Cumulative % of var. 97.448 97.471 97.493 97.515 97.537  
## Dim.201 Dim.202 Dim.203 Dim.204 Dim.205  
## Variance 9.071 8.888 8.812 8.673 8.653  
## % of var. 0.022 0.021 0.021 0.021 0.021  
## Cumulative % of var. 97.558 97.580 97.601 97.621 97.642  
## Dim.206 Dim.207 Dim.208 Dim.209 Dim.210  
## Variance 8.584 8.445 8.376 8.341 8.302  
## % of var. 0.020 0.020 0.020 0.020 0.020  
## Cumulative % of var. 97.662 97.682 97.702 97.722 97.742  
## Dim.211 Dim.212 Dim.213 Dim.214 Dim.215  
## Variance 8.247 8.225 8.151 8.076 8.001  
## % of var. 0.020 0.020 0.019 0.019 0.019  
## Cumulative % of var. 97.762 97.781 97.801 97.820 97.839  
## Dim.216 Dim.217 Dim.218 Dim.219 Dim.220  
## Variance 7.939 7.859 7.823 7.807 7.708  
## % of var. 0.019 0.019 0.019 0.019 0.018  
## Cumulative % of var. 97.858 97.876 97.895 97.914 97.932  
## Dim.221 Dim.222 Dim.223 Dim.224 Dim.225  
## Variance 7.679 7.574 7.502 7.472 7.428  
## % of var. 0.018 0.018 0.018 0.018 0.018  
## Cumulative % of var. 97.950 97.968 97.986 98.004 98.022  
## Dim.226 Dim.227 Dim.228 Dim.229 Dim.230  
## Variance 7.380 7.295 7.171 7.139 7.066  
## % of var. 0.018 0.017 0.017 0.017 0.017  
## Cumulative % of var. 98.039 98.057 98.074 98.091 98.108  
## Dim.231 Dim.232 Dim.233 Dim.234 Dim.235  
## Variance 6.982 6.966 6.898 6.861 6.811  
## % of var. 0.017 0.017 0.016 0.016 0.016  
## Cumulative % of var. 98.124 98.141 98.157 98.173 98.190  
## Dim.236 Dim.237 Dim.238 Dim.239 Dim.240  
## Variance 6.726 6.659 6.631 6.563 6.485  
## % of var. 0.016 0.016 0.016 0.016 0.015  
## Cumulative % of var. 98.206 98.222 98.237 98.253 98.268  
## Dim.241 Dim.242 Dim.243 Dim.244 Dim.245  
## Variance 6.449 6.408 6.366 6.331 6.306  
## % of var. 0.015 0.015 0.015 0.015 0.015  
## Cumulative % of var. 98.284 98.299 98.314 98.329 98.344  
## Dim.246 Dim.247 Dim.248 Dim.249 Dim.250  
## Variance 6.230 6.177 6.149 6.014 6.005  
## % of var. 0.015 0.015 0.015 0.014 0.014  
## Cumulative % of var. 98.359 98.374 98.388 98.403 98.417  
## Dim.251 Dim.252 Dim.253 Dim.254 Dim.255  
## Variance 5.957 5.900 5.878 5.854 5.783  
## % of var. 0.014 0.014 0.014 0.014 0.014  
## Cumulative % of var. 98.431 98.445 98.459 98.473 98.487  
## Dim.256 Dim.257 Dim.258 Dim.259 Dim.260  
## Variance 5.769 5.685 5.658 5.632 5.605  
## % of var. 0.014 0.014 0.013 0.013 0.013  
## Cumulative % of var. 98.501 98.514 98.528 98.541 98.555  
## Dim.261 Dim.262 Dim.263 Dim.264 Dim.265  
## Variance 5.539 5.491 5.438 5.435 5.400  
## % of var. 0.013 0.013 0.013 0.013 0.013  
## Cumulative % of var. 98.568 98.581 98.594 98.607 98.620  
## Dim.266 Dim.267 Dim.268 Dim.269 Dim.270  
## Variance 5.343 5.329 5.233 5.218 5.188  
## % of var. 0.013 0.013 0.012 0.012 0.012  
## Cumulative % of var. 98.632 98.645 98.657 98.670 98.682  
## Dim.271 Dim.272 Dim.273 Dim.274 Dim.275  
## Variance 5.123 5.080 5.060 5.041 4.981  
## % of var. 0.012 0.012 0.012 0.012 0.012  
## Cumulative % of var. 98.694 98.706 98.719 98.731 98.742  
## Dim.276 Dim.277 Dim.278 Dim.279 Dim.280  
## Variance 4.964 4.911 4.873 4.857 4.850  
## % of var. 0.012 0.012 0.012 0.012 0.012  
## Cumulative % of var. 98.754 98.766 98.777 98.789 98.801  
## Dim.281 Dim.282 Dim.283 Dim.284 Dim.285  
## Variance 4.817 4.797 4.743 4.690 4.672  
## % of var. 0.011 0.011 0.011 0.011 0.011  
## Cumulative % of var. 98.812 98.823 98.835 98.846 98.857  
## Dim.286 Dim.287 Dim.288 Dim.289 Dim.290  
## Variance 4.640 4.599 4.585 4.555 4.495  
## % of var. 0.011 0.011 0.011 0.011 0.011  
## Cumulative % of var. 98.868 98.879 98.890 98.901 98.912  
## Dim.291 Dim.292 Dim.293 Dim.294 Dim.295  
## Variance 4.487 4.459 4.427 4.403 4.373  
## % of var. 0.011 0.011 0.011 0.010 0.010  
## Cumulative % of var. 98.922 98.933 98.943 98.954 98.964  
## Dim.296 Dim.297 Dim.298 Dim.299 Dim.300  
## Variance 4.344 4.304 4.278 4.250 4.174  
## % of var. 0.010 0.010 0.010 0.010 0.010  
## Cumulative % of var. 98.975 98.985 98.995 99.005 99.015  
## Dim.301 Dim.302 Dim.303 Dim.304 Dim.305  
## Variance 4.159 4.147 4.104 4.099 4.041  
## % of var. 0.010 0.010 0.010 0.010 0.010  
## Cumulative % of var. 99.025 99.035 99.045 99.054 99.064  
## Dim.306 Dim.307 Dim.308 Dim.309 Dim.310  
## Variance 4.012 3.996 3.948 3.919 3.906  
## % of var. 0.010 0.010 0.009 0.009 0.009  
## Cumulative % of var. 99.074 99.083 99.092 99.102 99.111  
## Dim.311 Dim.312 Dim.313 Dim.314 Dim.315  
## Variance 3.889 3.875 3.839 3.785 3.741  
## % of var. 0.009 0.009 0.009 0.009 0.009  
## Cumulative % of var. 99.120 99.130 99.139 99.148 99.157  
## Dim.316 Dim.317 Dim.318 Dim.319 Dim.320  
## Variance 3.724 3.682 3.668 3.644 3.624  
## % of var. 0.009 0.009 0.009 0.009 0.009  
## Cumulative % of var. 99.166 99.174 99.183 99.192 99.200  
## Dim.321 Dim.322 Dim.323 Dim.324 Dim.325  
## Variance 3.582 3.576 3.538 3.490 3.472  
## % of var. 0.009 0.009 0.008 0.008 0.008  
## Cumulative % of var. 99.209 99.217 99.226 99.234 99.242  
## Dim.326 Dim.327 Dim.328 Dim.329 Dim.330  
## Variance 3.443 3.392 3.378 3.353 3.342  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.251 99.259 99.267 99.275 99.283  
## Dim.331 Dim.332 Dim.333 Dim.334 Dim.335  
## Variance 3.335 3.289 3.266 3.250 3.243  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.291 99.298 99.306 99.314 99.322  
## Dim.336 Dim.337 Dim.338 Dim.339 Dim.340  
## Variance 3.228 3.202 3.183 3.169 3.157  
## % of var. 0.008 0.008 0.008 0.008 0.008  
## Cumulative % of var. 99.329 99.337 99.345 99.352 99.360  
## Dim.341 Dim.342 Dim.343 Dim.344 Dim.345  
## Variance 3.103 3.083 3.070 3.052 3.031  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.367 99.374 99.382 99.389 99.396  
## Dim.346 Dim.347 Dim.348 Dim.349 Dim.350  
## Variance 3.011 3.002 2.950 2.918 2.889  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.403 99.410 99.417 99.424 99.431  
## Dim.351 Dim.352 Dim.353 Dim.354 Dim.355  
## Variance 2.832 2.819 2.810 2.768 2.757  
## % of var. 0.007 0.007 0.007 0.007 0.007  
## Cumulative % of var. 99.438 99.445 99.451 99.458 99.465  
## Dim.356 Dim.357 Dim.358 Dim.359 Dim.360  
## Variance 2.733 2.709 2.695 2.678 2.671  
## % of var. 0.007 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.471 99.478 99.484 99.490 99.497  
## Dim.361 Dim.362 Dim.363 Dim.364 Dim.365  
## Variance 2.652 2.645 2.610 2.542 2.519  
## % of var. 0.006 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.503 99.509 99.516 99.522 99.528  
## Dim.366 Dim.367 Dim.368 Dim.369 Dim.370  
## Variance 2.515 2.492 2.468 2.448 2.434  
## % of var. 0.006 0.006 0.006 0.006 0.006  
## Cumulative % of var. 99.534 99.539 99.545 99.551 99.557  
## Dim.371 Dim.372 Dim.373 Dim.374 Dim.375  
## Variance 2.412 2.378 2.340 2.326 2.306  
## % of var. 0.006 0.006 0.006 0.006 0.005  
## Cumulative % of var. 99.563 99.568 99.574 99.580 99.585  
## Dim.376 Dim.377 Dim.378 Dim.379 Dim.380  
## Variance 2.300 2.281 2.263 2.240 2.216  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.590 99.596 99.601 99.607 99.612  
## Dim.381 Dim.382 Dim.383 Dim.384 Dim.385  
## Variance 2.203 2.175 2.146 2.087 2.077  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.617 99.622 99.627 99.632 99.637  
## Dim.386 Dim.387 Dim.388 Dim.389 Dim.390  
## Variance 2.044 2.036 2.020 1.995 1.976  
## % of var. 0.005 0.005 0.005 0.005 0.005  
## Cumulative % of var. 99.642 99.647 99.652 99.657 99.661  
## Dim.391 Dim.392 Dim.393 Dim.394 Dim.395  
## Variance 1.959 1.942 1.918 1.895 1.886  
## % of var. 0.005 0.005 0.005 0.005 0.004  
## Cumulative % of var. 99.666 99.671 99.675 99.680 99.684  
## Dim.396 Dim.397 Dim.398 Dim.399 Dim.400  
## Variance 1.849 1.820 1.810 1.779 1.761  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.689 99.693 99.697 99.701 99.706  
## Dim.401 Dim.402 Dim.403 Dim.404 Dim.405  
## Variance 1.746 1.731 1.714 1.701 1.676  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.710 99.714 99.718 99.722 99.726  
## Dim.406 Dim.407 Dim.408 Dim.409 Dim.410  
## Variance 1.670 1.633 1.619 1.590 1.581  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.730 99.734 99.738 99.742 99.745  
## Dim.411 Dim.412 Dim.413 Dim.414 Dim.415  
## Variance 1.570 1.554 1.545 1.538 1.516  
## % of var. 0.004 0.004 0.004 0.004 0.004  
## Cumulative % of var. 99.749 99.753 99.756 99.760 99.764  
## Dim.416 Dim.417 Dim.418 Dim.419 Dim.420  
## Variance 1.512 1.502 1.484 1.462 1.435  
## % of var. 0.004 0.004 0.004 0.003 0.003  
## Cumulative % of var. 99.767 99.771 99.774 99.778 99.781  
## Dim.421 Dim.422 Dim.423 Dim.424 Dim.425  
## Variance 1.421 1.390 1.380 1.369 1.344  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.785 99.788 99.791 99.795 99.798  
## Dim.426 Dim.427 Dim.428 Dim.429 Dim.430  
## Variance 1.335 1.292 1.289 1.277 1.236  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.801 99.804 99.807 99.810 99.813  
## Dim.431 Dim.432 Dim.433 Dim.434 Dim.435  
## Variance 1.213 1.205 1.200 1.189 1.172  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.816 99.819 99.822 99.825 99.827  
## Dim.436 Dim.437 Dim.438 Dim.439 Dim.440  
## Variance 1.148 1.132 1.114 1.103 1.096  
## % of var. 0.003 0.003 0.003 0.003 0.003  
## Cumulative % of var. 99.830 99.833 99.835 99.838 99.841  
## Dim.441 Dim.442 Dim.443 Dim.444 Dim.445  
## Variance 1.085 1.057 1.053 1.031 1.027  
## % of var. 0.003 0.003 0.003 0.002 0.002  
## Cumulative % of var. 99.843 99.846 99.848 99.851 99.853  
## Dim.446 Dim.447 Dim.448 Dim.449 Dim.450  
## Variance 1.019 0.999 0.986 0.973 0.960  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.856 99.858 99.860 99.863 99.865  
## Dim.451 Dim.452 Dim.453 Dim.454 Dim.455  
## Variance 0.958 0.934 0.912 0.896 0.892  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.867 99.869 99.872 99.874 99.876  
## Dim.456 Dim.457 Dim.458 Dim.459 Dim.460  
## Variance 0.887 0.868 0.863 0.857 0.831  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.878 99.880 99.882 99.884 99.886  
## Dim.461 Dim.462 Dim.463 Dim.464 Dim.465  
## Variance 0.819 0.810 0.800 0.771 0.761  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.888 99.890 99.892 99.894 99.895  
## Dim.466 Dim.467 Dim.468 Dim.469 Dim.470  
## Variance 0.758 0.753 0.745 0.736 0.727  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.897 99.899 99.901 99.903 99.904  
## Dim.471 Dim.472 Dim.473 Dim.474 Dim.475  
## Variance 0.719 0.707 0.700 0.691 0.683  
## % of var. 0.002 0.002 0.002 0.002 0.002  
## Cumulative % of var. 99.906 99.908 99.909 99.911 99.913  
## Dim.476 Dim.477 Dim.478 Dim.479 Dim.480  
## Variance 0.679 0.673 0.651 0.642 0.627  
## % of var. 0.002 0.002 0.002 0.002 0.001  
## Cumulative % of var. 99.914 99.916 99.917 99.919 99.920  
## Dim.481 Dim.482 Dim.483 Dim.484 Dim.485  
## Variance 0.619 0.612 0.604 0.591 0.580  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.922 99.923 99.925 99.926 99.928  
## Dim.486 Dim.487 Dim.488 Dim.489 Dim.490  
## Variance 0.572 0.568 0.559 0.553 0.546  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.929 99.930 99.932 99.933 99.934  
## Dim.491 Dim.492 Dim.493 Dim.494 Dim.495  
## Variance 0.535 0.532 0.518 0.510 0.500  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.936 99.937 99.938 99.939 99.940  
## Dim.496 Dim.497 Dim.498 Dim.499 Dim.500  
## Variance 0.483 0.480 0.472 0.467 0.458  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.942 99.943 99.944 99.945 99.946  
## Dim.501 Dim.502 Dim.503 Dim.504 Dim.505  
## Variance 0.457 0.452 0.445 0.441 0.431  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.947 99.948 99.949 99.950 99.951  
## Dim.506 Dim.507 Dim.508 Dim.509 Dim.510  
## Variance 0.412 0.403 0.397 0.392 0.386  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.952 99.953 99.954 99.955 99.956  
## Dim.511 Dim.512 Dim.513 Dim.514 Dim.515  
## Variance 0.383 0.376 0.373 0.365 0.355  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.957 99.958 99.959 99.960 99.961  
## Dim.516 Dim.517 Dim.518 Dim.519 Dim.520  
## Variance 0.350 0.348 0.346 0.343 0.337  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.961 99.962 99.963 99.964 99.965  
## Dim.521 Dim.522 Dim.523 Dim.524 Dim.525  
## Variance 0.327 0.326 0.315 0.311 0.311  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.965 99.966 99.967 99.968 99.968  
## Dim.526 Dim.527 Dim.528 Dim.529 Dim.530  
## Variance 0.307 0.302 0.299 0.297 0.279  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.969 99.970 99.971 99.971 99.972  
## Dim.531 Dim.532 Dim.533 Dim.534 Dim.535  
## Variance 0.278 0.268 0.264 0.261 0.256  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.973 99.973 99.974 99.975 99.975  
## Dim.536 Dim.537 Dim.538 Dim.539 Dim.540  
## Variance 0.253 0.247 0.241 0.234 0.232  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.976 99.976 99.977 99.977 99.978  
## Dim.541 Dim.542 Dim.543 Dim.544 Dim.545  
## Variance 0.229 0.227 0.220 0.218 0.217  
## % of var. 0.001 0.001 0.001 0.001 0.001  
## Cumulative % of var. 99.979 99.979 99.980 99.980 99.981  
## Dim.546 Dim.547 Dim.548 Dim.549 Dim.550  
## Variance 0.214 0.205 0.195 0.194 0.186  
## % of var. 0.001 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.981 99.982 99.982 99.983 99.983  
## Dim.551 Dim.552 Dim.553 Dim.554 Dim.555  
## Variance 0.182 0.180 0.173 0.171 0.165  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.983 99.984 99.984 99.985 99.985  
## Dim.556 Dim.557 Dim.558 Dim.559 Dim.560  
## Variance 0.163 0.161 0.159 0.152 0.150  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.985 99.986 99.986 99.987 99.987  
## Dim.561 Dim.562 Dim.563 Dim.564 Dim.565  
## Variance 0.148 0.146 0.144 0.142 0.135  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.987 99.988 99.988 99.988 99.989  
## Dim.566 Dim.567 Dim.568 Dim.569 Dim.570  
## Variance 0.133 0.131 0.123 0.121 0.121  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.989 99.989 99.990 99.990 99.990  
## Dim.571 Dim.572 Dim.573 Dim.574 Dim.575  
## Variance 0.119 0.118 0.118 0.114 0.113  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.990 99.991 99.991 99.991 99.992  
## Dim.576 Dim.577 Dim.578 Dim.579 Dim.580  
## Variance 0.107 0.104 0.103 0.098 0.096  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.992 99.992 99.992 99.993 99.993  
## Dim.581 Dim.582 Dim.583 Dim.584 Dim.585  
## Variance 0.090 0.089 0.088 0.085 0.085  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.993 99.993 99.993 99.994 99.994  
## Dim.586 Dim.587 Dim.588 Dim.589 Dim.590  
## Variance 0.083 0.082 0.078 0.077 0.074  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.994 99.994 99.994 99.995 99.995  
## Dim.591 Dim.592 Dim.593 Dim.594 Dim.595  
## Variance 0.074 0.074 0.070 0.068 0.066  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.995 99.995 99.995 99.995 99.996  
## Dim.596 Dim.597 Dim.598 Dim.599 Dim.600  
## Variance 0.064 0.062 0.060 0.060 0.058  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.996 99.996 99.996 99.996 99.996  
## Dim.601 Dim.602 Dim.603 Dim.604 Dim.605  
## Variance 0.055 0.052 0.051 0.050 0.049  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.996 99.997 99.997 99.997 99.997  
## Dim.606 Dim.607 Dim.608 Dim.609 Dim.610  
## Variance 0.049 0.048 0.047 0.046 0.044  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.997 99.997 99.997 99.997 99.997  
## Dim.611 Dim.612 Dim.613 Dim.614 Dim.615  
## Variance 0.041 0.040 0.036 0.035 0.034  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.998 99.998  
## Dim.616 Dim.617 Dim.618 Dim.619 Dim.620  
## Variance 0.034 0.033 0.032 0.032 0.031  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.998 99.998  
## Dim.621 Dim.622 Dim.623 Dim.624 Dim.625  
## Variance 0.030 0.030 0.028 0.028 0.027  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.998 99.998 99.998 99.999 99.999  
## Dim.626 Dim.627 Dim.628 Dim.629 Dim.630  
## Variance 0.026 0.025 0.024 0.024 0.023  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.631 Dim.632 Dim.633 Dim.634 Dim.635  
## Variance 0.022 0.021 0.021 0.020 0.020  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.636 Dim.637 Dim.638 Dim.639 Dim.640  
## Variance 0.020 0.019 0.019 0.016 0.016  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 99.999 99.999  
## Dim.641 Dim.642 Dim.643 Dim.644 Dim.645  
## Variance 0.015 0.015 0.014 0.013 0.013  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 99.999 99.999 99.999 100.000 100.000  
## Dim.646 Dim.647 Dim.648 Dim.649 Dim.650  
## Variance 0.011 0.011 0.010 0.010 0.009  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.651 Dim.652 Dim.653 Dim.654 Dim.655  
## Variance 0.009 0.009 0.008 0.008 0.007  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.656 Dim.657 Dim.658 Dim.659 Dim.660  
## Variance 0.007 0.007 0.007 0.006 0.006  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.661 Dim.662 Dim.663 Dim.664 Dim.665  
## Variance 0.006 0.006 0.006 0.004 0.004  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.666 Dim.667 Dim.668 Dim.669 Dim.670  
## Variance 0.004 0.003 0.003 0.003 0.003  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.671 Dim.672 Dim.673 Dim.674 Dim.675  
## Variance 0.002 0.002 0.002 0.002 0.002  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.676 Dim.677 Dim.678 Dim.679 Dim.680  
## Variance 0.001 0.001 0.001 0.001 0.001  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.681 Dim.682 Dim.683 Dim.684 Dim.685  
## Variance 0.001 0.001 0.001 0.001 0.001  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.686 Dim.687 Dim.688 Dim.689 Dim.690  
## Variance 0.001 0.001 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.691 Dim.692 Dim.693 Dim.694 Dim.695  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.696 Dim.697 Dim.698 Dim.699 Dim.700  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.701 Dim.702 Dim.703 Dim.704 Dim.705  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.706 Dim.707 Dim.708 Dim.709 Dim.710  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.711 Dim.712 Dim.713 Dim.714 Dim.715  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.716 Dim.717 Dim.718 Dim.719 Dim.720  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.721 Dim.722 Dim.723 Dim.724 Dim.725  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.726 Dim.727 Dim.728 Dim.729 Dim.730  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.731 Dim.732 Dim.733 Dim.734 Dim.735  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.736 Dim.737 Dim.738 Dim.739 Dim.740  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.741 Dim.742 Dim.743 Dim.744 Dim.745  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.746 Dim.747 Dim.748 Dim.749 Dim.750  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.751 Dim.752 Dim.753 Dim.754 Dim.755  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.756 Dim.757 Dim.758 Dim.759 Dim.760  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.761 Dim.762 Dim.763 Dim.764 Dim.765  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.766 Dim.767 Dim.768 Dim.769 Dim.770  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.771 Dim.772 Dim.773 Dim.774 Dim.775  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.776 Dim.777 Dim.778 Dim.779 Dim.780  
## Variance 0.000 0.000 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000 100.000 100.000  
## Dim.781 Dim.782 Dim.783  
## Variance 0.000 0.000 0.000  
## % of var. 0.000 0.000 0.000  
## Cumulative % of var. 100.000 100.000 100.000  
##   
## Individuals (the 10 first)  
## Dist Dim.1 ctr cos2 Dim.2 ctr cos2 Dim.3  
## 0 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 1 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 2 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 3 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 4 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 5 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 6 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 7 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 8 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## 9 | 87.988 | -85.829 0.072 0.952 | -10.867 0.006 0.015 | -9.555  
## ctr cos2   
## 0 0.005 0.012 |  
## 1 0.005 0.012 |  
## 2 0.005 0.012 |  
## 3 0.005 0.012 |  
## 4 0.005 0.012 |  
## 5 0.005 0.012 |  
## 6 0.005 0.012 |  
## 7 0.005 0.012 |  
## 8 0.005 0.012 |  
## 9 0.005 0.012 |  
##   
## Variables (the 10 first)  
## Dim.1 ctr cos2 Dim.2 ctr cos2 Dim.3 ctr cos2   
## V1 | 0.419 0.001 0.176 | -0.407 0.006 0.165 | 0.198 0.002 0.039 |  
## V2 | 0.501 0.002 0.251 | 0.374 0.005 0.140 | 0.434 0.009 0.189 |  
## V3 | 0.534 0.002 0.285 | -0.467 0.008 0.218 | -0.077 0.000 0.006 |  
## V4 | 0.269 0.001 0.073 | 0.244 0.002 0.060 | -0.020 0.000 0.000 |  
## V5 | 0.452 0.002 0.205 | 0.373 0.005 0.139 | 0.449 0.009 0.202 |  
## V6 | 0.576 0.003 0.332 | 0.350 0.005 0.122 | 0.116 0.001 0.013 |  
## V7 | 0.502 0.002 0.252 | -0.054 0.000 0.003 | -0.407 0.008 0.166 |  
## V8 | 0.347 0.001 0.120 | 0.069 0.000 0.005 | 0.021 0.000 0.000 |  
## V9 | 0.640 0.003 0.410 | 0.221 0.002 0.049 | 0.050 0.000 0.002 |  
## V10 | 0.570 0.003 0.325 | -0.084 0.000 0.007 | 0.337 0.005 0.114 |

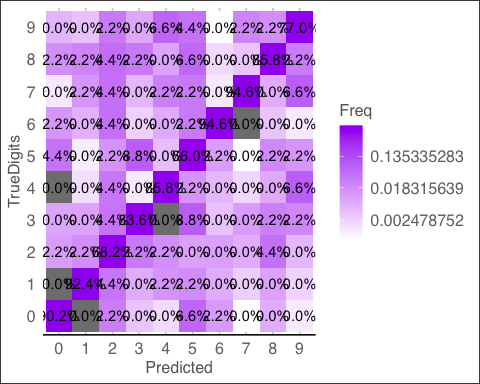
model\_nb\_150<-runNB(pca\_150)

##   
## ================================== Naive Bayes ==================================   
##   
## - Call: naive\_bayes.formula(formula = label ~ ., data = trainDF)   
## - Laplace: 0   
## - Classes: 10   
## - Samples: 25205   
## - Features: 150   
## - Conditional distributions:   
## - Gaussian: 150  
## - Prior probabilities:   
## - 0: 0.0984  
## - 1: 0.1115  
## - 2: 0.0995  
## - 3: 0.1036  
## - 4: 0.097  
## - 5: 0.0903  
## - 6: 0.0985  
## - 7: 0.1048  
## - 8: 0.0967  
## - 9: 0.0997  
##   
## ---------------------------------------------------------------------------------

## Warning: predict.naive\_bayes(): more features in the newdata are provided as  
## there are probability tables in the object. Calculation is performed based on  
## features to be found in the tables.

## TrueDigits  
## Predicted 0 1 2 3 4 5 6 7 8 9  
## 0 1441 0 18 14 0 64 22 2 28 9  
## 1 0 1690 33 17 3 2 12 25 43 7  
## 2 63 81 1421 82 78 32 95 94 102 69  
## 3 6 12 55 1386 2 136 4 9 54 14  
## 4 3 24 26 0 1366 7 12 45 15 99  
## 5 107 34 18 143 27 1205 59 60 103 78  
## 6 19 11 16 6 8 17 1443 2 3 1  
## 7 1 4 10 16 3 1 0 1383 5 34  
## 8 10 13 64 38 11 30 5 10 1220 25  
## 9 2 4 9 38 130 24 2 130 52 1339  
## Accuracy Kappa AccuracyLower AccuracyUpper AccuracyNull   
## 0.8272700 0.8080730 0.8214668 0.8329597 0.1115213   
## AccuracyPValue McnemarPValue   
## 0.0000000 NaN

## Warning: Transformation introduced infinite values in discrete y-axis



# k -fold  
train.control <- trainControl(method = "cv", number=3)  
# Train the model  
nb\_model <- train(label ~., data = pca\_75, method = "naive\_bayes",trControl = train.control)  
# Summarize the results  
print(nb\_model)

## Naive Bayes   
##   
## 42000 samples  
## 75 predictor  
## 10 classes: '0', '1', '2', '3', '4', '5', '6', '7', '8', '9'   
##   
## No pre-processing  
## Resampling: Cross-Validated (3 fold)   
## Summary of sample sizes: 28002, 27998, 28000   
## Resampling results across tuning parameters:  
##   
## usekernel Accuracy Kappa   
## FALSE 0.8645713 0.8495182  
## TRUE 0.8716188 0.8573425  
##   
## Tuning parameter 'laplace' was held constant at a value of 0  
## Tuning  
## parameter 'adjust' was held constant at a value of 1  
## Accuracy was used to select the optimal model using the largest value.  
## The final values used for the model were laplace = 0, usekernel = TRUE  
## and adjust = 1.

summary(nb\_model)

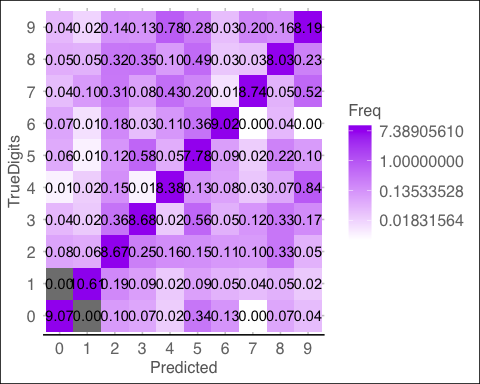
##   
## ================================== Naive Bayes ==================================   
##   
## - Call: naive\_bayes.default(x = x, y = y, laplace = param$laplace, usekernel = TRUE, adjust = param$adjust)   
## - Laplace: 0   
## - Classes: 10   
## - Samples: 42000   
## - Features: 75   
## - Conditional distributions:   
## - KDE: 75  
## - Prior probabilities:   
## - 0: 0.0984  
## - 1: 0.1115  
## - 2: 0.0995  
## - 3: 0.1036  
## - 4: 0.097  
## - 5: 0.0904  
## - 6: 0.0985  
## - 7: 0.1048  
## - 8: 0.0967  
## - 9: 0.0997  
##   
## ---------------------------------------------------------------------------------

cf\_nb<-confusionMatrix(nb\_model)  
  
str(cf\_nb$table)

## 'table' num [1:10, 1:10] 9.069 0 0.1 0.0714 0.0214 ...  
## - attr(\*, "dimnames")=List of 2  
## ..$ Prediction: chr [1:10] "0" "1" "2" "3" ...  
## ..$ Reference : chr [1:10] "0" "1" "2" "3" ...

confusion\_matrix\_nb <- as.data.frame(cf\_nb$table)  
names(confusion\_matrix\_nb)<-c("Predicted","TrueDigits","Freq")  
ggplot(data = confusion\_matrix\_nb,  
 aes(x = Predicted,y = TrueDigits)) +  
 geom\_tile(aes(fill = Freq)) +  
 #geom\_text(aes(label = sprintf("%.2f", (Freq/sum(Freq)\*100))), vjust = 1) +  
 geom\_text(aes(label = sprintf("%.2f",Freq))) +  
 scale\_fill\_gradient(low = "white",  
 high = "purple",  
 trans = "log") + theme\_gdocs()

## Warning: Transformation introduced infinite values in discrete y-axis



#kaggle submission  
kaggleTest <- read.csv("test.csv", header = TRUE, stringsAsFactors = TRUE)  
colnames<- names(kaggleTest)  
names(kaggleTest)<- sub("pixel","",colnames)  
  
kaggle\_dtree<- predict(ptree,kaggleTest,type="class")  
kaggle\_dtree<-data.frame(kaggle\_dtree)  
names(kaggle\_dtree)<-c("Label")  
kaggle\_dtree$ImageId<- row.names(kaggle\_dtree)  
write.csv(kaggle\_dtree,"kaggle\_dtree.csv",row.names=FALSE)  
  
kaggle\_nb<- predict(model\_nb\_75,kaggleTest,type="class")

## Warning: predict.naive\_bayes(): only 0 feature(s) out of 75 defined in the naive\_bayes object "model\_nb\_75" are used for prediction.

## Warning: predict.naive\_bayes(): more features in the newdata are provided as  
## there are probability tables in the object. Calculation is performed based on  
## features to be found in the tables.

## Warning: predict.naive\_bayes(): no feature in the newdata corresponds to  
## probability tables in the object. Classification is done based on the prior  
## probabilities

kaggle\_nb<-data.frame(kaggle\_nb)  
names(kaggle\_nb)<-c("Label")  
kaggle\_nb$ImageId<- row.names(kaggle\_nb)  
write.csv(kaggle\_nb,"kaggle\_nb.csv",row.names=FALSE)  
  
stopCluster(cl)